

CHAPTER II

THE PROBLEM

Long before the serials crisis and the concomitant crisis in scholarly publishing had been recognized, library administrators began to warn that no single academic library, no matter what its budget and wealth of collections, could acquire every item which its faculty and students would need. The concept of resource sharing began to gain prominence in the 1970s. In the early 1980s, Warren Haas advanced the idea that the libraries of the nation should be viewed collectively as a "single research resource"ⁱ for purposes of resource sharing. Collection interdependency and resource sharing from the collective resource base were touted by university library administrators in the 1980s as the solution to the problem of libraries being unable to afford to provide all needed research resources on-site.

When the decline in acquisitions volume among the members of the Association of Research Libraries appeared in the *ARL Statistics*, many in the academic library field began to wonder if resource sharing was a viable solution to each library's inability to collect needed materials. A further concern arose as to whether or not current acquisitions programs were collecting materials in the appropriate subject areas to support research. In light of these concerns it began to appear that even a collective resource base made up of combined resources might not compensate for the inadequacies of individual research libraries.

These concerns were expressed in the Mellon study, *University Libraries and Scholarly Communication*.ⁱⁱ

The dual trends of expanding book production and increasing prices with library budgets remaining static or losing ground are especially troubling to research libraries. Libraries can no longer aspire to maintain collections which provide for the majority of the research

needs of faculty and graduate students. [The fact that] university libraries, with few or no exceptions, are now able to respond less comprehensively than ever before to general trends in production [are] widely regarded with anxiety, in that access to scholarly information may be narrowing.ⁱⁱⁱ

The report goes on to state:

A related concern is that pressure on acquisitions budgets will cause various research libraries to look more and more alike over time, as each ceases to purchase as many of the more esoteric publications and chooses rather to be sure that essential volumes are acquired. The consequence could be a decline in the richness of collections overall, not merely a decline in the range of holdings of any one library.^{iv}

At the beginning of the 1990s, the economic forces of the 1980s were being viewed as not only having decimated the current collections of individual academic libraries, but also as having affected the collective power of the nation's academic libraries to provide for research needs through resource sharing. The effect of those economic forces on the collective non-serial printed resources of academic libraries in the United States, the "national collection," is the subject of this study.

Statement of the Problem

There has been little study devoted to determining the characteristics of the collective resource base of U.S. academic libraries, the "national collection," especially with regard to non-ARL libraries. The Association of Research Libraries, the Association of College and Research Libraries and the U.S. Department of Education publish aggregate data which are reported by format categories, but which are not reported by subject categories. The diversion of funds from

monographs to serials expenditures has been documented. Little is known, however, about the overall parameters of the collective resource base of U.S. academic libraries nor of the effects of the environmental factors experienced in the last two decades upon that collective resource base. And while it is known that acquisition of foreign language imprints has declined, it is not known how this decline is distributed across subject disciplines or among language groupings.

Significance of the Problem

While electronic journal publishing has gained momentum at the beginning of the 21st century, for monographs or lengthy texts the options for the foreseeable future will continue to be either buy or borrow. With the provision of monographic research materials becoming ever more dependent upon resource sharing as an alternative to local ownership, the efficacy of this activity may be questioned if the collective resource base is diminishing and becoming more homogenous. If collecting patterns by subject have shifted, certain disciplines or areas of study may be at higher risk that no academic library in the United States will own a specific title needed for research. Collecting patterns in monographs may also closely track trends in the scholarship of specific disciplines. The characteristics of the collective resource base and specific collecting patterns must be known in order to formulate realistic plans for resource allocation and resource sharing.

A shrinking non-serial print resource base for United States academic and research libraries has serious repercussions for the future support of research and, possibly, the curriculum. A real decline in acquisitions for specific subject areas may have long-term implications for the support of research in related disciplines or areas of study. The trends in acquisition of foreign language imprints can be examined for their implications for the future of the collective resource base of academic research libraries in the United States. Shifts in

collecting patterns must be known and understood for the future management of individual libraries and for coordinated cooperative collection development planning among groups of libraries. The nation's libraries and institutions of higher education have a vital stake in the maintenance of strong individual research collections and in the collective resource base of academic libraries

Importance of the Study

A study which profiles the collective holdings of academic and research libraries by subject groupings instead of individual libraries on a title-by-title basis will contribute to the establishment of a knowledge base for national coordinated collection development and local collection assessment. The data examined and the patterns of collection development revealed in the study can also contribute to an evolving body of theory in the collection development field.

Review of Related Research

There has been little research of national scope conducted on the composition of academic library collections. It is ironic that during the halcyon days of the 1950s and 1960s when universities were well funded, collection developers knew little about the collection profiles of the libraries in which they worked, let alone the composition of peer libraries. Prior to the electronic era, the only means of comparing library collections on a title-by-title basis was through manual techniques such as shelflist sampling or list checking in the card catalog. Collection developers relied on experiential knowledge of their collections more so than systematic analysis. With the founding of the bibliographic utilities in the 1970s, the comparative analysis of library collections on the regional or national level became feasible. With the retrospective depth and breadth of library holdings now contained in bibliographic databases, it is possible to conduct research into the collective resources of the nation's academic and research

libraries using electronic collection analysis techniques. It has only been since the mid 1980s that the bibliographic databases have made possible the study of groups of library collections in the aggregate.

The majority of collection analyses of groups of library collections have been overlap studies. The literature on overlap studies is summarized in the next section on generalized findings of relevance to the present study.

Overlap Studies

The first reported national study of academic library collections was that of Leroy C. Merritt who conducted a feasibility study by analyzing the holdings of union catalogs in the United States in the 1940s.^v A component of the study was an analysis of the collections of the forty-six members of the Association of Research Libraries. A sample of 3,682 titles was drawn from the Library of Congress Union Catalog and other library and union catalogs. Merritt constructed a table of duplication with two indices formed by the x and y axes. Merritt termed the indices an "Index of Inclusiveness" and an "Index of Duplication." Inclusiveness applied to those titles which a library held in common or were "included" in the holdings of other libraries, i.e., overlap. Duplication was the reverse of the common library meaning of the word today, as Merritt's definition, referred to the extent to which a library's holdings were not duplicated by any other libraries in the group, i.e., unique titles. From these two indices Merritt constructed an index of "distinctiveness" by subtracting the index of duplication from the index of inclusiveness.

Merritt's analyses using the number of volumes held for size of library collection found libraries with a large number of volumes had a high percentage of both overlap and unique titles.^{vi} Merritt summarized his findings as "the larger a library is in terms of the volumes it holds, the more apt it is to include the holdings of other libraries, and the more apt it is to own

works that other libraries have not acquired."^{vii} Merritt's was the first study to be concerned with collection overlap and cooperative acquisitions based upon union catalogs.

In the 1960s interest in overlap studies intensified as there were numerous feasibility studies for the establishment of centralized processing centers. Many of those studies did not derive the data from automated databases but used automated data analysis after the data had been manually collected. The literature and research of overlap studies has been reviewed by Potter^{viii} and Medina.^{ix}

Widely varying methodologies for types of libraries, size of sample, and other variables make any summary of the findings of overlap studies difficult. Potter in his review of the literature of studies of collection overlap and collection diversity summarizes the findings as follows:

The extent of collection overlap is dependent upon the age, size, and type of libraries involved in that the probability of overlap increases with size of library, but decreases when the libraries compared are of different age or type. Second, of all the titles held in common by a group of libraries, a large proportion of them will be unique to one library. This proportion may range from around 50 to 86 %, and it is an indication of the diversity among library collections.^x

The literature review of overlap studies by Medina includes a table listing the findings of the studies reviewed.^{xi} Her summary of findings which have emerged from overlap studies agrees with those enumerated by Potter. Among these are that "duplication is influenced by the size of collections, age of the materials, and types of libraries compared" and "a linear relationship between size of collection and rate of duplication" is often confirmed although this relationship has limits. The degree of overlap is also related to the level of acquisitions with libraries that add a high number of volumes being more likely to duplicate the holdings of other libraries. A higher

rate of duplication was found among the social sciences and humanities than other subjects. Recently published materials are more likely to be duplicated than older materials and different types of libraries compared will yield different rates of duplication.^{xii}

Findings from overlap studies relevant to this study of the non-serial collective resource base of academic libraries in the United States are that the "degree of overlap relates to homogeneity with libraries of the same type more likely to have a higher rate of overlap than different types of libraries."^{xiii} And that for academic libraries, overlap in collections appears to be related to overlap in curricula with a tendency to rise progressively with the level of the academic degree offered.^{xiv}

In his conclusion Potter further stresses that overlap studies prior to the use of network databases have been based upon "small samples necessitated by the labor involved in conducting these studies. Computer-based library networks offer a means to conduct studies based upon larger samples and even upon whole collections."^{xv}

The next section reviews data gathering and research on a national scale for academic library collections conducted through data extraction from bibliographic utilities.

National Collection Analysis

After the study by Merritt, there were no studies of national scope reported until the 1990s. During the intervening years, the National Shelflist Count which was began in 1973 was the only systematic data collection effort on research library collections by subject. When the data collection was switched from manual shelflist sampling to automated collection counts in the 1990s, the title of the project was changed to the National Title Count.^{xvi} While the data were published and available, there were no studies of national scope analyzing the data, although the data have used in local collection evaluation.

Four studies by Schwartz have been reported which utilized both the OCLC Union Catalog database and the OCLC/AMIGOS CACD for data collection.^{xvii} Schwartz used the two systems in combination to measure literature loss in anthropology, Judaic studies, international relations and psychology. Book production for a specified time period was measured by subject searching the OCLC Union catalog. Those records retrieved were assumed to represent the universe of publication in the disciplines under study^{xviii}. The methodology is posited as a model for determining the growing gap between total book publication output and the aggregate holdings of a peer group of libraries.^{xix}

Schwartz compared book production to the aggregate holdings of the ARL libraries for the same time period derived from the OCLC/AMIGOS CACD database. He found that in international relations overall, "ARL holdings dropped from 75% of book output in the late 1970s to 65% of book output in the late 1980s." In anthropology for the same time period, holdings dropped from 66% of book production in the late 1970s to 53% in the late 1980s. For anthropology, 40% of the total book output as determined from the OCLC Union catalog was not held by any of the 70 ARL libraries and 10% of the titles were held by only one or a few of the libraries. The remaining 30% Schwartz characterizes as "mainstream literature" of which the average was 10% for any one of the 70 libraries. Schwartz concluded that the largest ARL libraries hold approximately 50% of the mainstream literature and 17% of the total number of titles for the field of anthropology in the OCLC Union catalog. The findings for international relations were similar; the largest ARL libraries hold about 60% of the mainstream literature and 17% of the total number of titles. For Judaic studies, the ARL institutions hold half of the mainstream literature and in smaller research libraries the average collection holds one-fourth of the mainstream literature. Schwartz observes there have been no other studies that used both the OCLC union catalog database and the OCLC/AMIGOS CACD for data collection. Thus, there

are no other findings to compare with his research. He concludes that literature loss defined as the "growing gap between book publication output and the aggregate holdings of 70 institutions in the Association of Research Libraries...grows rather steadily."^{xx}

The first reported research to study the ARL library monographic collections as an aggregated resource base by both subject and language grouping parameters is by this author. Research by Perrault was designed to determine the effects of the decline in book acquisitions on the collective resource base of 72 research libraries for the time period 1985-1989.^{xxi} The study utilized the 1991 OCLC/AMIGOS CACD to compare the two imprint years 1985 and 1989 for the aggregated peer group of 72 ARL libraries. The findings corroborated the trends in monographs acquisitions which had been tracked in the *ARL Statistics* series for those years. The 1990/91 *ARL Statistics* showed a decrease of 14% in monograph purchases for the previous five years with 1988 the lowest point at a 20% decrease.^{xxii} Among the findings of Perrault's research were, as of the time of data extraction in 1991:

- Overall there was a 27.76% decline in the total number of books acquired by the libraries in 1989 as compared to 1985.
- English language titles had declined 12.34%, while foreign language books declined more steeply by 43.33%.
- A shift in collecting patterns occurred between 1985 and 1989 within the three broad knowledge groupings, with the humanities declining in proportional share of total by 2.35 percentage points and the sciences increasing share by 2.99 percentage points.
- The social sciences remained constant in percentage share of total as well as percentage of unique titles to total and in the mean number of holding libraries.^{xxiii}

In an article on the methodology used in the ARL study, Perrault provided examples of collection analysis utilizing the OCLC/AMIGOS CACD product, updating the findings of the ARL study with data extracted from the 1996 OCLC/AMIGOS CACD.^{xxiv} This article reported on three peer groups of academic libraries, with all records in the CACD database composing a fourth peer group. The size of the collections for the four peer groups were compared for the time frame 1987-1995. The analysis concentrated on the trends in collecting for six major subject areas over the nine years. The conclusions of the study were that

- the aggregated monographic resources of academic libraries in the United States are becoming increasingly composed of English language publications;
- the budget crisis of the 1980s is still visible in reduced numbers of titles for those years across all subject areas;
- smaller academic libraries have more stable collecting patterns, indicating that the larger research institutions were harder hit by the serials crisis in the 1980s; and
- the number of monographic records for all categories rises in the 1990s, indicating somewhat of a recovery from the decline in the 1980s.^{xxv}

A broader study of the decline in foreign acquisitions was conducted for the AAU/ARL Foreign Acquisitions Project referred to in chapter one. The study utilized database scans for foreign publications in OCLC World CAT with imprint dates of 1988-1993. The data were extracted for publications by country of origin but not by language parameters so that foreign English language publications are included in the counts. These data are not comparable to data from the CACD database. There were no subject analyses of the WorldCAT data. The project was “directed toward developing a clear understanding of the forces influencing North American

research libraries' ability to build and maintain collections of publications produced outside the United States and Canada.^{xxvi} The emphasis of the investigation was on materials published in eight different geographic areas outside the United States. Although the study used data on foreign imprints from OCLC WorldCAT, the primary data gathering techniques in the ARL study were qualitative through interviews with foreign language bibliographers, faculty and area studies bibliographers. The results of the four-year study were analyzed in Scholarship, Research Libraries, and Global Publishing, authored by Reed-Scott.^{xxvii}

The AAU/ARL Foreign Acquisitions Project Task force developed a model outline of elements that are useful in assessing the state of acquisitions from a specific country. The most valuable outcomes of the Project are the separate reports produced for specific countries or world areas utilizing the model outline.^{xxviii} Give web site

The overall contribution of the AAU/ARL study is that of surveying the trends in scholarly research and the state of library collections, trends in publishing, and library cooperation in each of the eight world areas which commonly form areas of academic study in North American universities. The study utilized the findings of the Perrault ARL aggregated collections research and confirmed what was previously known only anecdotally about the composition and collecting patterns of area studies collections. The recommendations were contained in a "Strategic Plan for Improving Access to Global Information Resources in U.S. and Canadian Research Libraries."^{xxix}

The trend analysis for foreign publishing included in *Scholarship, Research Libraries, and Global Publishing*, was partially replicated and updated in an ARL "Global Resources Report" in 1999.^{xxx} The update showed that publishing output outside of the U.S. had continued to increase in the latter 1990s. The data also show that the number of foreign imprints being added for the 1988-1994 time period during the next five years, 1995-1999, considerably

increased the total number of foreign imprints in U.S. libraries for the 1988-1994 imprint years. The increases in the number of imprints on the older end (1988) which were added are smaller than the increases beginning in 1991. The largest increase was in the last imprint year of the earlier study with an increase of 67% for 1994 imprints being added in the 1995-1999 time frame. From the updated data, it appears that the time lag in adding foreign imprints to WORLDCAT is in the three to five-year range, with the number added beginning to slow after five years. Nonetheless, the updated data substantiated the earlier study in 1995, that “research libraries collection coverage of global publishing output is declining.”^{xxxix}

The majority of the research on national collecting patterns has focused on the ARL group. There have also been a few reported studies which included academic libraries other than the ARL libraries. Hardesty and Mak conducted a study of college library collections using both the CACD and data extracted from WorldCAT. The collection size range was 100,000 to 299,000 volumes. The purpose of the study was to ascertain if there was an identifiable core of materials being collected by the group of libraries. The findings were that there was not an identifiable core, but that the holdings were scattered.^{xxxix}

Two studies were reported which utilized data from OCLC or the CACD to compare library holdings with *Choice* “Outstanding Academic Books” lists. Budd and Craven^{xxxix} investigated the holdings for four peer groups of academic libraries for the intervals 1984/85, 1990, and 1995. Data were extracted from two editions of the OCLC/AMIGOS CACD. The researchers took a purposive sample of titles from the *Choice* “Outstanding Academic Books” lists for those years. Titles were chosen for major academic disciplines representing the humanities, social sciences, and sciences. Findings demonstrated that “across all subjects and for broad subject areas, there have been significant declines in holdings over time and for all groupings of libraries.” The researchers maintain that the findings of other studies with regard to

the “shrinking of library resources is corroborated in this study.”^{xxxiv}

Although not a study of academic library collections in the aggregate, a survey by Sweetland and Christensen of selection practices for language and literature collections in Wisconsin academic libraries used OCLC data to ascertain the number of holding libraries for *Choice* titles.^{xxxv} The researchers used *Choice* 1993 “Outstanding” titles in languages and literature. The list was published in January 1993. The data were extracted from the OCLC Online Catalog in March, 1995, two years later. Findings were that, on the average, about 10 libraries held each title with the range being from 4 to 23 libraries per title. The authors observe, “...considering that these titles are supposedly the most outstanding of all those recommended by *Choice* for four-year college libraries, the small number of holdings is curious, to say the least.” Part of the problem is that from the study data it appeared that “a substantial number of libraries did not add books to their collection until sometime in 1994 (or very late in 1993).”^{xxxvi} The researchers give as a possible explanation for the delay in adding material the almost total reliance upon faculty recommendations, with faculty using scholarly reviews to identify new titles. The researchers conclude that “faculty still control selection in most [college] libraries;” “the libraries in the study still consider current, immediate needs, and rarely consider other library holdings in selecting material to purchase;” “even though libraries feel they are buying current material, their definition of ‘current’ means within the last couple of years;” and “respondents are currently buying very little outside the English language.”^{xxxvii}

The studies by Perrault, Reed-Scott and Schwartz are the only reported research on the collective monographic resources of ARL libraries since that of Merritt in the 1940s. There have also been very few studies of the composition of medium-sized research to smaller academic and college library collections. The majority of the studies utilizing automated collection analysis have been for the analysis of collections for consortia or regional groups of libraries for

coordinated cooperative collection development purposes. Very little use has been made of the online bibliographic utility databases or the CD-ROM collection analysis and assessment products to conduct research on the collective resources base of U.S. academic libraries, the "national collection."

This review of related research shows that there is still much to be learned about the collective resources of academic libraries in the United States and the state of those collections in the latter years of the 20th century. The present study updates previous research by the author. It expands upon the earlier studies with the analysis of comparable datasets and examines collecting patterns for groups of large and medium-sized academic libraries not members of the Association of Research Libraries. The methodology for the study is outlined in the next section.

METHODOLOGY

This study employs descriptive methodology (bibliometric content analysis) in analyzing the changes in collecting patterns between 1987 and 1995 by subject and language of non-serial printed materials in U.S. academic libraries for which bibliographic records are included in the 1997 edition of the OCLC/AMIGOS Collection Analysis CD system. A more thorough exposition of the methodology, assumptions, and limitations in utilizing the CACD product database is contained in "National Collecting Trends: Collection Analysis Methods and Findings," published in *Library & Information Science Research*.^{xxxviii} In this article the author compared the number of monographic imprints by year for the ARL peer group in the 1996 CACD with annual approval plan figures and ARL statistics, to demonstrate the feasibility of using the number of bibliographic records by imprint year as corresponding to or reflecting acquisitions trends. This section provides a condensed version of the methodology explicated in the *LISR* article.

The main data analysis for the study utilizes data extracted from the 1997

OCLC/AMIGOS CACD. This product was constructed annually from 1985–1998 by extracting non-serial bibliographic records from the OCLC WorldCat database for imprints published within a ten-year time frame. Each year the time span was moved forward one year for a new annual edition. The number of libraries included in the database has varied, but generally increased each year. Public libraries were added beginning in the mid 1990s. The most stable peer group was been that of ARL libraries, Peer Group 1, although the number of ARL libraries included also gradually increased. In the 1995 edition there were 81 ARL libraries, 86 libraries in 1996, and 95 ARL libraries in the 1997 edition.

Because of the variance in the number of libraries and composition of the database, it is not possible to obtain time series data for a fixed number of libraries other than from the same edition of the CACD. Different editions have differing numbers of libraries in the peer groups. As libraries were added, their holdings for the entire time span covered by that annual edition were also added. Thus, in constructing a ten-year table of data, if all data are drawn from the same edition of the product, the data are stable over that time span for those libraries, but only if drawn from the same edition of the CACD.

Conceptual Framework of the Study

Research Questions

Are there differences among peer groups of U.S. academic libraries in collecting patterns for monographs by subject and language groupings?

Have collecting patterns for monographs in U.S. academic libraries changed as a consequence of the serials crisis beginning in the mid 1980s?

Do the aggregated collections of the ARL libraries have a higher level of diversity of monographic resources than those of non-ARL libraries?

Design

Population

Three peer groupings by size of collections of academic libraries for which bibliographic records are included in the 1997 edition of the OCLC/AMIGOS CACD make up the population under study.

- Peer Group 1 -- ARL libraries. The members of the Association of Research Libraries are the largest research libraries in the United States and Canada. In 1997, the year the data were extracted from WorldCAT, the ARL peer group 1 contained the holdings of 95 of the 110 U.S. academic libraries in the ARL.
- Peer Group 4 -- Contains the holdings of 126 academic libraries in a next size tier from the ARL. These libraries have from 700,000 to one million volumes. Peer group 4 is composed of libraries from institutions which are doctoral granting universities, but not members of the ARL.
- Peer Group 7 -- is composed of 227 academic libraries from four-year institutions which grant primarily masters and undergraduate degrees and are smaller in size (300,000 to 699,999 volumes) than those academic libraries in peer group 4.

The libraries in the three academic library peer groups are listed in Appendix A. These three groups of academic libraries are compared with a fourth peer group comprised of all of the libraries which have holdings in the 1997 edition of the CACD.

- Peer Group 14 – is composed of all the libraries in the CACD, 2,646 in the 1997 edition. The lists of the libraries with their holdings symbols are contained in the OCLC/AMIGOS Collection Analysis CD User Guide Supplement, December

1997.^{xxxix} There are a total of 1,135 academic institutions included in thirteen peer groups in the 1997 CACD. While the Collection Analysis CD was originally produced to compare academic library collections, public libraries were added in the 1990s so that peer groups of public and special libraries could be constructed for those customers. Another 1,511 academic, public, and special libraries not included in the academic library peer groups are included in the 1997 CACD. In the 1997 CACD database are 11 years of holdings for U.S. libraries of all types and sizes, nearly all of the U.S. libraries in OCLC WorldCAT.

Definitions

Non-serial imprint--The official term used with the OCLC/AMIGOS CACD is "non-serial imprint," defined as "an item either complete in one part or complete, or intended to be completed, in a finite number of parts."^{xi} In this study the terms "imprint," "non-serial imprint", "monograph," "title," and "bibliographic record" are all used interchangeably to denote one publication unit or "book." In this study the data are for new books or non-serial imprints published in the years 1985-1995. An imprint is determined to be non-serial by the bibliographic level code "m" in the OCLC bibliographic record.^{xli} The criteria for inclusion of a non-serial imprint in the OCLC/AMIGOS Collection Analysis CD system were that the bibliographic record be for non-serial printed materials only with Library of Congress call number present in the record and that the imprint be "held by at least one ARL library or academic library."^{xlii} In addition another criterion for exclusion was the classification of a non-serial imprint as a government publication. Although the AACR2 definition of state publications includes university press publications, UP titles are included in the CACD.^{xliii} Other definitions are included in the Glossary with the study.

Variables to be Analyzed

The number of non-serial imprints acquired for the years 1987 -- 1995 as percentages of total by subject in the collective resource base of U.S. academic libraries

The number of unique titles as a percentage of total titles for non-serial imprints for the years 1987 -- 1995 in the collective resources base of U.S. academic libraries, and

The mean number of holding libraries per title for non-serial imprints for the years 1987 -
- 1995 in the collective resource base of U.S. academic libraries

The percentage of 1-5 holding libraries for non-serial imprints for the years 1987--1995 in
the collective resources base of U.S. academic libraries.

All four variables to be analyzed according to

- all non-serial imprints by broad subject groupings: general and reference, humanities and arts, social sciences, and sciences (including medicine and technology) and
- all non-serial imprints by language groupings: English, non-English; Arabic, Chinese, French, German, Japanese, Russian, Spanish.

Assumptions

- The bibliographic records for the libraries in Peer Groups 1, 4, 7, and 14 in the 1997 edition of the the OCLC/AMIGOS CACD represent the non-serial acquisitions of those libraries for the imprint years 1987-1995.

- The non-serial holdings of the libraries in Peer Groups 1, 4, 7, and 14 in the 1997 edition of the the OCLC/AMIGOS CACD make up the collective monographic resources of those libraries for the imprint years 1987-1995.
- Bibliographic records with only one library holding symbol are considered to be unique titles (for definition of unique titles see Glossary).

Limitations

- The study is limited to the cataloged holdings of the U.S. academic libraries which are contained in the 1997 OCLC/AMIGOS CACD database.
- The dataset is limited to titles published within the time period 1987-1995. Titles acquired and/or cataloged but not published within this span of years are not included in the dataset.
- The data include imprints for the years 1987-1995 cataloged by the libraries and thus represent cataloged imprints no matter how acquired, that is, the materials were not necessarily purchased but could have been acquired through gift, exchange, etc. Correspondingly, items purchased but not cataloged are also excluded.
- U.S. government and state government publications are excluded.^{xliv} Thus, every imprint fitting the time span and cataloged by the libraries in the group may not be included in the database.
- The number of foreign language imprints may be impacted by the limitation of libraries to those with holdings records in the OCLC database. Academic libraries with bibliographic records only in RLIN or the former WLN database are not in the study population. (WLN did not become a division of OCLC until 1999). These libraries may have extensive holdings in foreign publications not owned by any of the libraries included in the CACD

peer groups.

- There is a longer time lag for the cataloging of foreign language imprints than for English language materials. (See chapter IV) “Selection lag” can be a factor as well as cataloging lag.

Data Collection and Analysis

Data were extracted from the 1997 edition of the OCLC/AMIGOS CACD using Microsoft Access to query for construction of raw data tables by imprint year with the established LC call number categories and language parameters. Summary tables and graphs were constructed using Microsoft Excel.

Treatment of the Data

Data from the nine-year time period, 1987-1995 were analyzed by 35 Library of Congress subject categories defined for the study. (Appendix B) Four broad divisions of General and Reference, Humanities and Arts, Social Sciences, and Sciences and Technology were defined through assignment of the 35 LC subject categories. The general and reference division is composed of the A and Z classifications, but would not reflect actual reference collections in libraries since those would include materials from all call number ranges. The history classifications were grouped with the social sciences.

Master data tables were constructed analyzing the data by four peer groups for the nine years in the study. The master tables are constructed by subject for each peer group with separate tables for All Languages, English, Non-English and the seven foreign language groupings. There is a set of tables for each of the variables -- percentage of total, unique titles, mean number of holding libraries, and percentage of 1-5 holding libraries. In order for the work to be published at

reasonable size and cost, the complete tables for each peer group and language analysis have not been printed. These are available on the ALA ACRL website <http://www.ALA.org/ACRL/.....> Summary tables constructed with data from the master tables are interspersed throughout the text of the study.

The study was performed using established peer groups in the 1997 CACD. Data were analyzed using descriptive statistics. The findings of the study are described in terms of ramifications for the profession as well as academic library collection development and resource sharing policies in the future. The results of the study are of interest to those in administration and management in academic libraries, staff of academic libraries, administrators in higher education, and those in the publishing and vendor businesses closely allied with the academic library world.

The study is organized into eight chapters. The first chapter sets the context of the study. The second chapter sets forth the research problem and methodology. The third chapter contains the analysis of data by peer groups and subjects. The foreign language analysis is in chapter four. Chapter five reviews the findings of the study. Chapter six uses comparative data from WorldCAT, the North American Title Count, and other research studies to interpret the findings from chapters three and four. Further interpretation and analysis of the implications of the findings of the study are in chapter VII. The final chapter considers the implications of the study in the context of the electronic environment.

Notes for Chapter II

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- i. Janet L. Fletcher, "Collection Development & Resource Sharing," Library Journal (May 1, 1983): 881-882.
 - ii. Anthony M. Cummings, et al., University Libraries and Scholarly Communication: A Study Prepared for the Andrew M. Mellon Foundation ([Washington, DC]: Published by the Association of Research Libraries for the Andrew W. Mellon Foundation, 1992).
 - iii. Cummings, 3.
 - iv. Ibid.
 - v. Leroy C. Merritt, "The Administrative, Fiscal, and Quantitative Aspects of the Regional Union Catalog," in Union Catalogs in the United States, ed. Robert B. Downs (Chicago: American Library Association, 1942).
 - vi. Ibid, 74-77.
 - vii. Ibid., 77.
 - viii. William G. Potter, "Studies of Collection Overlap: a Literature Review," Library Research 4 (1982): 2-21.
 - ix. Sue O. Medina, "Duplication and Overlap Among Library Collections: A Chronological Review of the Literature," Advances in Collection Development and Resource Management v.1, ed. Thomas W. Leonhardt (Greenwich CT: JAI Press, 1995): 1-60.
 - x. Potter, "Studies of Collection Overlap," 19.
 - xi. Medina, 48-53.
 - xii. Ibid, 46-48.
 - xiii. Ibid.
 - xiv. Ibid., 55.
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