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ABSTRACT

To aid in controlling the cost of acquisitions in a research library, techniques were developed for the rational selection of serial titles for cancellation. The context for the proposed methodology was a network or multicampus environment rather than an individual library, and it was tested with a specific body of health sciences serial titles in the University of California library system and in Region XI of the National Library of Medicine's Biomedical Communications Network. Background data was collected on about 600 current foreign language serial titles. Employing several different decision rules, estimates were made of the subscription cost savings that might be realized in the network. It appeared feasible to extend the same methodology to other groups of serial titles. (Author/DGC)

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Methodology and Background Information to Assist the Planning
of Serials Cancellations and Cooperative Serials Collection
in the Health Sciences

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ABSTRACT

In an era of steady-state budgets many large research and academic libraries must cancel a significant number of current serial subscriptions in order to maintain monographic acquisitions. This report reviews several techniques that have been used or that are of potential use in a rational selection of titles for cancellation. The context of the proposed methodology is a network or multi-campus environment rather than an individual library, and it was tested with a specific body of health sciences serial titles in the University of California library system and in Region XI of the National Library of Medicine's Biomedical Communications Network.

As a test for the proposed methodology, background data was collected on about 600 current foreign language serial titles included in the SERLINE data base and held by at least one of the libraries in the networks of interest. For each of the titles data was collected and reported regarding price, major secondary service coverage and its productivity/impact factor for those services, extent of holdings in the libraries studied, and average number of recorded circulations per year in several of the libraries in the network. Employing several different decision-rules, estimates were made of the subscription cost savings that might be realized in the network. It seems feasible to extend the same methodology to other groups of serial titles.

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Several of the abstracting and indexing services were particularly helpful to us during the course of this study. Chemical Abstracts Service and BIOSIS both provided detailed statistical data regarding their coverage of many of the serial titles included in our study. A copy of Journal Citation Reports was made available to us by ISI, and the Excerpta Medica Foundation furnished us with a list of serial titles considered to be their core titles.

Betsey Humphreys of the National Library of Medicine arranged for two computer searches of the SERLINE data base in order to provide us with detailed information on the serial titles included in our study. Useful computer printouts were also received from the UCLA Biomedical Library.

Several libraries very generously furnished information regarding their serial holdings and prices, and permitted us to collect circulation data for the titles in their collections. Particular thanks go to all of the University of California libraries and the libraries of Stanford University, USC, Loma Linda University, Los Angeles County Medical Association, University of Arizona, and the University of Nevada.

Several ILR staff members participated in the data collection efforts, including Scott Fisher, Robert Fried, Don McIsaac, Thomas Mugglestone, Carole Yates, and Clare You, and their efforts are much appreciated. The draft typing of the report tables was a particularly onerous task that was performed well and graciously by Sandy Jennings.

I. INTRODUCTION

Serials subscriptions are a significant and important part of the library budget of any major library; they easily comprise 50-70 percent of the acquisition budgets of most academic libraries. Some special libraries spend even larger percentages for serials. At UC Berkeley, for example, the Chemistry, Biology, and Public Health libraries in fiscal year 1973-74 liened 96, 93, and 86 percent of their total acquisition budgets for serials. With inflation, dollar devaluation, and the rapidly increasing serials price index, many libraries have been faced with the task of cancelling serial subscriptions, sometimes on a rather hurried and harried basis. The UC Berkeley campus library, for example, has had to make substantial reductions in its serial holdings. In March 1973, the summary report of the first major cancellation efforts listed 2,451 cancelled titles and an estimated \$33,000 savings. The target had been \$60,000.¹ Berkeley sliced another 5% off its serial budget in 1973-74, and is currently planning for the possibility of eliminating an additional 28% of its serial expenditures in 1974-75. Should this additional cutback be necessary, it would mean that over a three-year period Berkeley would cut approximately 33% of its serials budget.

It is difficult to make these cancellation decisions on any rational or coordinated basis when there are a large number of titles to consider, or when the cuts must be made with a very short planning time. This present problem has already been neatly described in the literature:

"During the last few years it has become more and more apparent that we are facing a crisis in regard to the conditions which exist in the publication of medical and biological literature...The tremendous number of journals being published and the continued increase in the cost of yearly subscriptions have made it increasingly difficult for libraries to maintain adequate subscription lists. At the same time libraries have been facing a marked decrease in budgets, gifts and other forms of financial support."

The surprising fact is that the above note was published in 1935. It was this operational problem of planning for large cutbacks in serial subscriptions that was of interest to us and prompted this pilot study.

Many techniques are available to help in decision-making regarding serials selection or cancellations, and some of the more obvious methods are described in a later section of this report. Each library can make its own decisions on a title by title basis, considering only the needs or objectives of that single facility. However, in order to assure local users of access within a reasonable period of time, it would be preferable to make decisions from a system or network point of view, considering the holdings and needs of other institutions. For example, it would be regrettable for a UC library to cancel an important title to solve its local budgetary problem, if that were the only current subscription to that title in the entire UC system. For this reason, our study tried to provide data that would permit decision-making to be done in this larger networking context. We were particularly interested

in several overlapping systems or networks: the UC library system, the UC/CSUC intersegmental system (the 9 UC campuses and the 19 campuses of the California State University and Colleges system), and the National Library of Medicine Region XI participating facilities.

This study was an expanded feasibility study that built upon the earlier work of one of the authors.³ It began as an individual study project in the UCB School of Librarianship, and was continued with additional support from ILR and the UC University-Wide Library Automation Program.

II. OBJECTIVES

The major objectives of this study were to:

1. Develop a methodology for obtaining and providing background information that would be immediately useful for planning and decision-making regarding serials cancellations or the cooperative acquisition of serials.
2. Determine the utility and feasibility of this approach.
3. Provide some planning information that would be of immediate use to library selection staffs and management.

III. METHOD OF APPROACH

A. SELECTION OF SERIAL TITLES

It was not practical to start our study with the tens of thousands of current UC serial title subscriptions. We needed some way to select a smaller and more workable group of these titles. Several methods of partitioning were considered, including:

- subject categories by LC Classification Number
- subscriptions of a particular branch or campus library
- titles covered by a designated abstracting or indexing service or Current Contents publication
- titles published in particular countries or particular languages

From several earlier studies we knew that foreign language publications as a group generally receive less use than English language publications, and it is obviously desirable to aim initial cancellation/cooperation efforts at a group of low-use titles. It is also obvious that sharing collections is more feasible for groups of libraries that already have some system-wide connections and commitments. Because SERLINE (SERIALS-on-LINE), the National Library of Medicine's on-line serials file, includes the capability of searching by language of publication, we could easily identify and have printed out the potential low-use foreign language titles currently held in Region XI. Six of the nine UC libraries are Region XI resource libraries and report their holdings to SERLINE so we could then check multiple subscriptions for both the UC system and the network represented by the Region XI libraries.

At the time this study was begun SERLINE contained approximately 5,600 current biomedical serial titles. Originally generated from the current titles included in the Union List of Medical Periodicals from the Medical Library Center of New York, SERLINE also includes all titles indexed for Index Medicus and selected titles indexed in Biological Abstracts, Chemical Abstracts, Excerpta Medica, Psychological Abstracts, and the World List of Medical Periodicals. Current additions include all new Index Medicus titles and titles cataloged by the National Library of Medicine which meet the criteria of being primary, substantive, and pertinent to bio-medicine.⁴

We further restricted our attention by excluding the titles in the western European languages of French, German, Italian and Spanish. Including the western European language titles would have added another 2,354 titles (757 in French, 806 in German, 365 in Italian and 426 in Spanish) to our list and greatly increased the burden of checking. Focusing on the remaining foreign language titles provided us with a list of manageable size and with a high percentage of low-use titles. The resultant list included 950 current titles in 34 languages. NLM furnished us with computer printouts of these 950 titles by language with their supporting bibliographic information and the locator codes of the Region XI libraries that had a current subscription. These 950 titles served as our starting point for data collection.

B. INFORMATION TO ASSIST TITLE EVALUATIONS

Many factors could be considered in evaluating serial subscriptions on a title-by-title basis, including the following:

- cost of the subscription
- number of subscriptions available elsewhere (within the same institution and in cooperating institutions), and the extent and completeness of retrospective holdings of each title
- extent of coverage by abstracting and indexing services
- frequency of citation to a title from other publications
- extent of use made of the material (e.g., recorded circulation)
- frequency of check-in and claiming operations (and associated record-keeping costs)
- costs of storage (e.g., shelf space, binding)
- availability in microform
- relevance to present or future academic programs or institutional objectives
- ranking or evaluation by the library constituency

Only the first five of the factors were used in this study, however, all of the factors are described below.

1. Subscription Costs

To assist in the subscription review process, some libraries periodically prepare a list of current subscriptions sorted into rank order by subscription cost. This is relatively easy to do with computer based serials systems, and highlights the most expensive publications for immediate attention. This approach can also highlight the fact that a relatively small percent of the total serial titles can account for a large fraction of the serials subscription budget. A recent study of the UC Berkeley Biology Library, for example, found that half of the total serial budget was spent on 5 percent of the titles (194 high cost titles); half of the titles were received as gifts or exchanges.

2. Subscriptions Available Elsewhere

One obvious place to consider cancellations is every instance in which an institution holds more than one subscription to the same title. Some cuts can often be made here without seriously damaging local accessibility to that title.

However, it should also be recognized that the cancellation of duplicate copies of a heavily used title can create more user distress than the cancellation of another low use, albeit unique, title. If the goal of a library is to maximize user access, then maintaining duplicates of high use title and relying on interlibrary borrowing for titles used only occasionally or rarely will better serve that goal. If not held in duplicate copies in the same institution, consideration can then be given to the extent to which issues of the title might be readily available for use in some other institution. This is easiest to do when there are reciprocal use agreements that work well between institutions (e.g., different branches of the same library system, different campuses of

the same university, different members of the same library network). To make cancellation decisions on a regional or system-wide basis requires an understanding of the holdings of each of the cooperating libraries on a title-by-title basis.

When reviewing the holdings of the cooperating libraries, consideration should also be given to the extent of each library's retrospective holdings of each title. A library with only recent or broken holdings of a title might prefer to cancel their subscription with the understanding that one of the other libraries with more complete holdings would continue to subscribe to that title. Cooperating libraries might also want to consolidate backfiles of titles selected for a shared serials program. To facilitate interlibrary lending and free storage space in the libraries no longer maintaining a title, backfiles can either go to the library responsible for the current subscription or be sold. So, holdings data is extremely helpful in discussions of cooperative sharing of responsibilities for serial subscriptions.

3. Extent of Coverage by Abstracting and Indexing Services

Some useful information about each title can usually be obtained by examining the treatment given to it by the abstracting and indexing services. The fact that a title is not covered by one or more of the secondary services that are central to the same subject field as the serial could reflect the fact that the service was unaware of the title, but it more likely reflects a value judgment by the reviewers or selection staffs of the secondary services. If that is the case, then the non-coverage of a title probably means that the publication is of marginal value to the field in the eyes of the secondary service. If the title is covered by a secondary service, it would also be of interest to know how many, and which secondary services cover that title (i.e., how many "endorsements" are there for this title).

Further refinements in the analysis of secondary coverage can be obtained by examining the number of articles covered each year from each title by each of the secondary services. A title that contributed 60 articles a year to a given secondary service would seem to be generally more productive and more significant than another title in the same field that only contributed one article per year to the same secondary service. Thus the "yield" of each serial title, as a reflection of the judgments made by the reviewers for the secondary services, would seem to be a useful indicator of the contribution made by a particular title to a subject field.

4. Frequency of Citation

Authors make their own value judgments in selecting articles to use as footnote references or bibliographies in their own publications. Thus the composite of all bibliographic citations accompanying a collection of published scientific papers (e.g., an issue of an annual review series) represents the group judgment of scientists as to which publications are most significant. An analysis of the frequency of citation of individual serial titles can thus provide another independent measure of the significance or value of individual titles, with a large body of authors being the judges. Several studies have been made and articles written about the citation frequencies and subsequent

rankings of titles in general subject areas. A few examples of such studies in the health sciences field are noted in Table 1. It can be seen that there are several types of sources that can be used to obtain the citations that are to be analyzed.

One other related form of value judgment is represented by class reading lists that are compiled in academic institutions in selected subject areas. These lists also reflect value judgments (perhaps biased by a knowledge of what publications are actually available locally for use by the students) regarding the serial literature. An example of a list of serials compiled by this approach is given in a report of an analysis of reading lists for general psychiatric residents from 140 three-year approved training programs.¹⁷

Another variation on this theme is the merging of many "basic" or "core" lists from different sources into a summary composite list.¹⁸

All of the citation studies of the type mentioned above were focused on particular subject fields or the interests of very specific populations of users. A broader view can be obtained by reviewing the citation frequencies from the Science Citation Index (SCI) or the Social Sciences Citation Index published by the Institute for Scientific Information (ISI). SCI claims to screen most of the significant scientific serial literature, transcribing approximately 370,000 article citations per year from about 2,400 source serials, and showing the relationship between each article and other references that are included in these source citations. Thus a computer file is prepared on a continuing basis which includes an estimated 90% of the world's significant scientific and technical literature. This source file can provide many useful statistics, e.g., frequency counts to show the number of times a given serial title was cited during a given year by articles in the 2,400 source serials. Some data for the 152 most frequently cited titles (accounting for 50 percent of all references to journals) have been presented in several publications by the ISI staff.¹⁹⁻²⁰

Additional data was made available by ISI in their Journal Citation Reports (JCR) which provides the ranking and citation frequency for the 1000 most frequently cited journals in science and technology. The ISI publications also provide data for another measure, the "impact factor" which is defined for JCR as a normalized statement of the annual citation frequency in relation to the number of articles published annually by that title. Thus a journal that published 20 articles in a given year and received a total of 20 citations in the literature would be considered to have a greater impact than a journal that published 60 articles in the same year and also received 20 citations in the literature. This citation data and the impact factor are discussed in more detail in a recent article by Eugene Garfield.²¹ An impact factor (ratio of serial articles published to serial articles cited) was suggested in a 1962 article by Raisig, and later used by him with data for 985 biomedical titles to provide a general measure of the value of these serials.⁹ This general approach was also followed in later study of geophysical serials.²²

<u>Subject Field</u>	<u>Date of Report</u>	<u>Source of Sample Citations</u>	<u>Reference</u>
public health	1974	master and doctoral dissertations	5
biochemistry	1973	Annual Review of Biochemistry	6
biomedical library interests	1973	Index Medicus	7
psychiatry	1968	reading lists	8
world biomedical journals	1966	Current List of Medical Literature	9
biochemistry	1938	Annual Review of Biochemistry	10
medicine	1937	primary and secondary journals	11
dentistry	1936	primary periodicals	12
endocrinology	1935	primary and secondary journals	13
endocrinology of sex	1934	one major book	14
child guidance	1932	secondary journals	15
chemistry	1927	primary journals	16

Table 1

Examples of Prior Citation Studies in Health Sciences to Identify Significant Serial Titles

5. Extent of Recorded Library Use

From the individual library's point of view, the use made of a particular title by the library's clientele is one of the more significant indicators of the value of that title to that particular library. This is a very local measurement; a given title at one library might have no use, whereas the same title at another library and with a different user population might be used extensively. If such inequities of use do exist among institutions planning serial cooperation programs the choice of the library to take the responsibility for maintaining the title can be made somewhat more easily.

Use might be described in terms of recorded use (as measured by circulation statistics, photocopy requests, and inter-library loan records) or in terms of unrecorded use in which no formal records are kept on a title-by-title basis (e.g., indications of use or non-use such as dust on the tops of the volumes, titles left out on open-stack reading tables for re-shelving, signs of physical handling and use of the individual issues and bound volumes).²³ Most of the studies in this area have been done with an analysis of recorded circulation or other use data. Examples of such prior efforts are noted in Table 2.

Employing recorded library use as a measure might not result in any dramatic savings in subscription costs, but could still help with processing costs. Recent data from the UC Berkeley Biology Library shows that in general, their high cost journals have high use, and the low cost or free journals have much less use. Of a total of 845 current titles that had no recorded use there during a 1974 test period, 651 were free. Cancelling all of these no use titles would have saved only about \$4,500 in subscription costs in a single year. However, even low cost subscriptions savings add up over a period of several years, and savings in processing costs would be more significant. As serials librarians and serials catalogers well know, it is the "free" publications, the documents, foreign research institute reports, etc., which pose the most problems for checking in, claiming and cataloging.

Another approach that could be taken here, particularly for title evaluation within a single library, is to try to save the most subscription money with the least disruption in service. Start the cancellation list with the title that has the highest subscription cost per recorded circulation, and continue listing the titles in work order by this factor. At the top of the list and the first candidate for cancellation would be the most expensive titles of the ones that had no recorded circulation, and at the other end of the list would be the free title that had the highest number of recorded uses.

6. Frequency of Publication

The labor and other processing costs associated with checking in each issue of a periodical, maintaining serial records, and preparing claim letters for the publishers, etc., is significant; perhaps an average all-inclusive cost on the order of 25 cents per check-in transaction. This means that for titles that publish frequently (e.g., weekly, monthly) this is a significant cost factor in addition to the subscription cost. Because of this processing cost, consideration might be given (when all other factors are equal) to

<u>Subject Field</u>	<u>Date of Report</u>	<u>Library</u>	<u>Records Used</u>	<u>Reference</u>
physics	1974	Science Reference Library	loan records	24
physice	1972	MIT Science Library	reshelving statistics	25
health sciences	1964	Columbia and Yale Medical Libraries	charge slips	26
health services	1962	National Library of Medicine	inter-library loan records	27
biomedicine	1962	Yale Medical Library	circulation records	28
biomedicine	1937	University of Chicago Bio-medical Libraries	circulation records	29

Table 2

Examples of Prior Studies of Recorded Serials Use
to Identify Significant Serial Titles

cancelling the more frequent publications before cancelling the less frequent publications. The measure that might be used here is the number of pieces per year checked in for each title. In the case of serials in foreign languages the difficulties of library personnel dealing with unfamiliar languages must also be added to processing costs.

7. Binding and Storage Costs

For libraries with a space problem, the shelf space taken each year for each title might be a major factor in deciding whether to continue subscribing to a given title. Measures that might be considered are the annual per title figures for:

- . estimated required number of additional shelf-feet
- . number of uses (e.g., circulation counts) per shelf-foot

Cancellation decisions could be made in terms of total allowable shelf space consumption for the coming year.

The binding operation may be another cost to be considered on a title-by-title basis in addition to the subscription costs. The cancellation of some titles might also result in the savings in binding costs.

8. Availability in Microform

If a title is available in microform, a library might feel that it could cancel the title now, and fill in the missing issues later with a microform edition if the funds ever became available. If serials available only in hard copy go out of print, purchase at a later date may be either impossible or prohibitively expensive.

9. Relevance to Institutional Objectives

Few, if any, libraries have a mission of collecting everything that is published. Most of them operate with some guidelines, stated or implied, such as "... collect material that is relevant to this company's business." or "... acquire material that supports our present and planned academic programs." As institutional objectives and academic plans change, so should the institution's library collection policy change. Thus for many academic libraries, serials subscriptions should be subject to an on-going review in terms of the present academic and research objectives.

10. Library Patron Voting

One very direct way to obtain title evaluations for a given library is to ask the library patrons to judge or otherwise vote on the serials on a title-by-title basis. As with the circulation statistics, the result of this evaluation process is very sensitive to the local situation. A simplified version of this approach is often taken by libraries asking department chairmen or managers to pick up the subscription costs for the publications that are of unique or particular interest to those departments.

One major effort to get patron votes is presently underway at UC Riverside, which has submitted a list of over 12,000 current title subscriptions to their faculty for voting on a title-by-title basis, with each faculty member judging titles on a scale of one to five. The titles requested are active titles for all academic programs, the titles were sorted and listed in call number sequence, and appropriate sections given to each of 54 curriculum centers. This approach can be expensive, require a relatively long study time, and can result in a considerable data reduction effort. Over 20,000 votes were tabulated for this Riverside effort in order to obtain a rank ordered listing of 1,800 titles as candidates for cancellation. This list was circulated to the academic departments for further review and a final list of about 800 cancellations was prepared. A similar approach on a smaller scale and in a more specific subject area is currently being followed jointly by CSUC-Stanislaus and University of the Pacific.

Another variation of the voting approach is to have subject specialists (who are not necessarily the library users) review a source list and give some kind of rating to each title. This has been done to help obtain consensus agreements on what constitutes a core list for a particular subject field or type of library.³⁰ However, this is an unwieldy approach for an academic or special library with several thousand titles to rate.

C. DATA COLLECTION

1. Subscription Costs

For expediency, the subscription cost data for this study was taken, when available, from several published directories (including the 1973 Ulrichs and the Faxon 1974 Price List) even though it was known that prices had since increased for many of the titles. The serial payment records of the UC Berkeley library was also used as a source of price information. It was not possible to determine a subscription price for some titles during the course of this study. All prices are stated in terms of U.S. dollars.

2. Subscriptions Available Elsewhere

Although the SERLINE data base provides location information for the Region XI resource libraries, it does not include holdings data. Serial holdings for the UC system were obtained from the most recent editing copy of the UC Union List of Serials, as well as the latest serials lists of the individual campuses. Holdings information for the 19 California State University and Colleges (CSUC) campus libraries was obtained from the CSUC Union List of Periodicals. The holdings information for the other NLM Region XI libraries was obtained from the serials lists of those individual libraries.

3. Extent of Coverage by Abstracting and Indexing Services

a) Index Medicus

The NLM SERLINE data base includes health sciences serial titles from the sources described earlier. Each of the serial title records is annotated to show whether or not a title is covered by Index Medicus. However, no information was available regarding the ranking or yield of each title for Index Medicus.

b) Excerpta Medica

SERLINE records are also annotated to indicate coverage by Excerpta Medica. In addition, the Editor of Excerpta Medica generously furnished us with a list of the titles covered by that service, with handwritten annotations to identify those titles considered to be their core publications.

c) Chemical Abstracts

A 1965 publication by CAS staff members provided a list of the top 1,000 most productive journals for Chemical Abstracts. This list, given in rank order, lists the 1,000 top journals in terms of their total number of abstracts included in Chemical Abstracts volumes 56-61 inclusive (1962-1964).³¹

In the 1970 issue of the CAS Source Index, the published list of periodicals covered by Chemical Abstracts Service (CAS), a list is given of the 1,000 most productive serials in terms of citations contributed to Chemical Abstracts (CA).³² This list was compiled on the basis of citation frequency counts for Volumes 68-72 (January 1968-June 1970) and gives the

titles and their rank number, but does not give the actual citation frequencies.

An affiliated institution, the Chemie Information + Dokumentation Berlin, has published a frequency distribution of the serial titles covered by CA. This is a compilation of all the 5,341 journals covered by CA in Volume 48 (January to June 1973). The productivity and scope of each journal is shown by the breakdown of the number of abstracts published in the CA sections.³³

Yield data for specific titles can also be obtained by performing retrospective searches on each title, for given date spans, on the commercially available on-line search systems such as the Lockheed or SDC systems. These systems both have CA citations from 1970 to the present.

The source data that we eventually used for this study was a frequency count provided us by special arrangement with CAS that included frequency counts and rank numbers for each of the 8,005 titles that contributed one or more citations to CA (vol. 78 and 79) during the year 1973. Both the rank order number and the yield figure were taken from this source for our study.

d) Biological Abstracts

BioSciences Information Service (BIOSIS) included 7,980 serial titles in their 1973 List of Serials. Yield data was initially available to us in a special listing that was provided by BIOSIS to identify the 784 titles that contributed at least 30 citations per year to Biological Abstracts (BA) for each of the publication years 1969-1971.

An additional listing was made available to us by special arrangement with BIOSIS that included frequency counts for each of the titles that contributed one or more citations to BA during 1973. These frequency counts were taken from this source for our study.

4. Frequency of Citation

Journal rankings were published by Garfield for the 152 most frequently cited journals (accounting for 50 percent of all references to journals) in ISI source publications during the last quarter of 1969.³⁴ ISI subsequently published a series of special reports, the Journal Citation Reports (JCR) which was also based on the ISI source publications for the last quarter of 1969, and included a rank order listing and citation frequency data for the 1000 most frequently cited titles.³⁵ This report series also provided impact factors for each title that took into account the number of articles published annually by each title. The rank number, number of citations, and impact factor from this JCR series were all used for this report.

A more recent series of JCR reports, based on 1972 citation data, has been announced by ISI but was not available for our use at the time of this study.

5. Extent of Recorded Library Use

Several of the libraries that were readily accessible to the authors had circulation records that could be used for this study. The UC libraries at Berkeley, San Francisco, and Los Angeles, and the Stanford Lane Medical Library all had charge-out slips attached to the physical volumes of many of the titles that were studied. For each of the libraries studied, the total number of recorded circulations for a given title was divided by the total number of years of that library's bound holdings of that title in order to obtain an average number of circulations per year.

IV. FINDINGS

A. METHODOLOGY

The method of approach used in this study is workable and leads to some very useful planning information with a relatively modest amount of effort. Once completed for a given group of titles, the same format and structure can readily be used to update the table information in a year or two to reflect changes in holdings, price, and other factors. In terms of the resulting identification of candidate titles for cancellations, this data collection and analysis effort, particularly when done on a regional basis, very definitely seems to be a good investment of time and resources. It would seem to be worthwhile to continue this type of analysis effort for other major group of serials, eventually covering all of the serial titles.

B. CANDIDATES FOR CANCELLATION

The results of our data collection effort are given in the tables in the Appendix, in which all of the almost 600 serial titles are listed alphabetically by one of the languages in which they are published. Decisions regarding title cancellations are best made by the library staff members working with their constituencies. For that reason we have not formally identified or labeled individual titles as targets for cancellations. However, we have looked at the extent to which cancellations might be made if certain decision rules were followed. Some of these decision rules make use of the data in Table 3 which indicates the number of titles that circulate with various frequencies. Where circulation data for a given title is available from more than one library, the highest figure was used for this tabulation.

The impact of applying various decision rules is discussed in the following sections. These decision rules are only suggested as examples in order to indicate the extent of subscriptions that might be affected, and to show how the tabulated data could be used. Also, we applied our sample decision rules only to the UC system. Given the same rules slightly higher savings could be effected if they were applied to a larger system of libraries, e.g., the Region XI libraries. A summary of the results of applying several decision rules such as those below is given in Table 4.

1. Cancel Subscriptions in Excess of Two, If Less Than 1.0 Circulation Per Year

Given that: 1) any serial title that was currently subscribed to by only one UC library, or by only two UC libraries, should continue to be subscribed to, regardless of the extent of circulation or other indicators for that title; 2) total UC subscriptions in excess of two should be cancelled if the average number of circulations per year was less than 1.0 per year--a total of 239 UC subscriptions could be cancelled from this list, at a subscription saving of over \$4,900 per year to the UC system.

<u>Average Number of Circulations Per Year</u>	<u>Number of titles With This Frequency</u>	<u>Cumulative Percent of Titles With This Frequency</u>
0	68	18.7
.1	36	28.6
.2	24	35.1
.3	25	42.0
.4	12	45.3
.5	16	49.7
.6	18	54.7
.7	13	58.2
.8	12	61.5
.9	9	64.6
1.0	12	67.3
1.1	10	70.0
1.2	7	72.0
1.3	2	72.6
1.4	6	74.2
1.5	6	75.8
1.6	6	77.5
1.7	3	78.3
1.8	7	80.2
1.9	6	81.9
2.0	6	83.5
2.1	4	84.6
2.2	2	85.2
2.3	1	85.4
2.4	4	86.6
2.5	2	87.1
2.6	3	87.9
2.7	2	88.4
2.9	4	89.6
3.0	2	90.1
3.1	1	90.4
3.3	4	91.5
3.4	1	91.8
3.6	1	92.0
3.7	4	93.1
3.8	1	93.4
4.0	1	93.7
4.1	1	94.0
4.2	1	94.2
4.3	3	95.0
4.4	1	95.3
4.5	2	95.9
4.7	1	96.1
4.8	1	96.4
4.9	1	96.7
5.2	1	97.0
5.5	2	97.5
5.9	2	98.1
7.0	1	98.3
7.3	1	98.6
7.7	1	98.9
7.8	1	99.2
8.7	1	99.4
10.2	1	99.7
10.7	1	100.0
	<u>364</u>	

Table 3

Distribution of Frequency of Recorded Circulation
of Sampled Serial Titles

NUMBER OF TITLES

CUTS THAT COULD BE MADE FOR EACH DECISION RULE

MULTIPLE SUBSCRIPTIONS WITH MISSING PRICES*

LANGUAGE	Not Held		Dropped	Net	RULE #1		RULE #2		RULE #3		RULE #4		RULE #5		MULTIPLE SUBSCRIPTIONS WITH MISSING PRICES*
	Total	13			No.	\$	No.	\$	No.	\$	No.	\$	No.	\$	
Afrikaans	4	4	2	7	1	21.00	1	21.00	3	66.50	4	61.26	0	0	3
Albanian	1	0	0	1	0	30.00	0	45.00	0	49.00	0	79.00	1	0	1
Arabic	9	3	0	6	3	0	5	0	5	0	9	0	0	0	0
Bulgarian	26	13	0	13	0	0	0	0	0	0	0	0	1	7	5
Catalan	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Chinese	8	1	0	7	1	9.68	1	9.68	2	19.36	2	19.36	3	?	5
Czecho-Slovak	52	12	2	38	7	156.40	8	171.40	20	55.90	22	485.90	0	0	25
Danish	24	6	7	11	5	58.44	6	116.94	7	88.80	9	205.80	3	21.00+	1
Dutch	43	16	2	25	8	231.94	11	312.19	16	418.78	21	547.28	0	0	6
Finnish	12	6	1	5	0	0	0	0	0	0	0	0	0	0	1
Flemish	10	2	0	8	4	67.20	4	67.20	6	100.80	6	100.80	0	0	2
Gaelic	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Greek	22	18	0	4	0	0	0	0	0	0	0	0	1	?	0
Hebrew	5	2	0	3	0	0	0	0	2	22.00	2	22.00	2	4.00	0
Hindi	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Hungarian	27	10	0	17	8	217.50	14	375.90	13	307.20	20	492.00	1	?	1
Icelandic	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Indo-Chinese	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Japanese	196	61	3	112	50	1,264.31	52	1,388.81	87	2,110.52	93	2,307.27	6	35.00+	14
Korean	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Latin	1	2	0	1	0	0	0	0	0	0	0	0	0	0	0
Lettish	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Norwegian	4	2	0	2	0	0	0	0	0	0	0	0	0	0	0
Polish	64	11	1	52	34	674.20	36	778.20	57	1,040.40	60	1,196.40	1	0	14
Portuguese	135	69	0	66	10	96.50	17	196.50	24	295.40	33	385.40	11	60.00+	30
Romanian	30	9	2	19	5	42.67	5	42.67	10	85.34	10	85.34	0	0	0
Russian	166	31	6	129	90	1,715.20	132	2,953.68	148	2,596.60	210	4,443.64	10	?	20
Serbo-Croatian	44	24	0	20	4	50.05	4	50.05	9	97.75	9	97.75	0	0	4
Slavic	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Swedish	22	12	3	7	5	247.00	5	247.00	8	335.00	8	335.00	1	5.00	0
Thai	2	0	0	2	0	0	0	0	1	5.10	1	5.10	0	0	0
Turkish	17	12	0	5	0	0	0	0	0	0	0	0	1	?	1
Ukrainian	6	0	0	6	4	61.20	4	61.20	7	107.40	7	107.40	0	0	0
Yiddish	1	0	0	1	0	0	0	0	1	6.60	1	6.60	0	0	0
TOTAL	950	350	29	571	239	4,943.29	305	6,837.42	426	8,148.45	527	10,983.30	42	125.00+	155

Table 4
Results of Applying Sample-Decision Rules

*Multiple subscriptions which lacked price and/or circulation counts, or were received on gift or exchange arrangements.

2. Cancel Subscriptions in Excess of Two, if Less Than 2.0 Circulations Per Year

With the same conditions as above, except requiring an average of at least 2.0 circulations per year, a total of 305 UC subscriptions could be cancelled from this list, at a subscription saving of over \$6,800 per year to the UC system. Reducing the UC subscriptions to one for the entire system would further increase the potential number of cancellations for these two situations.

3. Cancel Subscriptions in Excess of One, if Less Than 1.0 Circulation Per Year

Given that: 1) any serial title that was currently subscribed to by only one UC library should continue to be subscribed to, regardless of the extent of its circulation or other indicators; and 2) total UC subscriptions in excess of one should be cancelled if the average number of circulations per year was less than 1.0 per year--a total of 426 subscriptions could be cancelled from this list, at a subscription savings of over \$8,100 per year to the UC system.

4. Cancel Subscriptions in Excess of One, if Less Than 2.0 Circulations Per Year

With the same conditions as above, except requiring an average of at least 2.0 circulations per year, a total of 527 subscriptions could be cancelled from this list, at a subscription savings of almost \$11,000 per year to the UC system.

5. Cancel All Titles Not Covered by At Least One Secondary Service

With the decision rule that all subscriptions should be cancelled for titles that were not covered by at least one of the secondary services considered in this study (BA, CA, EM, IM, SCI), a total of 42 UC subscriptions could be cancelled from this list, at a subscription saving of at least \$125 per year to the UC system (some price information was not available for these 42 subscriptions).

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APPENDIX

DETAILED BACKGROUND DATA FOR SELECTED FOREIGN LANGUAGE HEALTH SCIENCES SERIAL TITLES

Explanatory Notes

Note 1. Serial Title

The SERLINE data base uses straight title entry and the titles included in this study have been typed just as they would appear on a SERLINE printout. Some of the titles on the original printout were listed under more than one language, and it was decided simply to list each title once under the first language given in the language field on the printout. This decision rule resulted in some oddities, and some titles are listed for languages under which they clearly do not belong, but it was a convenience for creating the lists.

Note 2. Subscription Costs

Some of the price information was obtained from the UC Berkeley payment records. Berkeley has a very extensive gift and exchange program, and it may be that some items so listed are priced items for other libraries. Also, the prices range in currency from 1968 through 1974, so, if anything, the prices are lower than the current cost of a subscription.

Note 3. Symbols Used in the INDEXED/ABSTRACTED Column:

- BA - The title is scanned for inclusion in Biological Abstracts. The number following represents the number of abstracts from the title included in Biological Abstracts in 1973.
- CA - The title is scanned for inclusion in Chemical Abstracts. The number immediately following is the number of abstracts included in Chemical Abstracts in 1973. The second number, in parentheses, is the journal productivity rank for CA. For example, the notation CA-3 (4999) indicates that 3 articles were abstracted for Chemical Abstracts in 1973 and that this title's productivity was ranked 4,999th among the titles scanned by the Chemical Abstracts Service.
- EM - The title is one of those regularly scanned by the editorial staff of Excerpta Medica for articles to include in one of its abstracting services. EM* indicates that it is considered a "core" title by Excerpta Medica.
- IM - The title is indexed by Index Medicus.
- PA - The title is abstracted by Psychological Abstracts.

SCI - The serial title is one of the approximately 2,400 source journals for Science Citation Index. The number in parentheses is SCI's "impact factor: a measure of the average number of citations received by each source item published in a specified journal during a specified time period. High numbers indicate high impact."³⁴

Note 4. Locations

CSUC - California State University and Colleges. Campus libraries within the CSUC system are designated by the following abbreviations:

Chico - California State University, Chico

Fresno - California State University, Fresno

LA - California State University, Los Angeles

LB - California State University at Long Beach

North. - California State University, Northridge

SB - California State University at San Bernardino

SD - California State University, San Diego

SF - California State University, San Francisco

SJ - California State University, San Jose

Sacto - California State University, Sacramento

UC - University of California

UCSB - University of California at Santa Barbara

UCR - University of California at Riverside. Unless otherwise indicated, holdings are for the Bioagricultural Library.

UCSC - University of California at Santa Cruz

UCB - University of California at Berkeley. Unless otherwise indicated, holdings are for the Biology Library. Other abbreviations: E/P - Education/Psychology Library, Biochem - Biochemistry Library, Agric - Agriculture Library, Chem - Chemistry Library, PHL - Public Health Library, Opto - Optometry Library.

UCSF - University of California at San Francisco

UCD - University of California at Davis. Unless otherwise indicated, holdings are for the Health Sciences Library.

Other abbreviations: Main - Main Library, Phys - Physical Sciences.

UCLA - University of California at Los Angeles. Unless otherwise indicated, holdings are for the Biomedical Library. Other abbreviations: URL - University Research Library, Chem - Chemistry Library.

UCSD - University of California at San Diego. Unless otherwise indicated, holdings are for the Biomedical Library. Other abbreviations: CUL - Central University Library, S&E - Science & Engineering Library, SIO - Scripps Institute of Oceanography Library, SUH - Society-University Hospital Library.

UCI - University of California at Irvine. Holdings are for the Medical Sciences Library.

SU Lane holdings are for Stanford University's Lane Medical Library unless annotated "SB" which indicates that the title is housed in the Systematic Biology Library.

USC holdings are for the Norris Medical Library, University of Southern California.

Holdings listed under the column headed "Other Region XI Libraries" are for the following libraries:

LAC - Los Angeles County Medical Association Library

LL - Loma Linda University's Vernier Radcliff Memorial Library

UA - University of Arizona Medical Center Library

UN - Life and Health Sciences Library of the University of Nevada at Reno

Note 5. Circulation Counts

Circulation counts were taken in the branches of the University of California, Berkeley; the University of California, San Francisco; Stanford University's Lane Medical Library; and the University of California, Los Angeles, Biomedical Library. Figures represent average number of circulations per year and were obtained by dividing the total number of circulations represented on the charge slips in the volumes and dividing by the number of years of the publication available for counting. Counts were taken on bound volumes only.

The following abbreviations were used in listing the circulation counts:

B - University of California, Berkeley

LA - University of California, Los Angeles

SF - University of California, San Francisco

SU - Lane Medical Library, Stanford University

EXTENT OF HOLDINGS

SERIAL TITLE	INDEXED OR ABSTRACTED BY THESE SERVICES	California Inter-Segmental Holdings											Other Region XI Libraries	AVERAGE NUMBER OF CIRCULATIONS PER YEAR
		CSUC	UCSB	UCR	UCSC	UCB	UCSF	UCD	UCLA	UCSD	UCI	USC		
AFRIKAANS														
Annales Immunologiae Hungaricae. 1,1958- (Gift)	BA-17 CA-9(3269) EM					1- 1958-	1-6 1958-	1- 1958-	9- 1969-	1- 1958-				SF-0
Journal of the Dental Association of South Africa. 8N6,1953- (\$21.00)	BA-2						20- 1965-	14- 1959-	21- 1968-					SF-0.6
Journal of the South African Veterinary Association. 43,1972 (\$14.76)	IM CA-7(3744) EM BA-42					43-		43-						B-1.1
Proceedings. Koninklijke Nederlandse Akademie Van Wetenschappen. Series C. Biological and Medical Sciences. 58,1955- (Gift)	BA-22 CA-5(4376) EM	San Diego 7- 1966-	1967- 68			54- 1951-		54- 1951- Main & H.S.	54- 1951-					B-7.7
South African Pharmaceu- tical Journal. 1,1934- (\$8.40)	EM								34- 1968-					
Volksgezondheid/Public Health. 68,1968- (\$4.50)	IM					PHL 64- 1964-				64- 1964-				B-0.3
ALBANIAN														
Bulletin I Universitetit Shtetror Ta Tiranes. Seria Shkencat Mjekesore. 1,1961- (Gift)						1- 1961-			6- 1966-					B-0
ARABIC														
Alexandria Medical Journal. 1,1965-	BA-0 CA-4(4493) EM								9- 1963-		1- 1955-			SU-0.2
Journal of the Egyptian Medical Association. 36N5,1953- (\$7.00)	IM BA-0 CA-17 EM						13- 1931-	32- 1949-	46- 1963-		(11-45)- 1928-	UA 49- 1960-		
Journal of the Egyptian Public Health Associa- tion. 1,1926- (\$8.00)	IM BA-0 CA-13 EM					PHL 27- 1952-		27- 1952-	39- 1964-					B-1.7
Journal of the Faculty of Medicine. University of Baghdad NS1,1959- (\$4.00)	BA-12 CA-2(5533) EM						1- 1959-							SF-0.1
Journal Medical libanais. 1,1950- (\$10.00)	IM BA-0 EM CA-0						11- 1958-	22- 1969-	10- 1957-	16- 1963-	22- 1969-	UA 11- 1958-		SF-0.5
Revue Dentaire libanaise. Lebanese Dental Magazine. 1,1950- (\$9.00)	IM							4- 1953/54-	10- 1959-					SF-0
BULGARIAN														
Phsperimentalna Meditsina I Morfologija. 1,1962- (Gift)	IM EM CA-34(1272)					6- 1967-				3- 1964-				B-0 LA-0
Epidemiologia, Mikrobi- logija I Infektiozni Boleati. 1,1964- (\$5.60)	CA-8(3497) EM BA-26 EM									4- 1967-				
Izvestia Na Instituta Po Fiziologia. 1,1957- (Gift)	IM CA-0 EM BA-0					1-				5- 7-				B-0 LA-0.1

EXTENT OF HOLDINGS

SERIAL TITLES	INDEXED OR ABSTRACTED BY THESE SERVICES	California Inter-Segmental Holdings											Other Region All Libraries	AVERAGE NUMBER OF CIRCULATIONS PER YEAR			
		University of California Holdings			Region XI Holdings			MM Biomedical Network			UC	USC					
		UCSC	UCB	UCR	UCSC	UCB	UCSF	UCD	UCLA	UCSD					UCI	USC	
Izvestiya na Mikrobiologicheskii Institut, 1,1960- (cont)	IM CA-10(3140) EM BA-0					1-				1-	16-					B-0.1 LA-0.2	
Izvestiya na Otdelenieto za Biologicheski i Medicinski Nauki, Bolgarska Akademiya na Naukite, 1,1957-	CA-0									2-3 1958- 59	17-						
Kvartar, (1,1951)- (1,22,50)	IM CA-0 EM										17-						
Neurologiya, Psikiatriya i Neurokhirurgiya, 3,1964- (54,80)	A-0 EM									3-	1964-						
Oficina Farmakologiya, 1,1964-	BA CA-0 EM									1-	1964-						
Pellat, 1,1962 (54,8)	CA-2(5672) EM BA-110										40- 1962-						
Scritto Scientifica Medical, 1,1965-	EM BA-39									4-	1965-						
Stomatologiya, 1952- (56,00)	CA-6(4118) EM									49-	1967-						
Sovremennaya Medicina, 1,1959- (\$10,80)	CA-10(3224)									13-	10- 1962- 1959-						
Veterinarno Medicinski Nauki, 1,1964- (\$10,80)	CA-28(1347) BA-0									7-	1970-						
CHINESE																	
Chinese Journal of Physiology, 1,1927- (cont)	(A-0) EM					1-17 1927- 50	1- 1927-			1- 1927-				1-21 1927- 71			SF-1,8
Chung-Hua I Hsueh Tsa Chih, Zhonghua I Hsueh Tsa Chih Chinese Journal of Pediatrics, 1,1950-	(A-1)						6-10 1955-59			12-	1963-						SF-0
Chung-Hua I Hsueh Tsa Chih, Chinese Medical Journal, 1,1973-	EM					1- 1973-	1- 1973-	1- 1973-	1- 1973-	1- 1973-				1- 1973-			LA-0 SF-3,0
Chung-Hua I Hsueh Tsa Chih, Chinese Medical Journal (Taipei), 1,1954-						9- 1962-				11- 1964-				(1-19)- 1954-			LA-0.5 SF-0.6 CU-1.5
Memories of the College of Medicine of the National Taiwan University, 1,1947-	BA-0 CA-2(5579) EM									3-	1953-						
Shih-Cheng Wu Hsueh Tsa Chih, Acta Biologica Experimentalis Sinica, 1,1954-	BA-0 CA-0									9-10	510 7-					LA-0.5	
Taiwan I Hsueh Tsa Chih, Journal of the Formosan Medical Association, 45,1946- (59,68)	EM BA-0 CA-33(1337)					32 1933-	70,12- DEC 30-41 1971-	45-						44- 1945-			LA-1,0 SF-0,6
CZECHOSLOVAK																	
Acta Chirurgiae Orthopaedica Et Traumatologica Czechoslovaca, 1,1947- (\$25,45)	IM BA-0 EM									36-	1960-			31-			

EXTENT OF HOLDINGS

SERIAL TITLE	INDEXED OR ABSTRACTED BY THESE SERVICES	California Inter-Segmental Holdings											Other Region XI Libraries	AVERAGE NUMBER OF CIRCULATIONS PER YEAR	
		CSUC	UCSB	UCR	University of California Holdings				Region XI Holdings			NLM Biomedical Network			
					UCSC	UCB	UCSF	UCD	UCLA	UCSD	UCI	SU Lane	USC		
Acta Universitatis Carolinae. Biologica. 1958- (Exchange)	BA-0 EM CA-6(3891)			1959-70		1960-			1958-						B-0.5
Acta Universitatis Carolinae. Medica. 1954/55- (\$30.00)	IM SCI BA-5 CA-1(5876)						1-	13-	1-	10-				UA 11-1965	LA-0.6 SF-0.2
Acta Universitatis Carolinae. Medica. Monograph. 1,1954-	IM BA-5 CA-0						4-	1.3-	8-	15-					SF-0.3
Acta Universitatis Palackianae Olomouensis. Facultatis Medicae. 22,1960- (#30.00)	BA-57							36-	1964-						SF-0.1
Activitã Nervosa Superior. 1,1959- (\$26.50)	IM SCI BA-109 CA-54(835) EM		13-					1-	3-	6-		10-	1970-	UA 8-	LA-3.1
Biologia. 8,1953- (Exchange)	BA-118 CA-0			2-		4-		23-	19-	19-					B-2.0 LA-0
Bratislavské Lekárske Listy. 1,1921- (\$25.00)	IM BA-101 CA-27(1563) EM						1-	1921-	1-37						LA-0.5 SF-0.5
Časopis Lekárů Českých. 1,1862- (\$50.55)	IM BA-42 CA-9(3288) EM						88-	91-	102-	102-					LA-0.8 SF-0.8
Česka Mykologie. 1,1947- (\$7.10)	EA-34						1-	1947-							B-0.4
Československá Dermatologie. 23,1948- (\$21.20)	IM BA-0 CA-2(5404) EM						23-			39-					SF-0.6
Československá Epidemiologie, Mikrobiologie, Imunologie. 5,1956- (\$21.20)	IM BA-9 CA-5(4229) EM*					B10X 7-		12-	1963-	5-	13-				LA-0.1
Československá Farmacie. 1,1952- (\$27.55)	IM CA-59(770) EM BA-11							12-	1963-			14-	1965-		SU-0.3
Československá Fysiologie. 1,1952- (\$13.30)	IM BA-111 CA-9(3290) EM						1-	1952-		5-	13-	1-4	1952-55		B-0.3
Československá Gastroenterologie A Vyziva. 9,1955- (\$21.20)	IM BA-0 CA-12(2791) EM									10	18-				LA-0.1
Československá Gynekologie. 1,1936- (\$28.00)	IM BA-0 EM						12-	17		29-	1964-				SF-0
Československá Hygiene. 1,1956- (\$31.80)	BA-0 CA-20(1981) EM*									9-	1964-				
Československá Neurologie A Neurochirurgie. 36,1973- (\$20.35) (formerly Československá Neurologie. 19,1956-35-1972)	IM CA-2(3405) EM							36-	1973-	36-	1973-				LA-1.0

EXTENT OF HOLDINGS

SERIAL TITLE	INDEXED OR ABSTRACTED BY INDEX SERVICES	California Inter-Segmental Holdings											OTHER REGIONAL LIBRARIES	AVAIL NUMBER OF CITATIONS PER YEAR	
		USC	USB	UCR	University of California Holdings				Regional Holdings			UCI			
					UCS	UCB	UCSF	UCD	UCLA	UCSD	UCI	Large	UC		
Ceskoslovenska Oftalmologie 1,1948- (52,35)	IM (A-2(5406) EM					OPTO 26-			20-	21-		6- 1949-			B-0 1A-0,1 C-0,5
Ceskoslovenska Otolaryngologie 1,1948- (52,35)	IM EM								11-	13-					1A-0
Ceskoslovenska Pediatrie 1,1948- (52,30)	IM (A-11(2941) EM								20-	19-					1A-0,9
Ceskoslovenska Psichologie 1,1948- (52,30)	IM EM								60-	60-					1A-0,5
Ceskoslovenska Psichologie 1,1948- (510,2)	BA-0 EM					ED/PSYCH 1- 1957-		Main 9- 1955-	1-						
Ceskoslovenska Radiologie 1,1948- (520,33)	IM EM									18-					
Ceskoslovenska Stomatologie 1,1948- (520,35)	IM (A-1(6020) EM								61-						1A-0
Obecná Léčba 1,1948- (59,5)	SCI-0,141 BA-0 CA-9+(499)	Fresno 64- 1970-	62-	Phys. Sci. 42-	Chem 58- 1964-	Phys. 45-	Sci. 54- 1951- 57- 1963-								
Endokrinné Orgány a Experimentální 1,1967- (51,3)	IM BA-63 (A-0) EM		1-			1- 1967-	1- 1967-	1- 1967-	1- 1967-						
Fili Veterinária 1,1948- (53,13)	BA (A-12(2810)							1- 1956-							
Česká Práce 1,1961-	IM								2-						1A-0,3
Radiologická Chirurgie 1,1948- (534,3)	IM EM									43-					
Sborník Lékařské 1,1957- (52,35)	IM SCI BA-16 (A-1*(2176) EM									66- 1964-	68- 1966-	68- 1966-			1A-0,1
Sborník Vědeckých Prací Lékařské Fakulty Karlovy Univerzity v Praze 1,1948- (512,3)	IM BA-0 (A-0) EM									7- 1964-		1-12 1958- 69			
Sborník Medicíny 1,1957- (51,3)	BA-100 (A-0) IM							22-							1A-0,3
Sborník Československé Fysiologie 1,1970- (511,25)	BA-28 EM									3- 1970-					
Studia Psychologica 1,1948- (514,3)	BA-10 PA		9-			Ed/Psych 2-					CUU 8- 1966-				
Věstník Československé Společnosti Zoologické 1,1948- (515,00)	BA-19 (A-0) EM					1- 1927/32		14- 1950-	1- 1927/31						B-1,9
Veterinární Medicína 1,1948-	IM BA-14							1960-							
Vnitřní lékařství 1,1955- (538,15)	IM (A-1*(1064) EM								10- 1964-	9-					

EXTENT OF HOLDINGS

SERIAL TITLE	INDEXED OR ABSTRACTED BY THESE SERVICES	California Inter-Segmental Holdings												Other Region XI Libraries	AVERAGE NUMBER OF CIRCULATIONS PER YEAR
		CSUC	UCSB	UCR	UCSC	UCB	UCSF	UCD	UCLA	UCSD	UCI	UCR	USC		
DANISH															
Acta Historica Scientiarum Naturalium Pt. Medicinalium. 1,1942- (\$9.36)	IM BA-C		Held			2- 1943-	1- 1942-	Majo 1- 1942-	1- 1942-		1- 1942-		11 2- 1943-	8-1.9	
Archiv For Pharmacol Og Chemi. 1,1973- (\$32.20)	CA-4(4516) BA						1-								
Bibliotek For Laeger. 101,1909- (\$4.80)	BA-0 CA-0 EM									156- 1966-					
Entomologiske Meddelelser. 1,1887- (\$11.50)	BA-11					Ento 1- 1877-									
Fra Sundhedsstyrelsen. VI,196- (Gift)	IM					6- 1972-	6- 1972-	1972-							
Nordisk Medicin. 1,1939- (\$14.00)	EM IM SCI-260 BA-0		79-			1- 1939-	1- 1939-	1- 1939-	1- 1939-	1-66 1939-	1- 1939-	1- 1939-	11- 50-10.7		
Nordisk Psykiatrik Tidsskrift. 13, 959-	BA-38 EM*									16-					
Nordisk Veterinaer Medicin. 1,1949- (\$16.50)	EM IM SCI-366 BA-0 (CA-25(1990))						1- 1949-			1-12 1949-					
Tandlaegebladet. 1,1897-						18- 1914-	71- 1967-	1- 1897-					1A-0.3 SF-0.3		
Tidsskrift For Danske Sygehuse. 1,1924-												19			
Ugeskrift For Laeger. 2760,1904- (\$58.50)	IM BA-0 EM IM					27- 115 1965-73	129- 1967-	61- 1967-	107- 1967-		1904-		1A-0.3 SF-1.3 SD-1.3		
DUTCH															
Acta Anaesthesiologica Belgica. 1,1950- (\$34.50)	IM BA-9 CA-0 EM					5- 1954-	1- 1950-	19- 1967-	1- 1950-		3- 1952-		SF-0.6 SD-0.4		
Acta Gastro-Enterologica Belgica. 9,1966- (\$11.60)	IM BA-11 CA-0 EM					2- 1911-	6- 1940-	10- 1947-	26- 196		19- 1966- 69		SF-1.0 SD-1.2		
Acta Otorhinolaryngologica Belgica. 1,1926-	IM CA-0 CA-0					9-79 1931-48 1931-48	1-15 1960	1- 1926-	1- 1926-						
Annales De La Societe Belge De Medecine Tropicale. 1,1920- (\$17.95)	IM BA-16 CA-3(4908) EM					14- 45- 1964-65	45- 1964-			57- 1972-		1-6 -2-	SF-0		
Archives Belges De Dermatologie Et De Syphiligraphie. 1,1938- (\$16.90)	EM BA-16 CA-3(4201) EM									39- 1966-		1-23, 1938- 67	1A-0.8 1-29, 1938-73		
Bulletin Des Societes Chimiques Belges. 1,887- (\$32.00)	SCI-1.876 BA-16 CA-37(802) EM SF 75,1966-	1A 10,1961- SD (1,1887)- SF 75,1966-				Chem 57- 1960- 1966-	19- 1890- Phyo. Sci. 54-79 1945-70 Main	12- 1890- 1867-	1- 1867-				8-5.5 SF-1.7		

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EXTENT OF HOLDINGS

SERIAL TITLE	INDEXED OR ABSTRACTED BY THESE SERVICES	California Inter-Segmental Holdings											Other Region XI Libraries	AVERAGE NUMBER OF CIRCULATIONS PER YEAR		
		CSUC	UCSB	UCR	University of California Holdings			Region XI Holdings			NIM Biomedical Network					
					UCSC	UCB	UCSF	UCD	UCLA	UCSD	UCI	SU Lane	USC			
Nippon Jibinkoka Gakkai Kaiho. Journal of Otolaryngology of Japan 51, 1947- (\$42,50)	FA IM CA-0 EM									55-	68-		51-		51-0.5	
Nippon Jui Chikusan Daigaku Kiyo. Bulletin Of The Nippon Veterinary And Zootechnical College 1, 1952-	BA-19							No. 16 1967-								
Nippon Daigaku Zasshi, Japanese Journal Of Veterinary Science. 1, 1939- (\$30,15)	IM BA-2 CA-8(3519)											1- 1939-				
Nippon Kagaku Ryohogakkai Zasshi. Chemotherapy 1, 1953- (\$13,12)	CA-67(672) EM							1- 1953-		13- 1968-						
Nippon Ketsumei Gakkai Zasshi. Journal of Japan Haematological Society. Acta Haematologica Japonica. 1, 1937- (\$24,00)	IM BA-59 CA-6(4044) EM					6- 1942-	1- 1937-	9-		1-		(4)- 1940-			LA-1.2 SF-1.4 SU-0.1	
Nippon Kokugeka Gakkai Zasshi. Japanese Journal Of Oral Surgery. 13, 1947- (\$12,00)									13-							
Nippon Stomaku Gakkai Zasshi. Journal of The Japanese Stomatological Society. 1, 1951- (\$20,00)	CA-7(6359)									10- 1961-		1- 1952-				
Nippon Kontaku Renzu Gakkai. Keitri Daori. Journal of Japan Contact Lens Society. 41, 1961-	BA-10 EM											15- 1964-				
Nippon Kyobu Gaku Gakkai Zasshi. Journal of The Japanese Association For Thoracic Surgery. 1, 1933-	IM BA-11 CA- EM											1-14 1953- 86		17- 1969-		
Nippon Kyosei Saisei Gakkai Zasshi. Journal Of Japan Orthodontic Society. 1, 1947- (\$11,00)								1 1947-		21-					LA-0 SF-0.1	
Nippon Keitso Gakkai Zasshi. Journal of The Japanese Society of Endocrinology. Folia Endocrinologica Japonica. 1, 1947- (\$28,00)	IM BA- A-34(144) EM										43- 1967	1- 1975-	40- 1964-	42- 1968-	2- 44- 1944- 48	LA-0.5
Nippon Kagaku Gakkaishi Zasshi. Journal of Japanese Society of Internal Medicine. 1, 1937- (\$30,00)	IM A-7(111) EM									52-			12- 1926- 1925-		SF-0.3	
Nippon Kagaku Gakkaishi Zasshi. Journal of The Agricultural Chemical Society of Japan. 1, 1937- (\$30,00)	BA A-1(11) EM							1- 1937-					1- 1968- 1967-			
Nippon Keitso Gakkaishi Zasshi. Journal of Endocrinology. Folia Endocrinologica Japonica. 1, 1947- (\$28,00)													1 1969		SU-0	
Nippon Keitso Gakkaishi Zasshi. Journal of Endocrinology. Folia Endocrinologica Japonica. 1, 1947- (\$28,00)	IM A-34(144) EM												1- 1968- 1967-		LA-0.1	

EXTENT OF HOLDINGS

SERIAL TITLE	INDEXED OR ABSTRACTED BY THESE SERVICES	California Inter-Segmental Holdings												Other Region RI Libraries	AVERAGE NUMBER OF CIRCULATIONS PER YEAR
		Region XI Holdings NLM Biomedical Network													
		CSLC	UCSB	UCR	University of California Holdings			UCI			USC				
				UCSC	UCB	UCSF	UCD	UCLA	UCSD	UCI	USC				
Seikei Geka Orthopedic Surgery, 1,1950- (522 75)												16- 1965-			
Seishin Shinkeigaku Zasshi, Psychiatry Et Neurologia Japonica, Journal of Psychiatry And Neurology 39,1935- (534 75)	IM CA-8(3612) EM				EAL 1-	61- 1959-	49-51, 70- 1946- 50, 1968-	69- 1967-	70- 1968-			39- 52, 1935- 51		LA-1.0 SF-1.1	
Senshu Kaitai Kronium SI,1946- (519 00)	BA-10 CA-0								5-						
Shika Gakko Journal Of The Tokushima Ed College Society 5,1900- (519 00)	A-4(412)						11 1906-		63-					LA-0.1 SF-0.1	
Shikoku Igaku Zasshi Shikoku Aka Medical Shikoku Medical Journal 1,1933- (515 50)	BA-51 CA-2(5774) EM					1- 1950-		13-	1- 1950-		1- 1950-			SF-0.1 SU-0.2	
Shinsei Kenkyu No Shimo Alzheimers "Neurological" Science 1,1936- (516 00)	A-3(1192)							13- 1969- M.1	1- 1956-	10- 1966-		11-11 1967-69			
Shinrigaku Senyu Japanese Journal Of Psychology NS,1926- (514 00)	IM BA-1		40-						36-	CU 1- 1926-		25-39 1955- 68			
Shinshu Igaku Zasshi, Shinshu Medical Journal 1,1952- (510 50)	CA-1(6344) EM						1-16 1952- 67		1- 1952-					SF-0	
Shonka Kyo Annals of Pediatrics Annals Pediatrics Japan 1 1955- (511 00)	CA-1(6346) EM						1- 1955-		1- 1955-			1- 1955-		SF-0.1 SU-0.2	
Shupakushitsu Kasan Kasei Protein Nuclei A 11 Enzyme, 1,1946- (515 00)	IM CA-8(429)					EAL 1-	1- 1956-			1-					
Shokko Igaku Zasshi Tohoku Medical Journal 1,1916- (522 00)	A-6(1133) BA-1 EM						26- 34 1940-		69- 1963-	71- 1965-					
Shokko Igaku Zasshi, Iryo Journal Of Medical Science 1,1938-	A-0								36-						
Shokko Igaku Zasshi, Iryo Journal Of Medical Science 1,1938-	BA- EM								1- 1966-	22- 1966-					
Shokko Igaku Zasshi, Iryo Journal Of Medical Science 1,1938-	IM BA-1 EM					EAL 1-	1- 1941- 59	1- 1951-	1- 1951-	1- 1951-			VA 16-	LA-0.7 SF-0.3	
Shokko Igaku Zasshi, Iryo Journal Of Medical Science 1,1938-	IM SH CA-1(6346) EM					EAL 1-	1901- 1968-	88- 1968-	8- 1968-		85-			LA-0.9 SF-2.0	
Shokko Igaku Zasshi, Iryo Journal Of Medical Science 1,1938-	BA- EM								1- 1965-	22- 1964-					
Shokko Igaku Zasshi, Iryo Journal Of Medical Science 1,1938-	BA- EM								1- 1966-						

EXTENT OF HOLDINGS

SERIAL TITLE	INDEXED OR ABSTRACTED BY THESE SERVICES	CSUC	UCSD	California Inter-Segmental Holdings										Other Region SI Libraries	AVERAGE NUMBER OF CIRCULATIONS PER YEAR	
				UCR	University of California Holdings			Region XI Holdings			SLM Biomedical Network					
				UCR	UCSC	UCB	UCSF	UCD	UCLA	UCSD	UCI	UCI	UCI	UCI		
KOREAN																
Journal of the Korean Medical Association, 1,1958- (free)	(A-0) AM						4- 1961-			6- 1963						SF-3
LATIN																
Science Reports of The Tohoku University Series 3 Biology Rika Hokoku, Seibutsugaku, 1,1924- (Exchange)	BA-6 EM (A-0)						1- 1924-									
LETISH																
Latvian PSR Zinatnu Akademijas Vestis 1947- (\$13.50)	BA-129 (A-b1(756)			1963-												
NORWEGIAN																
Norske Lægeforenings Tidende, 1,1891- (\$21.40)	IM EM						24-64 1913- 54		30-							LA-0.1 SF-0
Tidsskrift For Den Norske Lægeforening, 10,1890- (\$38.40)	IM BA-0 CA-0 EM									15- 1960-						
POLISH																
Acta Biologica et Medica, 1,1957-	IM BA-1				8- 1964-	1- 1957-	1- 1957-	9- 1965-	1- 1957-			1- 1957-				B-0.1 LA-0.2 SF-0
Acta Microbiologica Polonica, Series A, Microbiologia Generalis, 1969- (\$7.30)	IM EM BA-24 CA-0 EM				1- 1969-	1- 1969-	2- 1970-	1- 1969-	1- 1969-							B-0.7
Acta Microbiologica Polonica, Series B, Microbiologia Applicata, 1,1969- (\$7.00)	IM SCI BA-21 CA-21(1905) EM				1- 1969-		1- 1969-	1- 1969-	1- 1969-							B-0
Acta Neurobiologica Experimentalis, 30,1970- (\$22.00)	IM BA-5- CA-0 EM	SJ 26, 1966-			1- 1928-		30- 1970-	30- 1970-	30- 1970-			30- 1970-				B-1.6 SF-0.5
Acta Parasitologica Polonica, 1,1953-	BA-42 (A-9) EM	Long Reach 17, 1967-	34-		1- 1973-		1- 1973-	2- 1974-								B-2.6 SF-0
Acta Physiologica Polonica, 1,1950- (\$16.30)	IM BA-1 CA-1(1967) EM	Freeze 20, 1965-	16-		1- 1950	1- 1962-	18- 1962-	4-20, 1953- 1971	1- 1963-	1- 1963-	1- 1963-	1- 1963-	1- 1963-	1- 1963-	1- 1963-	B-1.7 SF-0.6
Acta Physiologica Polonica, 1,1963- (\$16.35)	BA-17 CA-1(1963) EM	San Diego, San Fran 1963-	14-		1- 1963-		1- 1963-	1- 1963-	1- 1963-			1- 1963-				B-1.7 SF-0.6
Annales Universitatis Mariae Curie-Skłodowska Series Medicina 1,1949-	IM BA-14 A-11(220)				1- 1949-			1- 1949-				1- 1949-				B-1.7 SF-0.6
Annales Universitatis Mariae Curie-Skłodowska Series Medicina Veterinaria, 1,1949-	BA-8 A-11(220)				1- 1949-			1- 1949-				1- 1949-				B-1.7 SF-0.6

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SERIAL TITLE	INDEXED OR ABSTRACTED BY THESE SERVICES	California Inter-Segmental Holdings											Other Region XI Libraries	AVERAGE NUMBER OF CIRCULATIONS PER YEAR		
		LSUC	UCSB	UCR	University of California Holdings				UCLA	UCSD	UCI	UC			USC	
					LCSC	UCR	UCSF	UCD	UCLA	UCSD	UCI	Lane	USC			
Archivum Historii Medycyny. 20,1957-	IM BA-0 EM								27-							LA-0
Biuletyn Instytutu Medycyny Morakiej W Gdansk. 8,1957-	IM BA-0 LA-0 EM								19- 1968-	8- 1957-						
Chirurgia Narzadow Ruchu I Ortopedia Polska. 1,1928- (\$12.00)	IM BA-0 EM									28- 1963-						
Czasopismo Stomatologiczne. 1,1948- (\$14.40)	IM BA-0 CA-8(3489) EM						4-5 1951- 52		9-							LA-0.2 SF-0
Dissertationes Pharmaceuticae Et Pharmacologicae 1,1949- (\$14.40)	SCI BA-167 CA-26(1618) EM								5- 194-							
Endokrynologia Polska. 1,1950- (\$14.40)	IM BA-34 LA-23(1787) EM								10- 9-	15- 1964-		12- 1961-	15- 1962- Eng. ed.			LA-0.6
Folia Biologica. 1,1957- (\$12.00)	IM BA-35 LA-6(1965) EM		18-				1- 1953-		1- 1953-	1- 1953-	16- 1961-	1- 1961- Eng. ed.	11- 1963-			B-1.8 LA-1.1 SU-0.5
Folia Histocemica Et Cytobemica. 1,1963- (\$15.40)	IM BA-0 CA-16-2319 EM						1- 1963-		1- 1963-	1- 1963-		1-5 1963- A	1- 1963-			B-0.9
Folia Medica (racoviensis). 1,1959- (\$12.00)	IM BA-17 CA-0 EM								11	5- 1963-						LA-0
Folia Medica (danzensis). 1,1960-	CA-1609- IM BA-											Eng. ed. 20- 1961-				
Folia Morphologica. 1,1929- (\$14.00)	M BA-86 LA-6 (1966) EM	Przemo 4,1966-		1- 1964-		1- 1964-	22- 31, 1963- 22 Eng. ed	11-21 31, 1963- 22 Eng. ed	22- 31, 1963- 22 Eng. ed	22- 31, 1963- 22 Eng. ed	25- 1963-					B-0.3
Geneviva Pivonia. 1,1960- (\$5.00)	SCI BA-87 LA-1 (1961) EM	San Diego 1,1961- 1963-						1- 1963- M. 6 M.S.	1- 1963- 1- 1963-	5-0 1- 1963-						
Journal of the American Medical Association. 1,1922- (\$10.00)	M BA-1 LA-1 (1961) EM															
Klinicka Lekarska. 1,1927- (\$5.00)	IM BA-1 LA-1 (1961) EM											1-11 1961-12				LA-0
Klinicka Lekarska. 1,1927- (\$5.00)	M BA-1 LA-1 (1961) EM											14- 11 1961- A				B-0 LA-0.7



REPORT OF THE

STATE	AGENCY	TYPE OF AGENCY	DATE OF REPORT	REPORT NUMBER	REPORT TITLE	REPORT DATE	REPORT TYPE	REPORT STATUS	REPORT YEAR
AL	Alabama State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
AK	Alaska State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
AR	Arkansas State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
AZ	Arizona State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
CA	California State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
CO	Colorado State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
CT	Connecticut State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
DC	District of Columbia State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
DE	Delaware State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
FL	Florida State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
GA	Georgia State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
HI	Hawaii State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
IA	Iowa State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
IL	Illinois State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
IN	Indiana State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
KS	Kansas State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
KY	Kentucky State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
LA	Louisiana State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
MA	Massachusetts State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
MD	Maryland State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
ME	Maine State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
MI	Michigan State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
MN	Minnesota State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
MO	Missouri State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
MS	Mississippi State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
MT	Montana State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
NE	Nebraska State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
NH	New Hampshire State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
NJ	New Jersey State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
NM	New Mexico State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
NY	New York State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
NC	North Carolina State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
ND	North Dakota State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
OH	Ohio State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
OK	Oklahoma State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
OR	Oregon State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
PA	Pennsylvania State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
RI	Rhode Island State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
SC	South Carolina State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
SD	South Dakota State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
TN	Tennessee State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
TX	Texas State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
UT	Utah State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
VA	Virginia State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
VT	Vermont State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
WA	Washington State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
WI	Wisconsin State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
WV	West Virginia State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968
WY	Wyoming State Board of Education	State Board of Education	1968	100-100	Annual Report	1968	Annual Report	Final	1968

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1. The first part of the document discusses the importance of maintaining accurate records of all transactions. This is essential for ensuring the integrity of the financial system and for providing a clear audit trail. The records should be kept in a secure and accessible location, and should be updated regularly to reflect any changes in the data.

2. The second part of the document outlines the various methods used to collect and analyze data. This includes the use of surveys, interviews, and focus groups. Each method has its own strengths and weaknesses, and it is important to choose the most appropriate one for the specific research objectives. The data collected should be analyzed carefully to identify any trends or patterns that may be significant.

3. The third part of the document describes the process of reporting the results of the research. This involves writing a clear and concise report that summarizes the findings and provides recommendations for future action. The report should be written in a way that is easy to understand and that is accessible to all stakeholders who may be interested in the results.

4. The fourth part of the document discusses the importance of ethical considerations in research. It is essential to ensure that the research is conducted in a way that is respectful of the rights and privacy of the participants. This includes obtaining informed consent and ensuring that the data is kept confidential and secure.

5. The fifth part of the document outlines the various challenges that may be encountered during the research process. These include issues such as data quality, sample bias, and the difficulty of interpreting the results. It is important to be aware of these challenges and to take steps to minimize their impact on the research.

6. The sixth part of the document describes the various methods used to ensure the reliability and validity of the research. This includes the use of standardized procedures, the use of multiple sources of data, and the use of statistical methods to analyze the data.

7. The seventh part of the document discusses the importance of communication in research. It is essential to communicate the findings of the research in a clear and concise way that is accessible to all stakeholders. This involves writing a clear and concise report and presenting the findings in a way that is easy to understand.

8. The eighth part of the document outlines the various methods used to ensure the transparency of the research process. This includes the use of open access to the data and the use of peer review to ensure the quality of the research.

9. The ninth part of the document discusses the importance of ongoing evaluation and improvement of the research process. It is essential to regularly evaluate the research process and to make any necessary changes to ensure that the research is conducted in the most effective and efficient way possible.

10. The tenth part of the document describes the various methods used to ensure the sustainability of the research. This includes the use of long-term data collection and the use of community-based research to ensure that the research is relevant and useful to the community.

11. The eleventh part of the document discusses the importance of collaboration in research. It is essential to work closely with other researchers and stakeholders to ensure that the research is conducted in a way that is respectful of their interests and that is beneficial to the community.

12. The twelfth part of the document outlines the various methods used to ensure the accountability of the research. This includes the use of clear and concise reporting and the use of regular communication to ensure that all stakeholders are kept up to date on the progress of the research.

13. The thirteenth part of the document discusses the importance of transparency in research. It is essential to be open and honest about the methods used and the results of the research. This includes providing access to the data and the research reports to all stakeholders who may be interested in the results.

14. The fourteenth part of the document outlines the various methods used to ensure the integrity of the research. This includes the use of standardized procedures and the use of statistical methods to analyze the data.

15. The fifteenth part of the document discusses the importance of ongoing communication and collaboration in research. It is essential to work closely with other researchers and stakeholders to ensure that the research is conducted in a way that is respectful of their interests and that is beneficial to the community.

EXHIBIT 7 HOLDINGS

OFFICE SYMBOL	OFFICE NAME	California Inter-Segmental Holdings											OTHER REGISTRATION	AVERAGE NUMBER OF CIRCULATIONS PER YEAR	
		UCSD	UCR	UCSC	UCD	UCSF	UCI	UCLA	ASU	USC	USC	USC			
UCR 100	UCR 100														
UCR 101	UCR 101														
UCR 102	UCR 102														
UCR 103	UCR 103														
UCR 104	UCR 104														
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UCR 145	UCR 145														
UCR 146	UCR 146														
UCR 147	UCR 147														
UCR 148	UCR 148														
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UCR 150	UCR 150														

LIBRARY IIR PUBLICATIONS

Publication of papers and reports of interest to scholars and practitioners in the field of library and information science is an important function of the Institute of Library Research. In addition to this study, the following have been published recently by IIR:

- IIR-73-002 Todd, Judy. Summary Report of Student Studies of the Subject Headings Used in the University of California, Berkeley Subject Catalog (July 1973) 8 pp. (ERIC No. ED-082 775)
- IIR-73-003 Bourne, Charles F., and Jo Robinson. EDI Citation Checking as a Measure of the Performance of Library Document Delivery Systems (July 1973) 10 pp. (ERIC No. ED-082 774)
- IIR-73-004 Weeks, Kenneth. Redundation of Two Acquisition Procedures of Book User Final Report (July 1973) 20 pp. (ERIC No. ED-082 773)
- IIR-73-005 Weeks, Kenneth. Proposal for a University of California/California State University and College Inter-Regional Machine Readable Library Union Card (August 1973) 81 pp. (ERIC No. ED-082 771)
- IIR-73-006 LaDonne, Marjorie. "Summary of Court Decisions Relating to the Provision of Library Services in Correctional Institutions." Association of Hospital and Institution Libraries Quarterly (Winter/Summer 1973) 9 pp.
- IIR-73-007 Thalín, John, and Bonnie F. Shaw, (editors). Highlights of Library Research Annual Report, July 1972 to June 1973 (September 1973) 30 pp.
- IIR-73-008 Dekleva, Norat. Uniform Study Transliteration Alphabet (UNISA) (October 1973) 10 pp. (ERIC No. ED-082 764)
- IIR-73-009 LaDonne, Marjorie. Findings and Recommendations. Volume I. Survey of Correctional Information Problems in Correctional Institutions (January 1973) 24 pp.
- IIR-73-010 LaDonne, Marjorie. Access to Legal Reference Materials in Correctional Institutions. Volume II. Survey of Library and Information Problems in Correctional Institutions (January 1973) 29 pp.
- IIR-73-011 LaDonne, Marjorie, David Christianso, and Joe Short. Correctional Libraries and Information Problems in Correctional Institutions. Volume III. Survey of Library and Information Problems in Correctional Institutions (January 1973) 23 pp.
- IIR-73-012 Oregor, Dorothy. Feasibility of Cooperative Collection of Serials Funding Through Serial Titles about Health Science Libraries in California (November 1973) 24 pp.
- IIR-74-001 Koalk, Barbara. The Use Status of Books Acquired from the University of California, Berkeley. Inter-Library Loan (March 1974) 11 pp.
- IIR-74-002 Bourne, Charles F. Highlights of Library Research Annual Report, July 1973 to June 1974 (1974) 25 pp. + appendices
- IIR-74-003 Humphrey, Allan J. Survey of Selected Institutional Activities Relating to the Machine Readable Form Data Base in Book Form. Volume I (June 1974) 10 pp.
- IIR-74-004 Cooper, William S., Donald T. Thompson, and Kenneth E. Stone. The Performance of Document Delivery in the University of California Library System (October 1974) 24 pp.
- IIR-74-005 Bourne, Charles F., Jo Robinson, and Judy Todd. Summary of IIR Studies of the University of California and Berkeley. The University of California Library System (November 1974) 120 pp. + appendices
- IIR-74-006 Martell, Charles E., Jr. Inter-Library Loan Procedures. A Study of the Performance of the University of California and Berkeley. Volume II. The University of California (December 1974) 24 pp.