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ABSTRACT

The results of a project designed to perform a technical audit and a user audit of the Shared Cataloging Support Sub-System of the New England Library Information Network (NELINET) are summarized in a two volume report. This portion, Volume I contains the narrative text; Volume II (LI 004 446) contains various tabulations of collected data. Various quantitative and qualitative data were obtained by interviews and questionnaires from the staffs of twenty academic libraries in New England. The purposes of compiling these data were to help the NELINET staff improve both the performance and cost allocation of the NELINET off-line Shared Cataloging Support Sub-System, and to aid the staff in planning for subsequent development of other network-oriented services. (Author/SJ)

A TECHNICAL AND USER AUDIT OF THE SHARED CATALOGING SUPPORT SUB-SYSTEM OF THE NEW ENGLAND LIBRARY INFORMATION NETWORK (NELINET)

Volume I Text

Volume II Tables and Supplementary Documentation

New England Board of Higher Education
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COUNCIL ON LIBRARY RESOURCES
WASHINGTON, D.C.

ABSTRACT

This two volume report describes a project undertaken by the New England Board of Higher Education's NELINET program during 1971. Various quantitative and qualitative data were obtained by means of interviews and questionnaires from the staffs of twenty academic libraries in New England. The purpose of compiling these data was to help the NELINET staff improve both the performance and cost allocation of the NELINET off-line Shared Cataloging Support Sub-System designed and operated by Inforonics, Incorporated in Maynard, Massachusetts. A further goal was to aid the staff in planning for subsequent development of other network-oriented services. A tabulation program was added to the computerized catalog card production system to monitor and display basic performance data to the Vendor, the NELINET management and the directors of participating libraries.

FOREWORD

This two volume report summarizes the results of a project designed to perform a technical audit and a user audit of the Shared Cataloging Support Sub-System of the New England Library Information Network (NELINET) performed under grant number CLR-511 from the council on Library Resources. Volume I contains narrative text and Volume II contains various tabulations. Each volume contains a full Table of Contents for both volumes.

The New England Board of Higher Education (NEBHE) wishes to express its appreciation to the staff members of the several libraries who assisted in the audits and without whose cooperation this project could not have been undertaken. Our special thanks are offered to Mrs. Edith M. Lesser of the Council on Library Resources for her patience in monitoring the performance of the project staff.

The Project Director wishes to thank the following NELINET staff members who assisted in the completion of the study: Mr. Liam Kelly, Assistant Director for Field Operations; Miss Polly Coe, Research Assistant; Mr. R. D. Morrison, Jr., Special Consultant for Library Systems; Mrs. Carol Holland, Miss Carol Stuart, and Mrs. Dianne Higgins, long-suffering secretaries; and Miss Mary Madden and Mr. Lawrence F. Buckland of Inforonics, Incorporated, for their contributions to Sections 4.3 and 4.5.

The NEBHE and Inforonics staff members would like finally, to express their gratitude in memoriam to Mr. Verner W. Clapp whose early insight and wise counsel brought NELINET into being and nurtured us through these formative years.

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1.0 INTRODUCTION

More than ever before libraries which serve higher education are hard-pressed to maintain the quality and variety of services to which their users are rightfully entitled. The evidence supporting this observation is lush in the literature of librarianship and forms a common topic of conversation at professional meetings. The problem has been compounded by the cumulative effect of several awesome forces acting upon libraries: the dramatic increase in the sheer quantity of materials available which must somehow be acquired and processed; the illusion of security, continuity and helplessness which traditional practices impose by limiting the acceptability of options open to administrators of academic libraries; the erosion of progress when the continual expansion of labor-intensive operations unveils problems which previously remained obscure. Costs of materials have been rising at a rate which is several percentage points higher than labor costs in libraries, which, in turn, is dramatically higher than the rate of increase of the gross national product. Furthermore, as the costs of professional and supporting labor and library materials have increased, library budgets usually have not reflected increases in compensating dollar levels.

These trends, if extended into the future without change, point to disaster: of the increasing quantities of materials available, libraries, acting alone, will be able to acquire a diminishing proportion of those materials, and those materials will be processed by a labor force which costs more for equivalent (or less) output. The culprit is the continuing heavy reliance upon labor to process these materials without the enlightened use of technology to increase personal productivity.

Chronic optimism has led some librarians to maintain staff levels at the expense of decreased acquisitions in the hope that an era of the substantial book budget will return. In such cases, the output per staff member has almost certainly decreased. In other cases, reclassification and backlog projects have been undertaken with these staff people which previously occupied lower priorities.

In the complementary case, where materials budgets have proportionately increased but staff levels have remained the same (or decreased) backlogs have been created and staff frustration levels raised - all because the processing rate per staff member has not, until recently, been substantially accelerated.

Occurrences of both these situations are depressingly commonplace. Homeostasis always resides in future: when budgets are restored, when the new building is completed, when the new procedure or system is fully operational.

For the present, however, these forces have contributed to a sense of desperation in library process-control staffs. Morale problems, soaring unit costs and - with rare exceptions - observable degradation of service have occurred in many academic and research libraries.

During the decade of the Sixties, persons concerned with assisting these libraries in meeting their responsibilities asserted that electronic data processing technology applied within individual libraries in cooperation with campus computer centers could not only serve to reduce the effects of these forces, but "reduce costs and expand services." The promise of reduced costs was rarely achieved, but control was in many cases improved. In general, the reasons why many of these projects fell short of their goals lay in the naiveté of librarians and computer personnel about each other's problems and objectives, in the administration of both libraries and computer centers, and in the unfamiliar terrain of research and development.

It is now almost a truism that computer people, both commercial and academic, viewed library information processing problems as isolated systems analogous to warehousing, inventory control and unit-record accounting problems. The answers seemed trivial, since commercial groups had "solved" these problems years before. Government and foundations pumped research and development money into institutions in an effort to build a mosaic of systems which could somehow be transferred from one library to another. University administrators changed, enlarged, relocated and re-staffed academic computer centers at a dizzying pace, which required constant redesign of programs and applications. Nothing stood still long enough to work, long enough to "reduce costs and expand services."

But much was learned during the early Sixties about the high cost, specialized knowledge, and qualified staff required to automate all but the simplest library procedures and services. This knowledge coupled with an awareness that somehow several libraries banding together might reap some modest benefits which, by acting separately, would have been impossible. In New England, the coming together of several key factors produced the beginnings of a new concept: The New England Library Information Network (NELINET).

1.1 BACKGROUND OF THE NELINET PROGRAM

The Original Concept

The concept for the New England Library Information Network grew from two simple ideas. First, that several libraries working together on an interstate or regional basis could take significant steps toward solving some of the basic financial and service problems which faced them. Second, it was theorized that some of the solutions to those problems might result in significant reductions in the rate of cost increases which faced each library administrator at budget time.

To test the validity of the concept, people and resources were blended to form a new organization and the New England Library Information Network (NELINET) evolved under the aegis of the New England Board of Higher Education (NEBHE) in 1967. The membership of NELINET originally consisted of the six New England state university libraries which functioned under a formal agreement administered by the New England Board of Higher Education (NEBHE).

The New England Board of Higher Education (NEBHE)

NEBHE is a public service agency established in 1955 under the New England Higher Education Compact, and is organized and supported by the six New England states. Its purpose is to make maximum use of the region's higher education facilities through inter-institutional cooperation, and to increase opportunities in higher education for New England residents. NEBHE is concerned with all degree-granting institutions offering programs at the college level within New England. This includes colleges and universities - both public and private, junior colleges, community colleges, technical institutes, teachers' colleges, and university graduate and professional schools. Because libraries are an integral part of the educational process, NEBHE has long been concerned with the regional utilization of library resources. This interest culminated in NEBHE's sponsorship of the New England Library Information Network Project. This sponsorship provides the legal, fiscal and administrative framework within which NELINET exists and operates, as well as direct overall policy supervision and the rendering of financial and administrative support services.

NELINET Administration

As one of the several programs of NEBHE, the NEBHE Board is ultimately responsible for the administration of NELINET. The Board is the legal and fiscal agent for NELINET and directly administers such aspects of NELINET activities as fall within these categories. The necessity for a large element of direct membership participation and of direct relationships between the NELINET professional staff with the membership has led to the organization of an Executive Committee with a Chairman, Vice Chairman, and Controller each elected by the membership and with the Executive Director of NEBHE as an ex officio member. This Executive Committee initiates its own Policies and Procedures and reviews and approves professional staff appointments and functions, subject to the formal approval of the NEBHE Board. NELINET's executive administration is the responsibility of the Director of NELINET who reports to the NELINET Executive Committee and, as a member of the NEBHE staff, to the Board through its Executive Director. This management and governance structure is still in an evolutionary stage.

A National Advisory Panel (NAP) composed of prominent people of national influence and reputation in librarianship has been assembled

and is concerned with the coordination of NELINET with other networks as we move into a nationwide system of electronic library nerworks. The Panel also is concerned with promoting appropriate federal legislation and identifying appropriate sources of funds.

A Regional Advisory Panel (RAP) has also been established with representation from all six New England states. Members represent state library agencies, state legislatures, members of the New England Library Association and the New England Governors' Conference. This Panel is presently addressing itself to NELINET's relationship to the several constituencies which the Panel members represent.

The Developmental Phase of NELINET

NELINET has been developed by a series of grants made to NEBHE by the Council of Library Resources, Inc. The technical aspects of development were done by arrangement with the computer applications firm of Inforonics, Inc. of Maynard, Massachusetts. Inforonics was associated historically with the Library of Congress during the latter's early studies which led to the implementation of the MARC Distribution Service. The Council on Library Resources initially funded a pilot project to produce cataloging support products from the Library of Congress' experimental MARC I magnetic tapes, with subsequent grants to produce essentially the same products from the MARC II tapes, and, finally, the cataloging support services sub-system, which became operational in April, 1970. In addition, a grant form the U.S. Office of Education, completed in the summer of 1970, sponsored the development of a computer manipulatable holdings file that can be used for the production of union lists for individual, as well as clusters of libraries. This union catalog capability represented an essential part of future sub-systems for shared cataloging, acquisitions, serials control, reader services, and library management and planning information services. During this initial development period the pilot members of NELINET were the six land-grant university libraries of the region.

Present Services and Activities

NELINET is a developing network of academic and research libraries in the six New England states. Its economic objective is to decrease the rise in per student costs associated with the operation of its member libraries; its service objective is to improve and expand library and information service to the users of its member institutions.

The means employed to achieve these broad objectives are presently directed toward reallocation of funds from personnel to computer and telecommunications technology, in the form of a single, dedicated, time-sharing computer serving all its members. This approach takes advantage of cost sharing so that the network can perform services which cannot be done economically by any single library acting alone.

For the moment, the major computer is a Digital Equipment Corporation PDP-10 which is used by Inforonics, with the printer, with the ALA approved print train, attached to an IBM 360 computer.

Services now include computer production of catalog cards and labels, a digitized union catalog of monographic resources, a microforms catalog and the production of by-product accession lists. The usual input to the catalog products sub-system is punched paper tape produced locally by NELINET members in their libraries. Teletype input was selected because these machines are fairly widespread, relatively inexpensive and are used for inter-library loan purposes by many libraries already. Libraries without teletypewriters may submit requests for cards and labels on paper forms.

Other activities include the formation of two Task Groups in which non-NELINET libraries in New England also participate.

The Serials Task Group is addressing itself to two questions:

1. Can serials union lists which already exist in the Region be expanded or merged to include more libraries?, and

2. Can such lists be produced centrally by computer and be compatible with a MARC serials format?

A survey of all such activity in New England was completed in March, 1972 and the results are presently under study.

The Government Publications Task Group also has two utility studies underway:

1. To mass-produce catalog cards for documents included in MARC for selected libraries, and

2. Determine the feasibility of enriching the access points to U.S. Government Depository Documents by means of KWIC or KWOC indexing.

In cooperation with the University of Connecticut and the New Hampshire College and University Council, two editions of a catalog of major microform holdings of NELINET membership have been published. A third edition is now pending.

This overview formed the state of NELINET's affairs as of June, 1972. The data collection and analysis activities reported herein occurred during the last three quarters of 1971.

1.2 RATIONALE FOR THE STUDY

The support provided by the Council on Library Resources in response to the Proposal for a Technical and User Audit of the NELINET Cataloging Support Sub-System and for a Procedure to Input Local Bibliographic Data to the NELINET Union Catalog submitted by the New England Board of Higher Education, Wellesley, Massachusetts, resulted from several major needs identified by the NELINET staff, the satisfaction of which would contribute to the continuing development of NELINET. The most significant needs identified were as follows:

1. To "personalize" the present system by means of introducing new NELINET central staff professionals to persons responsible for library administration in each participating member library and a sample of prospective members, in a working day-to-day context.

2. To plan for the orderly upgrading of the Shared Cataloging Support Sub-System by means of identifying major elements of cost and resource consumption within technical processing activities in each participating library.

3. To isolate and rank-order problem areas in the libraries which could be used as input to develop future system modules within a NELINET master plan.

4. To isolate, insofar as possible, cost elements which are consumed by the service Vendor, in order to recommend low cost improvements within the present system.

5. To enlarge the number of participating libraries so that cost-sharing could be spread over a larger number of institutions.

6. To discover if patterns of operation within participating libraries could be improved by means of sharing techniques used by any single library.

7. To discover the viability of two basic NELINET concepts: first, that a dedicated computer service center can be supported by a "critical mass" of participating institutions without expanding present services; and second, that the services provided from such a facility must accommodate a wide variety of supporting activities on a demonstration basis before they are adopted by a significant number of libraries.

8. To determine management and planning data needs of the network planners and appropriate network governance groups, then to implement a soft-ware package to provide such data as a by-product of the off-line production runs.

9. To reduce costs and time consumed in cataloging the same title more than once - titles which are not included in the present MARC Tape Distribution Service - by means of describing procedures and cost ranges for converting cataloging copy produced by participating libraries in machine-readable form according to the MARC II Communications Format.

These needs, and others were to be met by reducing them to two major project objectives, as described below in Section 2.1 .

1.3 OBSERVATIONS AND RECOMMENDATIONS

a. During the course of the user audit, the NELINET staff was able to make contact with several staff members at each of the participating libraries, as well as at the libraries of fifteen prospective members of the network. All of these additional libraries have since become NELINET members, thus broadening the base for cost sharing and adding to the variety of participating institutions. It appears wise as a result of project experience, to apply the audit, in modified form, to each new additional network member in order to elicit ideas and observations and to involve the new member's staff in NELINET activities at the earliest possible moment.

b. Since we were constrained to obtain data solely from what library staff members told us rather than by actual measurement, we were not able to cross-check or validate the accuracy of the data which were given to us. We suspect that in most cases estimates relating to time expended on a particular unit function were mere guesses and, in many cases, we were not supplied such information at all.

c. There is no doubt that at the time of the audit the NELINET catalog products support system was woefully underutilized by the five founding members. The average quantity of requests per week for five libraries was stated as 1,550 per month, or an average of 258 requests per library. The reasons for the low use as stated by the respondents are interesting: "no cards available from commercial supplier", "catalog copy must be verified in LC proof slip files prior to ordering", "must have MARC on cards, or be within the LC prefix range of 69+". It should be noted, however, that immediately after the audit was completed, that usage of the system dramatically increased.

d. It appeared to the NELINET staff team that very few libraries had made NELINET catalog support services the core processing sequence around which other materials flow was built. Many felt that costs were unacceptably high. Staff loads at audited libraries were generally not reduced by the NELINET system except in one case in which one professional staff member was released.

e. Several suggestions were made to reduce the quantity of follow-on cards and to change the font used to print the cards. Both objections were met by the adoption of the ALA print train run at eight lines per verticle inch, instead of six.

f. The input and output labor costs per title associated with the shared cataloging sub-system were $.32 and $.58 respectively. The elements, when combined with computer operations costs supplied by the vendor, totalled $2.61 per title, plus library overhead. If 50 percent of labor costs is an acceptable overhead estimate, then the total cataloging cost per title came to about $3.06.

g. The cost per title processed by Inforonics was measured as $1.71 during the month of September. This cost exceeds the amount charged per title during the same period, ($1.56) by $.15 and has resulted in the development of unit charges per search, per card and so on under software control. During the same period, it was determined that a typical title for which products are generated is comprised of 8.2 catalog and message cards, plus 1 book pocket label and 1 Selin spine label.

h. It was determined that the use costs of the current system could be reduced from $1.71 per title to approzimately $.58 by converting the system to disk as opposed to tape operation by improving the economics of card printing and handling, and by dramatically increasing the quantity of uses made of the system. Further, cost reductions might be effected by allocating some costs of machine-aided cataloging to library acquisitions functions and billing accordingly. If book catalogs or accessions lists were produced in reasonable quantities, part of the cost of record generation could very well be applied to the cataloging and acquisitions functions, since multiple use of the records would be operative.

i. Comparative analysis of the libraries during the audit has revealed that the point in local processing work sequences at which requests for catalog products are dispatched to the vendor varies considerably. As a result, the 10-week period during which such requests remained in the computer's request queue if they did not match MARC records, was "de-standardized" by software modification. Participating libraries may now specify any period - one week or longer - during which individual requests remain in the request queue. This change permits librarians to decide if they want to expend local effort to catalog a particular item at the time catalog products are requested. This change reduced the pressure toward uniformity of processing practice upon the users of the system.

j. Since the call number field was observed as that data element which was altered most frequently by participating libraries, provision has been made in the off-line card and label production system to allow libraries to input local call numbers at the time catalog products are ordered.

k. Largely because the library staff members who order catalog products and process them after they are received do not yet use the NELINET Masterfile for any purpose other than the one-time production of catalog cards and labels, there is no incentive for such users to re-enter the machine file to reconcile changes which they make on the printed bibliographic copy as well as holdings information. There is provision for such re-entry but it is hardly ever exercised. The existence of this condition, if allowed to continue, will produce a prodigious amount of manual reconciliation work when other products, such as book catalogs and circulation files are generated from the same data base. The magnitude of this task is not known, but it supports the contention that other products should be generated from the file as soon as possible, preferably on-line to demonstrate this problem as well as to correct it.

l. There was a strong desire, evidenced by audited library staff members, for on-line searching by LC card number and main entry/title. They felt that even to be able to do so in batch mode would be a major improvement.

m. Since libraries were charged on a flat rate per set basis, regardless of how many cards constituted a card set, there was no incentive to minimize the number of cards in a set. Several libraries were discarding follow-on cards before inserting them into various catalogs; a wasteful practice at best. With the advent of per card charges and changing the card format from six to eight lines per inch, this waste has almost been eliminated.

n. Among the high priority automation activities requested by the participants was the control of circulation and inter-library loan activities. Since both functions require a considerable amount of retrospective conversion and a network design for machine record formats into which such conversions can be made, it does not appear likely that this request can be answered in the near future. It is unclear at this point whether circulation control needs to be on-line to the main network machine in a real-time basis, or whether a mini-computer could act adequately as a transaction recorder connected to several stations in a given institution. In general, the longer we wait, the more likely it becomes that local libraries will automate their own circulation control systems--compatible or not.

o. Communications channels between the administrative and operational staffs at each member library and the NELINET's staff must be continuously maintained on both a formal (through committee meetings and technical reports, newsletter publication, etc.) and informal level (telephone and personal contact with technical processing staff) to assure adequate understanding of the network's activities and plans and concomitant membership responsibilities and commitments. This requirement for continuing dialogue prompted a search for a library professional to act in the capacity of Assistant Director for Field Services to provide the needed NELINET liaison.

p. Adequate appreciation by the member library staff of the need to update and/or revise the machine-readable data base when errors or omissions are detected must be fostered if the processing system continues operation in its present mode. This need may be facilitated if a specific staff member at the participating library is assigned the quality control responsibility, rewarded with an appropriate title, recognition and compensation, and adequately trained and supplied with appropriate tools, and local procedures are developed and implemented to support the quality control activity.

q. In general, our observations and preliminary cost estimates support the contention that the closer a library's cataloging and classification standards are to the Library of Congress, the lower the cost of shared cataloging to that institution. It is for this reason and others that NELINET's thrust has been and will continue to be directed primarily to libraries which have or will adopt that point of view.

r. The emphasis which the project placed upon cost analysis has stimulated three member libraries to begin their own audit of internal costs. NELINET costs turn out quite favorably in most cases. These cost estimates again underpin decisions by prospects to join NELINET.

2.0 METHODOLOGY

2.1 SCOPE OF PROJECT

The needs described above in Section 1.2 were determined by the project planners to be met if the scope of the project was defined by those tasks which would lead to the attainment of the following two major objectives.

> Objective I: To perform a Technical and User Audit to obtain information which could be used to determine technical changes and policy decisions which would increase the performance and management control of the NELINET Shared Cataloging Support Sub-System, especially that portion devoted to catalog card and label production.
>
> Objective II: To provide NELINET members with options for inputting local cataloging data into the NELINET Master File which are not available from the Library of Congress through the MARC Tape Distribution Service.

To assist the project staff to attain each of these objectives, the New England Board of Higher Education contracted with Inforonics, Incorporated, the supplier of catalog support services to NELINET members, for technical support. The combined manpower then addressed these tasks, as stipulated in the grant proposal:

> Objective I. Task A. The Vendor (Inforonics) will identify those elements which consume time, money and other resources in the production of catalog support services performed by the Vendor. These elements will be named and flow-charted by the Vendor.
>
> 1. The Vendor will calculate and assign cash values to each element as a result of monitoring four consecutive weekly runs of the Shared Cataloging Support Sub-System. These cost elements will include components such as the MARC Tape Distribution Service subscription cost, program run costs, card printing, clerical time, mailing charges, and other intermediate costs. Unit costs may be derived as averages from aggregate totals processed.
>
> 2. The preliminary list of elements and the procedures to identify them will be submitted to NEBHE for review and approval.
>
> Objective I. Task B. Assisted by the Vendor, each NELINET member library will be visited by NELINET staff to:

1. Identify and describe specific problems relating to the physical characteristics of the products produced by the Shared Cataloging Support Sub-System,

2. Determine how these products can be improved;

3. Specify those additional services and their costs based upon the the Shared Cataloging Support Sub-System processing capability, which could be developed and implemented with relatively little effort by Inforonics and minimum investment of NELINET funds;

4. Identify, describe and resolve billing problems relating to the Shared Cataloging Support Sub-System;

5. Estimate the degree of use made by NELINET members of the Sub-System as a proportion of the potential MARC coverage of acquisitions;

6. Estimate user acceptance of implementing a network-oriented Shared Cataloging Support Sub-System which permits local input of bibliographic records;

7. Estimate user acceptance of implementing a network-oriented Circulation and Interlibrary Loan Control Sub-System.

Objective I. Task C. The NELINET project staff will visit at least twelve potential NELINET members, as specified by the NELINET Director. The purpose of these visits will be to:

1. Introduce appropriate staff members to the products and services provided by the NELINET Shared Cataloging Support Sub-System, and the long range benefits of NELINET membership;

2. Survey their reaction to the physical characteristics of the products of the Shared Cataloging Support Sub-System;

3. Survey their suggestions for improving these characteristics and/or reduce the costs of the Shared Cataloging Support Sub-System;

4. Survey their suggestions for additional services based upon the Shared Cataloging Support Sub-System;

5. Estimate their potential use of the Sub-System in terms of number of requests made to the system over a period of time;

6. Estimate user acceptance, timing and costs of implementing a network oriented Shared Cataloging Support Sub-System which permits local input of bibliographic records;

7. Estimate user acceptance, timing and costs of implementing a network-oriented Circulation Control Sub-System;

8. A "presentation package" will be developed as a result of the above procedures, which will be used to introduce additional potential members to the services and plans of the NELINET library network, as needed.

Objective I. Task D. The Vendor will design, program, test and implement a statistical package which operates within the various programs and subroutines of the Shared Cataloging Support Sub-System which will provide on-demand reports as a routine by-product of computer processing. Report items produced by this package will include:

1. Quantity of requests made to the system by each user library;

2. Quantity of requests which produce changes in holdings information by each user library (no cards or labels);

3. Quantity of new and changed MARC records added to the NELINET Master File (delete/adds);

4. Total quantity of requests which result in the production of printed catalog entries;

5. Quantity of matched requests arranged by each library, which result in the production of catalog entries;

6. Distribution from 1...n catalog entries, including added entries arrayed by each participating library;

7. Cumulative total quantity of catalog entries per week produced per library;

8. Quantity of follow-on cards per set arranged by each user library;

9. Quantity of book pocket labels produced for each library;

10. Quantity of Selin spine labels produced for each library;

Objective I. Task E. The Vendor will submit the results of these tasks to the project staff for review. The staff may require the Vendor to present such results in a form suitable for camera ready inclusion in the final project report.

Objective II. Task A. The Vendor and staff will develop procedures to accomplish input of original catalog records which will be included in a NELINET handbook ("NETBOOK"). These procedures will include instructions for using worksheets, tagging, proofreading, editing and merging new records with the NELINET Master File. A list of data elements from the MARC II Communications Format which can be used as a record in the existing system will also be provided.

Objective II. Task B. The Vendor and staff will compare techniques and costs of local input and, if possible, recommend an optimum technique for such purposes.

Objective II. Task C. After completion of the local input appraisal in Task B, the member libraries will be surveyed to determine the quantity of locally generated records which libraries might produce in the foreseeable future. These quantities provide a basis for calculating the utility of implementing an expansion of the Shared Cataloging Support Sub-System beyond the multiple use of LC MARC records.

Finally, the results of these tasks will be reported to the Council on Library Resources at the conclusion of the project.

It was subsequently determined that, since the project staff would be visiting several libraries in the region for purposes of collecting data to satisfy the objectives, other data outside of the formal scope of the specified tasks should also be collected for several purposes. First, such knowledge would bring the fledgling NELINET staff into close contact with the staffs of many academic libraries in the region; second, such knowledge would provide the NELINET staff with first-hand experience with problems facing these libraries; and third, preliminary data to underpin planning for future system development could be acquired without additional visits after the project concluded. These additional data categories are described in Section 3.2 below.

2.2 PROJECT IMPLEMENTATION

Upon receipt of notification that the grant had been awarded, a personnel allocation and time schedule was re-defined to conform to the beginning date of the grant period, April 1, 1971, taking into account the special pressures inherent within the academic library environment at the end of the Spring semester.

Meetings were held between the project staff and Inforonics personnel to clarify and refine work statements, and appointments were made at member libraries to begin the user audit cycles. Questionnaires for use in the user audit were developed by the staff and the Vendor. A test of the User Audit Questionnaire was completed on May 17 with the help of appropriate library staff at the University of Vermont. Several revisions were made to the questionnaire and the remaining member libraries were audited during May and June. The non-member libraries were surveyed during the months following.

As events developed and iterations of questionnaires occurred between the project staff and the libraries, response delays caused adjustments to be made in the project schedule. That event and NELINET staff turnover during the life of the project caused considerable problems in transferring data analysis responsibilities to new staff members. In general, the tasks defined in the proposal were carried out reasonably well in the face of these circumstances.

2.3 DISCUSSIONS OF TASKS

The specific tasks to be performed in meeting the project objectives discussed in Section 2.1 of this report are delineated in the project workplan (refer to Appendix 5.1). This section of the report will discuss each task and summarize the results achieved.

2.3.1 Objective I. Task A.

In order to identify elements associated with the NELINET Shared Cataloging Support Sub-System which consume time, money and other resources, it was necessary to examine the request processing and output processing activities at the member libraries in addition to the Vendor's computer operations. Questionnaires (refer to Appendices 5.3 and 5.4) were developed and distributed to the five member libraries. During this same period, the Vendor performed a detailed analysis of the NELINET processing stream and prepared a flowchart with cost annotations. The Vendor's report of this activity is included as Section 4-3. Results of these investigations are discussed below:

A. Costs associated with the request processing activities

The Request Processing Questionnaire (see Appendix 5.3) contained 13 questions dealing with the preparation of requests for NELINET services. During the period from May 26, 1971 through July 29, 1971, the member libraries compiled statistics for five weeks relating to hours spent:

1. Deciding to send for NELINET catalog cards and labels
2. Shelving NELINET books
3. Searching for LC card number
4. Filling request forms
5. Typing request forms
6. Proofing request forms
7. Correcting request forms
8. Mailing request forms
9. Filling out local control records (NELINET associated)

In addition, questions were asked relating to:

1. Number of requests submitted
2. Number of requests corrected
3. Costs of mailing requests
4. Date and time of weekly submittals

The responses are tabulated in Tables 2.3-1 through 2.3-13 in Volume II of this report.

As reported, the average number of hours to process a typical title request for NELINET is approximately .089 hours. If a composite staff salary of $6,552 per year and 1,800 work hours per year are assumed, the labor costs associated with request processing would be $.32. TWX rental, paper tapes and materials used in processing these requests are also employed in other library activities (I.L.L., etc.), thus these additional costs are not considered unique to the use of the NELINET system. Mailing costs are typically $.08 per tape, or $.0008 per request in batches of 100.

B. Costs associated with the computer processing operations

A detailed analysis of the Inforonics operation which provides services from the NELINET Shared Cataloging Support Sub-System was performed during the month of September 1971. Figure 4.3-2 on page 89 of this final report, summarizes the cost information prepared during this effort. For the purposes of this task, the end product is defined as follows:

1. Cards - 8.2 cards per title
2. Labels - Pocket (1)
3. Labels - Spine (1)

} Deliverable end product set

Summary cost elements from the Vendor study pertinent to this task include:

Cost Per End Product Set	
$0.26	Direct labor
0.31	Direct computer
0.45	Computer support
0.33	Administration support
0.36	Materials and services
$1.71	

C. Costs associated with the output processing activities

The Output Processing Questionnaire (see Appendix 5.4) contained 21 questions dealing with the processing of the end product set after receipt from the Vendor. Statistics covering a five-week period were compiled by the member libraries relating to hours spent.

1. Matching products and books
2. Checking cards for accuracy
3. Correcting cards
4. Checking error messages
5. Applying pocket labels
6. Applying spine labels
7. Filing cards
8. Shelving books
9. Filling in problem sheets
10. Adding local notes to cards

In addition, questions were asked relating to:

1. Total sets received
2. Receipt of products schedule
3. Number of sets corrected
4. Number of returns to LC
5. Postage to return cards to LC
6. Number of returns to Vendor
7. Postage to return sets to Vendor
8. Telephone charges
9. Copying costs for returns
10. NELINET connected administration/organization
11. Number of follow-on cards discarded

The responses are summarized in Tables 2.3-14 through 2.3-34 in Volume II of this report.

As reported, the average number of hours to process a typical set of NELINET output products (from receipt of shelving and card catalog update) is approximately 0.161 hours. If an average staff salary of $6,552/year is assumed, the labor cost associated with output processing of NELINET products would be $.58. Other costs such as materials, typewriter amortization per corrected card set are negligible.

D. Major cost elements summary

The unit costs discussed in the previous paragraphs when totaled represent the estimated cost for processing a title using the NELINET Shared Cataloging Support Sub-System. These costs are summarized below:

	Per Title Cost
1. Local Request Processing	$0.32 + Overhead
2. Computer Operations	1.71 (incl. overhead)
3. Local Output Processing	.58 + Overhead
	$2.61 + Library Overhead

n.b. If library overhead is calculated at 50% of direct costs, then the total becomes $2.61 + \frac{.32 + .58}{2}$ = $3.06 per title.

2.3.2 Objective I. Task B.

This task was concerned with the conduct of a User Audit to develop use history data needed to improve the operations, services and management control of the NELINET Shared Cataloging Support Sub-System. The survey is described in detail in Section 3.2.5 of this report. Information pertinent to the several sub-tasks described in Section 2.1 will be discussed below:

1. Identify and describe specific problems relating to the physical characteristics of the products produced by the Shared Cataloging Support Sub-System.

During the survey of the member institutions, each library was asked a number of questions directed toward assessment of satisfaction with the Shared Cataloging Support Sub-System services and products. Some of the general comments (refer to Table VG-1, VN-1 on pages 71 and 78 of Volume II) pertaining to this sub-task are listed below:

1. ...Card appearance (no specific criticism)
2. ...Call number format; errors have to be corrected
3. ...Excess of extension cards
4. ...Card format (no specific criticism)
5. ...Printout errors
6. ...Unable to request cards prior to cataloging and receive them without call numbers so that the Dewey number could be added
7. ...Format of book number
8. ...Improve card and book pocket label format
9. ...Format of book number on book pocket and card
10. ...Size of type (smaller); call number format; series entry format
11. ...Card format, book pocket label (call number is hard to read)
12. ...Reduce number of follow-up cards
13. ...Smaller type (fewer second cards), different fonts
14. ...I still wish there was a way to have the script ℓ printed in our call number.

Most of the criticism of NELINET products seemed directed toward print size and appearance which at the time of the survey was dictated by the computer output printer and print train then in use. These criticisms were factors in the decision by the vendor and NELINET management to change from the IBM TN train to the more universally acceptable ALA print train for the production system in November 1971.

During the same period, consideration was also given to the re-design of the book label format to accommodate criticism Nos. 7, 8, 9, and 11. Since additional print area would be required and the number of users not satisfied was minimal, it was decided that a re-design effort was <u>not</u> justifiable.

2. <u>Determine how these products can be improved</u>

As described in the previous task, the decision to employ the ALA print train and to change line spacing from six lines per inch to eight lines per inch resulted in more acceptable character quality and also reduced the quantity of follow-on cards previously required. Furthermore, during the task 1A investigation (see Figure 4.3-2 on page 89) the Vendor identified a number of significant short-term cost reductions which if introduced might result in savings to the members in the order of $.57 per title processed.

3. <u>Specify those additional services and their costs based upon the Shared Cataloging Support Sub-System processing capability which could be developed and implemented with relatively little effort by Inforonics and minimum investment of NELINET funds.</u>

During the membership survey, each library was asked to state a preference for approximately seventeen proposed service refinements. This aspect of the survey effort is reported in Section 3.0 (refer to Table*VY-1 on page 89). Those alternatives assigned the higher priorities by the members are discussed below:

a. Type-set catalog cards, i.e., so they appear as LC printed cards.

With the introduction of the ALA print train and general user satisfaction with card appearance and format, this alternative was considered not justifiable since the addition of computer typesetting would increase product costs for purely aesthetic rather than service purposes.

b. Capability to request NELINET products in the existing batch system by Main Entry and Title.

This alternative as well as c and d below suggested that the use of the LC card number as the sole means of request identification was fulfilling only part of the needs of the technical processing operations for the membership. Other library processing services (IDC-MCRS and OCLC, etc.) had earlier recognized the benefit to their constituencies of permitting searches to be undertaken when the LC card number, for various reasons, was not available. Development of this service capability was in the preliminary stages when the NELINET administration initiated a study of the feasibility of transferring the on-line system capability of the OCLC system to the NELNET region. The development activity was postponed pending the outcome of this investigation. The follow-up decision by the NELINET membership in April, 1972, to proceed with the implementation of on-line shared cataloging capability of OCLC has displaced this technical effort.

c. On-line search by author/title (see b above)

d. On-line search by LC card number (see b above)

e. Capability to print diacritics (see a above)

f. Capability to request NELINET products in the existing batched system by title only (see b above)

g. Capability to print 8 lines to the inch instead of 6 lines to the inch.

This format change was introduced at no additional cost to the member.

h. Capability to pre-sort the card sets so that they arrive at the library for direct filing into catalogs.

This collation option was recommended by the Vendor during the early design stages for the present system. At that time, this option was unanimously rejected by the participating libraries. The principle reason for rejecting this option was the concern on the part of the catalogers that manual correction of card errors would be onerous. The cost to accommodate

*Table appears in Volume II

this option as a new system modification did not generate sufficient use interest to warrant implementation.

4. Identify, describe and resolve billing problems relating to the Shared Cataloging Support Sub-System.

With the exception of one request to simplify the billing procedure, no major problems were reported during the user audit. As a result of this survey, some changes to effect simplification and unit billing have been introduced into the billing procedures to the general satisfaction of the members.

5. Estimate the degree of use made by NELINET members as a proportion of the potential MARC coverage of acquisitions.

As shown in Table VA-1 on page 66 , the average number of NELINET requests submitted reported by the member libraries during the survey totaled 258 titles per month. Many reported (refer to Table VH-1 on page 72) that they could send more requests but for a number of reasons chose to limit their participation. Several reasons given included:

1. ...a previous tie-in with commercial processor
2. ...budget limitations
3. ...internal staff resistance
4. ...budget
5. ...those without LC numbers not submitted

Reference to Table IIF-1 on page 34 , for the current fiscal year (1970-71) shows the member libraries reporting current imprints (post '68) as a percentage of acquisitions as follows:

Lib. #	Current Imprints - % of Acquisition
5	20%
8	60%
16	75%
17	87%
18	65%
19	60%

Reference to Table IIID-1 on pages 49 shows the member libraries reporting backlogs as follows:

Lib. #	English (titles) Post 1968	Non-English (titles) Post 1968
5	None	None
8	1,200	250
15	5,000	5,000
16	80	375
17	100	100
18	5,000	1,800

Reference to Table IIIH-1 on page 53 shows the member libraries reporting percentages for English language processing as follows:

Lib. #	English Titles Post 1968 Imprints
5	19%
8	58%
16	84%
17	79%
18	49%

Titles added annually by the member libraries were calculated using the holdings information provided in Table IB-1 on page 13 as shown below:

Lib. #	1970-71 Statistics Volumes Added	Titles Added*
8	11,640	8,250
15	122,306	81,538
16	Not Reported	18,260
17	38,828	26,440
18	30,000	20,500
19	36,017	24,600

From these data, the quantity of items processed with maximum potential for inclusion in the MARC data base can be calculated and the degree of use of NELINET by each member can be posited as shown below:

Lib. #	No. of Titles Acquired (potential coverage in MARC)	Backlog Titles (English & Current)	Est. Items-(potential coverage in MARC)	Est. No. of NELINET Requests (Year)	% Effective Utilization of NELINET MARC Records
8	4,785	1,200	5,985	Incl. in #17	--
16	15,338	80	15,418	1,200	8%
17	20,888	100	23,988	2,400	9%
18	10,045	5,000	15,045	9,000	60%

6. Estimate user acceptance of implementing a network-oriented Shared Cataloging Support Sub-System.

Questions were asked during the survey to solicit member library comments as to acceptability of the network concept. Responses to Questions IIIM, IIIN, IIIO, IIIP, and IIIQ described on page 45 generally indicated a positive attitude toward: 1. acceptance of the cataloging conventions of other libraries in the region; 2. use of computers in the technical processing stream; and 3. possible reassignment of cataloger staff to public service roles. The general concensus of the membership seemed heavily weighted toward an on-line rather than batch mode data base query capability as mentioned in the priorities established and reported in Table VY-1 on page 89.

*Extrapolation based on volume/title information supplied by several libraries.

7. Estimate user acceptance of implementing a network-oriented circulation and interlibrary loan control sub-system.

The data and information requested in support of this task is reported in detail in section 3.2.7 of this report (see page 53). The responses to queries (see Table VIIR-1 on page 121) relating to major problems presently being experienced within the circulation activity would seem to imply the need for automation of several aspects of these operations. Some of these problem areas included:

1. Periodicals control; fines - overdues; I.L.L. citation varification
2. Location and retrieval of improperly charged items
3. Filing accuracy
4. Inaccuracy of transaction recording
5. Overdues; circulation of equipment - supply - demand excessive
6. Inadequate equipment; antiquated procedures; US Post Office - inaccurate bib. citations
7. Typing overdues; inaccurate filing; checking "claimed returned" books
8. ID verification; disappearance of borrowers
9. Lack of control of reserve material
10. Human error; lack of manpower; file maintenance; shelving (errors)
11. Simpler system needed; manpower (inadequate)
12. Handwriting; borrower card
13. Overdues; file maintenance; borrower list preparation
14. No machine assistance; filing control - training; records retention period - 7 years
15. Overdue procedures
16. Filing
17. Lack of permanent staff; response to recall notices; inefficient charging system
18. Human error
19. Overdues

In their responses to Question IH (discussed on pages 34 through 36 , twelve out of the twenty libraries surveyed suggested that a high priority should be given to mechanization of circulation and interlibrary loan functions with on-line query capability to the circulation data base. Considerable time was reportedly (see Table VIIU-1 on page 123) spent by the professional staffs in performing clerical activities relating to overdues and filing; functions which ought to be prime candidates for automation. The survey further disclosed that to date only one library had taken steps on its own to introduce computer capability into the circulation activity (refer to Table VIIN-1 on page 117).

Based on the diversity of reported library procedures and policies relating to:

1. Loan periods
2. Loan charges
3. Borrower ID
4. Fine structure
5. Overdue procedures
6. Billing, etc,

it would appear standization of borrower identification codes and recording media, as well as item identification among the membership to the maximum extent possible might be a desirable first step in proceeding toward development of a regional circulation and I.L.L. control network. Such standardization may not be possible because of the problems associated with the need to use borrower identification information for purposes in addition to library circulation in particular institutions. Such applications typically include book stores, course registration and athletic event ID.

2.3.3 Objective I. Task C.

This task was concerned with the survey of several libraries which were considered as potential NELINET members to:

1. Introduce NELINET services
2. Record the staff reaction to the several products and services
3. Determine the staff receptivity to certain system and product modifications
4. Encourage suggestions for additional services
5. Assess the potential for increasing the NELINET membership
6. Develop a consensus on future participation in several proposed network options.

This survey is described in detail in Section 3.2.4 of this report. Information pertinent to the sub-tasks described in Section 2.1 will be discussed below:

1. Introduce appropriate staff members to the products and services provided by the NELINET Shared Cataloging Support Sub-System and the long range benefits of NELINET membership.

This task involved site visits to thirteen libraries which were not already members of NELINET. The recruitment presentation and data gathering activities performed during these visits are detailed in Section 3.2 of this report.

2. Survey their reaction to the physical characteristics of the products of the Shared Cataloging Support Sub-System.

During these visits two questions were asked to assess reaction to NELINET products and services. These questions were:

a. What do you think of NELINET cataloging support products, and
b. Specific comments on service acceptability.

Responses to the first question (see Table IVB-1 on page 62) were of a favorable nature as illustrated below:

1. ...Acceptable. We will have to use a 2-step process for ordering
2. ...Adequate for our needs

3. ...Perfectly acceptable
4. ...Excellent quality, standard, acceptable
5. ...Satisfactory
6. ...Selin labels excellent, pleased with card labels
7. ...Impressed and look forward to their use
8. ...Acceptable on the basis of limited use

The second question consisted of nine parts (see Table IVC-1 on page 63). Responses to each sub-question were for the most part favorable as shown below:

Specifically do you feel---

1. They can save manpower effort? Yes: 12 No: 0
2. They are esthetically acceptable? Yes: 12 No: 0
3. They are easily read by users? Yes: 13 No: 0
4. There is too much/too little print on the cards: Yes: 2 (too much) No: 7
5. Identify specific problems
   ---call number breaks differently (2)
   ---call number, accession number, location not combined and no provision for sorting
6. Are book pocket tabs used in your library? Yes: 9 No: 1
7. Are the selin labels usable in your library? Yes: 11 No: 0
8. Are the sets too expensive? Yes: 6 No: 3

3. Survey their suggestions for improving these characteristics and/or reduce the costs of the Shared Cataloging Support Sub-System.

With the exception of a single comment directed toward accommodation of more local variations in card format, the several respondents did not make specific suggestions for service or product improvements.

4. Survey their suggestions for additional services based upon the Shared Cataloging Support Sub-System.

The prospective members were asked to rank eighteen proposed system developments and modifications in order of preference (see Table IVE-1 on page 65). The system options receiving the highest preference ratings were:

1. On-line search by LC card number
2. On-line search by Main Entry/title

With regard to the present batch mode of operation, the respondents indicated that capability to request NELINET products by Main Entry and Title would represent a significant improvement.

5. Estimate their potential use of the sub-system in terms of number of requests made to the system over a period of time.

At the conclusion of our visits, those members of the library administration and staff which had participated in the survey data gathering effort were asked directly: "Would you be in favor of your library participating

in NELINET?" As recorded on Table IVA-1 (see page 61), the responses to this question were in the affirmative.

In order to measure the impact of the potential member traffic upon the present system, each library was asked to report processing broken down by language and imprint date (see Table IIIH-1 on page 53). Compilation of these data suggests that a high percentage are English language having a post 1968 imprint date (64%). Reference to the holdings information reported and tabulated in Table IB-1 (see page 13) permits an estimate of current titles acquired to be made for these libraries as follows:

Lib. #	Estimate of Titles Added (Acquisitions 1970-1971)
1	40,764
2	7,000
3	17,500
4	5,400
6	61,912
7	23,000
9	21,225
11	29,725
12	9,500
13	4,725
14	9,100
20	7,250
Total 12 Libraries	237,101 Titles (est.)

Using the language and imprint dates, percentages calculated above a total of 151,745 titles appear to be potentially part of the MARC data base. Further based on the estimate of the degree of use made by NELINET members described previously in Section 2.3.2, it can be hypothesized that the increase in requests to NELINET would be in the order of 12,140 to 91,047 annually if all libraries which participated in the non-member segment of the user audit chose to become members.

6. Estimate potential user acceptance, timing and costs of implementing a network-oriented Shared Cataloging Support Sub-System which permits local input of bibliographic records.

(See page 34)

7. Estimate potential user acceptance, timing and costs of implementing a network-oriented circulation control sub-system.

(See page 35)

8. A "presentation package" will be developed as a result of the above procedures which will be used to introduce potential members to the services and plans of the NELINET library network.

Descriptive material was prepared for use as a marketing brochure (see Appendix 5.8). A slide presentation was also developed but field-testing suggested that the canned program approach was not as effective as an informal,

intimate, unstructured dialogue with staff members of potential member libraries. This slide presentation has, however, proven quite satisfactory in workshops and meetings with fairly large groups.

A "NETBOOK", written in a form suitable for instructional purposes at member libraries, was also introduced and used extensively during this survey effort. The NETBOOK is described in Section 4.6 of this report.

2.3.4 Objective I. Task D.

This task was concerned with the design and implementation of a statistical sub-routine which could provide on-demand reports as a by-product of the weekly computer processing runs. This package was developed and introduced successfully into the weekly processing stream and the reporting capability therein provides the essential back-up for the billing and accounting activities as well as certain system performance activity to NELINET headquarters. This management data package is discussed in detail in Section 4.5 of this report.

2.3.5 Objective I. Task E.

This task, requiring the Vendor to report the experiences and results of the preceding effort in a form suitable for inclusion in the final report, is reflected in Section 4.5.

2.3.6 Objective II. Task A.

This task involved the development of procedures to accomplish input of original catalog records suitable for inclusion in a NELINET handbook. These procedures were prepared and are included in the NETBOOK as Input Keying, (refer to description of NETBOOK in Section 4.6 of this report). A MARC II Worksheet used by one NELINET member is also provided in the NETBOOK. Since the development of these procedures, one member library has added approximately 10,000 original catalog records to the NELINET data base.

2.3.7 Objective II. Task B.

This task was concerned with the evaluation of alternative local inputting techniques and recommendation of an optimum technique for this purpose. Choices very quickly narrowed down to selection among several tape recording typewritters and teletypewriter hardware. The IBM MT/ST system was selected for preparation of input manuscripts. An alternate entry option is use of the communications TWX to create a proper tape record.

After the record is created it can be processed by the standard production system to produce cards, book labels and spine labels. Although the actual cost per record input will be dependent on the record length and complexity of the catalog data, an average cost per record is estimated as follows:

Step 1 - MARC Tagging	$ .50
Step 2 - Typing tagged records and proofreading lineprinted copy	1.30
Step 3 - Conversion of customer tape and production of a proof printout	.34/record
Step 4 - Correction, editing and conversion to MARC II file format	.45/record
Estimated Cost	$2.59/record

It should be noted that each of these steps can be done by the Vendor from manuscript worksheets rather than from keyed bibliographic data. Step 2 can be split between the Vendor and the library, since the printed copy is produced by the Vendor's computer but proofing can be done by the library's staff. Section 4.6 of this report discusses creation of local bibliographic records as included in the NETBOOK.

2.3.8 Objective II. Task C.

With the completion of the previous two tasks, the workplan called for a survey to be made among the member libraries to ascertain the extent to which they might choose to generate local input and add to the NELINET data base. The results of this survey suggested that few of the NELINET member libraries were in a financial position to undertake the encoding of local holdings to any degree without other immediate benefit since card and label costs are not included in the conversion costs. Further, several library administrators appeared reluctant to contend with MARC tagging as an additional inhouse operation. Since this survey was completed, approximately 10,000 records have been added to the NELINET data base by the Boston Theological Institute using the IBM MT/ST for conversion.

The next section describes the survey of libraries.

3.0 SURVEY OF LIBRARIES

3.1 OVERVIEW

During the period from May 10, 1971 to November 30, 1971, the project team conducted on-site surveys at five member libraries and 15 prospective member libraries. The purpose of these surveys was to collect and permit compilation of the vital operational statistics required to satisfy Tasks I.B. and I.C. of the project Work Statement (refer to Appendix 5.1). The Work Statement as promulgated in the original proposal had specified an intent to survey 17 libraries, but due to the marketing exposure afforded by this grant the NELINET membership was expanded significantly during the time frame of the project and, accordingly the survey sample size was easily expandable to 20 institutions, although extra time and effort were thereby consumed.

The institutions surveyed are listed in Figure 3.0-1. To preserve the anonymity of the data collected, the list of participating institutions has been organized alphabetically but this order has no particular significance or relation to the arrangement of the summary data to be presented elsewhere in the body of this report section.

Prior to the on-site visits to the participating libraries, the NELINET staff concluded that this project afforded an excellent opportunity to gather more in-depth administrative, financial and operational data than had been first proposed. Realizing that future simulation studies, service modifications, and committee and task group programs, subsequent to the conclusion of this effort, would require similar involvement with staff personnel at the user libraries, the project staff undertook to develop a broader survey questionnaire and data collection procedure than originally contained within the proposal.

This questionnaire design was influenced by several known constraints on the data collection effort, as follows:

1. Variations in organizational structure of the several libraries to be surveyed were assumed to exist.

2. Multiple data sources within any single library were assumed to exist.

3. Non-quantifiable data recording must be accommodated.

After several alternative survey strategies were evaluated, a functionally organized unitized format was finally adopted and field tested. This questionnaire (see sample in Appendix 5.7) was then printed on 5"x8" sheets, each sheet containing one or more closely related questions and organized into eight modular packages or decklets. Each decklet covered one of the several areas of interest to the project staff as listed below:

Figure 3.0-1 INSTITUTIONS PARTICIPATING IN NELINET USER AUDIT

Boston University, Boston, Massachusetts

Brown University, Providence, Rhode Island

Colby College, Waterville, Maine

Connecticut College, New London, Connecticut

Dartmouth College, Hanover, New Hampshire

Hampshire College, Amherst, Massachusetts

Massachusetts Institute of Technology, Cambridge, Massachusetts

Naval War College, Newport, Rhode Island

Northeastern University, Boston, Massachusetts

Rhode Island College, Providence, Rhode Island

Rhode Island Junior College, Providence, Rhode Island

Tufts University, Medford, Massachusetts

University of Connecticut, Storrs, Connecticut

University of Maine, Orono, Maine

University of New Hampshire, Durham, New Hampshire

University of New Hampshire - Plymouth State College, Plymouth, New Hampshire

University of Rhode Island, Kingston, Rhode Island

University of Vermont, Burlington, Vermont

Wesleyan University, Middletown, Connecticut

Worcester Polytechnic Institute, Worcester, Massachusetts

n.b. Libraries in this figure are coded and scrambled in subsequent charts and tables in order to preserve anonymity.

Decklet No.	Data Category
I	General Library
II	Acquisitions
III	Technical Services
IV	NELINET Services - Prospects
V	NELINET Services - Members
VI	Serials Control
VII	Circulation and Interlibrary Loan Control
VIII	Public Services

Of these data categories, Decklet Nos. IV and V were used to collect data to support Tasks I.B. and I.C. of the project workplan. The remaining decklets were designed to provide for the collection of general data on which to base future NELINET planning and administrative decisions.

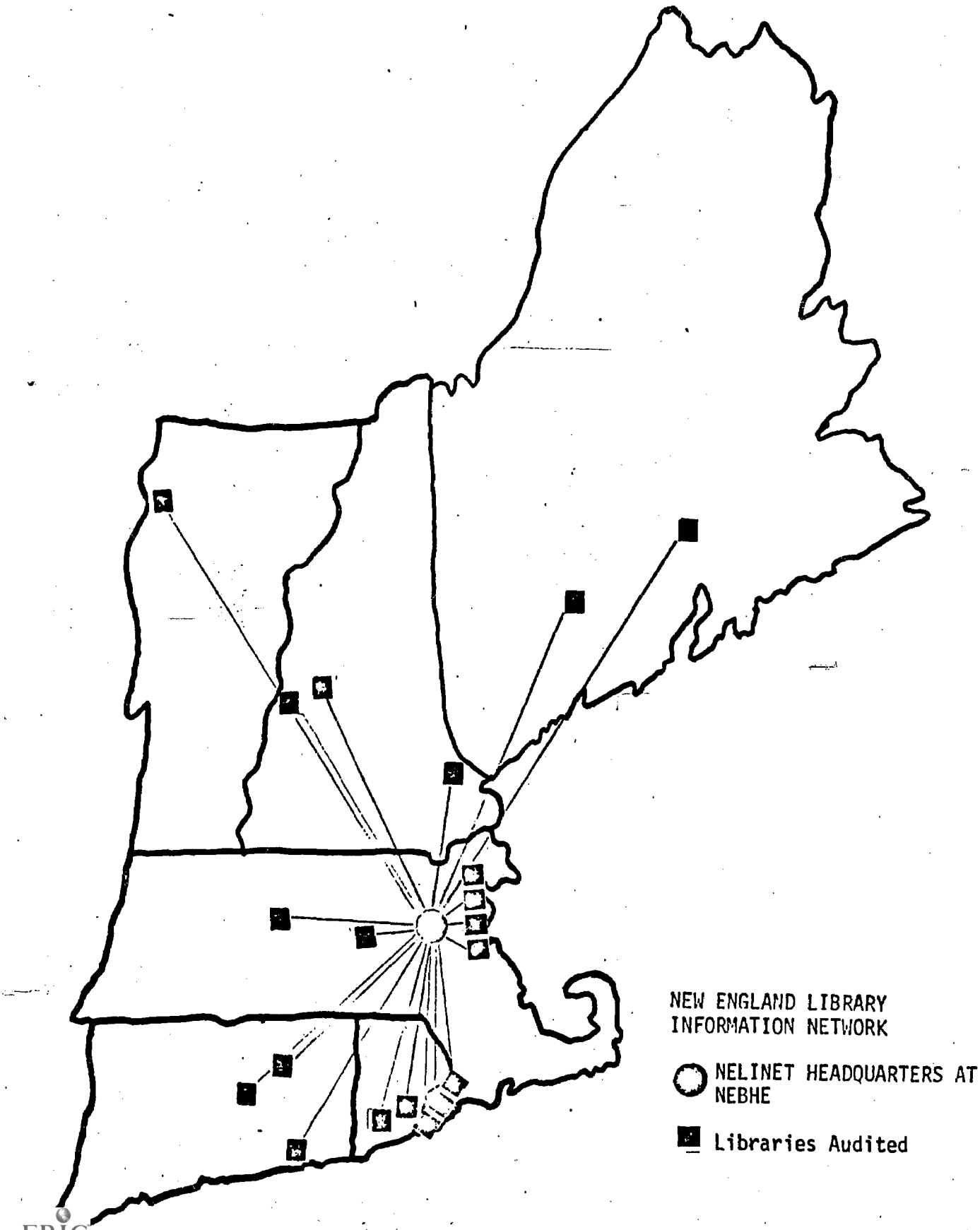
Major observations and recommendations resulting from the user audit have been discussed previously in Section 1.3 of this report.

3.2 DATA COLLECTION AND ANALYSIS

During the first few site visits to the more remote member library locations, a minimum of two days was spent gathering data including travel time. However, partially because our survey techniques became more polished and also because travel distances were less, each of the remaining library surveys were accomplished in a one-day time frame. As is the general rule, however, in all such data gathering undertakings employing questionnaires, the collection effort required significant additional follow-up activity via telephone and written correspondence in order to assemble complete data packages. Geographic distribution of the survey participants is represented in Figure 3.2-1.

Each of the survey visits began with a general briefing of the key library staff personnel expected to be primary respondents to the questionnaire. This briefing, of approximately one hour duration, also afforded the opportunity in instances where the library was a potential user, but not a member, to introduce the NELINET program, to discuss short and long-term objectives and to describe the development plan. The value of the data to be requested was particularly emphasized to promote an attitude of personal contribution to the success of future NELINET developments. Then the decklets were distributed and each respondent scanned his data request package to verify that the appropriate source person had been assigned the correct decklet. In some cases, the decklets had to be split among several staff members in order to assure that the appropriate level, quality and quantity of response would be achieved. At this point, the respondents adjourned to their particular work stations and commenced to complete the forms. NELINET staff members having been previously assigned to each specific functional area, remained nearby to clarify questions for particular respondents.

Figure 3.2-1 NELINET LIBRARY SURVEY
Geographical Distribution of Respondents



Throughout this activity, the NELINET staff members exercised caution as to their degree of involvement in the questionnaire completion in order to avoid biasing the results. In several categories, quantitative data was not available and the respondents were asked to provide best estimates based on institutional history or personal experience. At the completion of the work day, the results were collected. Those questions which had not been answered during the time allocated were left with each respondent who agreed to complete them and put them in the mail within the following work week.

The results of the library survey are discussed in the following paragraphs which are organized to parallel the structure of the NELINET User Audit Checklist (questionnaire) used in the survey.

3.2.1 General Library

Of the nine topical questions contained in this decklet, seven were intended to capture data descriptive of the basic operational characteristics of the libraries surveyed and their parent institutions in terms of organization, size, holdings, salaries, staff size, student population served, faculty characteristics, degrees offered, etc. Two categories (I.H. and I.I.) proposed several questions intended to solicit library staff opinions about the relative utility of several planned or proposed NELINET services. Each of these questions is discussed below.

Question IA Branches (dependent upon the main library for services)

This question was asked primarily to assess the typical library need for independent workstations to allow future specification of access requirements for any proposed remote access circulation control system. Responses identified a range from zero to eight branches among the 18 institutions reporting on this question. The response distribution is shown below:

Branches	Quantity of Institutions Reporting	Response Percentage
0	5	28%
1	2	11%
2	4	22%
4	4	22%
5	1	6%
6	1	6%
8	1	6%

Average: 3 Maximum: 8 Minimum: 0

Question IB Financial and Stock Summary

This question was included to obtain general background data from which costs associated with the several library processing activities

could be developed and examined in detail. Each library was requested to report on their total holdings, materials budget, salaries and total library budget over a 3 year period from 1968 through 1971. An estimate for the year 1971 to 1972 was also requested. Tables IB-1, IB-2, IB-3, and IB-4 summarize the individual responses.

Since these tabulations are analogous to a snap shot of a particular library situation, they provide a base that will be useful in the continuing assessment of the general effectiveness of the NELINET System vis a vis the reduction of labor-intensive operations and resultant reallocation of these savings to other budget line items associated with providing improved services to the patron.

Question IC Staff

This question was asked to provide a basis upon which the future impact of the NELINET system on the staff configuration of user libraries could be measured. Each library was asked to profile the total staff in accordance with the position/salary matrix provided. The responses are presented in Table IC-1 and summarized below.

Average Staff Size: 71 Maximum: 237 Minimum: 7

Question ID Student Characteristics,

Question IE Faculty Characteristics, and

Question IF Degrees Offered by Institutions

These questions were asked to provide the basis from which future potential system demand levels could be extrapolated. The rate of graduate student population growth would be a design consideration in any machine-based interlibrary loan system development. The responses are summarized in Tables ID-1, IE-1, and IF-1.

Question IG Computing Services to Library

To develop a sensitivity to the extent of each library's involvement and commitment to use data processing services within the parent institution; the following questions were asked:

1. Does library have own computer?
2. Does library use a campus computer center?
3. What is the annual library expenditure for campus computer center services?

An additional question relative to the extent of use of data processing services available from outside service organizations was

also included as input to the building of a set of arguments and justification for the introduction of NELINET services at institutions presently supporting inhouse data processing capabilities. The responses to these queries appear in Table IG-1 and are summarized below.

At the time of the survey, no library had its own computer but five of them indicated that computer services other than NELINET or campus computer were used. In addition to fund accounting, and serials listing services, two were served by library-oriented services such as BATAB and Bro-Dart.

Question IH NELINET and Local Priorities

This query was included to provide data from which a set of priorities for the development of several NELINET service options could be established. Each library was asked to rank the impact of various system options on several processing operations and/or problem areas at the local level. The responses to this query are summarized in Table IH-1 through IH-6 and discussed below.

Acquisitions

The service options suggested under this category are arranged below in the order of preference established by the respondents.

1. Increase book budget as a proportion of library budget
2. Fund accounting control
3. Centralized document processing center for acquisitions
4. Centralized acquisitions record keeping by NELINET with document processing done locally
5. Reduce redundant purchases with other libraries
6. Other services relating to acquisitions, including:
   SDI services
   Current local acquisitions lists.

Cataloging

The service options suggested under this category are arranged below in the order of preference established by the respondents.

1. Minimize the frequency of original cataloging
2. Reduce staff costs of cataloging

3. On-line shared cataloging; reduce redundancy of cataloging in region

3. Increase rate of processing per staff member

4. Eliminate dependence upon proof slips or depository cards for cataloging or acquisition

5. Convert card or book catalog to microform

6. Discontinue card catalog and begin book catalog production.

Serials Control

The service options suggested under this category are arranged below in the order of preference by the respondents.

1. Provide a machine file for producing union lists of serials

2. Automate such control functions as check-in, missing issue claims, etc.

3. Other serial functions including:
   Monthly list and local holdings
   Binding and processing information
   Current subscriptions listing

Circulation and Interlibrary Loan

The service options suggested under this category are arranged below in the order of preference established by the respondents.

1. Mechanize circulation and interlibrary loan with on-line query to circulation file

2. To institute an accounting system for paying and receiving monies for interlibrary loan transactions to and from other libraries

3. Other activities relating to this category including:
   Titles locator
   Dues and Fines - Billing and Notice Automation
   Student payroll
   Use data

Reference and Public Services

The operational options suggested under this category are arranged below in the order of preference established by the respondents.

1. Increase your access to regional library resources

2. Establish a shared microfilming facility for worn or seldom used materials, including selected government documents

3. Increase the number of bibliographers and subject specialists to reduce need for blanket orders, approval plans and other non-selective devices

4. Increase the use of your collections by both local and regional libraries and patrons

5. Establish a shared compact storage facility with other New England libraries, for serials and monographs

6. Increase your access to state library resources

7. Other public service activities including:
   - Book catalog development and production
   - On demand production of bibliographies
   - Sharing of bibliographic expertise

Management Information

The options suggested under this category are arranged below in the order of preference established by the respondents.

1. Increase the timeliness of reports relating to specified operations in library, perhaps comparing them with the same functions at other similar libraries in the region, e.g., cataloging rates and costs

2. Other management information including:
   - Acquisition by funds
   - Acquisition by subject categories
   - Use data
   - Opinion sampling
   - Inventory control

Question II Current NELINET Services

This question was primarily directed toward present users of the vendor operated Shared Cataloging Support Sub-System. The intent was to determine the degree of satisfaction with the then current system service capability and output product designs as well as to allow estab-

lishment of some priorities for development of a number of Vendor system modifications proposed by the Vendor. The responses to this query are summarized in Table II-1. It should be noted that the highest priorities were given to the development of an on-line service capability which directly reinforced a pending decision by the NELINET Executive Committee to explore the potential for replication of the Ohio College Library Center (OCLC) system in New England. The System developments considered are listed below in the order of preference established by the respondents.

1. On-line search by author/title

2. On-line search by LC card number

3. Capability to request NELINET products in the batched system by Main Entry Only

3. Capability to request NELINET products in the batched system by Main Entry and Title

4. Capability to print 8 lines to the inch, instead of the current 6 lines to the inch

5. Capability to request NELINET products in the batched system by Title Only

5. Other options including:
   - Call number request capability
   - Shared cataloging capability
   - Columnar printing on pocket label

6. Capability to print diacritics

7. Capability to pre-sort the card set so that they arrive at library in order for direct filing into catalogs

8. Capability to request NELINET products in the batched system by Series

9. Greater flexibility in the way in which the call number is printed on the catalog card

10. A listing of MARC by LC class number to aid acquisitions

11. The ability to request by ISBN number

12. On-line encoding of requests for the batched system

13. On-line encoding of bibliographic records, (i.e. non-MARC items) for the batched system

14. The ability to put local notes on the catalog cards

15. Type-set card products, i.e. so they appear as LC printed cards

16. Capability to produce Book Catalogs

3.2.2 Acquisitions

The sixteen topical questions contained in this decklet were intended to capture data descriptive of the acquisition activity of each of the libraries in order to develop an information base from which the general operational requirements for a machine-based system could be defined. Each of the questions is discussed below:

Question IIA Acquisitions Staff and Salary

The purpose of asking the libraries to profile the acquisition staff according to professional level, function, and salary was to quantify the several levels of labor-intensive activities and respective costs associated with this major processing activity. This information will be of use during future development of service capabilities beyond the present cataloging support sub-system. The responses are shown in Table IIA-1 and summarized below:

Staff Levels	Average/ Library	Max.	Min.
1. Full-time professionals, bibliographers	3	12	0
2. Part-time professional	0.6	4	0
3. Clerical	6	23	1
4. Part-time clerical	1.7	8	1
5. Other	2.5	16	0

Question IIB Blanket Order/Approved Plans?

In order to develop acquisition patterns data necessary to the future development of a central acquisitioning capability, the libraries were requested to identify the various blanket order or approval plans presently in use. The responses are summarized in Table IIB-1. The two most popular Vendors used by responding libraries are Richard Abel and Harrassowitz.

Question IIC Use of Proof Slips/Depository Cards?

This question was asked in order to develop a sensitivity to the importance of the availability of LC cataloging information in the acquisitions area and the concomitant requirement for access to this type of information as a supportive function in a mechanized system. The responses are shown in Table IIC-1 and summarized below.

	Number of Libraries Using		
	LC Depository Cards*	Proof Slips	Neither
1. Used for book-selection	2	4	11
2. Used for order copy verification	2	5	11
3. Used for cataloging proof-copy	5	5	6
4. Used for card production	2	6	7
5. Other	1	0	2

* Including MCRS (Information Dynamics Corporation)

Question IID Bibliographic Information Generated at Order?

As a response to this question, each library was requested to complete and submit a sample of the order form currently in use at that particular library. It is hoped that a close examination of these forms in conjunction with any later development of a mechanized acquisition system will show a commonality of data elements required. This review would necessarily precede the definition of data input requirements for the machine system. The development of these input requirements was not intended as part of the effort proposed for this project, therefore, a summary is not presented.

Question IIE Computer Use for Acquisition Support?

This question was posed to gather background information as to the degree of involvement of each library with the local computer capability on each campus. As can be seen from the summary presented in Table IIE-1, 30% of the respondents are served by computer in the acquisition function and the majority of these applications are primarily for process or budget control and are not usually charged directly to the library budget.

Question IIF During the Current Fiscal Year What % of Items Were Published Post-1968/Pre-1968?

This question was asked to partially assess the percentage of current acquisitions for which cataloging information might be available in the MARC data base. It should also present a picture of retrospective conversion requirements for an on-going system. The total response would be useful in determining demand on terminals in a machine acquisition system environment. The responses, indicating a major precentage (74%) of current acquisitions reported had post-1968 imprint dates, are summarized in Table IIF-1.

Question IIG Who Initiates Acquisitions Requests?

This question was directed toward an assessment of system requirements for other than terminal input/output communications. Due to the need to accommodate requests from other than library-based personnel it would appear obvious that any system design would have to include hard copy output to certain classes of users. The responses are summarized in Table IIG-1.

Question IIH Annual Acquisitions Budget for Period 1968 through 1972

Each library was asked to report the annual budget for acquisitions for the several years from 1968 through 1971 and to project the anticipated budget for 1971-1972. This information was used to break out several costs of interest to the NELINET staff and the participating libraries (e.g. percent of total budget, $/title, etc.). The information also indicates typical library growth patterns for libraries in the region to be served by NELINET and provides the necessary background to permit future assessment of the effectiveness of any acquisitions system design. The data is summarized in Table IIH-1. It is interesting to note that eight libraries reported that their projected budgets were equal to or less than the current year.

Question III Could Acquisitions System be Improved?

Each library was asked to identify any major deficiencies (bottlenecks or procedural problems) in their present operations which they felt had to be remedied in any automated system design. As can be seen from the results summarized in Table II-I-1 ease of search associated with maintenance and use of pre-order, on-order and in-process files appears to be the major concern of the respondents.

Question IIJ Are Checks Written to Vendors or Publishers by Library, Business Offices or Other Organizations?

This query was made to determine the feasibility of a centralized library accounting system which could eliminate some of the clerical accounting effort at the participating institutions. As can be seen from the results summarized in Table IIJ-1, none of the libraries originate their own checks. Thus, although such a system could probably not be used for direct payment to Vendors, it might serve an equally important function by preparing summary invoices for state agency or local institutional business office payment.

Question IIK Is There Coordination Between Acquisitions and cataloging Departments?

This question was asked to determine the extent to which the cataloging activity made use of the search efforts performed during the acquisitions cycle. As can be seen from the results summarized in Table IIK-1,

74% of the respondents reported use of the pre-order search data in cataloging, and a close interface of operations was evident. In the several instances where redundant searching was practiced, the reasons given were: "1. Data not sufficiently accurate; 2. No pre-cataloging data developed in acquisitions; 3. Information is not readily available to cataloging section when required; and 4. Each section is too diversified for effective coordination."

Question IIL Is There Coordination Between Acquisitions and Faculty?

This query was intended to determine the extent to which status reporting external to the library organization is a normal practice in the acquisition activity. It appears from the data summarized in Table IIL-1 that any automated acquisitions system must provide a mechanism to distribute status reports to faculty and students about particular titles which such persons have asked the library to order.

Question IIM Is There a Well-Defined Selection Policy?

This query was made to establish an acquisitions profile for each of the respondents. The data was collected to provide a basis for extrapolating anticipated weekly input rates for automated file maintenance and update. The results, tabulated in Table IIM-1 show that approximately 25% of the libraries had a defined selection policy at the time of the query, and only one is in "well-defined" form.

Question IIN Centralized Selection?

This question was directed toward determining the predisposition for centralization of some acquisition functions. The data presented in Table IIN-1 reveals that less than 25% of the institutions provided for centralization of selection for the libraries on campus. Therefore, it appears that decentralized selection must be accommodated in a network system.

Question IIO Cooperative Acquisitions

Question IIP Cooperative Acquisitions -- Expensive Items

These two queries were made to assess the degree of interest and activity for cooperative acquisitions programs. The data summarized in Tables IIO-1 and IIP-1 indicates that 40% of the libraries reported some cooperative effort presently in practice and 75% of those not having such programs recorded interest and need for entering into such agreements. One major barrier in the way toward such cooperation is the lack of coordinated written acquisitions policies (Question IIM, above), and the inability of acquisitions librarians to learn quickly and easily if another institution has an item on order or already owns it.

Question IIQ Files Used in Acquisitions

This question was intended to identify the various types, sizes and forms of records and the files which these records composed essential to the performance of the acquisition function. The data indicates that a wide variety of files have been named by the respondents. They would have to be comparatively evaluated for inclusion in a machine system which required access, modification and display of acquisitions files before the record design and file structure could be firmed up. The data is summarized in Table IIQ-1.

3.2.3 Technical Services

The twenty-two topical questions contained in this decklet were intended to capture data descriptive of the technical processing activities of each of the libraries to: (1) in the case of present users of NELINET services, to assess the impact of the NELINET Shared Cataloging Support Sub-System on these activities, and (2) in the case of both users and potential users of NELINET services to quantify the level of the processing operation in order to develop an information base from which the general operational requirements for an extended shared cataloging sub-system could be defined later and justification for use of such a system could be presented. Each of the questions is discussed below:

Question IIIA Size of Staff

The purpose of asking the libraries to profile the technical processing staff according to professional level, function, and salary was to quantify the several levels of labor-intensive activities and respective costs associated with this major library operation. This information will be of use during future expansion of service capabilities beyond the present cataloging support sub-system. The responses are shown in Table IIIA-1 and summarized below:

Staff Levels	Average Per Library	Maximum	Minimum
1. Full-time professional	5.8	21	1
2. Full-time clerical assistants	5.6	16	0
3. Full-time typists	4.0	11	0
4. Students (F.T.E.)	2.2	5	0

Question IIIB Annual Catalog Budget for Years 1968 Through 1972

Each library was requested to report the annual budget allocated to the cataloging function during the period 1968 to 1971. An estimate for 1971 - 1972 was also requested. Table IIIB-1 summarizes the responses which provide background information essential to the assessment of proposed service impact on this area.

Question IIIC Classification Systems Used

This query was intended to compile background data from which programming decisions might be made relative to producing variations in call number format on labels, cards, etc. and possibly to develop call number access capability in the cataloging support and circulation control sub-systems. The data is displayed in Table IIIC-1. All but one library used LC classification schedules as its primary schedule, but the DDC and Cutter schemes are still used for some older collections. There are numerous special classification schemes used for various internal collections e.g. Su Docs number, accession number and non-print media schemes.

Question IIID Backlog and Breakdown

This question focuses attention on a major problem area in many libraries. The data serves to provide a work base from which the effectiveness of the cataloging support sub-system in improving technical processing through-put can be measured. The information is summarized in Table IIID-1. Only two of the twenty respondents indicated that no cataloging backlog exists. The average backlog for all respondents is 7,806 titles. If the two largest backlogged collections are ignored, the average is about 3,000 titles.

Question IIIE Categories of Items Receiving Priority Treatment

Question IIIF Average Cataloging Process Time

These questions were asked to compile productivity data on conventional cataloging activity at the several institutions to permit later measurement and assessment of the cataloging sub-systems effectiveness in reducing the average cataloging through-put time. Several categories which demand priority treatment of certain materials were also identified. The individual responses are shown in Tables IIIE-1 and IIIF-1 and the through-put data is summarized below:

Average Reported Through-put Times for Cataloging and Processing	Maximum	Minimum
7 weeks	20 weeks*	1 week

*Institution #11 report (1 day to 2 years) not included.

Question IIIG Percentage of Titles Processed Without LC Copy, NUC Copy, and/or Secondary Source Copy

Each library was requested to identify the percentage of titles that were processed with no LC copy available, with no NUC copy available or with no secondary copy available. This question served to develop an understanding of the utilization and dependency on LC or other cataloging sources by the cataloging operations at the several institutions. The responses are shown in Table IIIG-1 and summarized below.

	Average of % Reported	Maximum	Minimum
With no LC copy avail.	26%	80%	5%
With no NUC copy avail.	9%	20%	2%
With no secondary source copy avail.	4%	10%	.5%

Question IIIH Languages Processed (% of total)

Question IIII Is LC Cataloging Copy Used?

The above questions were directed toward assessing the potential usage of the system by identifying (1) those libraries presently using LC cataloging information either in the form of proof slips or depository cards in the cataloging operations and (2) the percentage of the total processing requirement which could be satisfied by services provided from an automated system using the MARC data base. The responses are shown in Tables IIIH-1 and IIII-1 and summarized below:

Imprint Date % '68-71	Pre '68	Maximum %	Minimum %
English			
64.2		73	19
	14.4	76	0
Romance			
10.4		70	1
	1.7	7	0
Germanic			
6.6		20	0.7
	1.1	4	0
Other			
2.8		15	0
	0.7	2	0

Question IIIJ Local Changes to LC Copy

The several libraries which reported use of LC copy in the cataloging operations were asked to identify the typical changes made to the copy during the local cataloging activity. This information will have an impact in the general areas of card format design and future modification of machine records to accommodate the types of local ancillary data required. Summarization of the individual responses was not practical. A study of this activity as it occurred prior to the provision of card services from Inforonics was made by Ann T. Curran for five state university libraries in 1969-70.*

*"Analysis of the changes made by the NELINET libraries in Library of Congress cataloging copy," Appendix II in Development of a Machine Form Union Catalog for the New England Library Information Network (NELINET). Final Report, Project No. 9-0404, Grant No. OEG-0-9-310404-4438 (095), September 1970. U.S.O.E. Bureau of Research.

Question IIIK Serials Cataloging Requirements

The libraries were asked to identify special requirements relating to the cataloging of serials in order to assess logistics problems which might affect the proposed location of terminals associated with on-line cataloging, as well as format requirements. Responses are shown in Table IIIK-1.

Question IIIL How Many Hours Spent Per Week Filing?

This question served to specify the level of clerical activity directly related to the cataloging operation. The responses are shown in Table IIIL-1 and summarized below.

Average of Hours Spent per Week: Prof/Non-Prof	Maximum	Minimum
1. Supervision and Checking		
9.4	36	1
13	55	1.5
2. Filing		
114	79	5
45	159.5	7

Question IIIM Reassignment of Catalogers

The libraries were requested to identify the specific public service roles that could be fulfilled by reassignment of cataloging professionals in the event that the cataloging work load was significantly reduced. Eighty-seven and one-half percent of respondents indicated that such reassignment could be implemented. Preferences for staff reassignment are shown in Table IIIM-1 and summarized below:

1. To Reference Section
2. Bibliography
3. Book Selection

Two institutions reported that such reassignment would not be possible.

Question IIIN Does the Librarian Feel that the Present Cataloging System Could be Improved?

Question IIIO Is There Sufficient Coordination Between Acquisitions and Cataloging?

Question IIIP Area of Cataloging Most Improved by Use of Computers?

Question IIIQ What Libraries in New England Would be Acceptable as a Cataloging Authority?

These questions were intended to provide insight into the receptivity of library administrators to automation of some aspects of technical services. Comments were solicited so as to identify specific areas where automation might result in more effective processing operations and to establish a general consensus toward a shared cataloging arrangement. The responses to the above four questions have been summarized in Table IIIN-Q-1.

In general, all respondents, save one, felt that the present system could be improved, and twelve out of twenty felt that coordination between acquisition and cataloging personnel was sufficient. As to the areas of cataloging most suited for improvement by applying computer power, eight viewed catalog card production/processing as the most appropriate area. Only one respondent said "shared cataloging", and two saw serials cataloging as prime targets.

In addition to LC authoritative copy, respondents generally would accept any cataloging that is "compatible" with LC. The institutions mentioned most acceptable cataloging sources were Yale, Harvard, and Dartmouth, even though Harvard's cataloging rules and authority systems have historically deviated from some LC practices.

Question IIIR What Filing System is Used for the Main Catalog?

Question IIIS How are Your Public Catalogs Arranged?

Question IIIT How Many Hours Per Week Are Spent on Filing?

The above questions were designed to gather information on catalog maintenance activities. The responses are shown in Table IIIR-T-1 and are summarized below:

Rules for Main Catalog Filing	Arrangement of Public Catalogs	Avg. of Man-Hrs per Week Spent in Filing	Maximum	Minimum
ALA 75%	Dictionary 50%	Main Catalog		
		30	59	5.5
		Shelf List		
		6.2	22.5	1
		Dept. Files		
		19	61	.5

Question IIIU Description of Departmental Files

This question was intended to identify the various types, sizes and forms of records essential to the performance of the technical services activities at the responding libraries. The data suggested that a wide variety of files would have to be evaluated for possible inclusion in an automated technical processing system before the record design and file structure could be firmed. The data are summarized in Table IIIU-1.

Question IIIV Is There a Reclassification Project Underway or Planned?

This question was intended to assess potential demands upon cataloging sub-system exclusive of the processing of current acquisitions. Reduction of the several projected schedules for accomplishment of the reclassification programs will be a consideration in further NELINET system developments and product refinements.

3.2.4 NELINET Services - Prospects

In support of Task I.C. of the workplan the five topical questions contained in this decklet were designed to:

1. Introduce several prospective member institutions in the region to the basic services available from NELINET,
2. Survey their reaction to the physical characteristics of the cataloging support sub-system products,
3. Assess their receptivity to several proposed system and product modifications,
4. Solicit suggestions for additional products and services and,
5. Estimate potential for use of the system.

Each of the questions is discussed below:

Question IVA Would You be in Favor of Your Library Participating in NELINET?

All of the potential members responded positively to this inquiry. The individual responses are shown in Table IVA-1.

Question IVB What Do You Think of NELINET Catalog Support Products?

The majority of respondents reported favorably on the general acceptibility of the products of the NELINET Shared Cataloging Support Sub-System. Specific comments of the respondents are shown in Table IVB-1 and Table IVC-1. Of nine respondents recorded, six felt that the card sets and labels were too expensive. Three felt that the NELINET call number format was unacceptably different from their own format.

Question IVC Solicitation of Specific Comments on Service Acceptability

See Question IVB above and Tables IVB-1, IVC-1.

Question IVD What Percent of Your Current Acquisitions are English or Foreign Language?

Each of the prospective NELINET members was asked to break down their acquisitions by percentages of English, French, Spanish, Italian, Germanic, Russian or other languages. Further catagorization in terms of pre-and/or post-1968 imprint dates was also requested. Analysis of these data will identify those acquisitions which would be logical candidates for subsequent demands on the MARC-based cataloging support sub-system. The responses to this question are shown in Table IVD-1.

Question IVE Ranking of the Desirability of Possible System Developments

Each of the prospective NELINET members was asked to rank 18 proposed cataloging support sub-system developments or modifications in order of preference. The options suggested under this question are arranged below in the order of preference established by the respondents. The specific responses are shown in Table IVE-1.

1. On-line search by LC card number
2. On-line search by main entry/title
3. Capability to request NELINET products in the batched system by: Main Entry . Title
4. Capability to request NELINET products in the batched system by: Title Only
5. Capability to print 8 lines to the inch instead of the current 6 lines to the inch
6. Capability to request NELINET products in the batched system by: Main Entry Only
7. On-line encoding of requests for the batched system
8. The ability to put local notes on the catalog card
9. Capability to produce Book Catalog
10. Capability to print diacritics
11. On-line encoding of bibliographic records (i.e., non-MARC items) for the batched system
12. Capability to pre-sort the card sets so that they arrive at your library in order for direct filing into your catalogs
13. Type-set catalog cards, i.e., so they appear as LC printed cards
14. Capability to request NELINET products in the batched system by: Series
15. Greater flexibility in the way in which the call number is printed on the catalog card
16. The ability to request by ISBN number
17. A listing of MARC by LC class. number to aid acquisitions
18. Other options

3.2.5 NELINET Services - Members

In support of Task I.B. of the workplan the 24 topical questions contained in this decklet were intended to capture system usage information relative to:

1. Level of usage
2. Extent of integration of the system and services into the normal library processing stream

3. Impact on processing costs and concomitant reduction of labor intensive activities
4. Staff reaction to use, understanding and acceptance of automated services in the library
5. User satisfaction with present services and output products
6. General receptivity to several proposed changes to the system and service.

The questions are discussed below in topic-related sequence rather than in the order of questionnaire presentation in order to allow the readers of this report to correlate responses to several related questions more effectively.

Each of the questions is discussed below:

A Level of Usage and Extent of Integration into Library Operations

Questions grouped under this general topic include:

Question VA What is the Average Number of Requests Sent to NELINET Per Month?

Question VB What Criteria Determine What Items are Selected for Requesting Cards?

Question VC At What Point of Processing Do You Request NELINET Products?

Question VH Could You Send More Requests to NELINET?

The intent of asking the libraries to profile the request decision activity as in the above was to:

1. Record the present request activity level and to establish a reasonable estimate as to the potential for increasing the participation of the present membership.

2. Determine the decision process involved in the selection of items for NELINET, and

3. Identify at each member library the specific technical processing system interface with the NELINET system.

The responses are shown in Tables VA-1, VB-1, VC-1, and VH-1.

B Impact on Processing Operations

A number of questions were intended to solicit user critique of the impact, timeliness and cost of the present services as follows:

Question VD On the Average How Long Do You Have to Wait From the Time You Request to the Time You Receive Products?

Question VJ Has NELINET Had Any Effect on Staff Job Load?

Question VS Do You Keep Track of NELINET Expenditures?

Question VW How Many Requests Do You Usually Have at NELINET at Any One Time (New and Old)?

Question VX What Statistics Do You Maintain About NELINET's Performance For Your Library?

In response to the question on wait time (from request initiation to receipt of products) the reported average was 15 days. The individual responses are shown on Table VD-1. Responses to the other questions are shown in Tables VJ-1 VS-1, VW-1, and VX-1.

C Staff Involvement With and Understanding of the NELINET System

Several of the questions asked were directed toward establishing background on the level of library staff involvement with the NELINET system. To aid in the development of more effective sales orientation and user training programs major deficiencies in user staff understanding of: (1) the technical aspects of the system, (2) limitations of file coverage, (3) the individual institution's responsibility to provide catalog system update feedback, and (4) need to implement formal or informal routine indoctrination procedures for staff personnel had to be identified. The descriptive responses to these questions are shown in Tables VL-1, VM-1, VT-1, VQ-1, and VU-1.

D Satisfaction With Services Provided

This set of questions was directed toward assessing user satisfaction or dissatisfaction with the cataloging support service and products. Specifically the user libraries were asked the following:

Question VF What Do You Like Most About the Catalog Support Service?

Question VG What Do You Dislike Most About the Catalog Support Service?

Question VI What Improvement Would You Like to See in the NELINET System?

Question VK Are All of Your Problems Given Prompt Attention by Inforonics or the NELINET Staff?

Question VN Are NELINET Products of Satisfactory Quality?

Question VO Do You Use All NELINET Products?

Question VP Do You Return Products to NELINET?

Question VR Can You Think of Any Other Cataloging Support Products, Etc.?

Question VV Do You Think the Ten Week Period for Leaving Requests on the File is Too Long or Too Short?

The responses to the above questions are shown on Tables VF-1, VG-1, VI-1, VK-1, VN-1, VO-1, VP-1, VR-1, and VV-1.

E Preference in Future Developments

The libraries were asked to state their preference for approximately 17 proposed service refinements. The options suggested for consideration by the present users are arranged below in the order of preference established by the respondents. The individual responses are shown in Table VY-1.

1. Type-set catalog cards, i.e., so they appear as LC printed cards
2. Capability to request NELINET products in the existing batched system by main entry and title
3. On-line search by author/title
4. On-line search by LC card number
5. Capability to print diacritics
6. Capability to request NELINET products in the existing batched system by title only
7. Capability to print 8 lines to the inch instead of the current 6 lines to the inch
8. Capability to pre-sort the card sets so that they arrive at your library in order for direct filing into your catalogs
9. A listing of MARC by LC classification number to aid acquisitions
10. Greater flexibility in the way in which the call number is printed on the catalog cards
11. Capability to request NELINET products in the existing batched system by main entry only
12. Capability to request NELINET products in the existing batched system by series
13. The ability to put local notes on the catalog cards
14. The ability to request by ISBN number
15. Capability to produce book catalogs
16. On-line encoding of requests for the batched system
17. On-line encoding of bibliographic records (i.e., non-MARC items) for the batched system

3.2.6 Serials Control

In support of Task I.C. of the workplan, the eleven topical questions contained in this decklet were intended to capture data descriptive of the present serials control activity at each of the libraries. The responses will serve as a base from which the general operational requirements for an automated serials control sub-system can be derived at a later date and justifications for use of the system can be developed.

Each question is discussed below.

Question VIA Does Your Library Distinguish Between Serials and Periodicals

At the outset of this task in order to insure the appropriateness of the data recorded and later proper interpretation of the individual

library responses, definitions for both types of publications were presented as follows:

1. Serials were defined as that which is published in successive parts at regular intervals and which are intended to be continued indefinately. Serials include periodicals, annuals, monographs series, annual reports, and serial proceeding and transactions of societies.

2. Periodicals were defined as publications with distinctive titles that appear in successive numbers or parts usually unbound, or at stated regular intervals. They generally contain articles by several contributers.

The individual responses are shown in Table VIA-1.

Question VIB Please Give Current Acquisition Statistics If Available

In order to develop a pattern of acquisitions data necessary for the future development of a serials control sub-system, the libraries were requested to report the number of periodicals and serials acquired for the years from 1968-1971 and to project the acquisitions statistics for 1971-72. The information suggested typical serials acquisitions growth patterns for libraries in the region served by NELINET. The data is summarized in Table VIB-1.

Question VIC Are Serials Handled by a Special Serials Department or Division?

Question VID Staff

The purpose of asking the libraries to profile serials department staff according to professional level, function and salary was to quantify the several levels of labor intensive activities and respective cost associated with this major processing activity. This information will be of use during future development of service capabilities beyond the present Shared Cataloging Support Sub-System. The responses are shown in Tables VIC-1 and VID-1 and summarized below.

Staff Levels	Average/ Library	Maximum	Minimum	Special Serials Dept.
1. Profess.	1.3	4	1/2	68%-yes
2. Clerical	3.1	6	1/4	32%-no
3. Typists	1.13	2	1/2	

Question VIE Total Serials Department Budget for the Past Three Years

Each library was asked to report the annual budget for the serials department for four years from 1968 - 1971 and to project the anticipated budget for 1971-72. The information augments that provided under Question VIB above and indicates growth patterns for serials acquisitions, thus providing background information to permit future assessment of the effectiveness of an automated serials system. The data is summarized in Table VIE-1.

Question VIF Use of Jobbers

Ten of twenty respondents use Faxon, the remainder are distributed among Ebesco, Franklin Square and others in decreasing order of percent of subscriptions covered.

Question VIG Briefly Describe Claims Procedures

Question VIH Please Describe Billing Procedures, Etc.

The responses to these questions were lengthy and detailed, hence summarization was not deemed practical.

Question VII What are Your Major Problem Areas in Serials Acquisitions, Processing, and Control?

Each library was asked to identify the major problem areas of concern on the local level. The information provided will be of value in the development of an automated serial control system. As can be seen from the results, summarized in Table VII-1, claiming, delay in subscription initiation and file maintenance appear to be dominant problems of concern to the respondents.

Question VIJ Is Your Existing System Computer-Aided?

This question was posed to gather background information as to the degree of involvement of local campus computing centers in library serial control systems. As can be seen from the summary presented in Table VIJ-1, only eleven percent of the respondents reported use of computers in the serials control function.

Question VIK Please Describe Serial Files

This question was intended to identify the various types, sizes and forms of records essential to the performance of the serials control function. The data collected suggested that a wide variety of files would have to be evaluated for possible inclusion into a machine-readable system before formalizing the record design and file structure. The data are summarized in Table VIK-1.

3.2.7 Circulation and Interlibrary Loan Control

The 23 topical questions contained in this decklet were intended to provide data in support of Task 1B of the workplan. The information provided by the respondents will be of value in: (1) estimating user acceptance of the basic concept of a network-oriented circulation and interlibrary loan control sub-system, and (2) to provide background data on typical library site characteristics and operational procedures which would have to be accommodated in the system design. Each question is discussed below.

Question VIIA Circulation and Interlibrary Loan Staff

The purpose of asking the libraries to profile the circulation and interlibrary loan control staff according to professional level and salary was to quantify the several levels of labor-intensive activities and respective costs associated with these service activities. The potential for reallocation of staff will be a consideration during the later development of NELINET service capabilities beyond the present Shared Cataloging Support Sub-System. The responses are shown in Table VIIA-1 and summarized below:

Staff Levels	Average/Library	Maximum	Minimum
A Professional	2.7	8	1
B Clerical	9.9	70	0.2
C Typists	5	30	0.5
D Filers	36.5	180	0.3
E Shelvers	35.9	405	1

Question VIIB What Groups of Materials Do Not Circulate?

This query was intended to compile background data from which programming and system design decisions could be made relative to the possible exclusion of material categories which are consistently not circulated. Such record content specification might reduce the bibliographic peculiarities which would have to be accommodated in an automated system. The data are summarized in Table VIIB-1.

Question VIIC Open Stacks or Closed?

This question served to specify the levels of access associated with present circulation procedures and to assess the degree of control that should be logically exercised by an automated system. The responses are shown in Table VIIC-1. All, save one library, have open stacks.

Question VIID Does Your Circulation System Include Serials, I.L.L., Etc.?

This query complements the information requested under question VIIB and is intended to compile additional background data relative to the following system requirements and characteristics:

1. File maintenance activity level forecasts
2. Requirements of data elements (bound versus unbound volumes, identifiers, etc.)
3. Record structure specification (status reporting requirements, etc.)
4. Record content (i.e. institutional indicators, etc.)
5. Communication requirements beyond terminal dialogue with library staff (overdue notices, etc.)
6. Audit trail capability (trackdown of missing items, etc.)

The responses are summarized in Table VIID-1.

Question VIIE Do You Keep Statistical Breakdowns of Your Circulation Records?

These statistics will be useful in establishing usage activity estimates for an automated circulation control system. In those instances where the answer was Yes, the libraries were further requested to report by year for the period 1968 through 1972 compilations reflecting undergraduate circulation, faculty circulation, staff circulation, other circulation, number of volumes on reserve, number of volumes held for borrowers, number of volumes lost, number of volumes sent to the bindery. Tables VIIE-1, VIIE-2, VIIE-3, and VIIE-4 summarize the data reported.

Question VIIF What Loan Periods Do You Have by Types of Material and Borrower?

The responses suggested no commonality of loan policies among the respondents. The answers to these questions were quite lengthy, hence summarization was not deemed practical.

Question VIIG What is the Average Time Required for Binding?

This question was asked to compile statistics on machine record retention requirements to facilitate the specification of adequate storage requirements for a circulation control system. The responses are shown in Table VIIG-1 and summarized below:

Average/Time Reported	Maximum	Minimum
4.72 weeks	8 weeks	3 weeks

The responses from institution number eleven (two days-two years) not included in the above tabulation.

Question VIIH Response to ILL Request-Donor

A number of questions were asked to compile information on donor participation in I.L.L. activities. Among these questions were the following:

1. What is the average time from receipt of an I.L.L. request to getting the book or photocopy in the mail?

2. What is the average number of pages of photocopies sent in response to an I.L.L. request?

3. Do you charge the libraries for I.L.L.?

4. How many items have you lent on I.L.L. for the period from 1968 through 1971?

5. What are the main institutions to which you lend items on I.L.L. and what percentage of your loans do they cover?

Responses to these questions are shown in Tables VIIH-1, VIIH-2, and VIIH-3.

Question VIII Responses to I.L.L. Request-Borrower

Questions were asked to compile information on borrower participation in I.L.L. activities. Among these questions were the following:

1. What is the average time you must wait to get I.L.L. items from other libraries beginning at the point of user request and ending with notification of receipt of item to user?

2. How many items have you borrowed on I.L.L. from other libraries for the period from 1968 through 1971?

3. Which are the main institutions from which you borrow items on I.L.L. and what percentage of your I.L.L. borrowing do they cover?

4. Do you charge users for I.L.L.'s done for them?

Responses to these questions are shown in Tables VIII-1, VIII-2, VIII-3, and VIII-4.

Question VIIJ Describe How I.L.L. Fits Into Your Library Organization

In response to this question, two institutions reported that the I.L.L. operations were run as independent activities, while four institutions listed I.L.L. activities as part of the circulation staff responsibilities. The remaining fourteen institutions listed the I.L.L. operations as part of reference staff responsibilities. To allow quantification of the several levels of labor intensive activities associated with this user service, the libraries were further requested to profile the interlibrary loan control staff according to professional level and salary. The individual responses are shown in Table VIIJ-1, and summarized below:

	Staff Level	Average/Library	Maximum	Minimum
A	Professional	0.8	2	0.2
B	Clerical	0.76	2.5	.067
C	Typist	1.1	5	.05

Question VIIK What Circulation, I.L.L., and Bindery Statistics Do You Keep Regularly?

The responses to the above question suggested no commonality of policies in maintaining circulation, I.L.L., and bindery statistics. Individual requirements for the submitting of reports from these statistics to superiors among the libraries differed widely. The answers to the above question were quite lengthy, hence summarization was not deemed practical.

Question VIIL Is an Identification Number For Borrowers Used?

This question was intended to compile background information on record design requirements for an automated circulation and interlibrary

loan control system. The responses indicated that approximately 65 percent of the libraries used a number system for identification of borrowers.

Fifty percent of the libraries reported use of social security numbers as identifiers. Other means for identifying the borrower included assignment of: 1. I.D. code by photo service; 2. institutional I.D. number; and 3. code identifying undergraduate/graduate status. The responses are shown in Table VIIL-1.

Question VIIM Circulation of Major Branches for the Last Three Years?

Responses to this question were minimal. The majority of respondents reported that such circulation statistics were not available.

Question VIIN Do You Have an Automated Circulation System?

Nineteen out of the twenty libraries surveyed responded negatively to the above question. A brief description of one institution's automated circulation system is included on Table VIIN-1.

Question VIIO What Kind of Circulation System do You Have?

Each library was asked to describe the type of circulation control system presently in use, including descriptions of the equipment requirements and estimate of the annual cost of materials to maintain the control system. The responses are shown in Table VIIO-1.

Question VIIP How Many Circulation Points Do You Have in Main Library?

This question was directed towards assessment of requirements for multiple access to automated circulation control systems. The responses are shown in Table VIIP-1 and summarized below:

Average Circulation Points/Library	Maximum	Mimimum
2.1	6	1

Personnel requirements to staff each point varied from a maximum of seven to a minimum of one.

Question VIIQ Total Annual Circulation Budget

Each library was asked to report the annual circulation budget for the several years from 1968 through 1971 and to project the anticipated budget for 1971-1972. The responses provide a basis for future assessment of the effectiveness of automation of the circulation functions in reducing the upward trend in circulation costs with no compromise of service to the user population. The information is summarized in Table VIIQ-1.

Question VIIR What Are the Major Problem Areas in This Department?

Each library was asked to identify major deficiencies (bottlenecks or procedural problems) in the present circulation activities.

Amelioration of many of tnese problem areas will be prime objectives in development of an automated circulation control system. The responses are summarized in Table VIIR-1.

Question VIIS What is Your Fine Structure?

This question was directed toward establishment of system requirements for overdue notification and the concomitant billing activity. Little commonality of fine assessment procedure seems to exist among the respondents. Thus the system design must accommodate a wide range of assessment variations unless standardization can be affected among the membership. Responses are shown in Table VIIS-1.

Question VIIT What is Your Overdue Procedure?

Like the preceding, this question was also directed toward specification of an automated system requirements for overdue notification. A variety of overdue procedures were reported and unless standardization of procedures can be effected, system design complexity will be compounded. Summarization of the individual responses was not practical.

Question VIIU How Much Staff Time is Consumed Per Month by Overdues, Filing Shelving, etc.?

This query was intended to compile information on the allocation of the several levels of labor-intensive activities and their respective costs associated with the present overdues and filing activities. Reduction of professional staff involvement in these administrative and clerical functions would be of primary concern in automation design. The results are shown in Table VIIU-1 as summarized below.

Activity	Average Staff Time/Library (hours/month)	Maximum (hours/month)	Minimum (hours/month)
A Overdues	122	550	12
B Filing	204	700	10

Question VIIV Is Your Billing Done Through Your Institution's Accounting Office?

This query was made to determine the feasibility of developing a centralized library billing system which could eliminate some of the clerical and accounting efforts at participating institutions. As can be seen from the results summarized in Table VIIV-1, 55 percent of the libraries reported that the billing function was performed through an arrangement with the institution's accounting office. Thus, although such a centralized system might not be feasible for direct billing to borrowers, it could serve an equally important function by preparing billing information for the local business office to process.

Question VIIW Name and Provide a Brief Description of Files (Circulation)

This question was intended to identify the various types, sizes and forms of records essential to the operation and control of circulation and interlibrary loan activities at the responding library. The data suggested that a wide variety of files would have to be evaluated for possible inclusion in an automated circulation control system before the record design and file structure could be firmed. The data is summarized in Table VIIW-1.

3.2.8 Public Services

The nine topical questions contained in this decklet were intended to provide operational and cost information relative to the range of services now provided by the public service and reference activities at each library. These data will be employed later in the NELINET program for the development of additional system and service capabilities beyond the present technical processing support. Each of the questions is discussed below.

Question VIIIA Reference Staff

This question was intended to identify the staffing requirements and respective costs associated with the present level of public service activities. Answers are shown in Table VIIIA-1 and summarized below:

Staff Levels	Average/Library	Maximum	Minimum
A Professionals	5.35	24	1
B Clericals	5.24	35	1
C Typists	2.7	5	0
D Filers	1.2	4	.14
E Shelvers	6.9	35	1

Question VIIIB Number of Titles in Reference Collection

This question was intended to compile general information as to the extent of resources utilized in the various public service activities at the several institutions. The responses are summarized in Table VIIIB-1.

Question VIIIC Total Reference Transactions for Period 1968-1971

This question was intended to provide historical information in which to project future demands on reference resources in the libraries. As can be seen from the responses on Table VIIIC-1, few (approximately 35 percent) of the libraries maintained such statistics.

Question VIIID Allocation of Professional Time (Public Services)

This question on allocation of the professional staff was intended to provide general background on resource requirements to maintain the present level of services. Responses are shown in Table VIIID-1 and summarized below:

Professional Time Allocation

	Duties/Activities	Average/Library	Maximum	Minimum
A.	Administrative	20%	63%	1%
B.	Short reference requests	29%	50%	5%
C.	Long term projects	25%	0%	3%
D.	Locational	11%	35%	0%
E.	Others	13%	35%	0%

Question VIIIE Percent of Use of Collection by Category

This question was directed towards identifying those user groups making the maximum and minimum demands on the time and resources of the public services staff. Each library was requested to estimate the percentage of use of the reference collection by undergraduates, graduates, faculty, staff, and other users. The responses are shown in Table VIIIE-1 and summarized below:

Category of User	Average/Library	Maximum	Minimum
A. Undergraduate	52%	80%	16%
B. Graduate	25%	60%	5%
C. Faculty	18%	35%	5%
D. Staff	6%	15%	1%
E. Other	12%	80%	1%

Question VIIIF Reference Budget for the Last Three Years

Each library was asked to report the annual budget for the years 1968-1971 and to project the anticipated budget for 1971-1972. The responses will provide a basis for future assessment of the effectiveness of automation of various public service functions in reducing the upward spiral in reference services cost without compromise of service to an ever increasing user population. The information is summarized in Table VIIIF-1.

Question VIIIG Professional Staff Additions During Last Three Years

Each library was asked to report additions made to the reference staff during the period from 1968-1971 to provide a basis for extrapolating reference staff growth patterns associated with the provision of traditional reference activities. These data will permit future assessment of effectiveness of automation of public service functions in reducing the requirements for additional staff. This information is summarized in Table VIIIG-1.

Question VIIIH Most Pressing Needs of Reference Department

Each library was asked to describe the needs of the local Reference Department. Developments by NELINET of automated services for the reference activities will be directed toward amelioration of as many of these problem areas as practical. The individual responses are shown on Table VIIIH-1.

Question VIIII Name and Brief Description of Files

This question was intended to identify the various types, sizes and forms of records essential to the performance of the reference function. The data collected suggested that a variety of files might be possible candidates for automation. The data are summarized in Table VIIII-1.

4.0 SHARED CATALOGING SUB-SYSTEM

4.1 OVERVIEW

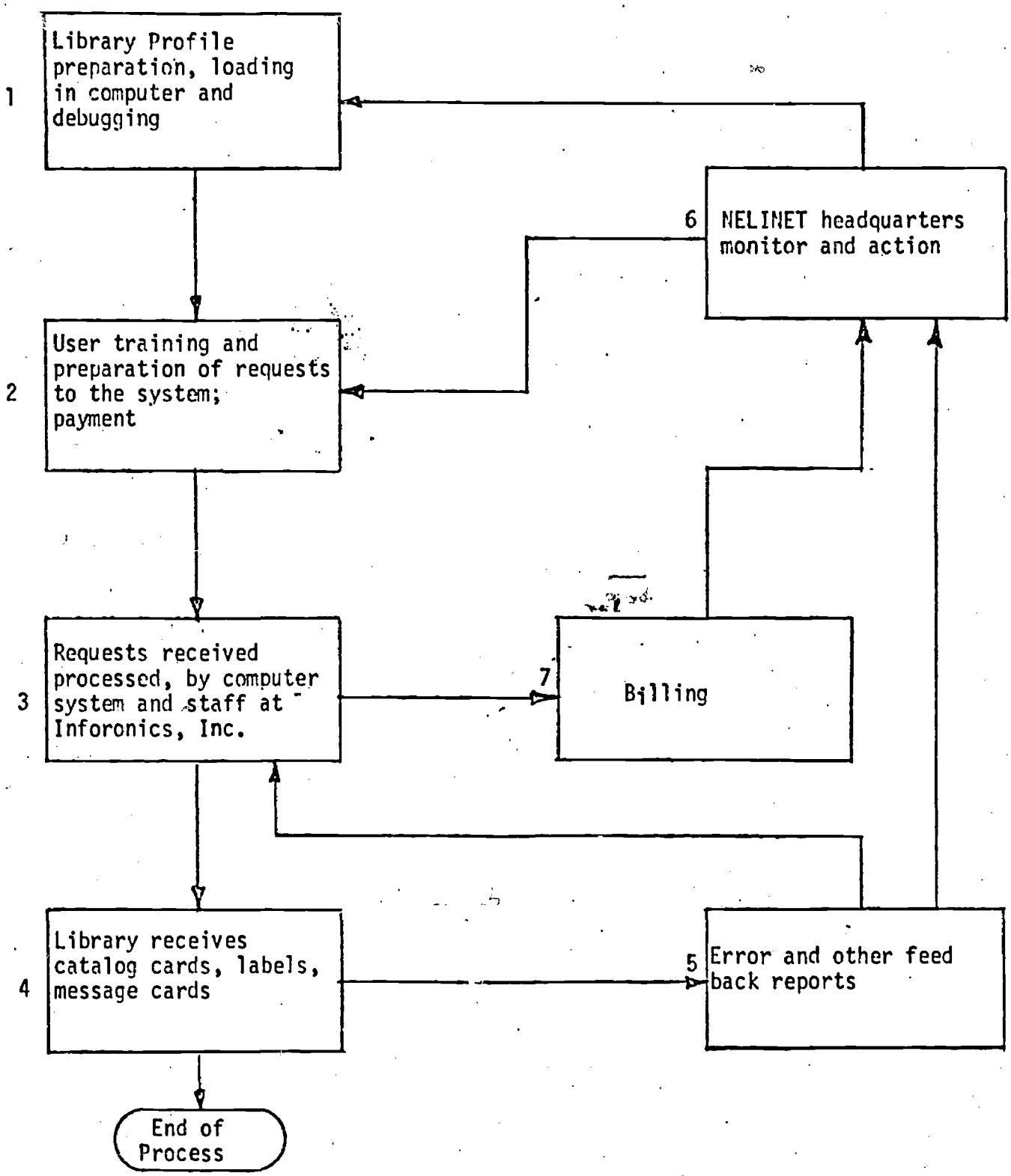
The NELINET shared cataloging sub-system is defined as those procedures, people, machines, software and materials employed to produce catalog cards, spine and book labels for participating libraries, using cataloging data supplied by the Library of Congress through the MARC Tape Distribution Service. The sub-system is not considered fully developed until machine-maniputable cataloging information is created by a participating library in such a manner that it can be used by other libraries in the system. The system, as it operates now, merges weekly MARC tapes into the NELINET Master File. Participating libraries submit requests to the computer system in weekly batches in the form of 5 channel paper tape generated by means of teletypewriters, or Magnetic Tape Selectric Typewriter cartridges, or on paper worksheets. These query media are transmuted into a single magnetic tape by means of a paper tape to magtape converter, or a cartridge to magtape converter. In the case of requests which are submitted in worksheet form, the Vendor manually converts the request data into paper tape form and the conversion process continues.

The content of the requests is an LC card number, a code representing the library and its associated format profile. Profile information for each participant has previously been stored in the computer memory. There is provision for adding certain command codes in each query which override the normal profile descriptions, e.g. a user can inhibit card production, or obtain only a unit card, or request that queries be recycled for an unusual period of time. A control number for each request may also be input by the participating library.

These requests are merged and run against the full file and cards are produced according to the profiles for each match. A punched paper tape is also produced as input to a paper tape typewriter for label production. For each request for which no record exists in the file, a message card is produced and sent along with the full card sets to the library. The request itself is retained by the system and run again in successive weeks.

When the message cards, card sets and labels are received, each library has developed local procedures for carrying the processing cycle through to conclusion. The end point is reached when cards are filed in library catalogs and labelled books are on the shelf ready to circulate to borrowers.

In summary, there are seven general steps involved in the use of the NELINET Shared Cataloging Sub-System, five of which are iterative on a weekly basis in the off-line system (steps 2-6). Step 1, is a one-time activity with subsequent minor changes; Step 7 is a monthly cycle.



It is this process which the core of the technical and user audit segment of the project team investigated. These steps are described in detail in subsequent sections.

4.2 USER INTERACTION WITH THE SUB-SYSTEM

Several interfaces occur between the processing activities at the several member libraries and the NELINET system both before (e.g. during the request for services activity) and after receipt of the NELINET end product set. Section 4.3 describes in detail the Vendor operations which occur between these user input and user output activities. To permit an assessment by the headquarters staff as to the extent of involvement of NELINET with the local operation and how effectively these interfaces have been introduced into the processing system of the member libraries, several of the survey questions were directed toward this effort.

To complement the questionnaires, each member library was requested to prepare a flow chart description of their technical processing operations (see Appendix 5.5 of this report). The major interactions between staff members of the user libraries, NELINET headquarters and the Vendor are discussed below:

4.2.1 User Input Decisions

In the period immediately preceding the study, a major reorganization and expansion of the NELINET headquarters staff was accomplished. This survey afforded a unique opportunity for the new members of the NELINET staff to develop an understanding of and sensitivity to those motivational and organizational influences which bear directly on the decision at the local level to select a particular item for processing through the NELINET system. Several queries were directed toward:

1. Assessment of user understanding of system
2. Identification of selection criteria
3. At what point in processing selection is made
4. Number of staff members involved with NELINET
5. Satisfaction with service provided by the Vendor and NELINET staff
6. Extent of local staff interest in NELINET activities

The responses to question VT, "Do you understand how the NELINET system works technically?" which are summarized on Table VT-1 (see page 86) established that only five (71%) out of the seven member libraries felt confident with staff knowledge of the overall system. This response coupled with the additional report, that none of the libraries (see Table VL-1 on page 76) held, even periodically, formal staff meetings about NELINET suggested insufficient communication at the operating staff level.

It is interesting to note that the performance of the survey by members of the NELINET staff, in itself, established some of the needed dialogue and understanding. Prior to this study, due somewhat to the small size of the NELINET staff and deep involvement with the development aspects of the processing system, little importance had been given to the developing of personal relationships between the staffs of the member libraries and NELINET headquarters personnel. Indeed most communication with the membership prior to this survey had been handled by the Inforonics staff and usually

was concerned with the resolution of specific production problems. This study not only identified an important problem area but became a vehicle which affected a partial solution.

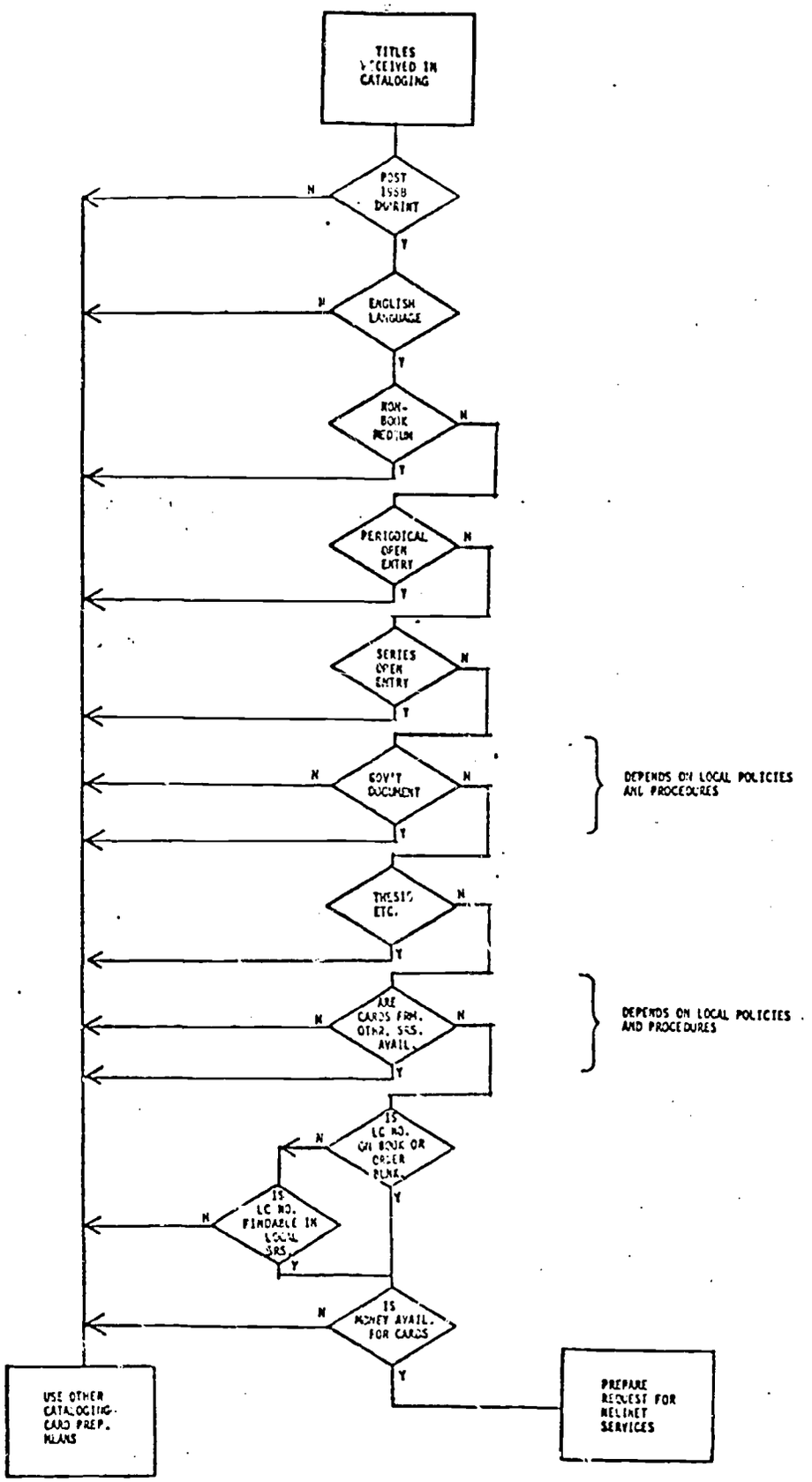
The responses to Question VB "What criteria determine what items are selected for requesting cards?" are reported in Table VB-1 (refer to page 67). Factors influencing what requests are sent to NELINET include:

1. ...Immediate need for material - gifts
2. ...Items for which no cards already exist from other sources
3. ...Item is known to be in MARC
4. ...Perfect L.C. copy
5. ...Item is not for a special area
6. ...Item is not fiction or music
7. ...L.C. No. on Verso of title page
8. ...Item is English language with 69 L.C. prefix or 68 prefix with 69 imprint
9. ...Item is English language with 70 L.C. prefix

The responses to question VH tabulated in Table VH-1 on page 72 also suggest that several other local pressures or practices influence the number of requests which are actually submitted. In order to examine the rationale behind the selection of items to be processed using NELINET products, the member libraries were asked to record decisions made on titles entering the cataloging stream over a five-week period. These decisions were recorded on part 1 of the Request Processing Questionnaire (see Appendix 5.3) and are illustrated in Figure 4.2-1. The data are summarized below:

Figure 4.2-1

TYPICAL DECISION TREE* FOR ORDERING NELINET PRODUCTS



*For illustrative purposes only - number and sequence of steps in decision process may vary widely due to local practices and procedures.

For this test period, the results summarized above suggest that out of the 8,000 titles processed, approximately 39 percent were selected for processing utilizing the NELINET system and products. Non-MARC titles (pre-1968 and non-English language) accounted for 45 percent of the remainder. Lack of an LC number prevented 2.5 percent of the titles from being selected for NELINET. The 13.5 percent of titles processed using means other than NELINET reflects to a large measure the local influences discussed earlier.

The responses to question VC "At what point of processing do you request NELINET products?" (see Table VC-1 on page 68) suggest that the majority of member libraries delay order of NELINET products until the book is in hand. The selection process, however, was initiated by various operations within the member libraries based on the availability of the LC card number at the particular process step as reported below:

Lib. No.	Point of Request Initiation
5	Point of order
	Book in hand (if LC Card No. not avail.)
15	After cataloging
16	Book in hand (if no proof slip avail.)
17	Book in hand (order dept.)
18	Book in hand (acquisitions dept.)
19	After cataloging (e.g. classification)

It thus appears that precataloging is seldom employed and relatively few cards and labels are requested prior to receipt of the book as a means for reducing processing through-put time.

Staff member involvement with NELINET varied widely among the membership with one library reporting zero staff. It should be explained that the processing for this library is actually performed by another library member. The average staff involvement is summarized below:

Staff Level	Average/Library	Max.	Min.
Professional	4	7	1
Clerical	2.5	4	2
Typists	1	1	0

None of these staff members expressed dissatisfaction with the attention and service given to them by either the staff at Inforonics, Inc., or at NELINET headquarters, but several offered suggestions for the overall improvement of communications (refer to Table VK-1 on page 75.

4.2.2 User Input Request Processing

The Request Processing Questionnaire (refer to Appendix 5.3) used for the technical audit data collection effort was designed to provide information for a number of purposes as follows:

1. To permit quantification of costs associated with the request processing activities in support of Objective I Task A of the Workplan (discussed previously on page 15);

2. To assess the degree of use made by NELINET members of the Shared Cataloging Support Sub-System in support of Objective I Task B of the Workplan (discussed previously on page 17);

3. To identify the decision structure associated with the selection of items for NELINET (discussed previously in section 4.2.1);

4. To serve as a cross check on responses given to related questions contained in Decklet V NELINET Services--Members; and

5. To suggest the level of specificity desired in the preparation of graphical descriptions (see Appendix 7.5) of the members technical processing operations reflecting in detail the integration of the NELINET system.

With respect to the results affecting items 1 and 2 above, certain categories of data elicited no responses from some libraries. Therefore, in performing the calculations associated with these tasks, if data were considered unreliable or insufficient, they were not included in the affected derivations. Further, in some instances, it became obvious that rough estimates of time and quantities were made because some of the data were internally inconsistant (e.g. reports of time consumed with no request submittal activity reported for that duration). Thus, the information as reported had to be massaged to some degree by the study team in order to achieve rational results. It is certainly reasonable, however, to assume that the results derived during the compilation exercises in support of each of the several tasks are substantially accurate and at worst certainly within the range of acceptability to the respondents themselves.

Use of the Request Processing Questionnaire in the definition of the decision structure employed in generating requests to NELINET was described in Section 4.2.1.

The questionnaire was employed several times as a cross-check on the validity of several responses given to related questions.

Five flow charts were prepared by the member libraries in response to question VE "Flow Chart NELINET Operations" (see Appendix 5.5). A Comparative Flow Chart (Figure 4.2-2) has been prepared to facilitate

Figure 4.2-2

COMPARATIVE FLOW CHART* - NELINET REQUEST PROCESSING ACTIVITIES

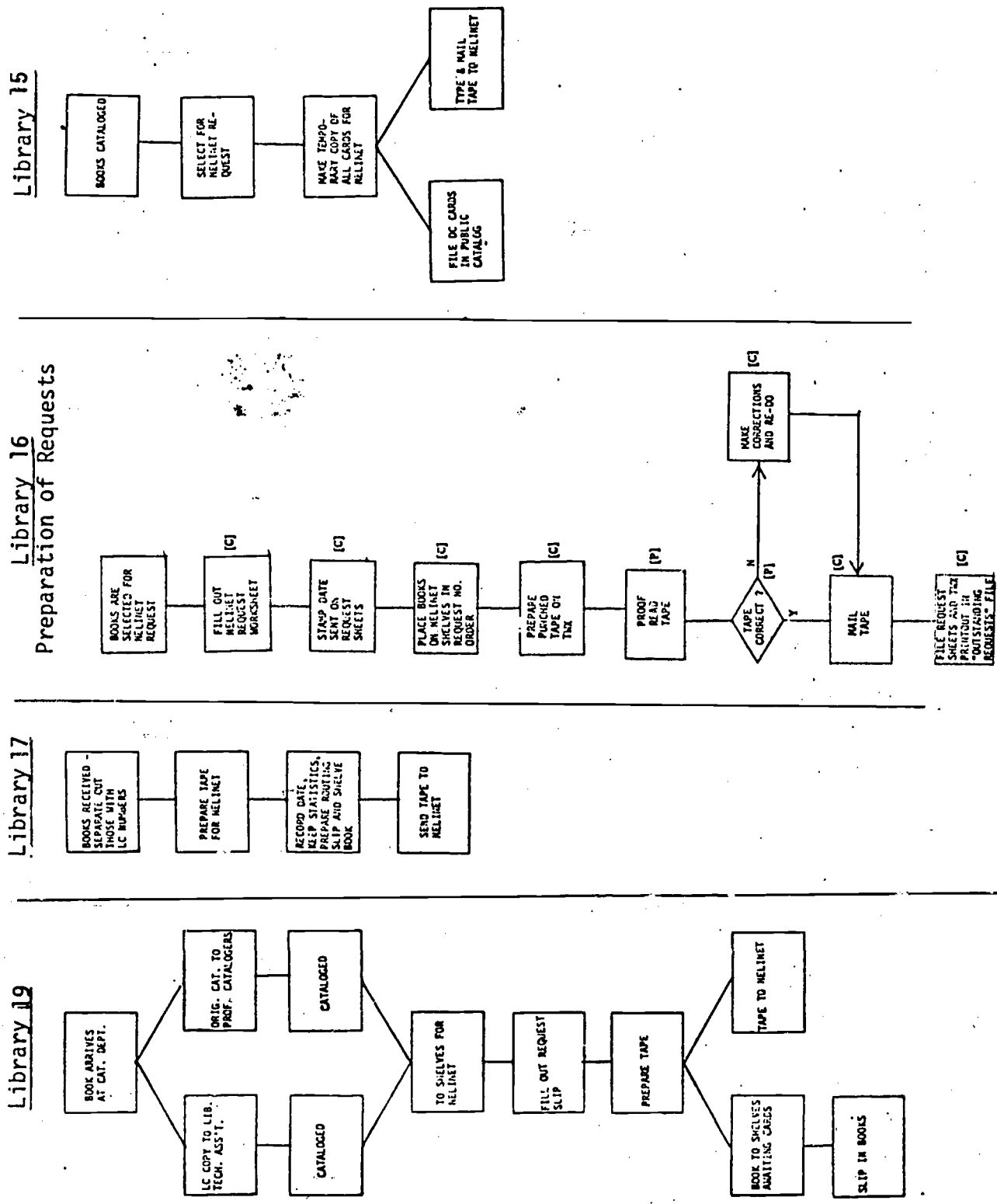
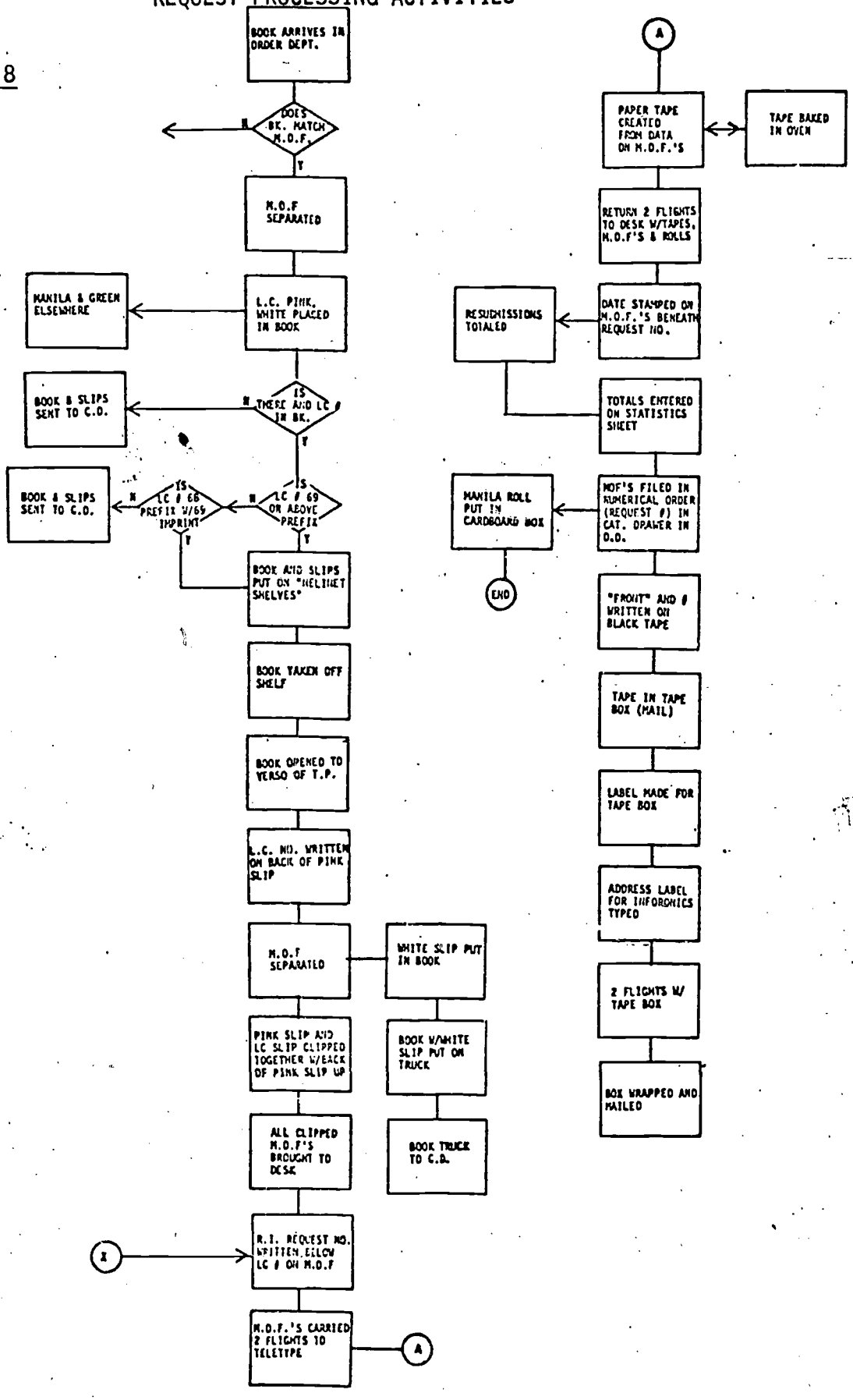


Figure 4.2-2 (Cont'd.)

COMPARATIVE FLOW CHART* - NELINET
REQUEST PROCESSING ACTIVITIES

LIBRARY #18



Refer to Appendix 5.5 - Processing Flow Charts

comparisons of the request processing activities at the several libraries. As can be seen from the composite chart, the breakdown of the tasks and graphical descriptions in most of the charts were rather general and the charts did not exhibit the necessary homogeneity and specific characteristics to allow direct comparisons to be made between the local processing operations. Thus, although these charts were not suitable for assessment of the extent to which each member's processing stream had been integrated with the NELINET system, they did provide an illustration of the level of operating staff comprehension of how certain NELINET use-related activities were accomodated locally.

This information was employed during subsequent user training program improvement activities.

4.2.3 System Response Characteristics

For the purposes of this discussion, system response refers to the elapsed time from the mailing of requests to the Vendor until receipt of the end product set at the library. The average wait time reported was approximately 15 calendar days (refer to Table VD-1 on page 69). In theory, this wait period can vary from a minimum of five working days (mail on Thursday receipt by Vendor on Friday, production run on Monday, in return mail from Vendor on Tuesday and receipt by member library on Wednesday) to a maximum of eleven weeks (requests are purged from the file after a standard period of 10 weeks).

Obviously, the day upon which requests are mailed determines the day of receipt by the Vendor, thereby making the system turnaround time partially subject to the vicissitudes of the U.S. mails. Campus mails further compound the problem. Requests received by the Vendor on the day the run is scheduled usually cannot be included in that run due to the pre-processing effort which is required to convert the requests from paper tape into magnetic tape. Runs at the Vendor are usually scheduled for Monday evening. Reference to Table 2.3-13 (page 5 indicates that a number of the member libraries still persist in submitting requests on Thursday and Friday, in spite of previous cautions regarding submittal of requests no later than on Wednesday of the preceding week.

Use of special delivery on Thursday submittals would increase the likelihood of inclusion of requests in the Monday run. The trade off here is the additional cost of postage versus an additional six-day delay in receipt of products.

One of the significant system improvements resulting from this study, the statistical package (described in detail in section 4.5) permits a closer examination of the response of the system to individual library requests. As a by-product of the weekly run of the catalog support subsystem, a distributed array presentation of matched requests/weeks on file for each library can be displayed on demand. The sample data illustrated

in Figure 4.2-3 suggests that for library 15, the 100 requests submitted on Wednesday, June 30, 1971 (Julian date 181) were input to the system during the computer run of Monday, July 5, 1971 (Julian date 186). During this run 95 of the requests (95%) were matched with MARC records and end products produced. During the 10 week record retention cycle, the remaining no hits (5 requests) were run against the MARC base nine more times and finally purged from the system. In a like manner, the hits/week on file experience for the other libraries can also be analyzed.

It should be emphasized that the response of the system is very dependent on the manner in which a library makes its selection decisions. For instance, library 15 consistantly achieves better than 90 percent hits on the first week their requests are input into the system because they submit only those titles which are known in advance to be in the MARC data base. However, in the case of library 18, the hit rate on the first week production run after request submittal is not predictable due to that library's practice of processing all current acquisitions fitting MARC criteria into NELINET immediately upon receipt--including a large percentage of standing orders and approval plan materials.

One of the outcomes of this study, based on the suggestions of the membership has been modification of the request retention subroutine to allow individual members to specify a request retention cycle of any number of weeks to suit local needs.

4.2.4 User Activities After Cards Are Received

During the early development stage of NELINET, major emphasis was placed on the creation of an automated system leading to the production of catalog cards, spine labels and book pocket labels tailored to the requirements of each participating library to the extent that the MARC II format would allow. Although subsequent developments have resulted in more sophisticated service options, e.g., development of machine form union catalog production capability, etc., at the time of this study, the majority of staff at the participating libraries still viewed the NELINET system as a supplier of support products for the local technical processing activities. It is within this context that the request processing activities are discussed below.

The effort associated with Task IA of the work plan required a detailed analysis to be made of the NELINET end-product processing operations of the member libraries. Estimates were provided for the several basic tasks listed below:

1. Matching products and books
2. Checking cards for accuracy
3. Correcting cards
4. Checking error messages
5. Applying pocket labels
6. Applying spine labels
7. Filing cards
8. Shelving books
9. Filling in problem report sheets
10. Adding local notes to cards

Figure 4.2-3

DISTRIBUTION OF MATCHED REQUESTS DURING
A TEN WEEK CYCLE FOR EACH NELINET LIBRARY*

Library	WEEKS 1	2	3	4	5	6	7	8	9	10	Purge	Total
15	95										5	100
16	2		1				1				6	10
17	24		1		1		1				6	33
18	666						1	4			93	764
19	107			2							20	129
TOTAL	894		2	2	1		3	4			130	1036
%	86.3		.19	.19	.1		.29	.39			12.55	100

*This report identifies the requests for catalog products which have mat ed MARC records in the Master File, compared to the number o weeks the requests have been on file before they matched. The column heading '1 2 ... 10' represents the number of weeks. The number codes on the Y-axis represent NELINET Libraries. The 'Purge' column contains the requests which have not matched in the 10 week period and are therefore being dropped from the query queue. The 'Total' column contains the sum of all matched requests.

N.B. 1. Report run date September 7, 1971--Reflecting requests accepted as input by the system during the July 5, 1971 (Julian-186) production run.

2. For purposes of clarity of reproduction, these data have been transcribed from computer runs sheets

The results of the compilation of all inputs suggests that an average expenditure of 0.161 hours is required to process a typical set of NELINET products, from receipt of catalog products to shelving of books and filing of catalog cards.

However, the actual expenditure of effort associated with the processing of NELINET products in a particular library situation is dependent on local staff preferences as well as library policies and procedures. As illustrated in the comparative flow chart (Figure 4.2-4), the technical processing operation of each member library does not conform to either the sequence or performance of these tasks in a manner which can be firmly typified.

The several variations in member library treatment of received products, identified during the above analysis, are discussed below. Those processing steps not included are, based on the information provided, assumed to be performed in a rather similar straight forward manner at the several member libraries.

4.2.4.1 Checking Cards for Accuracy and Correcting Cards

Library 15 requests cards from NELINET only for those titles for which they are certain "perfect LC copy" exists in the MARC data base. Although expensive and redundant, they are presently maintaining and using a "proof card" file for verification of the LC copy prior to request. If changes to the LC copy are found necessary, the cataloging is performed in-house, and the revised proof card image is used to produce card sets. Thus the expenditure of labor associated with checking and correcting, reported by this library pertains primarily to the following:

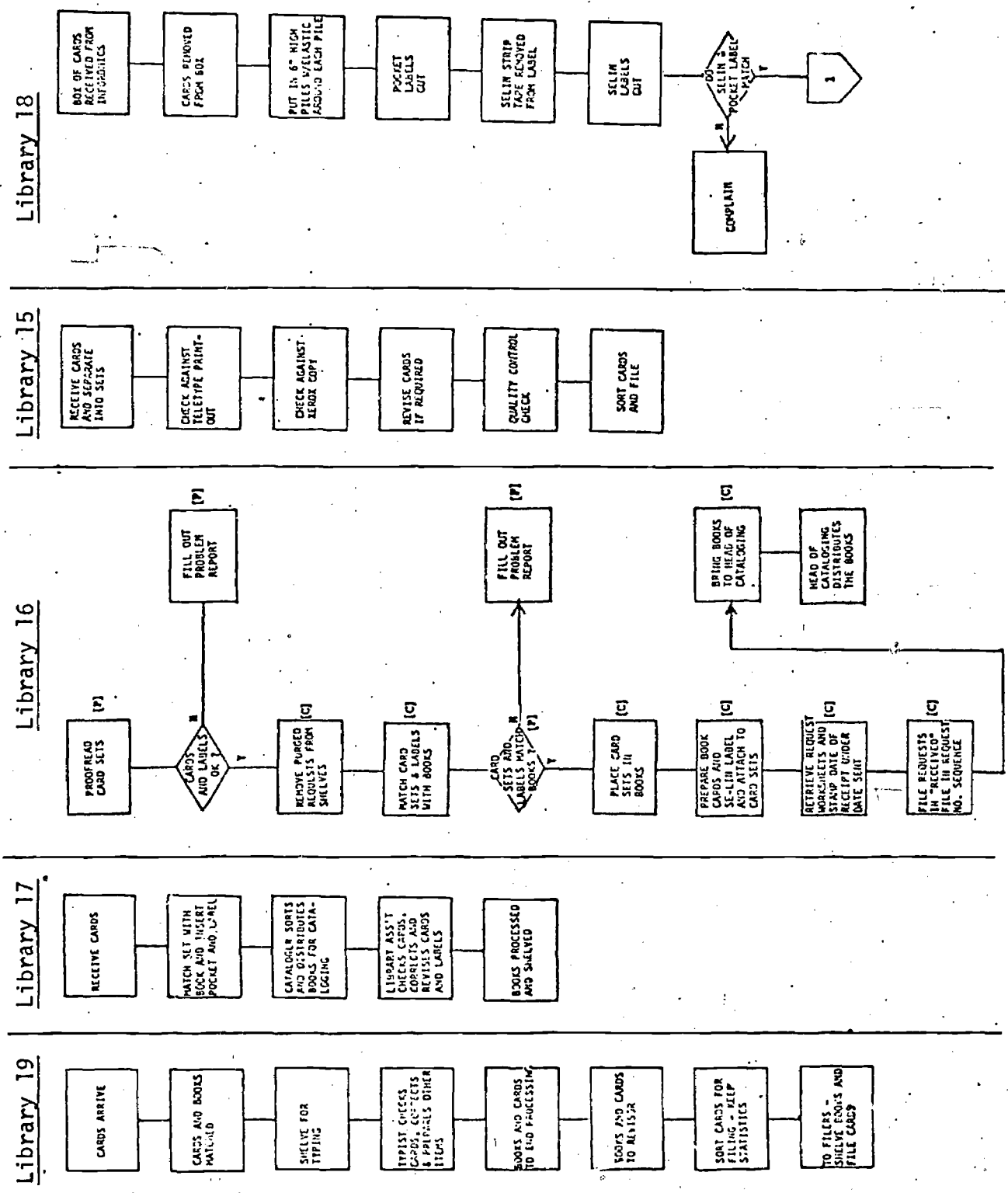
1. Verification of match of card sets and book
2. Judgement as to card image quality acceptability
3. Detection of Vendor errors
4. Correction of call number format (this library placed decimals on the third line)

Library 17, on the other hand, has apparently instituted a general policy of blanket acceptance of NELINET cards. This library claims that cards received from NELINET are not altered by the staff after receipt.

For the types and frequency of changes, the remaining libraries might well be expected to make on the cards received from NELINET, we can refer to an earlier study performed by the Vendor in 1970, as cited previously. Appendix II of that report was concerned with the analysis of changes made by the NELINET member libraries to Library of Congress catalog copy. Figure 4.2-5 shows the frequency of changes reportedly made by five libraries to specific card fields. It should be pointed out that modification of the call number field, which, prior to NELINET, accounted for approximately a third of the changes made in all fields by all libraries, no longer constitutes a major problem area since the NELINET Shared Cataloging Support Sub-System now allows the use of a local number instead of the call number established by the Library of Congress.

Figure 4.2-4

COMPARATIVE FLOWCHART* - NELINET
RECEIPT PROCESSING ACTIVITIES



*Refer to Appendix 5.5 - Processing Flow Charts

Figure 4.2-4 (Cont'd.)
COMPARATIVE FLOWCHART - NELINET
RECEIPT PROCESSING ACTIVITIES

Library 18

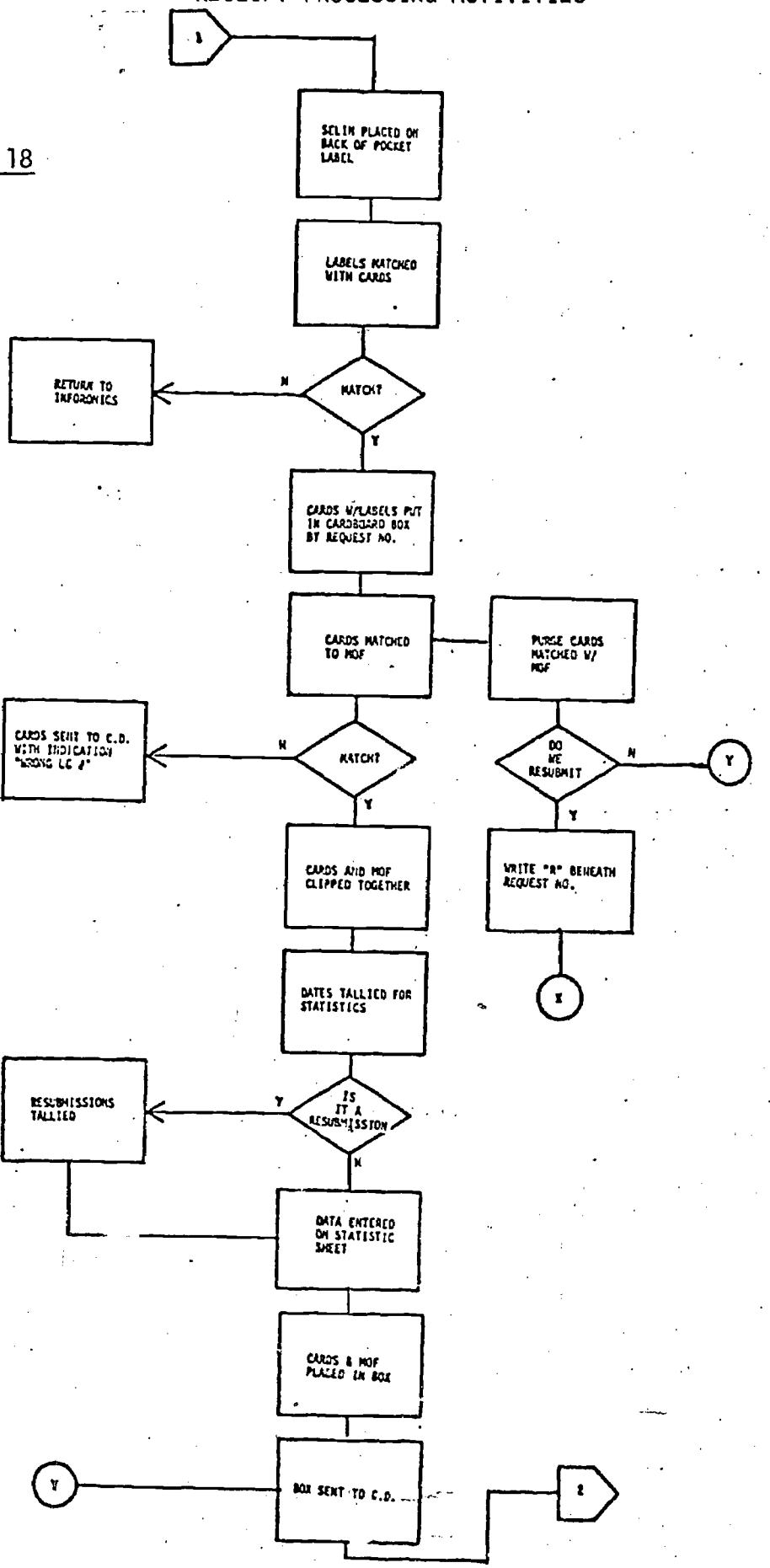


Figure 4.2-4 (Cont'd.)

COMPARATIVE FLOWCHART - NELINET
RECEIPT PROCESSING ACTIVITIES

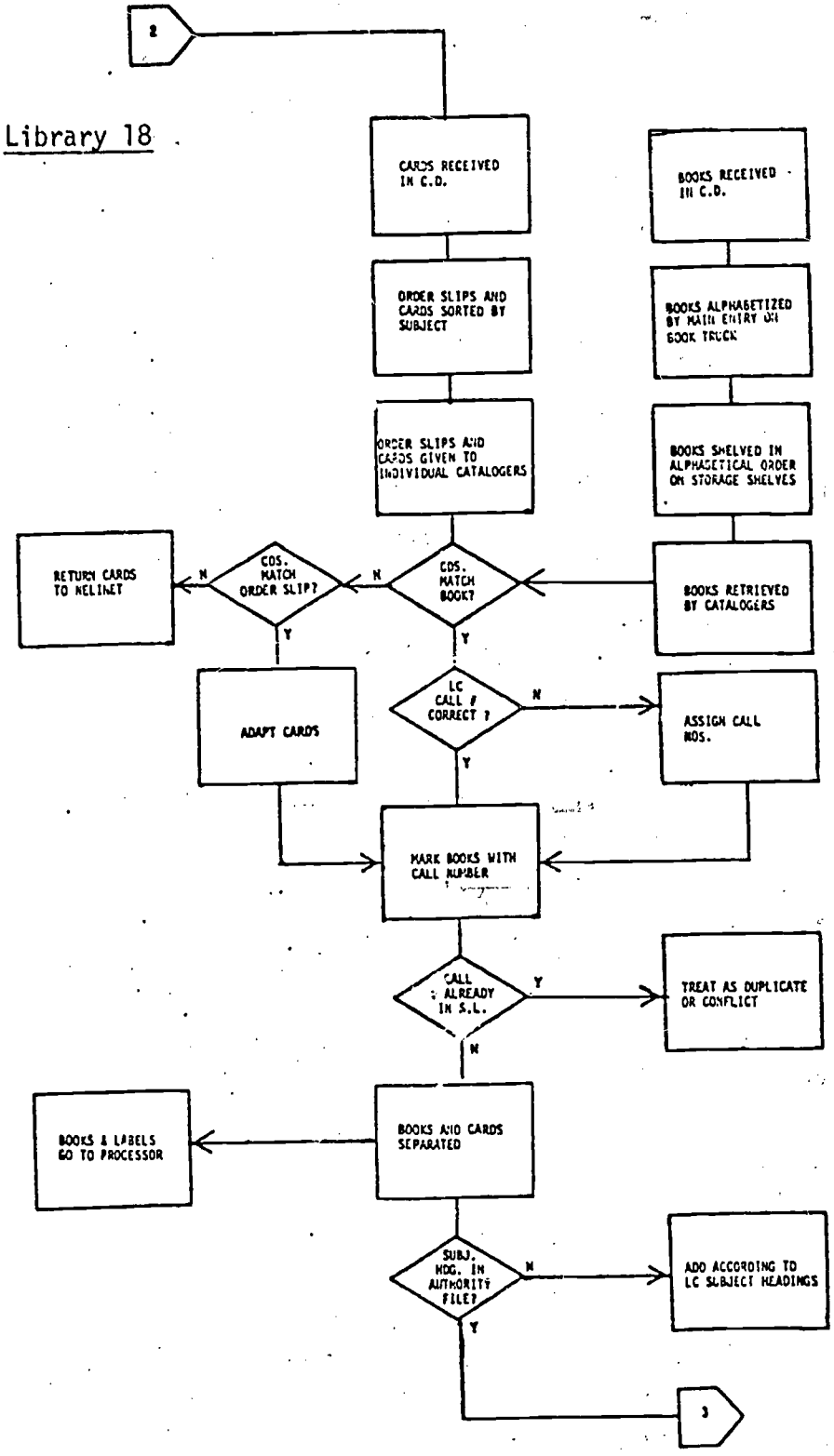


Figure 4.2-4 (Cont'd.)

COMPARATIVE FLOWCHART - NELINET
RECEIPT PROCESSING ACTIVITIES

Library 18

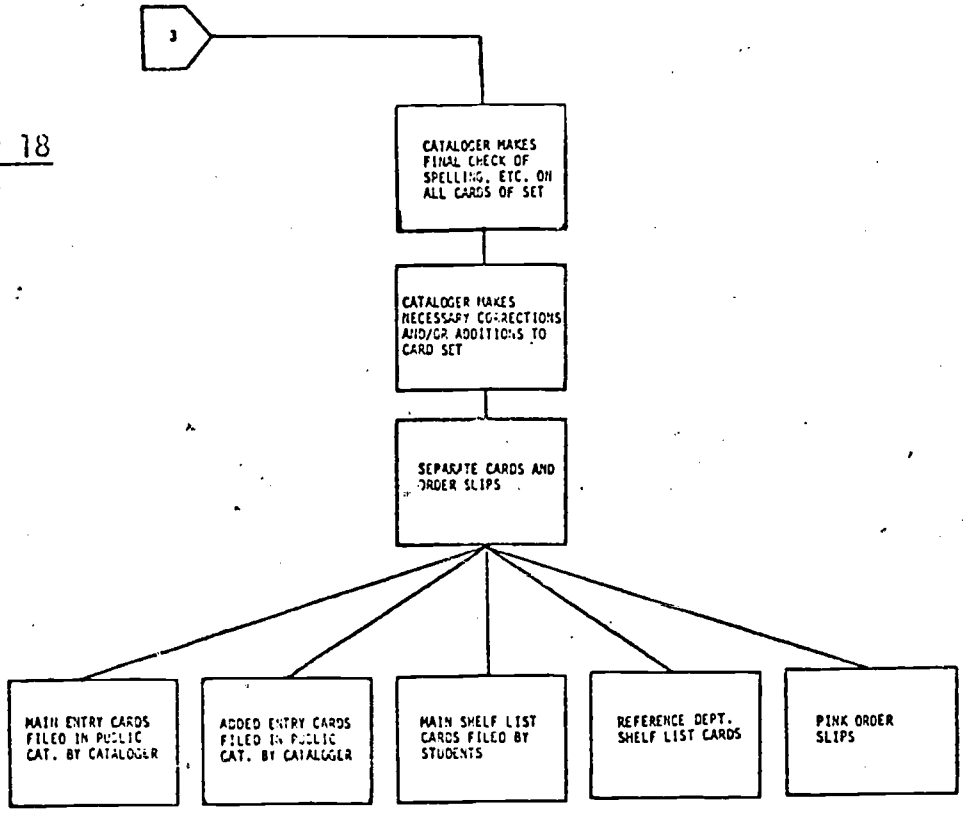


Figure 4.2-5

FREQUENCY RATING OF CARD CHANGES*
(Prior to NELINET)

Rating all Libraries	LC Cataiog Card Data Field	Rating Lib 15	Rating Lib 16	Rating Lib 17	Racing Li- 18	Rating Lib 19
1	Call Number	3	3	2	1	1
2	Imprint	5	1	1	3	2
3	Collation	7	6	5	2	4
4	AE (Series)	1	7	3	**	5
5	Notes	2	2	4	5	3
6	Edition	11	7	8	4	8
7	AE (Series:[illegible])	10	3	6	**	6
8	AE Title	4	5	10	-	9
9	Series Statement	8	7	7	6	7
10	Subject Entries	6	7	12	8	12
11	AE Names	9	4	12	9	11
12	AE Title:[illegible]	11	7	9	10	12
13	Title Statement	11	7	10	9	10
14	Main Entry	12	7	11	10	11

*Adapted from Reference 8 (Bibliography)

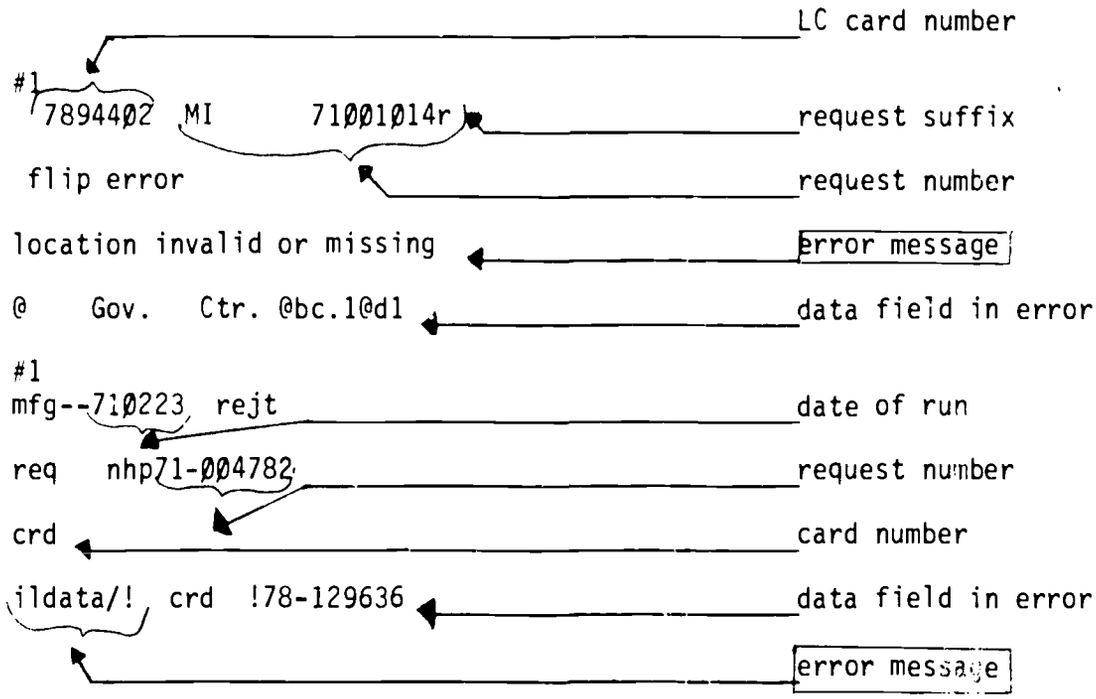
**Not available - not indicated on shelf list cards.

One important observation made during this analysis and documented by responses given to Question VQ - "Do you change the NELINET Machine File when you manually change a NELINET shelf List Card?" (see Table VQ-1 on page 81) is that librarians are in general not used to thinking of anything other than the printed card product. They do not seem to be conscious of the machine file. They will quickly make changes to the catalog cards and not realize that the machine data base remains unchanged When other products are made from this data base, uncorrected errors will appear in them as well. A suitable method remains to be found to effectively train the librarian users so that they become conscious of the importance of updating the machine file before large amounts of data are accumulated containing many errors. So far this problem has not been solved in the off-line system.

4.2.4.2 Checking Error Messages

In the operation of NELINET catalog support service, there are at least three major potential sources for the introduction of errors: the MARC II record itself, the request record, and the commuter processing operation. Content errors, for example, the misspelling of any text, punctuation errors or omitted words within the text are usually MARC II data base errors. The request record submitted by the member library is sometimes in error. Certain of these errors are detectable (e.g., loc Ref.), others are not (e.g., an incorrectly typed LC card number). The third source of error exists within the computer programs themselves. These errors are usually format errors of indention, spacing, etc., or errors of omission of complete items as tracings, location symbols, etc.

When the error detection routine of the system detects an error, in addition to console messages for the computer operator, a message is also printed on 3 x 5 cards that attempts to explain to the requestor what is in error. The following examples illustrate two different types of error messages that might be generated by the system. The NETBOOK discussed in Section 4.6 explains all error messages provided by the system.



In response to the Request Processing Questionnaire, Libraries 15 and 17 did not report any expenditures of labor for this task and the remainder of the libraries appear to have given rough estimates. Since none of the flow charts identified this checking function as a process step, it is, therefore, questionable as to the practical use being made of this system user feedback mechanism at the time of the survey.

4.2.4.3 Application of Labels (Spine and Pocket)

The NELINET end product set includes Selin labels and pressure sensitive book pocket labels. Library 15 does not use either of these products since they completely process their books prior to submitting their requests to NELINET. Further, the style of pocket (slash) used locally is apparently not compatible with the pocket label supplied by NELINET. One of the satellite member libraries receiving NELINET products through a cooperative arrangement with Library 17 also reported that because of the format of the book number, they did not use the labels provided. The rest of the libraries apparently make use of the end product package as supplied. There is, therefore, a user need for variant formats for labels, if the user libraries insist upon maintaining exact consistency with local practices.

4.2.4.4 Filling in Problem Sheets and Return of Cards to NELINET

Card sets found in error due to any of the reasons discussed previously are supposed to be returned to NELINET Central along with a problem sheet describing the particular reason for product rejection. Only two libraries indicated expenditure of labor for this task. The importance of feedback from the users to allow system or data base refinements to be made cannot be overemphasized and yet one response to the Question VP, Do you return Products to NELINET? -- "No, it is easier to change or fix it ourselves than to tell you" -- seems to suggest that additional orientation of the user staff is required to bring about the sense of shared responsibility so essential to the success of a cooperative network scheme. At this point, such effort on the part of user libraries does not appear worth it, because libraries are unaware of the duplicative effort among themselves.

4.2.4.5 Filling in Local Notes

Impressions derived from conversations with the librarians on the use of NELINET card sets suggest that the NELINET cards are not changed as often as cards provided by other services. This may be because the materials requested from the NELINET system are new works and the Library of Congress cataloging matches the books more often. It may also be partially due to the fact that there are no spaces between lines on NELINET cards and thus additions cannot be made as easily as on Library of Congress cards.

4.3 VENDOR PROCEDURES AND COST ELEMENTS

This section describes the results of the cost analysis of the Inforonics operation which presently provides services to the NELINET Shared Cataloging Support Sub-System. This sub-system is used to provide catalog cards and book labels, and to store holdings for libraries. One purpose of the study was to gather data with which to confirm present pricing policy or to develop a better one. A second purpose was to identify steps of high cost and plan to improve the system to eliminate or improve them. The expenses, and number of titles processed were measured and analyzed for the month of September, 1971.

4.3.1 Summary

The cost element analysis was performed in an extremely detailed manner and its results are summarized here for the convenience of those who do not wish to study the voluminous flow charts and figures.

4.3.1.1 Total Cost Per Title Processed

The cost per title processed was measured to be $1.71 during the month of September. A title includes an average of 8.2 catalog and message cards, 1 book pocket label and 1 Selin label.

4.3.1.2 Possible Cost Reductions

There are two approaches to cost reduction which the analysis pointed out. The most important is to convert the system to disk operation yielding a saving of $0.36 per title or a title cost of $1.35. The second area of cost reduction is the improvement of the card printing and handling which will further reduce costs by $0.21 per title reducing the total cost to $1.14.

4.3.1.3 Costs with Increased Volume

Increasing the volume of titles processed is as important as improving the system for it will further lower the cost of cards. This cost reduction is due to the fact that administrative and computer support expenses, which are considerable (approximately 50%), will not increase appreciably with an increase in volume. Assuming no additional indirect expenses the cost of a title processed would be reduced to $0.58 per title. This cost is an absolute minimum and actually never could be reached because undoubtedly with increased volume there would be some increase in indirect expenses. Such a cost could be approached, however, with an increase in volume of between 5 to 10 fold.

4.3.1.4 Allocating Costs to Other Services

The cost of a catalog card set could further be reduced by distributing the file processing costs over additional services in acquisitions and cataloging reference which will be the holdings file. Because these additional services are not available yet such a step is an accounting maneuver, however, for the totality of the present services will remain

the same. Likewise, any fees levied to cover administration or computer support activities will not lower total costs.

Although the original catalog data processing system concepts stated that catalog card production was not and was never intended to be the sole end-product of the service, it is difficult to explain to a librarian purchaser that there is a value in additional services to come using the holdings file, and much harder to assign a specific dollar portion of the library current expenditures to their future services. In order to add more light than heat to this situation we chose, in our analysis, to uncover at considerable pain all costs associated with the library service. No major discernible cost was left out. Using this approach we are assured that what is presented is a firm and realistic appraisal of the present cost situation. Such realism is needed if one wants to plan a viable mechanized technical processing facility, and not be surprised by unforeseen costs as the system grows. Additionally, the details of the analysis allow one to draw his own conclusion about the cost of specific functions, given any postulated accounting system change or system improvement.

4.3.2 Analysis of Production Procedure

Figures 4.3-1 (1) thru 4.3-1 (5) show a flow chart of the steps of the present operation and the cost of each step per title processed (card set). The aggregate costs shown are measured costs. The breakdown in some cases is estimated because the processing steps are defined more finely than the timekeeping records. It should be pointed out that on Figure 4.3-1 (5) that the functions shown are common to all steps.

The total cost for a set of cards, message cards, book labels and spine labels prepared from a user supplied paper tape in the month of September was $1.71. This value is a total cost and includes direct as well as indirect costs. The total number of titles processed was 4843 and included all Inforonics customers as well as NELINET members.

4.3.2.1 Analysis of Total Costs and Projection of Possible Reductions

The total cost per title processed in September is broken down on Figure 4.3-2 by direct labor cost, direct computer cost, computer support cost, administrative support cost, material and services cost. From this figure it can be seen that nearly half of the costs are due to computer support and administrative support expenses.

4.3.2.2 Areas of Potential Cost Reduction

A study of the tables will show that there are several areas of high cost. The solutions to the problem of reducing the impact of cost-consuming areas can be and are being studied with the objective of lowering costs. The problem areas and solutions are listed below:

a. Eliminate production failure expense by disk operation.
b. Two-up card printing instead of one-up.
c. Search and match on magnetic disk instead of magnetic tape.
d. Mechanizing card cutting, handling, and addressing.
e. Two or four-up label printing instead of one-up.

Figure 4.3-1 (1)

FLOW CHART OF PRODUCTION
OPERATION SHOWING COST/TITLE

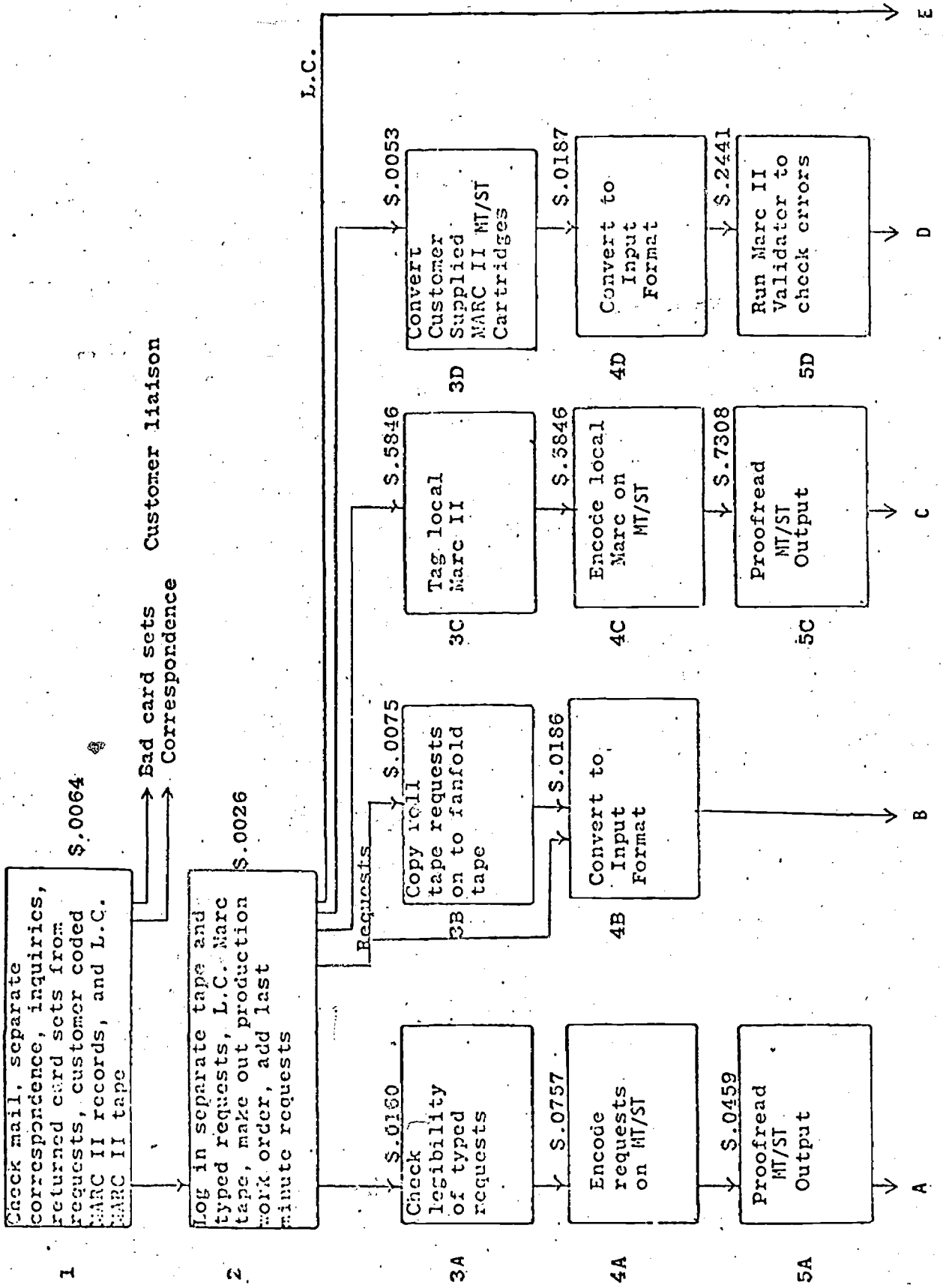


Figure 4.3-1 (2)

FLOW CHART (Cont'd.)

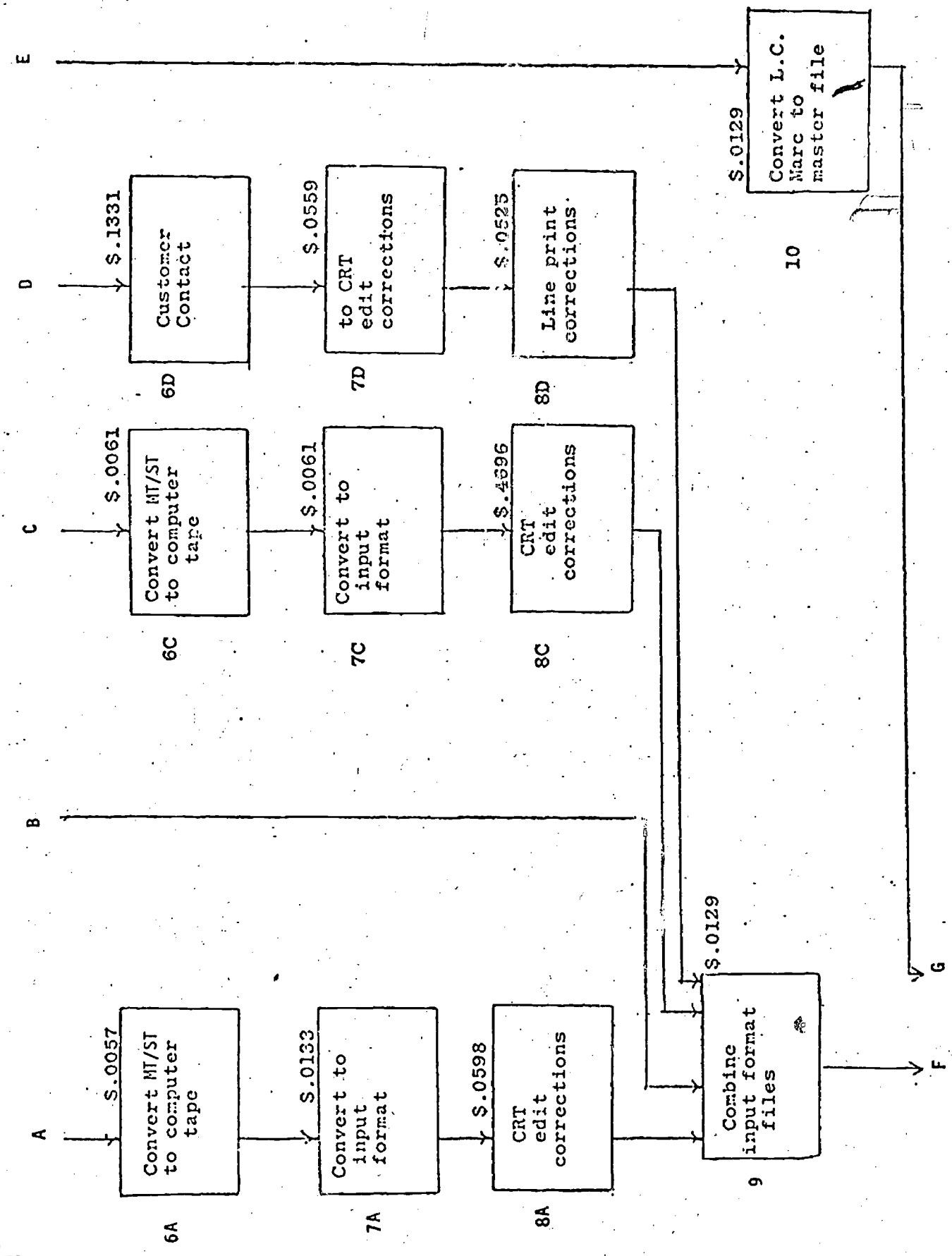


Figure 4.3-1 (3)

FLOW CHART (Cont'd.)

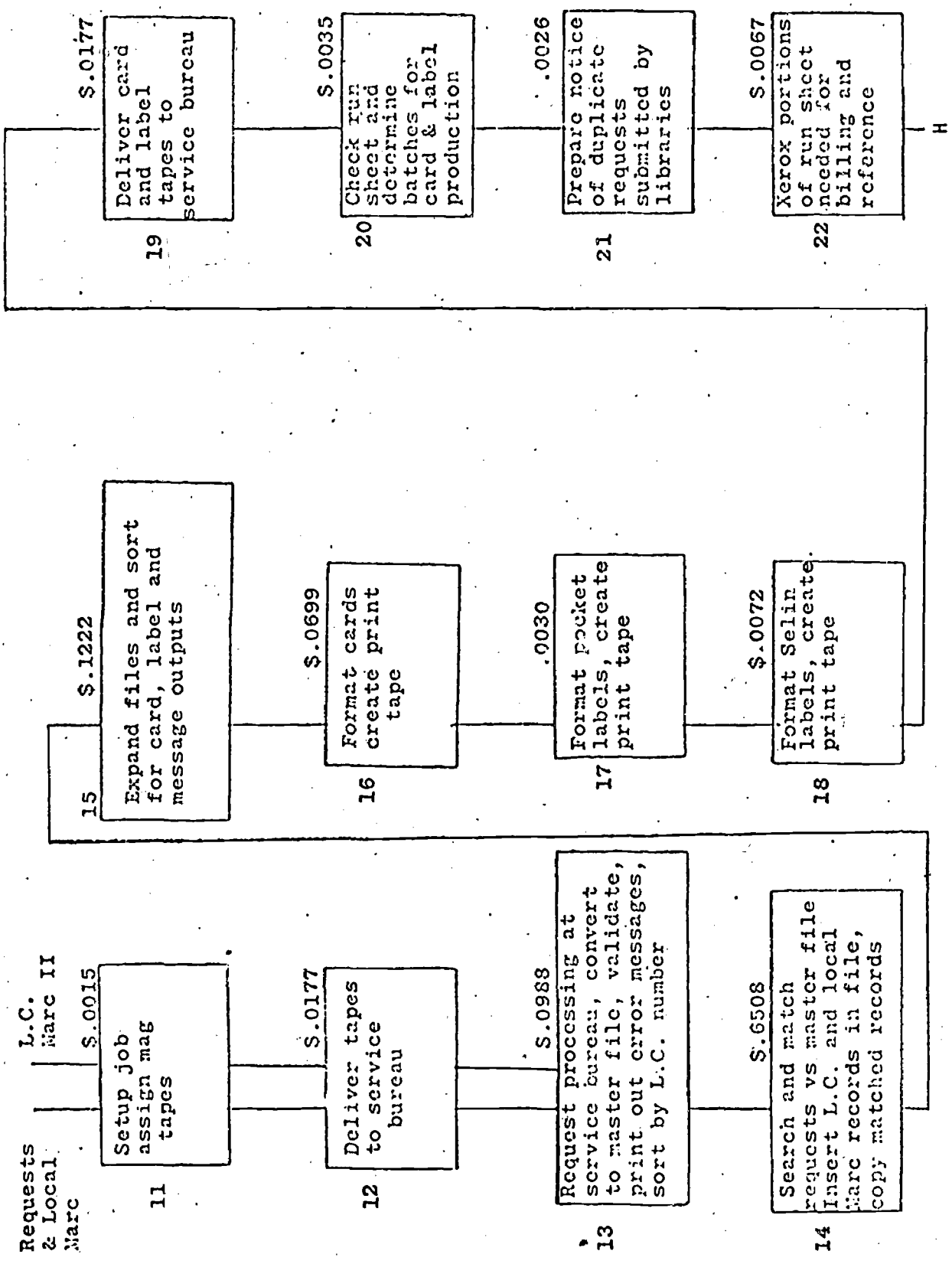


Figure 4.3-1 (4)

FLOW CHART (Cont'd.)

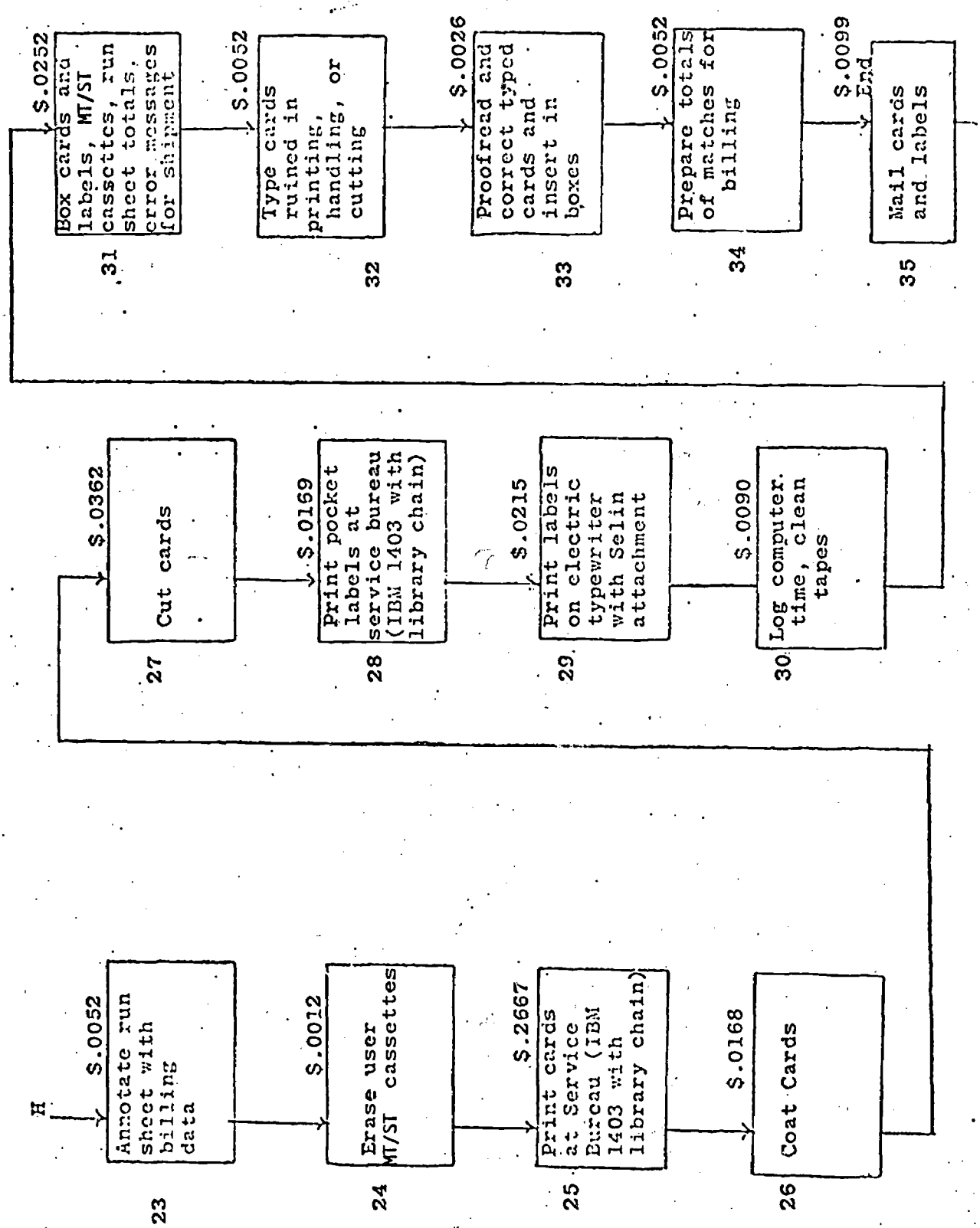
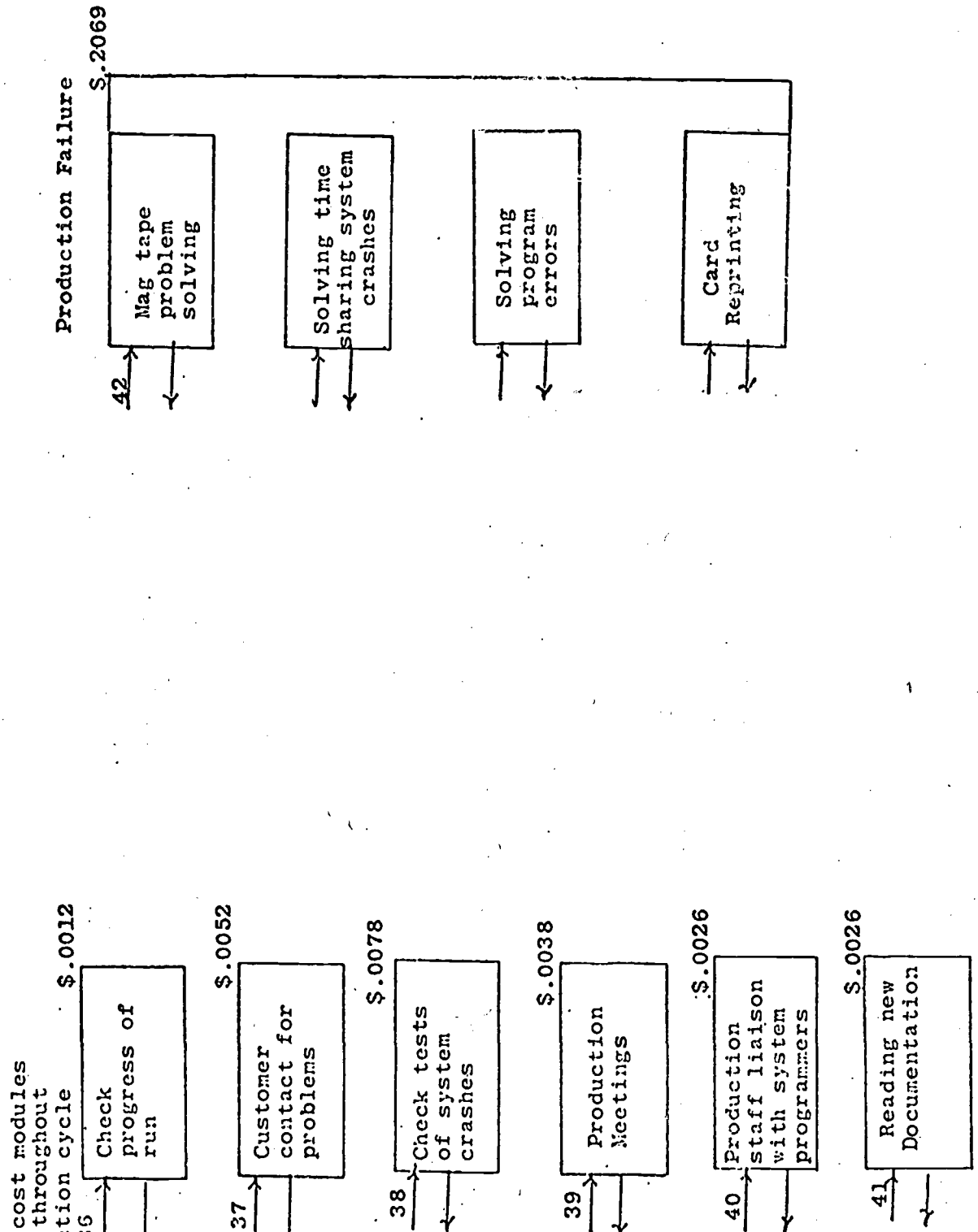


Figure 4.3-1 (5)

FLOW CHART (Cont'd.)



SUMMARY OF SEPTEMBER COSTS AND POSSIBLE REDUCTIONS

Figure 4.3-2

Measured Cost	Cost/Unit Total	Cost/Unit Direct Labor	Cost/Unit Direct Computer	Cost/Unit Computer Support	Cost/Unit Administration Support	Cost/Unit Material & Service
Cards, labels per title input 8.2 cards per title 1 pocket label 1 spine label Cost for month of September	1.71	.26	.31	.45	.33	.36
Possible Cost Reductions (short term)						
Production failure	.18	.10			.08	
Two up line printing	.12					.12
Disk matching	.18	.01	.06	.07	.03	.01
Improve card handling	.09	.04			.04	.01
	.57	.15	.06	.07	.15	.14
Projected Cost assuming cost reduction	1.14	.11	.25	.38	.18	.22
Cost for titles assuming volume increases, no additional administrative and computer support required.	.58	.11	.25	00	00	.22

This is a minimum cost. Neither this nor a lower cost can be achieved with present production facility.

Cost assuming 5 fold increase in titles processed.

1 x 1.14	1.14
4 x .58	2.32
5	3.46

.69 per title again minimum cost

Further cost reductions would depend on volume purchases of materials, multi-shift computer and printer, mechanized production control and accounting system.

The potential reduction in these areas broken down on Figure 4.3-2 equals $0.57 and would yield a cost of $1.14.

The two largest areas of cost are computer support expense and administrative expense. These at present are fixed primarily by the number of people employed and are at a minimum. An increase in volume of titles processed would not yield an appreciable increase in these expenses. The present expenses cover adequately the addition of libraries, utility programming, and system improvements.

If we assume no increase in these expenses, with increase in number of titles processed, the minimum cost per title is estimated to be $0.58. This would indeed be a minimum for a title (with 8.2 cards and one book and one spine label), for it assumes zero increase in support expenses and there will undoubtedly be some.

Cost reductions based on these assumptions are shown on Figure 4.3-2. Also, on Figure 4.3-2 the cost per title processed assuming a five-fold increase in volume is projected to be $0.69 per title.

It should be stated that these cost estimates based on increased volume also would be minimum costs, and that they include only 1/5 of Inforonics normal system improvement and maintenance costs.

One final remark is that all measured costs are current expense costs only, they are not prices. No return on capital investment, taxes, or cost of living increase expenses have been considered.

4.3.3 Incremental Costs of Additional Services

It should also be stated that the present costs include storage of holdings information which will have future uses in acquisition, cataloging, and reference. It is expected that the incremental costs of these services will be lower than their cost of operating in the absence of the ongoing card, label, and holdings system.

4.3.4 Long Term Cost Reduction in Cards and Labels and Holdings Storage

Further cost reduction will be difficult to achieve, and would require a significant increase in volume so that large material purchases could be made, multi-shift computer and printer operations sustained and the development of fully mechanized production control, accounting and billing system justified.

4.3.5 Cost of Separate Production Operations

The costs for each function of Figures 4.3-1 (1)---4.3-1 (5) are broken down on Figures 4.3-3 (1) through 4.3-3 (5) by direct labor and payroll benefits, direct computer expense, computer support expense, administrative support expense, and material and purchased services. An inspection of these figures will show what each production operation costs.

Figure 4.3-3 (1)

COST PER TITLE FOR SEPARATE PRODUCTION OPERATIONS

	Total Cost/Title Processed	Labor Cost/Title Processed	Computer Cost/Title Processed	Computer Support Cost/Title Processed	Administrative Cost/Title Processed	Material Cost/Title Processed
1. Check mail, separate requests	.0064	.0037			.0027	
2. Log requests, make out work order	.0026	.0015			.0011	
Typed Requests						
3A Check legibility	.0160	.0092			.0068	
4A Encode requests	.0757	.0419			.0310	.0028
5A Proofread requests	.0459	.0264			.0195	
6A Convert MT/ST cartridges	.0057	.0027	.0010		.0020	
7A Convert to Input Format	.0133	.0018	.0102		.0013	
8A Edit	.0598	.0080	.0459		.0059	
Sub total 3A-8A	.2164	.0900	.0571		.0665	.0028
Requests on tape						
3B Copy on to fanfold	.0075	.0037			.0027	.0011
4B Convert to Input Format	.0186	.0025	.0142		.0019	
Sub total 3B-4B	.0261	.0062	.0142		.0046	.0011

Figure 4.3.3 (2)

COST PER TITLE FOR SEPARATE PRODUCTION OPERATIONS
(continued)

	Total Cost/Title Processed	Labor Cost/Title Processed	Computer Cost/Title Processed	Computer Support Cost/Title Processed	Administrative Cost/Title Processed	Material Cost/Title Processed
Tag and Encode Marc II						
3C Tag Marc II	.5846	.3360			.2486	
4C Encode Marc II	.5846	.3360			.2486	
5C Proofread	.7308	.4200			.3108	
6C Convert MT/ST	.0061	.0035			.0026	
7C Convert to Input Format	.0061	.0035			.0026	
8C CRT Edit	.4696	.0630	.3600		.0466	
Sub total 3C-8C	2.3818	1.1620	.3600		.8594	
Customer Supplied Marc II						
3D Convert MT/ST	.0053	.0025	.0009		.0019	
4D Convert to Input Format	.0187	.0025	.0143		.0019	
5D Run Marc II Validator	.2441		.0784	.1283	.0374	
6D Customer Contact	.1331	.0765			.0566	
7D Edit	.0559	.0075	.0428		.0056	
8D Line Print	.0525					.0525
Sub total 3D-8D	.5096	.0890	.1364	.1283	.1034	.0525

Figure 4.3-3 (3)

COST PER TITLE FOR SEPARATE PRODUCTION OPERATIONS
(continued)

		Total Cost/Title Processed	Labor Cost/Title Processed	Computer Cost/Title Processed	Computer Support Cost/Title Processed	Administrative Cost/Title Processed	Material Cost/Title Processed
9.	Combine Input Files	.0129	.0017	.0099		.0013	
10.	Convert LC MARC to Master File	.0129	.0017	.0099		.0013	
11.	Setup job, assign mag tapes	.0015	.0009			.0006	
12.	Deliver to Service Bureau	.0177	.0059			.0044	.0074
13.	Request Processing	.0988	.0052	.0289	.0471	.0176	
14.	Search and match	.6508	.0243	.1854	.3031	.1072	.0308
15.	Expand files and sort	.1222	.0017	.0382	.0626	.0197	
16.	Format Cards	.0699	.0024	.0211	.0345	.0119	
17.	Format Pocket Labels	.0030	.0006	.0006	.0010	.0008	
18.	Format Selin Labels	.0072	.0006	.0021	.0031	.0014	
19.	Deliver tape to be printed	.0177	.0059			.0044	.0074
20.	Check run sheet	.0035	.0020			.0015	
21.	Prepare notice of duplicate requests	.0026	.0015			.0011	
22.	Xerox run sheet	.0067	.0015			.0011	.0041

Figure 4.3-3 (4)

COST PER TITLE FOR SEPARATE PRODUCTION OPERATIONS
(continued)

	Total Cost/Title Processed	Labor Cost/Title Processed	Computer Cost/Title Processed	Computer Support Cost/Title Processed	Administrative Cost/Title Processed	Material Cost/Title Processed
23. Annotate run sheet	.0052	.0030			.0022	
24. Erase MT/ST Cassettes	.0012	.0007			.0005	
25. Print Cards	.2667					.2667
26. Coat Cards	.0168	.0069			.0051	.0048
27. Cut Cards	.0362	.0208			.0154	
28. Print Pocket Labels	.0169					.0169
29. Print Spine Labels	.0215	.0059			.0044	.0112
30. Log computer tir , clean tapes	.0090	.0052			.0038	
31. Box cards and labels	.0252	.0126			.0093	.0033
32. Typed ruined cards	.0052	.0030			.0022	
33. Proofread and correct typed cards	.0026	.0015			.0011	
34. Count matches, rejects billing	.0052	.0030			.0022	
35. Mail cards & labels	.0099	.0007			.0005	.0087

Figure 4.3-3 (5)

COST PER TITLE FOR SEPARATE PRODUCTION OPERATIONS
(continued)

	Total Cost/Title Processed	Labor Cost/Title Processed	Computer Cost/Title Processed	Computer Support Cost/Title Processed	Administrative Cost/Title Processed	Material Cost/Title Processed
Other Production Activities						
36. Check run progress	.0012	.0007			.0005	
37. Customer contact	.0052	.0030			.0022	
38. Check system tests	.0078	.0045			.0033	
39. Production meetings	.0038	.0022			.0016	
40. Liaison with systems programmers	.0026	.0015			.0011	
41. Reading new documentation	.0026	.0015			.0011	
42. Production Failure	.2069	.1189			.0880	
Total for request tape input (B)	1.71	.26	.31	.45	.33	.36

4.3.5.1 Direct Labor and Payroll Benefits

The direct labor was measured during the month of September and is tabulated on Figures 4.3-4 (1) through 4.3-4 (4). Payroll benefits are calculated at 20 percent of the direct labor costs.

4.3.5.2 Direct Computer Expense

Direct computer expense for the catalog card and holding system is tabulated on Figures 4.3-5 and 4.3-6.

4.3.5.3 Computer Support Expense

Computer support expense is required to set up new libraries, improve the production system, develop utility programs, and develop new service programs. It is shown on Figure 4.3-7.

4.3.5.4 Administrative Support Expense

Administrative support expense is labor and other expenses required to maintain the facility of the Vendor including sales and customer liaison services. These expenses are broken down on Figures 4.3-8 (1) through 4.3-8 (5).

4.3.5.5 Materials and Purchased Services

Materials and purchased services for catalog card and label production are tabulated on Figures 4.3-9 (1) and 4.3-9 (2).

Figure 4.3-4 (1)

LABOR COST PER TITLE PROCESSED

	Production Time Per Week in Minutes	Production Time Per Month in Minutes	Labor and Payroll Benefit Cost	Labor and Payroll Benefit Cost per Title
1. Check mail, separate requests	75	300	18.00	.0037
2. Log requests, make out work order	30	120	7.20	.0015
Typed Requests				
3A Check legibility	60	240	14.40	.0092
4A Encode Requests		1095	65.70	.0419
5A Proofread requests		690	41.40	.0264
6A Convert MT/ST cartridges	15	60	4.20	.0027
7A Convert to input format	10	40	2.80	.0018
8A Edit	45	180	12.60	.0080
Requests on Tape				
3B Copy on to fanfold	45	180	12.60	.0037
4B Convert to Input Format	30	120	8.40	.0025
Tag and Encode Marc II				
3C Tag Marc II		480	33.60	.3360
4C Encode Marc II		480	33.60	.3360
5C Proofread		600	42.00	.4200
6C Convert MT/ST		5	.35	.0035
7C Convert to input format		5	.35	.0035

Figure 4.3-4 (2)
LABOR COST PER TITLE PROCESSED
(continued)

	Production Time per Week in Minutes	Production Time per Month in Minutes	Labor and Payroll Benefit Cost	Labor and Payroll Benefit Cost per Title
8C CRT Edit		90	6.30	.0630
Customer Supplied Marc II				
3D Convert MT/ST	5	20	1.40	.0025
4D Convert to Input Format	5	20	1.40	.0025
5D Run Marc II Validator	10	40	2.80	.0010
6D Customer Contact	180	720	43.20	.0765
7D Edit	15	60	4.20	.0075
8D Line Print				
9. Combine Input Files	30	120	8.40	.0017
10. Convert LC MARC to Master File	30	120	8.40	.0017
11. Setup job, assign mag tapes	15	60	4.20	.0009
12. Deliver to Service Bureau	120	480	28.80	.0059
13. Request processing	90	360	25.20	.0052
14. Search and match	420	1680	117.60	.0243
15. Expand files and sort	30	120	8.40	.0017
16. Format cards	40	160	11.20	.0024
17, Format Pocket Labels	10	40	2.80	.0006
18. Format Selin Labels	10	40	2.80	.0006

Figure 4.3-4 (3)
LABOR COST PER TITLE PROCESSED
(continued)

	Production Time per Week in Minutes	Production Time per Month in Minutes	Labor and Payroll Benefit Cost	Labor and Payroll Benefit Cost per Title
19. Deliver tape to be printed	120	480	28.80	.0059
20. Check run sheet	35	140	9.80	.0020
21. Prepare notice of duplicate requests	30	120	7.20	.0015
22. Xerox run sheet	30	120	7.20	.0015
23. Annotate run sheet	60	240	14.40	.0030
24. Erase MT/ST cassettes	15	60	3.60	.0007
25. Print cards				
26. Coat cards	120	480	33.60	.0069
27. Cut cards	360	1440	100.80	.0208
28. Print Pocket Labels				
29. Print Spine Labels	120	480	28.80	.0059
30. Log computer time, clean tapes	90	360	25.20	.0052
31. Box cards and labels	255	1020	61.20	.0126
32. Typed ruined cards	60	240	14.40	.0030
33. Proofread and correct typed cards	30	120	7.20	.0015
34. Count matches, rejects, billing	60	240	14.40	.0030
35. Mail cards and labels	15	60	3.60	.0007

Figure 4.3-4 (4)

LABOR COST PER TITLE PROCESSED
(continued)

	Production Time per Week in Minutes	Production Time per Month in Minutes	Labor and Payroll Benefit Cost	Labor and Payroll Benefit Cost per Title
36. Check run progress	15	60	3.60	.0007
37. Customer contact	60	240	14.40	.0030
38. Check system tests	90	360	21.60	.0045
39. Production meetings	45	180	10.80	.0022
40. Liaison with systems programmers	30	120	7.20	.0015
41. Reading new documentation	30	120	7.20	.0015
42. Production failure			576.00	.1189

Figure 4.3-5

CALCULATION OF TOTAL COMPUTER EXPENSE FOR LIBRARY SERVICES

	Week of 9/8/71	Week of 9/13/71	Week of 9/21/71	Week of 9/27/71	MARC II Validation	Total
CPU (kilocore sec.)	15,345	10,888	13,849	12,476		
Cost 1.25¢/kilocore sec.	198.10	136.10	173.11	155.95	21.00	684.
Mag tape (hours)	16	15	15	15		
Cost $7.50/hr./unit	120.00	112.50	112.50	112.50		457.
Disk Storage (blocks)	5,000	2,500	0000	2,500		
Cost $.01/block/day	50.00	25.00		25.00		100.
Connect time (hours)	13	11.73	10.48	9.40		
Cost $1.55/hour	20.15	18.18	16.24	14.32		69.
Telephone (hours)	13	11.73	10.48	9.40		
Cost $1.00/hour	13.00	11.73	10.48	9.40		45.
Terminal (hours)	13	11.73	10.48	9.40		
Cost $.50/hour	6.50	5.86	5.24	4.70		22.
Tape Storage	1 week	1 week	1 week	1 week		
Cost	1.25	1.25	1.25	1.25		5.
						$1,382.

Cost per unit title shown on next figure (4.3-6)

Allocation of PDP-10 Direct Computer Costs ($1382.) to Processing Functions based on Kilocore Seconds of Central Processing Unit Usage.

	Kilocore Seconds	% of Computer Expense	Cost Per Operation	No. of Titles	Cost/Title
5D MARC II Validation	1,680	3.2	44.00	561	.0784
13. Request Processing	5,318	10.1	140.00	4843	.0289
14. Search and March	34,114	65.0	898.00	4843	.1854
15. Expand & Sort	7,018	13.4	185.00	4843	.0382
16. Format Cards	3,898	7.4	102.00	4843	.0211
17. Format Book Labels	60	.2	3.00	4843	.0006
18. Format Selin Labels	352	.7	10.00	4843	.0021

Allocation of PDP-9 and Digi-Data costs for steps 6A, 7A, 8A, 4B, 8C, 3D, 4D, 7D, 9, 10 based on production time at the following rates:

Digi-Data	$1.50/hour
PDP-9	$ .40/minute

COMPUTER COST PER TITLE

Figure 4.3-6

	Total Computer Support Cost
Labor	$2,880.00
Payroll Benefits	576.00
Computer Cost for Testing & Debugging	2,712.83
Equipment Depreciation, Monthly	1,800.00
Digi-Data Monthly	267.80
Less 60 hrs/mo. directly allocated to jobs @ $1.50/hr.	90.00
	177.80
Terminal	242.05
Less 200 hours directly allocated to jobs at $.50/hr.	100.00
	142.05
Telephone	310.30
Less 200 hrs./mo. directly allocated at $1.00/hr.	200.00
	110.30
Line Printing	6.65
MT/ST Lease	559.00
Less 350 hrs. directly allocated at $.80/hr.	280.00
	279.00
Total	$8,684.63

During month of September Inforonics Library Services PDP-10 usage was 26% of the total usage.

.26 x $8,684 = $2,258.

Allocation of Computer Support to separate production operations.

		$2,258 Computer Support	Cost per Title
5D Marc II Validation	3.2%	72.00	.1283
13. Request Processing	10.1	228.00	.0471
14. Search & Match	65.0	1,468.00	.3031
15. Expand & Sort	13.4	303.00	.0626
16. Print Cards	7.4	167.00	.0345
17. Print Book Labels	.2	5.00	.0010
18. Print Selin Labels	.7	15.00	.0031

COMPUTER SUPPORT COST PER UNIT TITLE

Figure 4.3-7

Figure 4.3-8 (1)

ADMINISTRATIVE SUPPORT EXPENSE

	Applied to Direct Labor at 74% Cost/Title	Applied to Computer Support Labor at 74% Cost/Title	Total Administrative Cost/Title
1. Check mail, separate requests	.0027		.0027
2. Log requests, make out work order	.0011		.0011
Typed Requests			
3A Check legibility	.0068		.0068
4A Encode requests	.0310		.0310
5A Proofread requests	.0195		.0195
6A Convert MT/ST cassettes	.0020		.0020
7A Convert to Input Format	.0013		.0013
8A Edit	.0059		.0059
Sub total 3A-8A	.0665		.0665
Requests on Tape			
3B Copy on to fanfold	.0027		.0027
4B Convert to Input Format	.0019		.0019
Sub total 3B-4B	.0046		.0046

Figure 4.3-8 (2)

ADMINISTRATIVE SUPPORT EXPENSE
(continued)

	Applied to Direct Labor at 74% Cost/Title	Applied to Computer Support Labor at 74% Cost/Title	Total Administrative Cost/Title
Tag and Encode MARC II			
3C Tag MARC II	.2486		.2486
4C Encode MARC II	.2486		.2486
5C Proofread	.3108		.3108
6C Convert MT/ST	.0026		.0026
7C Convert to Input Format	.0026		.0026
8C CRT Edit	.0466		.0466
Sub total 3C-8C	.8598		.8598
Customer Supplied MARC II			
3D Convert MT/ST	.0019		.0019
4D Convert to Input Format	.0019		.0019
5D MARC II Validator		.0374	.0374
6D Customer Contact	.0566		.0566
7D Edit	.0056		.0056
8D Line Print			

Figure 4.3-8 (3)
ADMINISTRATIVE SUPPORT EXPENSE
(continued)

	Applied to Direct Labor at 74% Cost/Title	Applied to Computer Support Labor at 74% Cost/Title	Total Administrative Cost/Title
9. Combine Input Files	.0013		.0013
10. Convert L.C.MARC to Master File	.0013		.0013
11. Setup job, assign mag tape	.0006		.0006
12. Deliver to Service Bureau	.0044		.0044
13. Request Processing	.0038	.0138	.0176
14. Search and Match	.0180	.0892	.1072
15. Expand Files and Sort	.0013	.0184	.0197
16. Format Cards	.0018	.0101	.0119
17. Format Pocket Labels	.0004	.0004	.0008
18. Format Selin Labels	.0004	.0010	.0014
19. Deliver tape to be printed	.0044		.0044
20. Check run sheet	.0015		.0015
21. Prepare notice of duplicate requests	.0011		.0011
22. Xerox run sheet	.0011		.0011

Figure 4.3-8 (4)

ADMINISTRATIVE SUPPORT EXPENSE
(continued)

	Applied to Direct Labor at 74% Cost/Title	Applied to Computer Support Labor at 74% Cost/Title	Total Administrative Cost/Title
23. Annotate run sheet	.0022		.0022
24. Erase MT/ST Cassettes	.0005		.0005
25. Print Cards			
26. Coat Cards	.0051		.0051
27. Cut Cards	.0154		.0154
28. Print Pocket Labels			
29. Print Spine Labels	.0044		.0044
30. Log Computer time, Clean Tapes	.0038		.0038
31. Box cards and labels	.0093		.0093
32. Typed ruined cards	.0022		.0022
33. Proofread and correct typed cards	.0011		.0011
34. Count matches, rejects, billing	.0022		.0022
35. Mail cards and labels	.0005		.0005

Figure 4.3-3 (5)
ADMINISTRATIVE SUPPORT EXPENSE
(continued)

	Applied to Direct Labor at 74% Cost/Title	Applied to Computer Support Labor at 74% Cost/Title	Total Administrative Cost/Title
Other Production Activities			
36. Check run progress	.0005		.0005
37. Customer contact	.0022		.0022
38. Check system tests	.0033		.0033
39. Production meetings	.0016		.0016
40. Liaison with systems programmers	.0011		.0011
41. Reading new documentation	.0011		.0011
42. Production failure	.0880		.0880

Figure 4.3-9 (1)

	Cost Rate	Cost/Week	Cost/Month	Cost/Unit
3B Copy onto fanfold				
Paper tape, 1/2 box per week	$45.00/ 24 boxes	.94	3.76	.0111
5A Encode requests				
IBM MT/ST cassettes	$18.00/			
2 cartridges/18 mo.	cartridge		2.00	
Selectric Ribbc s	$2.36/			.0028
1 roll/month	roll		2.36	
8D Line Print				
Line Printing			29.50	
12. & 19. Deliver to Service Bureau				
Transportation 90 miles	$.10/mile	9.00	36.00	.0074
90 miles	$.10/mile	9.00	36.00	.0074
14. Search and match				
Magnetic tape, 24 tapes/yr.	$940/year		78.35	
Terminal forms, 1 roll/week	$.87/roll	.87	3.48	.0308
MARC II tape	$800/year		66.67	
22. Xerox run sheet				
Xerox copies				
200 copies/mo.	$.10/copy		20.00	.0041
25. Print cards				
Catalog card stock			370.00	.2667
Line printing			921.41	
26. Coat cards				
Fixative spray	$1.95/can	5.85	23.40	.0048
28. Print pocket labels				
Book & card pocket labels	$.0063/label		28.00	.0169
Print labels			53.64	
29. Print Spine Labels				
Selin labels	$.011/label		54.06	.0112

Figure 4.3-9 (2)

MATERIALS AND PURCHASED SUPPLIES
(continued)

	Cost/Rate	Cost/Week	Cost/Month	Cost/Unit
31. Box cards and labels				
Mailing boxes, 60/mo.	$.10/box		6.00	
Wrapping paper & tape 2 rolls per month	$4.92/roll		9.84	.0033
35. Mail cards and labels			42.00	.0087

4.4 NELINET HEADQUARTERS ACTIVITIES

The Library of Congress MARC Distribution Service began production on a regular basis on March 17, 1969, and the NELINET project received its first weekly tape on April 1, 1969. Pilot Operation, using the University of Vermont Library connected by teletype to the Inforonics' facility in Maynard, Massachusetts, was instituted in June, 1969, and the system became operational in March, 1970. During this phase of the project the primary activity of the NELINET Director was limited to the monitoring of and active participation in the several grant programs supportive of the system development effort. The administration tasks relative to member participation (e.g., billing, customer relations, etc.) were performed by the Inforonics staff. The staff at that time was composed of a Director and clerical support.

With the transfer of the Shared Cataloging Support Sub-System to an operational mode in March 1970, it became apparent that NELINET required a full-time staff to administer the network, to obtain new research funds, and to provide stability and expertise for long-range planning and future system development. Therefore, the active members of NELINET and the New England Board of Higher Education agreed formally to provide for an initial staff of three professionals and one support person. Expansion of the staff was completed in January, 1971, and the responsibility for the membership monthly billing was accordingly transferred to NELINET headquarters. One of the first actions taken by the new staff was an in-depth review and update of the Master Plan for the network's development. This activity was broken down into four concurrent tasks:

1. A review of the development schedule and priorities
2. A review of machine hardware configuration (proposed and alternatives)
3. An evaluation of related projects and Vendor services
4. Expansion of Network Membership

Expansion of the network membership was tackled with vigor and a formal marketing plan was put into effect. During the period from January 15, 1971 to May, 1971, over forty academic libraries were visited and eight groups of libraries participated in NELINET presentations. Much helpful information was derived by the NELINET staff concerning local budget and operational problems, attitudes toward library cooperative programs, expectations of NELINET and other considerations.

In March 1971, the headquarters staff undertook publication and distribution of "Channel", as a bimonthly newsletter of the New England Library Information Network. "Channel" has since become the primary vehicle of NELINET to keep librarians and other interested persons informed about the current status of NELINET activities and other information pertinent to the membership.

In July of 1971, the NELINET Executive Committee, composed of representatives from member libraries, approved and made available to all libraries in the region three levels of membership: Supporting,

Introductory and Affiliate. This procedure resulted in a steady increase in NELINET membership. By early 1972, over 30 institutions had been accepted for membership under these new arrangements. With the increase in membership, an additional administrative burden was placed on the headquarters staff. Thus, in the third quarter of 1972, additional clerical capability was added.

Since that time, the Central staff has assumed increasing responsibility for the interfacing between the users and Inforonics on a day-to-day basis. In addition to handling billing procedures, the staff has monitored and transmitted positive and negative feedback in both directions. Among these activities were profiling new members and suggesting ways in which the system might be used more efficiently within libraries. As a result, slight improvements in system performance were suggested to Inforonics. These operational responsibilities were accomplished in addition to planning and recruitment activities.

During our investigations into the causes of under-utilization of the off-line Shared Cataloging Support Sub-System as provided to NELINET members by Inforonics, one of the major reasons repeatedly offered by librarians was the fact that the MARC data base as distributed by LC encompassed too small a percentage of a given library's acquisitions coverage. Although the overwhelming number of libraries using the system apparently made rather low use of those records available to them, the staff undertook to seek ways in which the data base could be augmented from non-LC MARC sources. In addition to pursuing methods and costs whereby libraries could input records into the system themselves, preliminary negotiations were opened with Richard Able, Information Dynamics Corporation and the Xerox Bibliographics Group.

In each case, we sought to acquire full bibliographic records in a format suitable for input into the NELINET MasterFile on a continuing basis at low cost. The Vendors noted above had their own objectives to pursue, and in two cases, did not have records in machine-readable form. These two Vendors did, however, either declare their intention to do so, or professed that conversion of such records at a central NELINET site could be done most inexpensively.

As it turned out, such procedures were unacceptable to the staff because of the relatively high front-end costs. In any case, the fact that existing records were not fully exploited by our membership left some doubt as to the utility of the short-term benefits generated by such expenditures of development funds.

4.5 SUB-SYSTEM MANAGEMENT DATA PACKAGE

The Project Work Statement (see Volume I, Appendix 5.1 of this report) declared that:

> I.D. The Vendor will program, test and implement a statistical package which operates within the various programs and sub-routines of the current Shared Cataloging Support Sub-System (MARC) which will provide on-demand reports as a routine by-product of computer processing. Reports produced by this package will include:*
>
> 1. The quantity of requests [for catalog products] made to the system by each user library;
> 2. The quantity of requests which produce changes in holdings information by each user library [as defined by a query code signifying that no card products are to be produced];
> 3. The quantity of new and changed MARC records added to the NELINET Master File [as defined by counting records which have been deleted and replaced];
> 4. The total quantity of requests [for catalog products] which result in the production of printed catalog [card] entries;
> 5. The quantity of requests [for catalog products] which have matched records in the NELINET Master File, arranged by each requesting library, which result in the production of catalog [card] entries;
> 6. An array distributed from 1 to n catalog [card] entries (including added entries), arranged in order of requesting library;
> 7. The cumulative total quantity of catalog [card] entries per week produced for each requesting library;
> 8. The quantity of follow-on cards per set arranged by each requesting library;
> 9. The quantity of book pocket labels produced for each requesting library;
> 10. The quantity of Selin spine labels produced for each requesting library.

These data were specified by the NELINET staff for implementation by the Vendor for the purpose of providing both the NELINET control staff and the administrators of the participating libraries with planning data which was subsequently used to monitor the participants' use of the system, and to revise the billing structure.

*In some cases these requirements are slightly re-worded for clarity.

As a result of analyzing these reports, a computer-generated billing statement was constructed which itemizes the quantity of requests, the quantity of cards, book labels, Selin labels and credits for each library on a unit price basis as illustrated below for one month.

LIBRARY NOWHERE UNIVERSITY
RUN DATE 7/5 AND 7/12

RECORDS AT .78	71
CAT CARDS AT .08	410
SELIN LBL AT .10	71
CIRC LBL AT .05	142
ENCODING AT .23	71

RECDS	CRDS	SLNS	PK LBL	ENC
55.38	32.8	7.10	7.10	16.33

TOTAL
118.71

LIBRARY NOWHERE UNIVERSITY
RUN DATE 7/19

RECORDS AT .78	40
CAT CARDS AT .08	186
SELIN LBL AT .10	33
CIRC LBL AT .05	66
ENCODING AT .23	40

RECDS	CRDS	SLNS	PK LBL	ENC
31.2	14.88	3.30	3.30	9.20

TOTAL
61.88

SUBTOTAL 180.59

CREDITS

RECORDS AT .78	0
CAT CARDS AT .08	4
SELIN LBL AT .10	2
CIRC LBL AT .05	4
ENCODING AT .23	0

RECDS	CRDS	SLNS	PK LBL	ENC
0	0.32	0.20	0.20	0

TOTAL
0.72

FINAL TOTAL 179.87

This development allows the staff or the Vendor to adjust the unit prices as volume of system use increases or decreases, merely by changing the unit cost multipliers in a computer table.

It was found, for instance, that an average catalog products set consisted of 8.2 catalog cards, follow-on cards and message cards, one book card and one Selin label. This information, derived from the Management Data Package, combined with the detailed cost analysis described in Section 4.3, permitted the staff and the Vendor to estimate the growth rate needed to attain a production flow of sufficient size to further reduce costs to participating libraries.

The tabulations relating to the specific reports are displayed and annotated below. They are extracted from the output of the Sub-System Management Data Package (MDP). Each item in the Project Work Statement which is satisfied by particular outputs are referenced as they are discussed.

FIGURE 4.5-1

QUANTITY OF REQUESTS
MADE TO THE SHARED CATALOGING SUB-SYSTEM BY USER LIBRARY*
(Work Statement item #I.D.1)

LIBRARY CODE	GOOD REQUESTS	REJECTED	TOTAL
AF	300		300
AFS	35		35
BBA	90		90
BBE	34		34
BBH	16		16
BBJ	19		19
CO	97	1	98
ME	49		49
MI	181		181
NH	100	1	101
NHP	46	1	47
NWM	58	1	59
POL	13		13
VT	47	3	50
ZZO	266		266
UNK		7	7
TOTAL	1351	14	1365

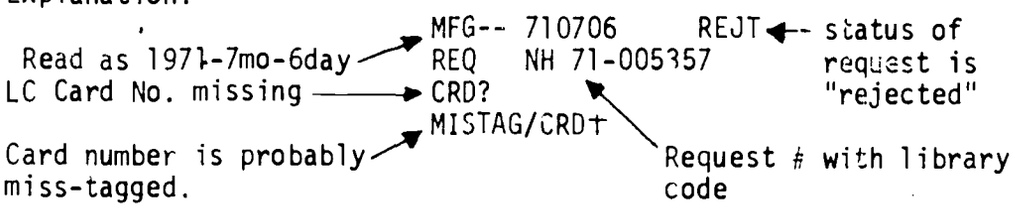
*This table is transcribed from a computer run sheet for clarity

In addition to displaying the data required under item I.D.1 of the Project Workstatement, this table also indicates the quantity of requests from each library which have been rejected by the request parsing system. Another part of this Management Data Package sub-routine displays the types of input errors detected by the parser. These errors are explained in the appropriate section of the NETBOOK described in Section 4.6, as keyed to these codes:

Error Type	Quantity of Requests Affected
ILLID	2
ILLTAG	2
DUPTAG	7
ILDATA	7
ILLBLK	1
MISTAG	4
ILLPRE	1
TOTAL	24

The NETBOOK, for instance, explains MISTAG as "missing tag." These request errors are then displayed explicitly and a probable cause specified by the computer, e.g.

Explanation:



This error report is then sent to NH, the requesting library for correction, together with the catalog products and other system messages which may apply.

Figure 4.5-2 lists the quantity of requests for catalog card sets which have matched and distributes them over the number of weeks which the requests have been on file before they matched. The column heading '1 2 ... 10' is the number of weeks in the standard 10-week cycle. 'Purged' is the requests which have not matched in the 10 week period and are being dropped from the file during this run. 'Total' is sum of all matched requests. This total includes new requests as well as those requests which update the previously matched requests of a given library.

Data in Figure 4.5-3 are summarized from analysis of five consecutive weeks of MARC tape input processing. The implications of such changes raise questions about what should be done about those records which have been changed by LC for which catalog cards have been produced and holdings lines generated for user libraries. The interim answer to that question has been to notify libraries when a particular record has been changed or deleted by LC. The library may then elect to re-request cards if necessary.

FIGURE 4.5-2

DISTRIBUTION ARRAY OF MATCHED REQUESTS
AS A FUNCTION OF WEEK REQUESTS/IN SYSTEM, BY USER LIBRARY*
(Work Statement item #I.D.4 and 5)

LIBRARY CODE	10 WEEK CYCLE										TOTAL MATCHED	PURGED
	1	2	3	4	5	6	7	8	9	10		
CO												2
ME	13	1				1	2				17	
MH												
NH	33			1							34	6
NHK												
NHP	16							1			17	3
RU	66										66	63
RUE		2				1					3	1
VT	155			1							156	15
TOTAL	283	3		2		2	2	1			293	90

*For purposes of clarity of reproduction, this figure has been transcribed from a computer run sheet.

FIGURE 4.5-3

QUANTITY OF NEW AND CHANGED MARC RECORDS
ADDED TO THE NELINET MASTER FILE
(Work Statement Item #I.D.-3)

MARC RECORDS	Sept. 7	Sept. 14	Sept. 21	Sept. 27	Oct. 12	AVERAGE PER WEEK
MARC Rec'ds Rec'd	1524	1240	1427	1274	2478	1588.6
Changes to MARC Records already in file	238	7	392	424	351	282.4
Records deleted by LC	11	0	0	0	41	10.4
TOTAL	1773	1247	1819	1698	2870	1881.4
% Changes and Deletes	14.04	0.56	21.55	24.97	13.66	15.56

FIGURE 4.5-4

DISTRIBUTION OF CATALOG ENTRIES
ARRAYED BY USER LIBRARY
(Work Statement item #I.D.6 and 7)

LIBRARY CODE	QUANTITY OF CATALOG ENTRIES												TOTAL
	0	1	2	3	4	5	6	8	9	10	OVER		
CO													
ME			1		5	5	4	2					17
NH								8	13	8	4	1	34
NHP							1	2	9	3		3	18
RU	1			4	25	20	18	9	1				78
RUE						1	3						4
VT							12	37	40	37	17	13	156
TOTAL	1		1	4	30	31	38	54	53	48	21	17	307

Table 4.5-4 is a distribution array of the number of catalog cards produced per MARC record for each library. The number of catalog cards produced depends upon the immediacy and coverage of the MARC Tape Distribution Service and upon each library's card set requirements. For example: library 'A' and library 'B' request the same MARC record. Library 'A' defines its basic card set as one catalog entry for each tracing plus three main entries, while library 'B' defines its basic card set as one catalog entry for each tracing plus only one main entry. Library 'A' will receive more catalog cards than library 'B' for this particular MARC record. The quantity of tracings and added entries in the MARC record further effects the quantity of cards produced for each title for each requesting library.

The columns heading '0 1 2 ... OVER' represents the quantity of distinct catalog entries, not number of cards because some entries have follow-on cards.

The '0' column includes those requests made to the system to update holdings file information without producing catalog entries.

Therefore, this display also satisfies the requirement of Work Statement item #I.D.2--to display the "quantity of requests which produce changes in holdings information by each user library."

The 'OVER' column is for those MARC records that produce over 10 catalog card entries per title.

The 'TOTAL' includes the number of matched MARC records per library plus the number of 'message' cards per library. A 'message' card notifies the library that either a new request did not match or an unmatched request that has been on the file 10 weeks has been dropped from the file. The message cards should not really be included in the total because they are not catalog entries but notices to system users. A message card appears below.

FIGURE 4.5-5

UNIT MESSAGE CARD

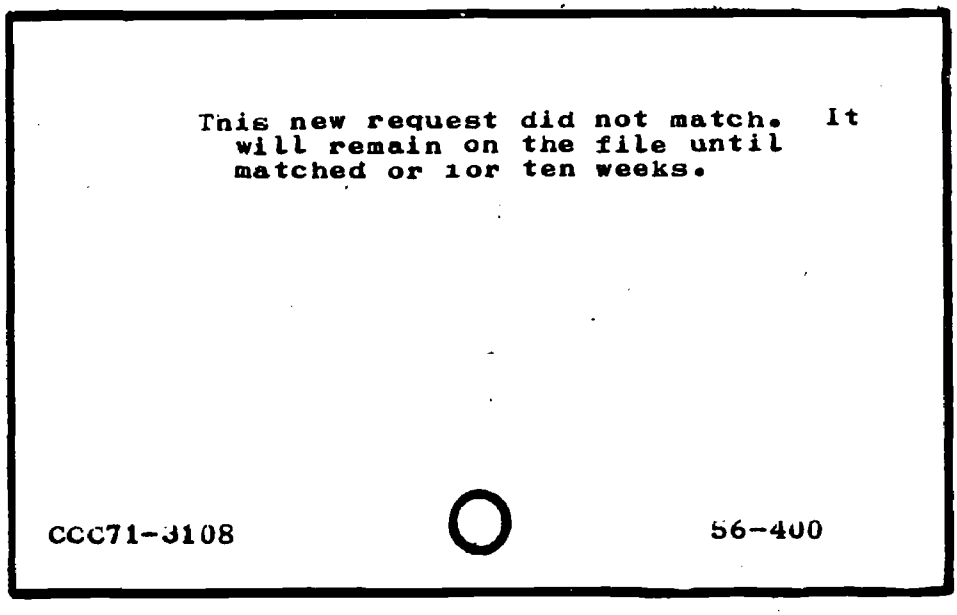


FIGURE 4.5-6

RATIO OF FOLLOW-ON CARDS PER CATALOG ENTRY
OVER A FIVE WEEK TEST PERIOD

TEST WEEKS	Cat. Ent. IN	Cat. Cards OUT	OUT / IN
7 Sept. 71	8806	12317	1.40
14 Sept. 71	5948	8605	1.44
21 Sept. 71	6835	8491	1.24
27 Sept. 71	6658	9310	1.39
12 Oct. 71	14305	17425	1.21*
TOTAL	42552	56148	1.31

*This run reflects the first use of the ALA print train run at 8 lines per vertical inch. Formerly, IBM upper-lower case train run at 6 lines per vertical inch. About a 66% improvement in follow-on card production during successive weeks.

By extracting the quantities of known catalog entries which entered the print queue each week during the test period, and automatically counting the quantity of catalog cards printed (excluding errors), the ratio between the Output divided by the Input provides a measure of the average quantity of follow-on cards per catalog card entry.

FIGURE 4.5-7

MASTER FILE AND REQUEST STATUS REPORT
ARRAYED BY USER LIBRARY

LIBE	MAGIP	DISCIP	MAGOP	MATCHD	MATCHM	REQMAG
LC*	129969	1207	-130995			
AF	4373	299	4670	299		2
AFS	772	30	768	22		31
BBA	74	90	146	76		17
BBC	6		1			5
BBE	17	34	42	28		9
BBH	81	16	48	5		49
BBJ	11	18	20	12		9
BBU	50		45			5
CO	2635	97	2674	92		50
IPA	7		7			
ME	347	49	294	14		101
MH	85		72			13
MI	2133	178	1933	153	1	354
NH	1551	100	1570	75		75
NHK	543		526			14
NHP	611	46	597	32		58
NWM	664	58	695	51		25
POL	345	13	308	10		38
PPD	18		18			
RU	4099		3755		1	302
RUE	347		264			83
SUA	79		79			
VT	1306	47	1285	39		54
ZZO		265	2	259		
EOF	8		8			
TOTALS		2547	-111168	1167	2	1294

Explanation. LIBE = name of source of MARC records or requestor of catalog products

MAGIP = Magnetic Tape Input, e.g. LC = the source of MARC records, in this case the MARC file was stored on tape and contained 129,969 records. For each user library, this column represents all of its holdings lines and unmatched requests.

DISCIP = Disc input, containing the current catalog product requests from user libraries and holdings changes. For LC, the quantity represents the current week's acceptable MARC records.

MAGOP = Magnetic Tape Output, or the total number of MARC records for LC; for the libraries in the left column other than LC, the quantities in this column represent the holdings records which have been appended to the file as a by-product of successfully matched requests for catalog products, or for holdings which have been added without ordering cards.

MATCHD = Records Matched from Disc, or the total quantity of requests from user libraries which have been matched during this particular weekly run. This column satisfies Work Statement item #I.D.5: "the quantity of matched requests arranged by each library..."

MATCHM = Records Matched from Magtape, or the quantity of requests which were received earlier than the current weekly cycle period: old requests which have not been purged.

REQMAG = Request remaining on Magtape, which did not match records during the current run, but which will remain in the magtape request file in preparation for the next run. They will be added to MAGIP during the next week's run.

The next series of outputs produced by the Management Data Package (MDP) contains summary activity for each library in the following format:

```
LIB:  VT  <-------------------- Library name code
61 RECORDS IN <---------------- Quantity of requests
1 ERRORS.
1 ABORTED.
350 CARDS OUT.
41 SELIN LABELS OUT.
41 BOOK LABELS OUT.
```

At the end of this list of tabulations is a summary for the run, produced by the MDP which appears as:

```
TOTAL RECORDS INPUT=1405
TOTAL CARDS OUT=6716
TOTAL POCKET LABELS OUT=1574
TOTAL SELIN LABELS OUT=1274
TOTAL ABORTED RECORDS=3
TOTAL ERRORS DETECTED=5*
1117 TOTAL
```

*These errors are again described explicitly by the program and a probable cause assigned. If a requesting library is the cause of the error, a report is sent to it for action.

These summaries can be tabulated and displayed in a variety of ways, depending upon the needs of management. Two illustrations of book label and Selin spine label production (Work Statement items #I.D.9 and 10) over a five week test period are displayed below in Figures 4.5-7 and 4.5-8.

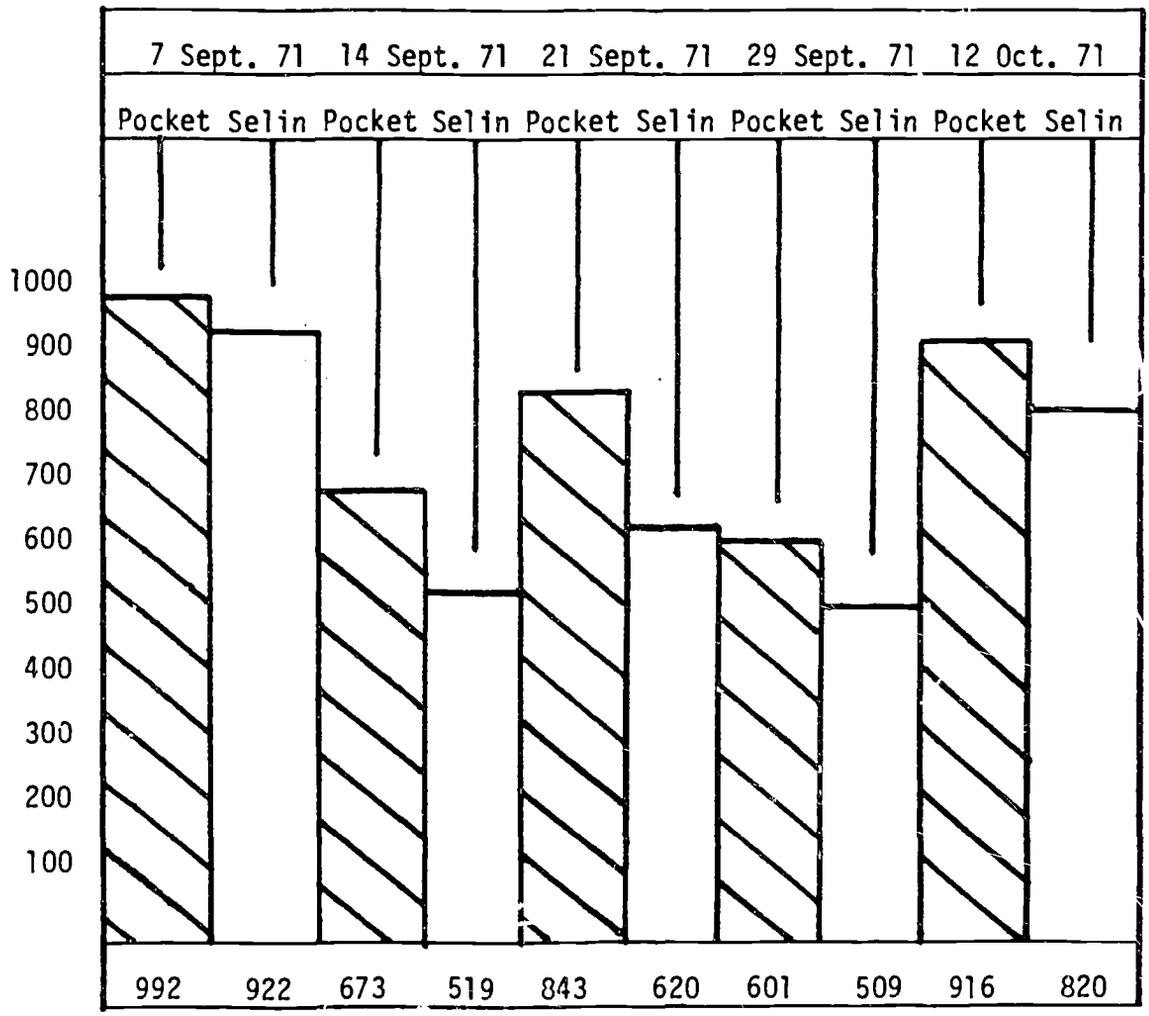
FIGURE 4.5-8

BOOK POCKET AND SELIN SPINE LABEL PRODUCTION
PER LIBRARY OVER A FIVE-WEEK PERIOD

Library Code	7 Sept. 71		14 Sept. 71		21 Sept. 71		29 Sept. 71		12 Oct. 71	
	Pocket	Selin	Pocket	Selin	Pocket	Selin	Pocket	Selin	Pocket	Selin
CCM									153	159
CLB	4	2	170	85	192	96	94	47	10	5
MAS								11		1
ME	10	5	14	7	10	5	10	5	10	5
MET			112	56					160	80
MH	129	129	3	3	4	4	248	248	78	78
NH	26	26	5	5	38	38	55	55	85	85
NHP		1								
NU									179	179
NWC			104	104	6	6	38	38	126	126
RU	669	669	259	259	260	240	22	22	79	79
RUE					3	3				
VT	120	71	6		276	181	131	81		
VTJ	34	19			54	47	3	2	36	23
TOTAL	992	992	673	519	843	620	601	509	916	820

FIGURE 4.5-9

BOOK POCKET AND SELIN SPINE LABEL PRODUCTION
FOR ALL NELINET LIBRARIES OVER A FIVE-WEEK PERIOD



These reports satisfy the work statement items I.D. 9 and 10.

It can be readily observed that during the development of the Management Data Package that a good deal more information can be obtained than the work statement specified as a basic minimum. Some of these data are displayed in the following figures.

FIGURE 4.5-10

QUANTITIES OF REQUESTS MATCHING MARC RECORDS ARRAYED OVER A 10 WEEK CYCLE FROM DATE OF INPUT

	WEEK IN TEST PERIOD									
Week Request Record Matched MARC Record	7/7/71 1st run	7/13/71 2nd run	7/20/71 3rd run	7/27/71 4th run	8/3/71 5th run	8/10/71 6th run	8/17/71 7th run	8/25/71 8th run	8/31/71 9th run	9/7/71 10th run
1st week	614	283	399	82	331	338		454	1,151	1,040
2 weeks	2	3	4	10	5	8		3	2	0
3 weeks	8		1	3	6	1		1	2	2
4 weeks	2	2	2	18		3		3	3	4
5 weeks	3		3	1		1			2	1
6 weeks		2	1	1	1	3		2	1	0
7 weeks		4	2	1		1			1	2
8 weeks	2	1		4				2		4
9 weeks										
10 weeks										
TOTAL	631	295	402	110	351	355		465	1,162	1,053
purges	68	-	75	58	65	24		56	162	145

The actual quantities displayed in FIGURE 4.5-6, can be translated into percentages as shown below in FIGURE 4.5-10.

FIGURE 4.5-11

PERCENTAGES OF REQUESTS MATCHING MARC RECORDS ARRAYED OVER A 10 WEEK CYCLE FROM DATE OF INPUT

	WEEK IN TEST PERIOD									
Week Request Record Matched MARC Record	7/7/71 1st run	7/13/71 2nd run	7/20/71 3rd run	7/27/71 4th run	8/3/71 5th run	8/10/71 6th run	8/17/71 7th run	8/25/71 8th run	8/31/71 9th run	9/7/71 10th run
1st week	98.25%	95.92%	99.25%	74.54%	94.87%	95.21%		97.63%	99.05%	98.76%
2 weeks	.31%	1.01%	.96%	9.00%	1.42%	2.24%		.63%	.17%	
3 weeks	1.27%		.24%	2.70%	1.68%	.28%		.21%	.17%	.20%
4 weeks	.31%	.67%	.48%	16.20%	.84%	.84%		.63%	.25%	.40%
5 weeks	.48%		.72%	.90%	.84%	.28%			.17%	.10%
6 weeks		.67%	.24%	.90%	.28%	.84%		.42%	.08%	
7 weeks		1.34%	.48%	.90%		.28%		.42%	.08%	.20%
8 weeks	.31%	.33%		3.60%						.40%
9 weeks										
10 weeks										

From these data generated by the MDP, it became obvious that the 10-week cycle was probably too long a time for libraries to have requests remain in the input queue awaiting MARC records. It was therefore recommended that eight weeks become the recommended norm, but that libraries could specify any number of weeks which they chose. The recommendation was accepted by the membership and subsequently implemented by the Vendor. The net effect has been to reduce the processing time over-all and, at the same time, tailor that part of the system to accommodate individual preferences.

In summary then, this management information, derived automatically as by-product output of the Shared Cataloging Support Sub-System, provides the administrators with growth and performance rates so that the sub-system can be modified, and libraries' use of the data from the User and Technical Audits, have already had a profound effect upon sub-system refinement and future system development.

4.6 USER PRESENTATION PACKAGE

The User Presentation Package is composed of two types of materials: 1) materials used by members of the NELINET staff to present the "NELINET story" to groups and prospective members, and 2) materials used by the NELINET staff and members of the technical processing staffs in libraries which have become members and require training for effective use of the Shared Cataloging Support Sub-System.

The NELINET Story

As displayed in Appendix 5.8, a number of brochures, newsletters and blanket mailings have been used to elicit interest from the New England academic library community. These instruments, when combined with personal contact through existing members or initiated by the NELINET staff have proven to be quite effective.

For groups of 10 or more, the staff has prepared a series of slides and overhead transparencies which display network concepts, products, simplified flow charts of input and output processing within typical member libraries, and views of the various kinds of main-frame and peripheral hardware.

When necessary in order to explain technical details to a small group, the NETBOOK can be referred to, but that tool is used primarily to train local staffs in the use of the system and keep members up to date on system improvements and services.

The NETBOOK

The NETBOOK as compiled during the project contains six sections in addition to a preface. These sections are:

Section 1: Profile Questionnaire
Section 2: Request Preparation
Section 3: Input Keying
Section 4: The Holdings File
Section 5: System Limitations and Errors
Section 6: Input of Local Catalog Records

It numbers 42 pages in length and is supplied in a loose-leaf binder to libraries as part of their membership package.

Section 1: Profile Questionnaire

This section contains a series of forms which the NELINET staff uses to acquire appropriate information about each library's classification schedules, card and label format requirements, the various symbols needed in catalog files, and quantities of cards and labels per set. After review by the staff, this information is forwarded to Inforonics for translation into the computer store for table look-up during the catalog products weekly production cycle.

Section 2: Request Preparation

This section is designed to be used as a daily reference section to catalogers, typists, or key punch operators as they prepare input requests to be sent to Inforonics on a weekly basis. During the training period, those persons in each library who will interface with the system are led through this section by a NELINET staff member and sample input is prepared. Several optional forms are provided, which the user library may reproduce. Several special conditions which can over-ride standard profile requirements are permitted.

Section 3: Input Keying

This section is divided into two parts. The first part is for use with a Model 33 ASR Teletypewriter, or its equivalent; the second part is used with an IBM Magnetic Tape Selectric Typewriter. A library may opt to use either type of unit if it wishes to convert its requests into machine-readable form, or it may elect to send requests on paper forms and Inforonics will do the conversion. In the latter case, a surcharge is levied over and above the basic charge for card products.

These instructions pertain to the keying of requests for catalog cards or to the input of original bibliographical data in MARC II Communications Format. A special MARC II input worksheet has been devised and is currently in use by the Boston Theological Institute. The MT/ST input technique was selected as the most appropriate off-line input device because of its programmability, upper-lower case fonts and its facile error correction ability. The teletypewriter has none of these advantages. As technology advances, and the Shared Cataloging Support Sub-System is enhanc to its on-line mode, system response time will, of course, dramatically improve. The NETBOOK will remain as the system bible throughout this development.

The paper tape produced by the 33 ASR or the MT/ST magtape cassettes, are then mailed to Inforonics for conversion directly into magnetic tape ASCII input characters.

This section concludes with a NELINET Problem Report Form, which a member may send to the Assistant Director for Field Operations for prompt action.

Section 4: The Holdings File

This short section describes the format, functions and methods of accessing and changing the particular holdings line associated with a record in the Master File. Seven code suffixes are defined as options available to the cataloger. These are displayed in FIGURE 4.6 - 1.

FIGURE 4.6 - 1

HOLDINGS FILE MANIPULATION

Suffix Code	New or Old Request	Purpose
'b'	new	New request compared against MARC II file until matched up to a period of 10 weeks. Holdings record created. Catalog card sets produced.
'm'	new	New request compared against MARC II file only once. No holdings record created. Catalog card sets produced.
's'	new	New request compared against MARC II file only once. No holdings record created. Only one main entry produced.
'x'	new	New request compared against MARC II file until matched up to a period of 10 weeks. Holdings record created. Only one main entry card produced.
'b'	old	New request record appended to existent holdings record.
'r'	old	Existent holdings record replaced with new request record.
'e'	old	Existent holdings record and new request record eliminated.

These instruct the computer program to take explicit action as described.

Section 5: System Limitations and Errors

This section defines limitations associated with call number formatting, omission of special notes, hyphenation, and a glossary which explains errors reported back to the library which may have been caused at the point at which catalog products were converted into machine readable form by the library's technical staff.

Section 6: Input of Local Catalog Records

And finally, a section in the NETBOOK has been allocated toward fulfilling the task number II A and B.

For some time, NELINET members have sought a means whereby bib-

liographic records could be converted into machine-readable form in the MARC II Communications Format and merged with the NELINET Master File. By so doing, the records could be used to produce a wide variety of output products, e.g. Catalog Support Products for shared use by several libraries, multiple library book catalogs, circulation control files and the like. In short, any product of the current or future sub-systems which is derivable from the NELINET Master File, should not be totally dependent upon the limited coverage of MARC or RECON records as supplied by the Library of Congress.

Therefore, procedures have been drafted for inputting local cataloging records into the NELINET Master File, using hardware which is readily available in several libraries already. Generally, the input can follow the same technical paths which are available for the input of batched queries to the Master File for the purpose of catalog products production. These routes include teletype paper tape and tape cartridges produced by Magnetic Tape Selectric Typewriters. Many other methods are possible, depending upon the expected input load, and how many segments of the input and editing procedures are elected to be used by the library inputting such records. In general, the input sequence in a batch system is fairly firm; options include a choice of data collection device, service bureau (e.g. op-scan), and how much professional assistance for purposes of editing should be contracted for with the NELINET Vendor.

Such trade-offs naturally include the availability of staff and equipment in the inputting library. If a library has an abundance of these resources, then both the costs and manpower requirements of NELINET Central or the Vendor can be proportionately reduced as a contract expense.

In general, the sequence of steps and their associated costs of an input procedure which assumes maximum work performed by a typical Vendor (Inforonics) follows in FIGURE 4.6 - 2. All records are assumed to be in the full MARC II Communications Format. Deviations from these costs are dependent upon the estimated quantity of records, and the level of complexity of records to be converted.

This system is used when a customer wishes to encode local holdings, current Roman alphabet or transliterated accessions or retrospective collections.

The input to the process consists of an LC card copy or original catalog card mounted on a worksheet, the specifications of which are provided by NELINET.

In this particular sequence, steps 1 and 2 can be performed by the library itself, and the unit costs absorbed. Specific tagging instructions and training procedures have also been developed.

Costs of producing catalog support products, and book catalogs are then added to this input cost. Similar cost estimates for these products have been made, and are available as new system capabilities.

FIGURE 4.6 - 2

STEPS FOR INPUTTING LOCAL CATALOG COPY INTO THE NELINET MASTER FILE

		COST/RECORD
STEP 1)	Tagging of the worksheet to identify the elements, e.g. the elements to be encoded in the record.	.50
STEP 2)	Type the record on an IBM MT/ST creating a magnetic tape cassette, or on a communications TWX creating a paper tape record.	.55
STEP 3)	Forward the cassettes or paper tape to Inforonics where they are converted to standard magnetic tape and listed on an upper and lower case lineprinter.	.34
STEP 4)	A computer check is run on the data to print out logical errors in the encoded record. The proof printout and error printout are returned to the customer for proofreading.	.15
STEP 5)	Proofread (2 runs).	.60
STEP 6)	The proofread listing is returned to Inforonics for correction by an on-line C.R.T. data editing system. The edited and corrected tape is relisted and the listing resubmitted to the customer for final checking. Any remaining errors are corrected by a final editing cycle. The tape is converted to a MARC II magnetic tape format used by the system.	.45
	TOTAL/RECORD	$2.59

When these costs were determined, the membership was polled and asked if any members wished to exercise the local input option. The answer was negative, primarily because of cost and the fact that additional staff would need to be trained for this unfamiliar task. The costs, therefore, appeared to be:

Local input per record	2.59	
Catalog products	1.71	
	$4.30	per record

n.b. These costs exclude local library labor and overhead, and include only costs billed by the Vendor.

Item II. C of the Work Statement, then produced no firm positive response for expanding the Inforonics system in the present off-line mode, unless membership was to be dramatically expanded once again and a further grant is applied for to move toward a truly interactive on-line system.

APPENDICES 5.0

APPENDIX 5.1

PROJECT WORK STATEMENT

APPENDIX 5.1

CLR PROPOSAL WORK STATEMENT

OBJECTIVES AND TASKS

I. OBJECTIVE: To perform a Technical and User Audit to determine what policy decisions and technical changes are needed to increase the performance and management control of the NELINET cataloging support system.

I.A. TASK: Cost elements which are required to operate the present NELINET card production service will be flow-charted; and cash values will be calculated and assigned to each element by monitoring one month's statistics (i.e., four consecutive weekly runs) by the Vendor. The cost element series will include elements, such as: the MARC subscription cost; filling out request work sheets; run costs of each program used; cost of card printing; cost of clerical time involved; mailing charges; cost of changes made to the cards by local librarians after receipt and filing. All isolatable intermediate steps will also be costed. When unit costs are derived from aggregate totals, the totals and unit numbers should be specified. After ten Man Days, a review meeting will be held with the NELINET staff and the Vendor to be certain that the appropriate cost elements have been selected.

I.B. TASK: Assisted by the Vendor, each NELINET member library will be visited by the NELINET staff to:

. Identify and describe specific problems relating to the physical characteristics of the products produced by the Shared Cataloging Support Sub-System (MARC);

2. Determine how these products can be improved;

3. Specify those additional services and their specific costs based upon the Shared Cataloging Support Sub-System processing capability, which could be developed and implemented with relatively little effort by Inforonics and minimum investment of NELINET funds;

4. Identify, describe and resolve any billing problems relating to the Shared Cataloging Support Sub-System;

5. Estimate the degree of use made by NELINET members of the Sub-System as a proportion of the potential MARC coverage of acquisitions;

6. Estimate of user acceptance of implementing a network oriented Shared Cataloging Support Sub-System;

7. Estimate of user acceptance of implementing a network oriented Circulation and Interlibrary Loan Control Sub-System.

I.C. TASK: At least twelve potential NELINET members, as specified by the NELINET Director, will be visited on site to:

I.C. (CONTINUED)

1. Introduce them to the immediate products and services provided by the NELINET Shared Cataloging Products Sub-System, and the long range benefits of NELINET membership;

2. Survey their reaction to the physical characteristics of the Shared Cataloging Products Sub-System;

3. Survey their suggestions for improving the characteristics or reduce the costs of the shared cataloging products sub-system;

4. Survey their suggestions for additional services based upon the Shared Cataloging Products Sub-System;

5. Estimate their potential use of the Sub-System in terms of number of requests made to the system over a period of time;

6. Estimate of user acceptance, timing and costs of implementing a network oriented shared cataloging sub-system (local input);

7. Estimate of user acceptance, timing and costs of implementing a network oriented Circulation Control Sub-System;

8. A multi-media "presentation package" will be developed as a result of the above procedures, which will be used to introduce potential members to the services and plans of the NELINET library network.

I.D. TASK: The Vendor will program, test and implement a statistical package which operates within the various programs and subroutines of the current Shared Cataloging Support Sub-System (MARC) which will provide on-demand reports as a routine by-product of computer processing. Report items produced by this package will include:

1. Quantity of requests made to the system by each user library;

2. Quantity of requests which produce changes in holdings information by each user library (no cards);

3. Quantity of new and changed MARC records added to the NELINET Master File (delete/adds);

4. Total quantity of material requests which result in the production of printed catalog entries;

5. Quantity of matched requests arranged by each library, which result in the production of catalog entries;

6. Distribution from 1...n catalog entries, including added entries arrayed by each participating library;

7. Cumulative total quantity of catalog entries per week produced per library;

I.D. (CONTINUED)

8. Quantity of follow-on cards per set arranged by each user library;

9. Quantity of book pocket labels produced for each library;

10. Quantity of Selin labels produced for each library.

I.E. TASK: The results of items IA-IE will be produced in a report by the NELINET staff from data supplied by the Vendor as needed, which will be used by both the Vendor and the NELINET Board and staff for system monitoring.

II. OBJECTIVE: To provide NELINET members with the capacity for inputting local cataloging data not available from the Library of Congress into the NELINET Master File.

II.A. TASK: Procedures to accomplish the above will be written in the form of a NELINET handbook which will include procedures for encoding bibliographic records into MARC II format for entry into the NELINET Master File. These procedures will include, at a minimum, step-by-step instructions for worksheets, tagging, proofreading, editing and merging with the NELINET Master File. It will also include a list of minimal data elements from the MARC II format which can be used as a record with the existing system.

II.B. TASK: The cost element for each step of the above procedures to encode a bibliographic record into MARC II format for entry into the NELINET Master File will be identified and priced on a per 100-key strokes basis in order that optional record lengths can be input to the NELINET Master File. Competitive methods, such as OCR, etc.. should be evaluated.

II.C. TASK: After the cost estimate has been made, the NELINET members and prospective members mentioned in I.C., will be surveyed by NELINET staff to determine the methods of entering new data most acceptable to them and to determine the estimated quantity of records to be submitted to NELINET for encoding into the NELINET Master File over six-month intervals. The result of the first part of this task will be used in the second part, a feasibility study of using local input for Regional Shared Cataloging.

II.D. Final Report correlating all of TASK II elements.

APPENDIX 5.2

NELINET MEMBERSHIP & STATUS

—

NOVEMBER 1971

APPENDIX 5.2

NELINET MEMBERSHIP LIST - NOVEMBER 1971

Boston University, Boston, Massachusetts	I
Brown University, Providence, Rhode Island	I
Colby College, Waterville, Maine	S
Connecticut College, New London, Connecticut	I
University of Connecticut, Storrs, Connecticut	S
Consortium of Universities, Washington, D.C.	A
Curry College, Milton, Massachusetts	S
Dartmouth College, Hanover, New Hampshire	I
Five Associated University Libraries, Syracuse, New York	A
Hampshire College, Amherst, Massachusetts	I
University of Maine (Orono), Orono, Maine	S
Massachusetts Institute of Technology, Cambridge, Massachusetts	I
Massachusetts State Library, Boston, Massachusetts	S
Naval War College, Newport, Rhode Island	S
University of New Hampshire, Durham, New Hampshire	S
Northeastern University, Boston, Massachusetts	I
Rhode Island College, Providence, Rhode Island	I
Rhode Island Junior College, Providence, Rhode Island	I
University of Rhode Island, Kingston, Rhode Island	S
Tufts University, Medford, Massachusetts	I
University of Vermont, Burlington, Vermont	S
Worcester Polytechnic Institute, Worcester, Massachusetts	I
Wesleyan University, Middletown, Connecticut	I

Status Legend

A = Affiliate Membership
I = Introductory Membership
S = Supporting Membership

APPENDIX 5.3

SHARED CATALOGING SUB-SYSTEM

REQUEST PROCESSING QUESTIONNAIRE

PREPARATION OF REQUESTS - PART I

(TEST PERIOD, JUNE 28-JULY 30, 1971)

NAME OF RESPONDENT

For each title that enters the cataloging department, please note the decision made regardless whether or not NELINET products are requested for that title, by posting a Y if "yes", or an N if "no" decisions are made.

BOOK
SEND TO NELINET
PRE-1968
NON-ENGLISH LANGUAGE
RUSH
PERIODICAL OPEN ENTRY
SERIES OPEN ENTRY
GOVERNMENT DOCUMENTS
NON-BOOK MEDIUM
NELINET SHELVES FULL
CATALOGING DATA AVAILABLE LOCALLY
LC CARD # NOT ON BOOK OR ORDER FORM
LC CARD # NOT FINDABLE IN LOCAL SOURCES
CARD PRODUCTS AVAILABLE FROM OTHER SOURCES
NO MONEY AVAILABLE FOR PURCHASING CARDS
NO LC/NUC CATALOGING DATA AVAILABLE
CARDS ARRIVES WITH BOOK, UNEXPECTEDLY
LOCAL COLLECTIONS UNIQUE
THESES AND DISSERTATION
OTHER:
OTHER:

PREPARATION OF REQUESTS - PART 2

TO BE PREPARED EACH WEEK - TO QUARTER HOUR ACCURACY

	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5
HRS. SPENT DECIDING TO SEND FOR NELIENT CARD PRODUCTS					
HRS. SHELVING NELINET BOOKS WAITING FOR CARDS.(EST. IF OUT OF YOUR DEPARTMENT)					
HRS. SEARCHING FOR LC CARD NOS. IF NOT IN BOOK OR ON ORDER FORM					
HRS. FILLING NELINET REQUEST FORMS					
HRS. TYPING NELINET REQUESTS					
NUMBER OF REQUESTS SENT TO INFORONICS					
HRS. PROOFING REQUESTS					
HRS. CORRECTING REQUESTS					
HOW MANY REQUESTS ARE CORRECTED					
HRS. MAILING REQUESTS					
COST OF MAILING REQUESTS					
HRS. FILLING OUT LOCAL FORMS CONNECTED WITH REQUESTS					
DATE AND DAY OF WEEK REQUESTS ARE SENT TO INFORONICS					

APPENDIX 5.4

SHARED CATALOGING SUB-SYSTEM

OUTPUT PROCESSING QUESTIONNAIRE

NAME OF RESPONDENT

RECEIPT OF PRODUCTS

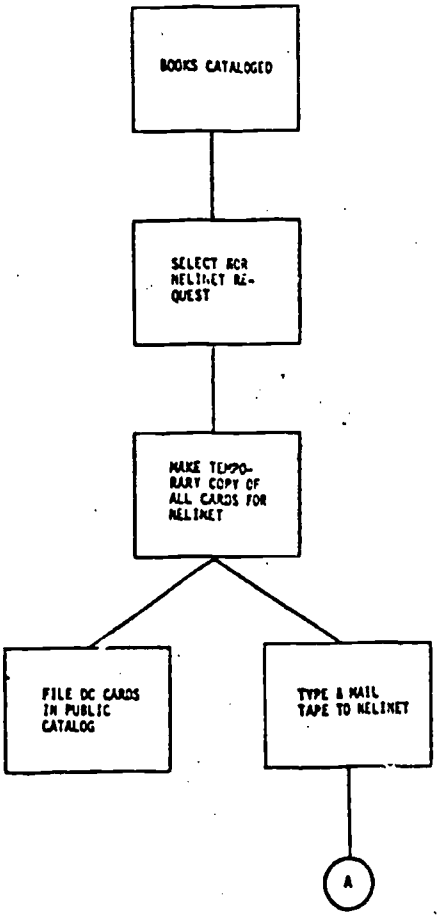
TO BE PREPARED EACH WEEK - TO QUARTER HOUR ACCURACY WHERE APPLICABLE

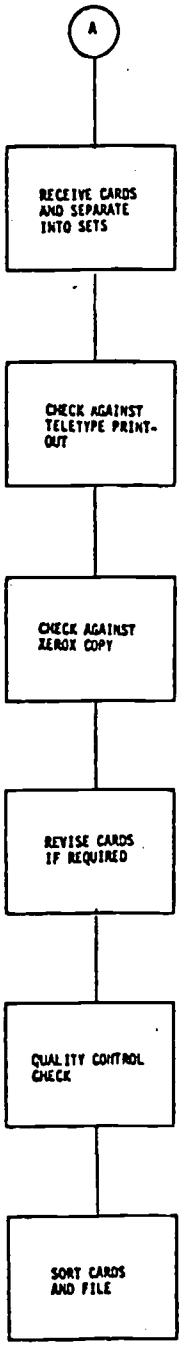
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5
TOTAL SETS RECEIVED					
DATE AND DAY OF WEEK OF RECEIPT					
HRS. MATCHING PROD. & BOOKS					
HRS. CHECKING CARDS FOR ACCURACY					
NO. OF SETS CORRECTED					
HRS. CORRECTING CARDS					
HRS. CHECKING ERROR MESSAGES					
HRS. PUTTING ON BK. PCKET. LBLS.					
HRS. PUTTING SELIN LBLS. ON BKS.					
HRS. FILING CARDS					
HRS. SHELVING BKS. IN STACKS					
NO. OF RETURNS TO LC					
POSTAGE TO RET. CARDS TO LC					
NO. OF RETURNS TO INFORONICS					
HRS. FILLING PROBLEM SHEETS FOR INFORONICS					
POSTAGE TO RET. CARDS. TO INFORONICS					
TELEPHONE BILL TO INFORONICS NELINET					
HRS. ADDING TO SETS (LOCAL NOTES ETC.)					
NO. OF XEROX PAGES FOR RETURNS					
NELINET CONNECTED ADMINISTRATIVE/ ORGANIZATIONAL TIME					
NO. OF FOLLOW ON CARDS DISCARDED (IF APPLICABLE)					

APPENDIX 5.5

PROCESSING FLOW CHARTS

NELINET-RELATED OPERATIONS
(University of Connecticut)



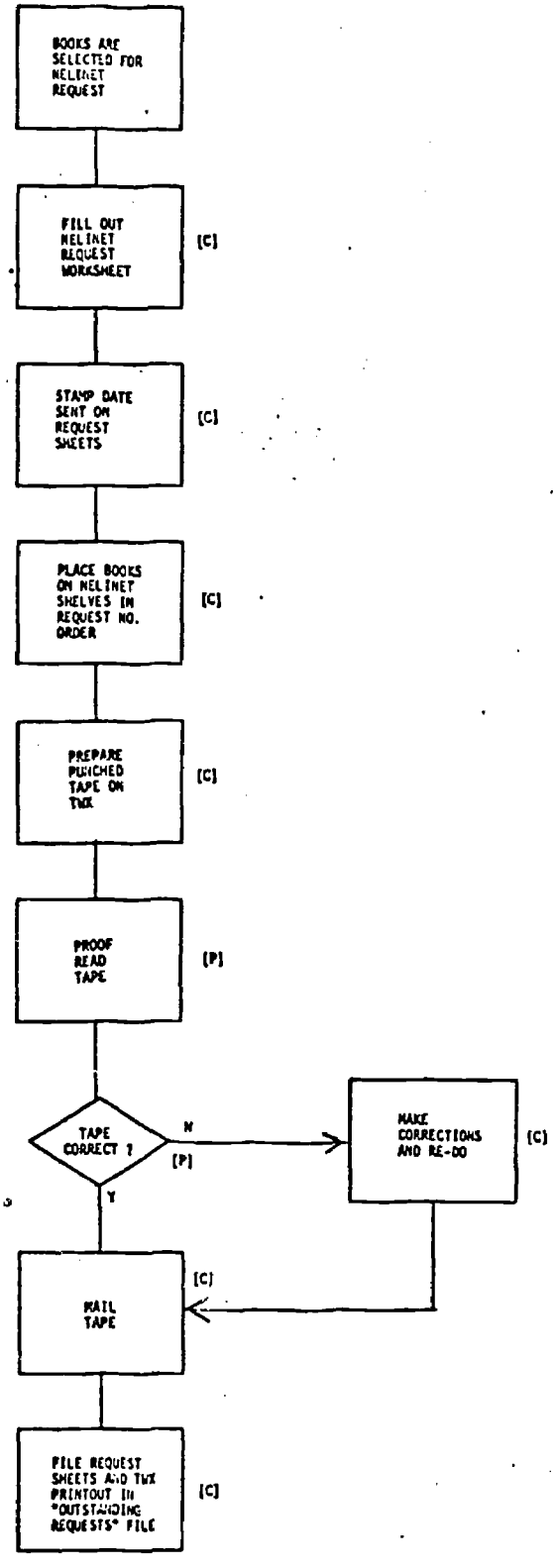


C = Clerical Functions

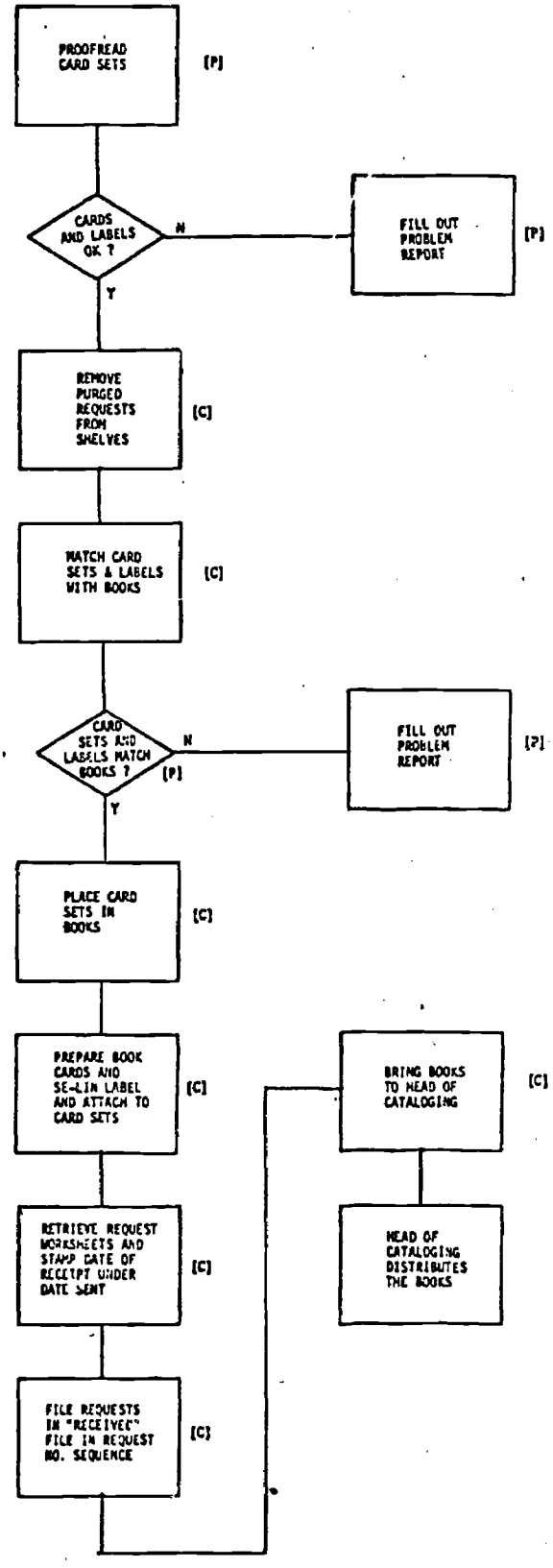
P = Professional

NELINET-RELATED OPERATIONS
(University of Maine, Orono)

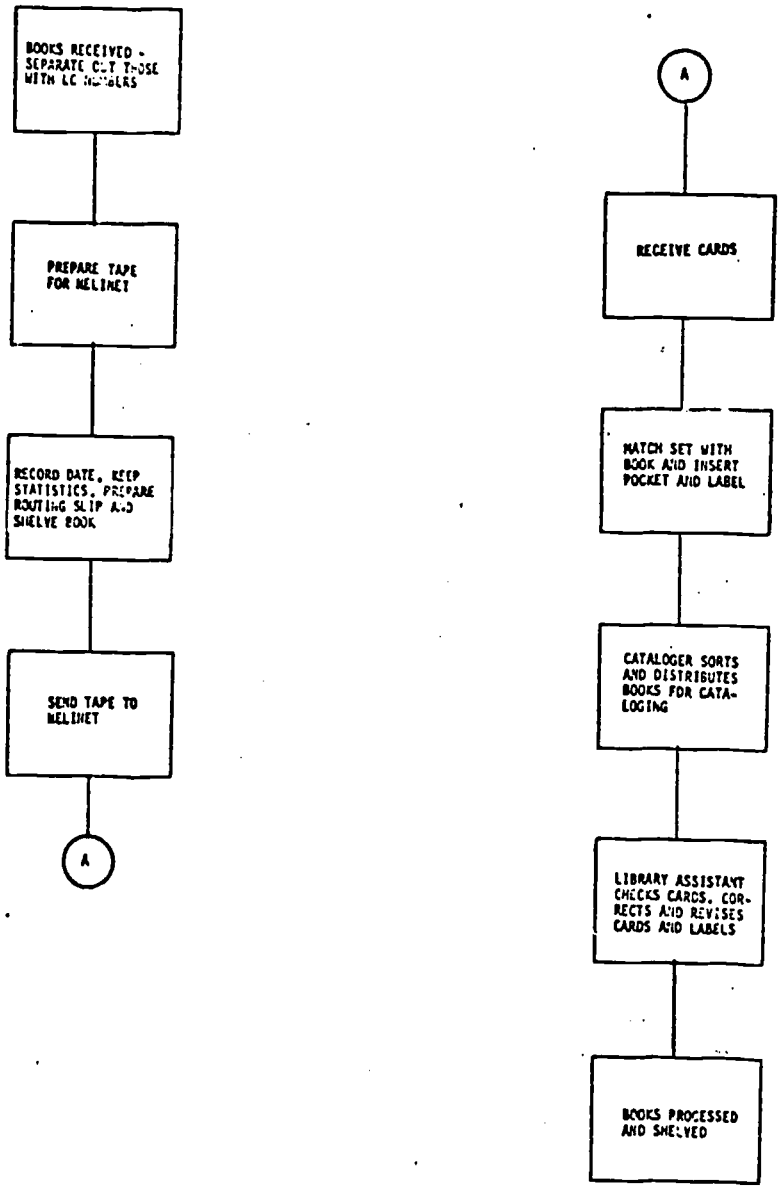
Preparation of Requests



Receipt of Cards



NELINET-RELATED OPERATIONS
(University of New Hampshire)

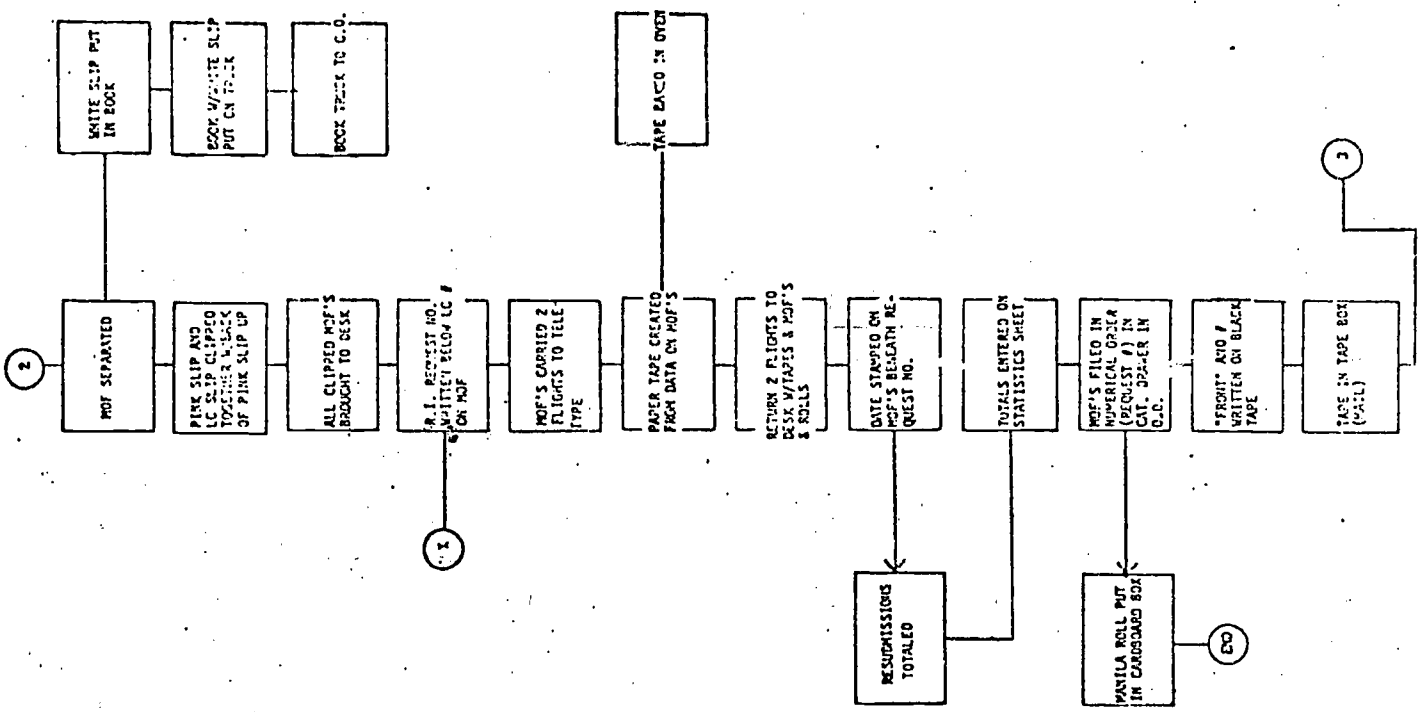


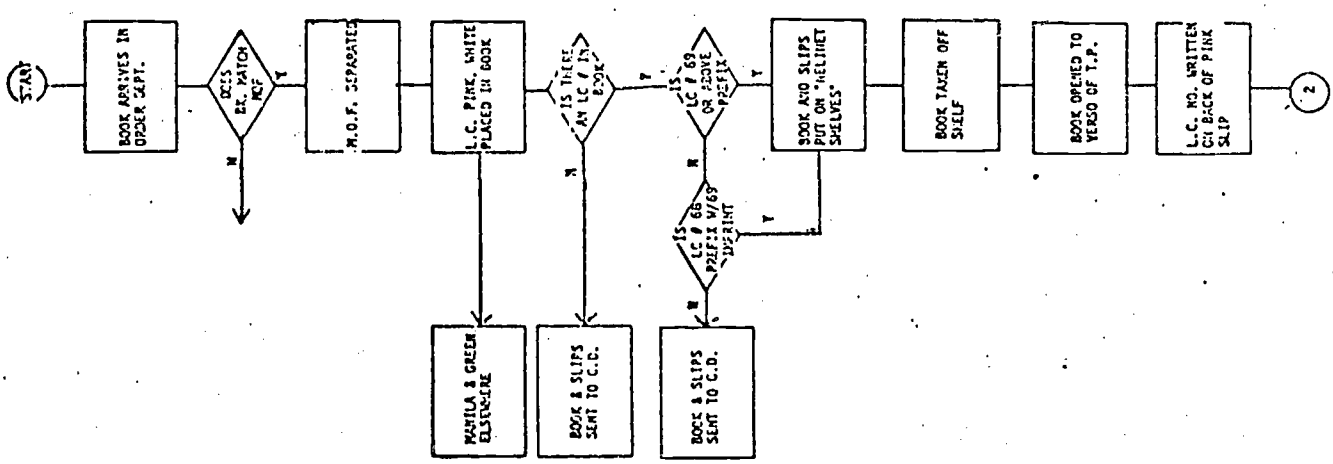
MOF = Multiple Order Form

CD = Catalog Dept.

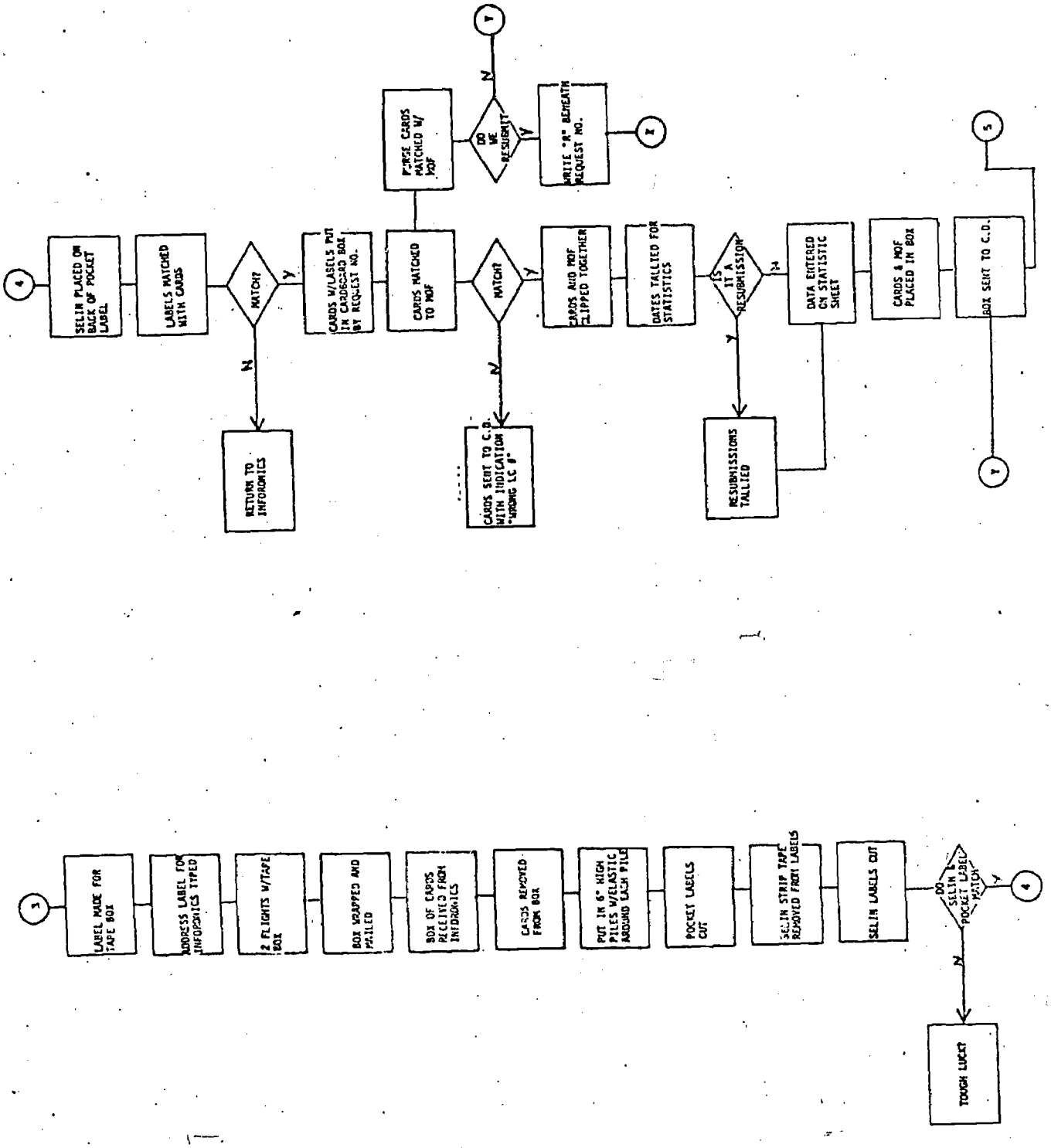
OD = Order Dept.

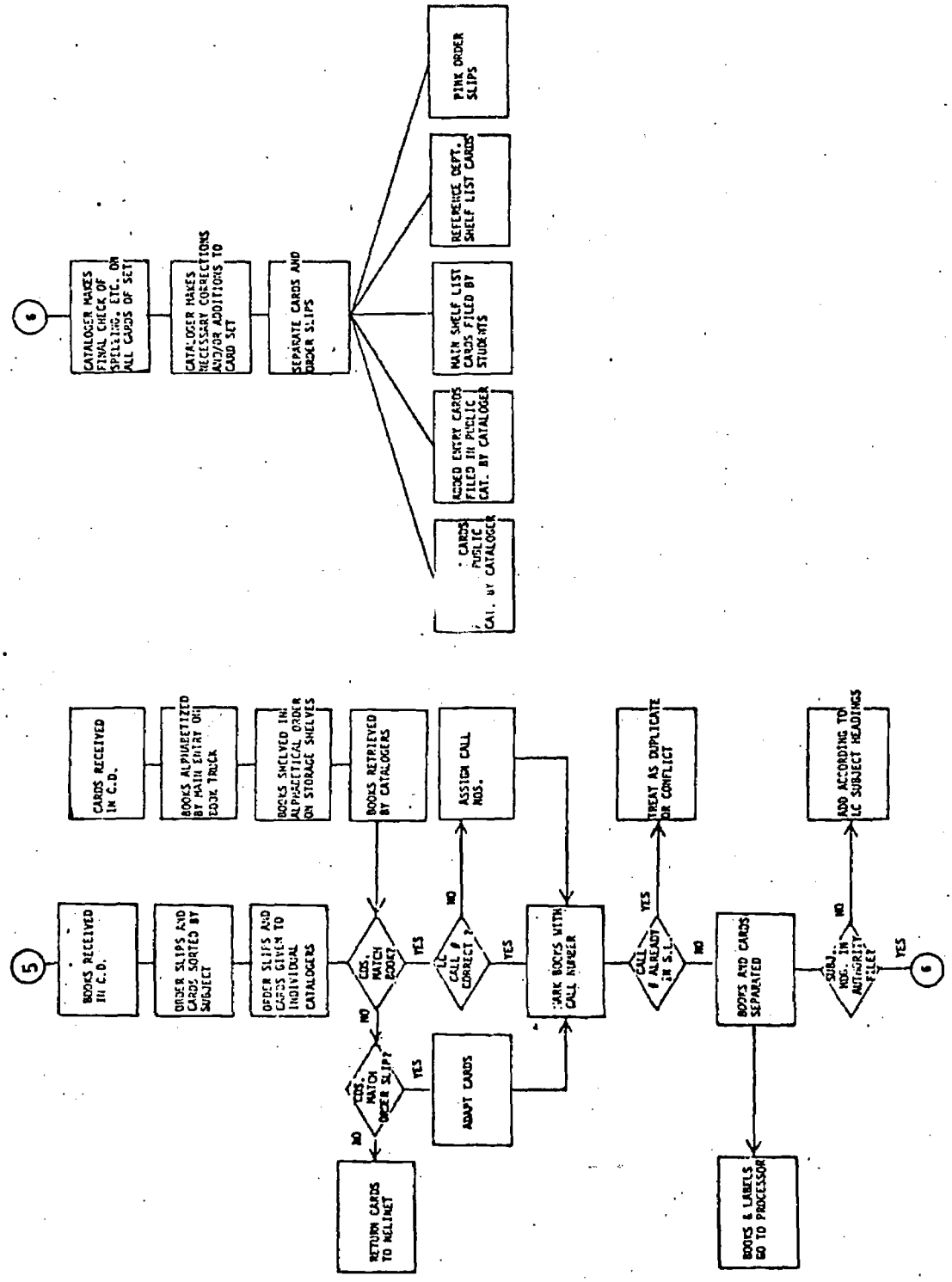
NELINET-RELATED OPERATIONS
(University of Rhode Island)



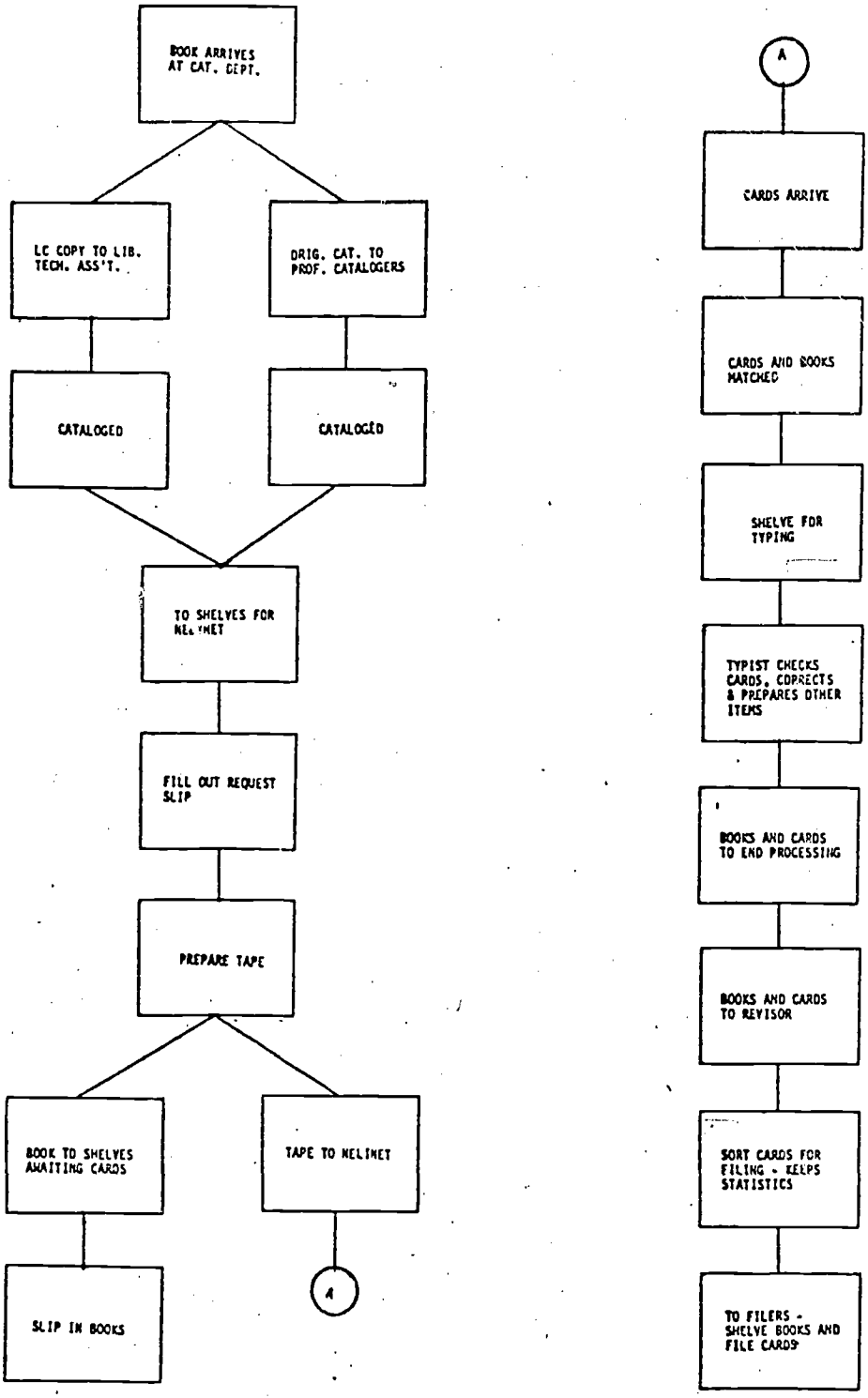


UNIVERSITY OF RHODE ISLAND (Cont'd)




6
CATALOGER MAKES FINAL CHECK OF SPELLING, ETC. ON ALL CARDS OF SET
CATALOGER MAKES NECESSARY CORRECTIONS AND/OR ADDITIONS TO CARD SET
SEPARATE CARDS AND ORDER SLIPS
PINK ORDER SLIPS
REFERENCE DEPT. SHELF LIST CARDS
MAIN SHELF LIST CARDS FILED BY STUDENTS
MARC ENTRY CARDS FILED IN PUBLIC CAT. BY CATALOGER
CARDS PUBLIC CAT. BY CATALOGER
5
BOOKS RECEIVED IN C.D.
ORDER SLIPS AND CARDS SORTED BY SUBJECT
ORDER SLIPS AND CARDS GIVEN TO INDIVIDUAL CATALOGERS
CARDS RECEIVED IN C.D.
BOOKS ALPHABETIZED BY MAIN ENTRY ON BOOK TRUCK
BOOKS SHELVED IN ALPHABETICAL ORDER ON STORAGE SHELVES
BOOKS RETRIEVED BY CATALOGERS
ASSIGN CALL NOS.
TREAT AS DUPLICATE OR CONFLICT
ADD ACCORDING TO LC SUBJECT HEADINGS
CDS. MATCH BOOK?
YES
NO
LC CALL # CORRECT ?
YES
NO
MARK BOOKS WITH CALL NUMBER
CALL # ALREADY IN S.L.
YES
NO
BOOKS AND CARDS SEPARATED
SUBJ. HDG. IN AUTHORITY FILE?
NO
YES
6
CDS. MATCH ORDER SLIP?
YES
NO
ADAPT CARDS
RETURN CARDS TO NELINET
BOOKS & LABELS TO PROCESSOR

NELINET-RELATED OPERATIONS
(University of Vermont)



APPENDIX 5.6

SAMPLES OF CATALOG CARDS,

BOOK AND SPINE LABELS

947.08 W783zm

Mehlinger, Howard D.
Count Witte and the Tsarist government in the 1905 revolution

B. Pocket Label

947.08
W783zm

C. Spine Label

Indiana. University. International studies.

Count Witte and the Tsarist government in the 1905 revolution. [by]

Thompson, John M., Joint author. [by]

RUSSIA--POLITICS AND GOVERNMENT--1894-1917. [by]

RUSSIA--HISTORY--REVOLUTION OF 1905. [by]

WITTE, SERGEĬ IŬL'EVICH, GRAF, 1849-1915. [by]

947.08 Mehlinger, Howard D.
W783zm Count Witte and the Tsarist government in the 1905 revolution [by] Howard D. Mehlinger and John M. Thompson. Bloomington, Indiana University Press [1972]
xiv, 434 p. 25 cm. (Indiana University international studies)
Bibliography: p. 399-419.
1. Witte, Sergei IUl'evich, graf, 1849-1915. 2. Russia--Politics and government--1894-1917. 3. Russia--History--Revolution of 1905.
I. Thompson, John M., joint author.
II. T. (S: Indiana. University. International studies.)

NWM72-1756 r
DK254.W5M44 1972

77-165048
947.08/092/

48
092/

A. Card Set

APPENDIX 5.7

USER AUDIT QUESTIONNAIRE (Modular)

CODE: [ ]

NELINET USER AUDIT CHECKLIST

PACKET CONTENTS:

I. GENERAL

II. ACQUISITIONS

III. TECHNICAL SERVICES

IV. NELINET SERVICES -- PROSPECTS

V. NELINET SERVICES -- MEMBERS

VI. SERIALS CONTROL

VII. CIRCULATION AND INTERLIBRARY LOAN CONTROL

VIII. PUBLIC SERVICES

CODE: [ ]

I. GENERAL LIBRARY

1. NAME OF LIBRARY _____

2. ADDRESS _____

3. TELEPHONE NO. _____
AREA CODE EXTENSION

4. NAME OF RESPONDENT _____

TITLE _____

5. QUESTIONNAIRE ADMINISTRATOR: _____

CODE: [ ]

I.A. BRANCHES: (Include Only Those Branches Which Are Dependent Upon The Main Library For Services)

	NAME	COLLECTION SCOPE	LOCATION	TYPE OF DEPENDENCY
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				

[ ] OVER, IF NECESSARY

CODE: [ ]

I.B. FINANCIAL AND STOCK SUMMARY

INDICATE IF FY [ ] from _____ to month _____, OR CALENDAR YEAR [ ]

YEAR	TOTAL HOLDINGS		MATERIAL BUDGET			SALARIES			TOTAL BUDGET
	VOLS.	TITLES	MONO.	SER.	OTHER	PROF.	CLER.	OTHER SALARIES	
68-69									
69-70									
70-71									
71-72 est									

NOTES: (Include overhead formula and benefit formula if benefits are not included in salaries.)

CODE:

I.C. STAFF

TYPE OF POSITION please use FTE's	MEAN SALRY	TOTAL FUL-TIM STAFF	LESS THAN 4,000	4,000 TO 7,999	8,000 TO 11,999	12,000 TO 13,999	14,000 TO 17,999	18,000 TO 21,999	22,000 OR MORE	
CHIEF LIBRA'N OR DIR										
ASSOC & ASST LIBRARIANS										
HEADS OF MAJ'R LIBRARY UNITS										
OTHER PROFSNL LIBRARIANS										
PROFSNL STAFF OTHER THAN LIBRARIANS										
NON-PROFSNL STAFF										
STUDENT STAFF										

CODE:

I.D. STUDENT CHARACTERISTICS (USE FTE's)

YEAR	UNDERGRADUATE	GRADUATE	OTHER	TOTAL
Fall-1968				
Fall-1969				
Fall-1970				
Fall-1971 est.				

CODE:

I.E. FACULTY CHARACTERISTICS

(Including teaching, research and administrative)

YEAR	FULL-TIME	PART-TIME	TOTAL
Fall -1968			
Fall -1969			
Fall--1970			
Fall -1971 est.			

CODE:

I.F. DEGREES OFFERED BY INSTITUTION

If these data can be supplied from your graduate catalogs, please duplicate and attach appropriate pages or supply the catalogs to us.

	Y	N	
BA/BS	☐	☐	
MA/MS	☐	☐	AREAS: _____ _____ _____ _____ _____ _____
PHD	☐	☐	AREAS: _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____
OTHER DEGREES:	☐		_____ _____ _____ _____ _____ _____ _____ _____ _____ _____
	☐		
	☐		
	☐		

CODE: ____

I. G. COMPUTING SERVICES TO LIBRARY

1. DOES LIBRARY HAVE OWN COMPUTER? Y☐ N☐
   a. IF YES, MANUFACTURER _____ MODEL _____
   b. RENT☐ OR OWN☐

2. DOES LIBRARY RECEIVE COMPUTER-BASED SERVICES OTHER THAN NELINET OR CAMPUS COMPUTER CENTER ? Y☐ N☐
   PLEASE NAME SOURCE OF SERVICE(S)

3. IF LIBRARY USES CAMPUS COMPUTER FACILITY, WHAT CATEGORIES OF SERVICES ARE PRODUCED?

CODE: ____

I.G. COMPUTING SERVICES TO LIBRARY (CONTINUED)

4. IF THE LIBRARY IS CHARGED FOR COMPUTER SERVICES BY CAMPUS COMPUTER CENTER, WHAT ARE THE CURRENT ANNUAL EXPENDITURES CHARGED?

   MACHINE TIME OR RENTAL, INCLUDING PERIPHERALS:

   $_____:MATERIALS $_____:MANPOWER

   $_____:OTHER

   NOTES:

CODE: _____

I.H. NELINET AND LOCAL PRIORITIES

PLEASE INDICATE BY CHECKING A POINT ON THE SCALE NEXT TO EACH QUESTION, THE DEGREE TO WHICH THE SUGGESTED SERVICES WOULD BE DESIRABLE IN HELPING YOU SOLVE PROBLEMS WHICH YOUR LIBRARY IS NOW FACING: 1 = HIGHEST PRIORITY

1. ACQUISITIONS:

	1	2	3	4
a. Fund accounting control				
b. Reduce redundant purchases with other libraries				
c. Centralized document processing center for acquisitions				
d. Centralized acquisitions record keeping by NELINET w/ documts processing done in your libry.				
e. Increase book budget as a proportion of library budget				
f. Other services relating to acquisitions, e.g., Selective dissemination of MARC records to selectors				

Use Reverse Side

CODE: _____

I.H. NELINET AND LOCAL PRIORITIES (CONTINUED)

2. CATALOGING AND TECHNICAL PROCESSING

	1	2	3	4
a. "On-Line" shared cataloging, to reduce cataloging duplication with other libraries in network				
b. Reduce staff costs of cataloging				
c. Minimize the frequency of original cataloging				
d. Increase rate of processing per staff member				
e. Eliminate dependence upon proof slips or depository cards for producing catalog cards or acquisitions checking				
f. Discontinue card catalog and begin book catalog production				
g. Convert card or book catalog to microform				

cont.

CODE: _____

I.H. NELINET AND LOCAL PRIORITIES (CONTINUED)

3. SERIALS CONTROL

1 2 3 4

a. Provide a machine file for producing union lists of serials

b. Automate such control functions as check-in, missing issue claims, not-yet-received claims, holdings update and claiming

c. Other serials functions:

_____

_____

_____

_____

_____

_____

CODE: _____

I.H. NELINET AND LOCAL PRIORITIES (CONTINUED)

4. CIRCULATION AND INTERLIBRARY LOAN

1 2 3 4

a. Mechanize circulation and interlibrary loan with on-line query to circulation file

b. To institute an accounting system for paying and receiving monies for interlibrary loan transactions to and from other libraries

c. Other activities relating to this category

_____

_____

_____

_____

_____

_____

CODE:

I.H. NELINET AND LOCAL PRIORITIES (CONTINUED)

5. REFERENCE AND PUBLIC SERVICES

	1	2	3	4
a. Increase the quantity of bibliographers and subject specialists to reduce the need for blanket orders, approval plans and other non-selective devices (see also "Acquisitions")				
b. Establish a shared compact storage facility with other New England libraries, for serials and monographs				
c. Establish a shared microfilming facility for worn or seldom used materials, including selected government documents				
d. Increase the use of your collections by both local and regional libraries and patrons				

I.H. NELINET AND LOCAL PRIORITIES (CONTINUED)

CODE:

5. REFERENCE AND PUBLIC SERVICES (CONTINUED)

	1	2	3	4
e. Increase your access to State library resources				
f. Increase your access to regional library resources (see also "Circulation and Interlibrary Loan")				
g. Other public service activities:				

_____

_____

_____

_____

_____

_____

_____

CODE:

I.H. NELINET AND LOCAL PRIORITIES (CONTINUED)

6. MANAGEMENT INFORMATION

	1	2	3	4
a. Increase the timeliness of reports relating to specified operations in your library, perhaps comparing them with the same functions at other similar libraries in the region, e.g., cataloging rates and costs, circulation categories by class #.				
b. Other management information				

CODE:

I. I. CURRENT NELINET SERVICES

IN THE CURRENT CATALOG SUPPORT SUBSYSTEM, WOULD YOU NUMBER THE FOLLOWING POSSIBLE SYSTEM DEVELOPMENTS IN ORDER OF PREFERENCE:

a. Capability to request NELINET products in the batched system by:
   - Main Entry Only
   - Title Only
   - Main Entry and Title
   - Series

b. Capability to print diacritics
c. Capability to produce Book Catalogs
d. Type-set card products, i.e., so they appear as L.C. printed cards
e. Capability to print 8 lines to the inch, instead of the current 6 lines to the inch
f. On-Line search by L.C. card number
g. On-Line search by author/title

CODE

I.I. CURRENT NELINET SERVICES (CONTINUED)

h. A listing of MARC by L.C. class. number to aid acquisitions

i. Capability to pre-sort the card sets so that they arrive at your library in order for direct filing into your catalogs

j. Greater flexibility in the way in which the call number is printed on the catalog card

k. The ability to put local notes on the catalog cards

l. The ability to request by ISBN number

m. On-line encoding of requests for the batched system

n. On-line encoding of bibliographic records, (i.e., non-MARC items) for the batched system

o. Other options (Please describe):

CODE: [ ]

II. ACQUISITIONS

1. NAME OF LIBRARY _____

2. ADDRESS _____

3. TELEPHONE NO. _____
AREA CODE EXTENSION

4. NAME OF RESPONDENT _____

TITLE _____

5. QUESTIONNAIRE ADMINISTRATOR: _____

CODE: [ ]

II. ACQUISITIONS

II.A. SIZE OF STAFF:

STAFF	NUMBER	AVERAGE SALARY
FULL-TIME PROFESSIONALS		
BIBLIOGRAPHERS		
PART-TIME PROFESSIONALS		
BIBLIOGRAPHERS		
CLERICAL		
PART-TIME CLERICAL		
OTHER		
TOTAL		

CODE

II.B. NUMBER OF BLANKET ORDER/APPROVAL PLANS AND PERCENT OF CURRENT ACQUISITIONS EACH COVERS:

NAME: _____ SOURCE: _____ % ACQUISITIONS _____

NAME: _____ SOURCE: _____ % ACQUISITIONS _____

NAME: _____ SOURCE: _____ % ACQUISITIONS _____

NAME: _____ SOURCE: _____ % ACQUISITIONS _____

NAME: _____ SOURCE: _____ % ACQUISITIONS _____

NAME: _____ SOURCE: _____ % ACQUISITIONS _____

CODE:

II.C. DOES THE LIBRARY PURCHASE PROOF SLIPS? Y[ ] N[ ]

DOES THE LIBRARY RECEIVE DEPOSITORY CARDS? Y[ ] N[ ]

a. IF YES, PLEASE DESCRIBE HOW THEY ARE USED:

	PROOFSLIPS	DEPOSITORY CARDS
BOOK SELECTION		
ORDER COPY VERIFICATION		
CATALOGING PROOFCOPY		
CARD PRODUCTION		
OTHER		

CODE:

II.D. BIBLIOGRAPHIC INFORMATION GENERATED AT ORDER TIME:

(Please attach a sample order form with data filled in)

CODE:

II.E. IS A COMPUTER USED FOR ACQUISITION SUPPORT?

Y ☐ N ☐

IF YES, TO WHAT EXTENT?

FOR WHAT PURPOSE?

COST?

MANPOWER INVOLVED?
(hours a week for _____ people by job description)

IS DESCRIPTION AVAILABLE?

CODE:

II.F. DURING THE CURRENT FISCAL YEAR WHAT % OF ITEMS ORDERED ARE:

a. CURRENT IMPRINT (Post 1968) _____%

b. RETROSPECTIVE IMPRINT (pre 1968) _____%

CODE:

II.G. PERCENT OF ACQUISITIONS INITIATED BY:

FACULTY:	
LIBRARY STAFF:	
GIFT:	
OTHERS ( )	
	100%

CODE:

II.H. ACQUISITIONS BUDGET FOR 1968 - 1971 ANNUALLY:

1968 - 69	
1969 - 70	
1970 - 71	
EST. 1971 - 72	

CODE:

II.I. DOES THE LIBRARIAN FEEL THAT THE ACQUISITIONS SYSTEM COULD BE IMPROVED? Y[ ] N[ ]

DESCRIBE BOTTLENECKS OR AWKWARD PROCEDURES WHICH SHOULD BE IMPROVED:

CODE

II.J. ARE CHECKS WRITTEN TO VENDORS OR PUBLISHERS BY THE LIBRARY? Y N

BY THE INSTITUTION'S BUSINESS OFFICE? Y N

OTHER (please describe) Y N

CODE:

II.K. WHAT COORDINATION IS THERE BETWEEN ACQUISITIONS AND CATALOGING?

e.g. IS PRE-ORDER SEARCH DATA USED BY CATALOGERS? Y N

OTHER (please describe) Y N

CODE:

II.L. IS THERE COORDINATION BETWEEN ACQUISITIONS AND FACULTY? Y☐ N☐

DO FACULTY MEMBERS INITIATE ORDER REQUESTS? Y☐ N☐

IF SO, ARE THEY NOTIFIED IF AN ITEM IS:

ON ORDER	Y☐	N☐
REJECTED	Y☐	N☐
NOT AVAILABLE	Y☐	N☐
RECEIVED	Y☐	N☐
ALREADY OWNED	Y☐	N☐
OTHER(please describe)	Y☐	N☐

CODE:

II.M. IS THERE A WELL-DEFINED SELECTION POLICY? Y☐ N☐

IF YES, PLEASE ATTACH A COPY OF THE POLICY CURRENTLY IN EFFECT.

IF NO, HOW ARE SELECTIONS ACCEPTED OR REJECTED PRIOR TO ORDERING?

CODE: ____

II.N. IS SELECTION CENTRALIZED FOR ALL OF THE INSTITUTION'S LIBRARIES? Y[ ] N[ ]

IF NOT, IS THERE SUFFICIENT COORDINATION OF SELECTION AS THE SYSTEM OPERATES? Y[ ] N[ ]

ARE ITEMS RECEIVED FOR BRANCHES PROCESSED THROUGH A CENTRAL ACQUISITIONS DEPARTMENT? Y[ ] N[ ]

IF YES, FOR HOW MANY BRANCHES _____

PLEASE NAME THEM _____

WHAT PERCENT OF TOTAL ACQUISITIONS IS FOR THE BRANCHES? _____

CODE: ____

II.O. IS THERE ANY COOPERATIVE ACQUISITIONS WITH OTHER INSTITUTIONS? Y[ ] N[ ]

IF YES, PLEASE DESCRIBE: _____

IF NOT, IS THERE ANY NEED FOR SUCH A PROGRAM? IN WHAT AREAS?

AND WITH WHAT INSTITUTIONS?

WHAT DO YOU SEE AS THE MAJOR BLOCKS TO MAKING A COOPERATIVE ACQUISITIONS PROGRAM WORK?

CODE:

II.P. TO WHAT DEGREE WOULD YOU BE IN FAVOR OF PARTICIPATING IN A PROGRAM OF COOPERATIVE ACQUISITIONS OF EXPENSIVE OR SELDOM USED MATERIALS?

4	3	2	1
ADAMANTLY AGAINST	SOMEWHAT AGAINST	SOMEWHAT IN FAVOR	VERY MUCH IN FAVOR

IF THESE MATERIALS WERE NOT HOUSED AT YOUR INSTITUTION, HOW WOULD YOU FEEL?

4	3	2	1
ADAMANTLY AGAINST	SOMEWHAT AGAINST	SOMEWHAT IN FAVOR	VERY MUCH IN FAVOR

CODE:

II.Q. DESCRIPTION OF FILES USED IN ACQUISITIONS:

	NAME OF FILE	ARRANGEMENT OF FILE	MEDIUM (CARDS)	AVERAGE SIZE OF FILE	USES OF FILE
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					

CODE: _____

III. TECHNICAL SERVICES

1. NAME OF LIBRARY _____

2. ADDRESS _____

3. TELEPHONE NO. _____
AREA CODE EXTENSION

4. NAME OF RESPONDENT _____

TITLE _____

5. QUESTIONNAIRE ADMINISTRATOR: _____

CODE: _____

III. TECHNICAL SERVICES

III.A. SIZE OF STAFF:

STAFF	NUMBER	AVERAGE SALARY
FULL-TIME PROFESSIONALS		
PART-TIME PROFESSIONALS		
FULL-TIME CLERICAL ASSISTANTS		
FULL-TIME TYPISTS		
OTHER		
TOTAL		

CODE: ____

III.B. CATALOG BUDGET FOR 1968 - 1971 ANNUALLY:

1968 - 69 _____
1969 - 70 _____
1970 - 71 _____
EST. 1971 - 72 _____

CODE: ____

III.C. CLASSIFICATION SYSTEM USED FOR MONOGRAPHS AND SERIALS:

WHAT VARIATIONS FROM THE STANDARD SYSTEM DO YOU USE?

ARE OLDER CLASSIFICATIONS STILL SHELVED? Y[ ] N[ ]
WHICH CLASSIFICATIONS?

WHAT PERCENT OF THE COLLECTION DO THEY COVER?

WHAT IS THE AVERAGE NUMBER OF TITLES ACTIVELY "IN PROCESS" IN YOUR DEPARTMENT?

CODE:

III. TECHNICAL SERVICES

D. WE DEFINE BACKLOG AS ANY TITLES WHICH HAVE BEEN IN THE CATALOGING DEPARTMENT FOR MORE THAN A MONTH, WHICH ARE NOT NOW ACTIVELY BEING PROCESSED, AND WHICH ARE NOT REPRESENTED IN THE PUBLIC CATALOGING BY A FULL CARD SET.

DO YOU HAVE A BACKLOG? Y ☐ N ☐

IF YES, WHAT SIZE IN BIBLIOGRAPHIC TITLES: _____

PLEASE ESTIMATE THE QUANTITY FOR TYPE OF MATERIAL:

	CURRENT	RETROSPECTIVE
MONOGRAPHS		
English Language		
Other		
SERIALS		
English Language		
Other		
MEDIA		
GOV'T DOCUMENTS		
OTHER		

CODE:

III.E. WHAT CATEGORIES OF ITEMS RECEIVE PRIORITY TREATMENT IN YOUR DEPARTMENT?

PRIORITY	DESCRIPTION
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

CODE:

III. E. AVERAGE CATALOGING PROCESSING TIME FROM DATE RECEIVED FROM ACQUISITIONS THROUGH TYPING AND PROOF READING OF CARDS, PREPARING BOOK FOR SHELF AND CARDS FOR FILING

CODE:

III. TECHNICAL SERVICES

G. WHAT PERCENT OF TITLES THAT GO THROUGH YOUR DEPARTMENT ARE DONE:

-- WITH NO L.C. COPY AVAILABLE _____

-- WITH NO N.U.C. COPY AVAILABLE _____

-- WITH NO SECONDARY SOURCE COPY AVAILABLE _____

CODE:

III. TECHNICAL SERVICES

H. WHAT PERCENT OF TITLES ARE:

	1968 - 1971	Pre-1968
ENGLISH LANGUAGE		
ROMANCE LANGUAGES		
GERMANIC LANGUAGES		
OTHER		

CODE:

III.I. ARE L.C. PROOF SLIPS USED? Y[ ] N[ ]

IF YES, ARE THEY USED FOR:

1. CATALOG COPY WHICH IS RETYPED Y[ ] N[ ]
2. CATALOG COPY WHICH IS REPRODUCED BY XEROX OR OTHER PHOTO METHODS Y[ ] N[ ]
3. OTHER (please explain) _____

ARE DESPOITORY CARDS USED? Y[ ] N[ ]

IF YES, ARE THEY USED FOR:

1. CATALOG COPY WHICH IS RETYPED Y[ ] N[ ]
2. CATALOG COPY WHICH IS REPRODUCED BY XEROX OR OTHER PHOTO MEANS Y[ ] N[ ]
3. OTHER (please explain) _____

CODE:

III. TECHNICAL SERVICES:

J. IF YOU USE L.C. DEPOSITORY CARDS, OR PROOF SLIPS, DO YOU MAKE LOCAL CHANGES? Y ☐ N ☐

IF YES, ITEMIZE THE MAJOR VARIATIONS:

1.
2.
3.
4.
5.
6.

CODE:

III. TECHNICAL SERVICES

K. IS SERIALS CATALOGING PERFORMED BY A SEPARATE CATALOGING GROUP FROM MONOGRAPHS? Y ☐ N ☐

WE DEFINE SERIALS AS ANYTHING WHICH IS PUBLISHED IN SUCCESSIVE PARTS AT REGULAR INTERVALS AND WHICH ARE INTENDED TO BE CONTINUED INDEFINITELY. SERIALS INCLUDE PERIODICALS, ANNUALS, MONOGRAPH SERIES, ANNUAL REPORTS, AND SERIAL PROCEEDINGS AND TRANSACTIONS OF SOCIETIES.

PERIODICALS ARE DEFINED AS PUBLICATIONS WITH A DISTINCTIVE TITLE THAT APPEARS IN SUCCESSIVE NUMBERS OR PARTS, USUALLY UNBOUND, AT STATED OR REGULAR INTERVALS. THEY GENERALLY CONTAIN ARTICLES BY SEVERAL CONTRIBUTORS.

ARE PERIODICALS CLASSIFIED? Y ☐ N ☐

If yes, are they cataloged in the same manner as monographs? ☐ ☐

CONT

CODE:

III. TECHNICAL SERVICES

K. CONTINUED

IF NOT,

PLEASE DESCRIBE: _____

_____

_____

_____

_____

	Y	N
ARE OTHER SERIALS CLASSIFIED?	☐	☐
If yes, are they cataloged in the same manner as monographs?	☐	☐

IF NOT, PLEASE DESCRIBE: _____

_____

_____

CODE: _____

III. L. HOW MANY HOURS ARE SPENT ON FILING PER WEEK BY: _____

	SUPERVISION & CHECKING	FILING
PROFESSIONALS		
NON-PROFESSIONALS		
TOTALS		

CODE:

III.M. DOES THE LIBRARIAN FEEL THAT CATALOGERS COULD BE MOVED TO PUBLIC SERVICE ROLES IF THEIR CATALOGING WORKLOADS WERE REDUCED? Y[ ] N[ ]

IF YES, WHAT AREAS WOULD THEY BE PRIMARILY ASSIGNED?

TO BIBLIOGRAPHY?

TO REFERENCE?

TO BOOK SELECTION?

CODE:

III.N. DOES THE LIBRARIAN FEEL THAT THE PRESENT CATALOGING SYSTEM COULD BE IMPROVED? Y[ ] N[ ]

HOW:

CODE:

III.O. IS THERE SUFFICIENT COORDINATION BETWEEN ACQUISITIONS AND CATALOGING? Y[ ] N[ ]

IF NO, PLEASE DEFINE THE DEFICIENCY: _____

CODE:

III.P. IN YOUR OPINION, WHAT AREA OF CATALOGING COULD BE MOST IMPROVED BY USING COMPUTERS?

CODE:

III. TECHNICAL SERVICES

Q. WHAT LIBRARIES IN NEW ENGLAND ARE THERE WHOSE CATALOGING YOU WOULD ACCEPT, WITHOUT BASIC CHANGES (EXCEPTING CALL NUMBER VARIATIONS), AS A SUBSTITUTE FOR L.C.?

CODE:

III.R. WHAT FILING SYSTEM IS USED FOR YOUR MAIN CATALOG?

CODE:

III.S. HOW ARE YOUR PUBLIC CATALOGS ARRANGED (Dictionary, classed, etc.)?

CODE:

III.T. HOW MANY HOURS PER WEEK ARE SPENT ON FILING FOR:

MAIN CATALOG:
SHELF LIST:
DEPARTMENTAL FILES:

CODE: _____

III.U. DESCRIPTION OF DEPARTMENTAL FILES: _____

	NAME OF FILE	ARRANGEMENT OF FILE	MEDIUM (CARDS)	AVERAGE SIZE OF FILE	USES OF FILES
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12					
13.					
14.					
15					

CODE: _____

III. TECHNICAL SERVICES _____

	Y	N
V. IS THERE A RECLASSIFICATION PROJECT UNDERWAY OR PLANNED?	☐	☐

IF YES, WHAT IS: THE BEGINNING DATE? _____

EXPECTED ENDING DATE? _____

ESTIMATED QUANTITY OF ITEMS REMAINING? _____

FROM WHAT CLASS _____,

TO WHAT CLASS _____.

CODE: [ ]

IV. NELINET SERVICES - PROSPECTS

1. NAME OF LIBRARY _____

2. ADDRESS _____

3. TELEPHONE NO. _____
AREA CODE EXTENSION

4. NAME OF RESPONDENT _____

TITLE _____

5. QUESTIONNAIR ADMINISTRATOR: _____

CODE: [ ]

IV. NELINET PRODUCTS - PROSPECTS

a. WOULD YOU BE IN FAVOR OF YOUR LIBRARY PARTICIPATING IN NELINET?

CODE:

IV. NELINET PRODUCTS - PROSPECTS (CONTINUED)

b. WHAT DO YOU THINK OF NELINET CATALOGING SUPPORT PRODUCTS?

CODE:

IV. NELINET PRODUCTS - PROSPECTS (CONTINUED)

c. SPECIFICALLY, DO YOU FEEL THAT:

	Y	N
1. They can save manpower effort?	☐	☐
2. They are esthetically acceptable?	☐	☐
3. They are easily read by users?	☐	☐
4. There is too much/too little print on the cards?	☐	☐
5. Please identify specific problems, (e.g., call number is not broken according to your own style)		
6. Are the book pocket labels usable by your library? If not, why not?	☐	☐

CODE:

IV. NELINET PRODUCTS - PROSPECTS (CONTINUED)

c. SPECIFICALLY, DO YOU FEEL THAT: (CONTINUED)

	Y	N
7. Are the Selin labels usable by your library?	☐	☐
If not, why not?		
8. Are the sets too expensive?	☐	☐

9. How many catalogs do you have on campus which would include NELINET products?

(Count divided catalogs separately)

CODE:

IV. NELINET PRODUCTS - PROSPECTS

d. What percent of your acquisitions is:

	TOTAL %	PRE-1968	POST-1968
ENGLISH			
FRENCH			
SPANISH			
ITALIAN			
GERMANIC			
RUSSIAN			
OTHER:			
TOTAL			

CODE:

IV. NELINET PRODUCTS - PROSPECTS (CONTINUED)

e. WOULD YOU PLEASE NUMBER THE FOLLOWING POSSIBLE SYSTEM DEVELOPMENTS TO THE CATALOGING SUPPORT SUBSYSTEM IN ORDER OF PREFERENCE:

a. Capability to request NELINET products in the batched system by: Main Entry Only

Title Only

Main Entry & Title

Series

b. Capability to print diacritics

c. Capability to produce Book Catalogs

d. Type-set catalog cards [illegible] LC printed cards

e. Capability to print 8 lines to the inch instead of the current 6 lines to the inch

f. On-Line search by L.C. card number

g. On-Line search by main entry/title

CODE:

IV. NELINET PRODUCTS - PROSPECTS (CONTINUED) -

e. WOULD YOU PLEASE NUMBER THE FOLLOWING POSSIBLE SYSTEM DEVELOPMENTS TO THE CATALOGING SUPPORT SUBSYSTEM IN ORDER OF PREFERENCE: (CONTINUED)

h. A listing of MARC by L.C. class. number to aid acquisitions

i. Capability to pre-sort the card sets so that they arrive at your library in order for direct filing into your catalogs

j. Greater flexibility in the way in which the call number is printed on the catalog card

k. The ability to put local notes on the catalog cards

l. Other options for the current NELINET service:

CODE:

V. NELINET SERVICES - MEMBERS

1. NAME OF LIBRARY _____

2. ADDRESS _____

3. TELEPHONE NO. _____
AREA CODE EXTENSION

4. NAME OF RESPONDENT _____

TITLE _____

5. QUESTIONNAIRE ADMINISTRATOR: _____

CODE:

V. NELINET SERVICES - MEMBERS

A. WHAT IS THE AVERAGE NUMBER OF REQUESTS SENT TO NELINET PER MONTH?

CODE:

V. NELINET SERVICES - MEMBERS (CONTINUED)

B. WHAT CRITERIA DETERMINE WHAT ITEMS ARE SELECTED FOR REQUESTING CARDS?

CODE:

V. NELINET SERVICES - MEMBERS (CONTINUED)

C. AT WHAT POINT OF PROCESSING DO YOU REQUEST NELINET PRODUCTS? (e.g., book in hand, on order, etc?)

CODE:

V. NELINET SERVICES - MEMBERS (CONTINUED)

D. ON THE AVERAGE HOW LONG DO YOU HAVE TO WAIT FROM THE TIME YOU REQUEST PRODUCTS TO THE TIME YOU RECEIVE THEM?

_____ DAYS

CODE:

V. NELINET SERVICES - MEMBERS (CONTINUED)

E. FLOW CHART OF NELINET OPERATIONS

CODE:

V. NELINET SERVICES - MEMBERS (CONTINUED)

F. WHAT DO YOU LIKE MOST ABOUT THE CATALOG SUPPORT SERVICE?

CODE:

V. NELINET SERVICES - MEMBERS (CONTINUED)

G. WHAT DO YOU DISLIKE MOST ABOUT THE CATALOG SUPPORT SERVICE?

CODE:

V. NELINET SERVICES - MEMBERS (CONTINUED)

H. COULD YOU SEND MORE REQUESTS TO NELINET? Y ☐ N ☐

IF YES, WHY DON'T YOU?

CODE:

V. NELINET SERVICES - MEMBERS (CONTINUED)

I. WHAT IMPROVEMENTS WOULD YOU LIKE TO SEE IN THE NELINET SYSTEM?

CODE:

V. NELINET SERVICES - MEMBERS (CONTINUED)

J. HAS NELINET HAD ANY EFFECT ON STAFF JOB LOAD? Y ☐ N ☐

1. Since beginning to use NELINET, has your staff increased? ☐ ☐

How much? _____ POSITIONS _____ _____

2. Since beginning to use NELINET, has your staff decreased? ☐ ☐

How much? _____ POSITIONS _____ _____

CODE:

V. NELINET SERVICES - MEMBERS (CONTINUED)

K. ARE ALL OF YOUR PROBLEMS GIVEN PROMPT ATTENTION BY INFORONICS OR NELINET STAFF? Y ☐ N ☐

HAVE YOU ANY SUGGESTIONS FOR IMPROVING COMMUNICATIONS?

PLEASE DESCRIBE:

CODE:

V. NELINET SERVICES - MEMBERS (CONTINUED).

L. ARE THERE FORMAL STAFF MEETINGS ABOUT NELINET? Y ☐ N ☐

IF YES, HOW OFTEN?

CODE:

V. NELINET SERVICES - MEMBERS (CONTINUED)

M. HOW MANY STAFF MEMBERS ARE INVOLVED WITH NELINET?

PROFESSIONAL _____

CLERICAL _____

TYPISTS _____

CODE:

V. NELINET SERVICES - MEMBERS (CONTINUED)

N. ARE NELINET PRODUCTS OF SATISFACTORY QUALITY? Y ☐ N ☐

WHAT CHANGES WOULD YOU LIKE TO SEE ON THEM:

CODE:

V. NELINET SERVICES - MEMBERS (CONTINUED)

O. DO YOU USE ALL NELINET PRODUCTS? Y ☐ N ☐

(i.e., cards, Selin labels, pocket labels)

IF NO, WHY NOT?

CODE:

V. NELINET SERVICES - MEMBERS (CONTINUED)

P. DO YOU RETURN PRODUCTS TO NELINET? Y ☐ N ☐

IF YES, WHY?

IF NO, WHY ?

CODE:

V. NELINET SERVICES - MEMBERS (CONTINUED)

Q. DO YOU CHANGE THE NELINET MACHINE FILE WHEN YOU MANUALLY CHANGE A NELINET SHELF-LIST CARD? Y ☐ N ☐

IF YES, HOW DO YOU CONTROL THIS?

IF NO, WHY?

CODE:

V. NELINET SERVICES - MEMBERS (CONTINUED)

	Y	N
R. CAN YOU THINK OF ANY OTHER CATALOGING SUPPORT PRODUCTS WHICH YOU WOULD LIKE TO ADD TO THE NELINET PRODUCT SET?	☐	☐

PLEASE SPECIFY:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

CODE:

V. NELINET SERVICES - MEMBERS (CONTINUED)

	Y	N
S. DO YOU KEEP TRACK OF NELINET EXPENDITURES?	☐	☐
DO YOU HAVE A NELINET BUDGET?	☐	☐
If yes, do you separate assessment and product costs?	☐	☐
DO YOU CHECK ALL NELINET BILLS?	☐	☐
DO YOU HAVE ANY BILLING PROBLEMS?	☐	☐
If yes, please describe: _____		
_____		
_____		
_____		
CAN YOU SUGGEST CHANGES IN THE BILLING SYSTEM?	☐	☐
Describe: _____		
_____		
_____		
_____		

V. NELINET SERVICES - MEMBERS (CONTINUED)

CODE:

T. DO YOU UNDERSTAND HOW THE NELINET SYSTEM WORKS TECHNICALLY?

Y ☐ N ☐

IF NO, WOULD YOU LIKE A STAFF SEMINAR ON THE SUBJECT?

☐ ☐

V. NELINET SERVICES - MEMBERS (CONTINUED)

CODE:

U. WHEN THE L.C. CARD NUMBER IS NOT ON A CURRENT ENGLISH LANGUAGE ITEM, DO YOU LOOK FOR IT ELSEWHERE?

Y ☐ N ☐

IF YES, WHERE DO YOU LOOK (IN ORDER):

1.

2.

3.

4.

CODE:

V. NELINET SERVICES - MEMBERS (CONTINUED)

V. DO YOU THINK THE TEN-WEEK PERIOD OF LEAVING REQUESTS ON THE FILE IS:

	Y	N
TOO LONG	☐	☐
TOO SHORT	☐	☐

HOW MANY WEEKS SHOULD THEY REMAIN ON THE FILE? _____

CODE:

V. NELINET SERVICES - MEMBERS (CONTINUED)

W. HOW MANY REQUESTS DO YOU USUALLY HAVE AT NELINET AT ANY ONE TIME (NEW AND OLD)?

_____ REQUESTS

CODE:

V. NELINET SERVICES - MEMBERS (CONTINUED)

X. WHAT STATISTICS DO YOU MAINTAIN ABOUT NELINET'S PERFORMANCE FOR YOUR LIBRARY?

CODE:

V. NELINET SERVICES - MEMBERS (CONTINUED)

Y. WOULD YOU PLEASE NUMBER THE FOLLOWING POSSIBLE SYSTEM DEVELOPMENTS TO THE CATALOG SUPPORT SUBSYSTEM IN ORDER OF PREFERENCE:

a. Capability to request NELINET products in the existing batched system by: Main entry only _____
Title Only _____
Main entry and title _____
Series _____

b. Capability to print diacritics _____

c. Capability to produce book catalogs _____

d. Type-set catalog cards, i.e., so they appear as L.C. printed cards _____

e. Capability to print 8 lines to the inch instead of the current 6 lines to the inch _____

f. On-line search by L.C. card number _____

g. On-line search by author/title _____

h. A listing of MARC by L.C. classification number to aid acquisitions _____

CODE:

V. NELINET SERVICES - MEMBERS (CONTINUED)

Y. WOULD YOU PLEASE NUMBER THE FOLLOWING POSSIBLE SYSTEM DEVELOPMENT TO THE CATALOG SUPPORT SUBSYSTEM IN ORDER OF PREFERENCE: (CONTINUED)

i. Capability to pre-sort the card sets so that they arrive at your library in order for direct filing into your catalogs _____

j. Greater flexibility in the way in which the call number number is printed on the catalog cards: _____

k. The ability to put local notes on the catalog cards _____

l. The ability to request by ISBN number _____

m. On-line encoding of requests for the batched system _____

n. On-line encoding of bibliographic records (i.e., non-MARC items) for the batched system _____

o. Other options (Please describe): _____

CODE: [ ]

VI. SERIALS CONTROL

1. NAME OF LIBRARY _____

2. ADDRESS _____

_____

_____

3. TELEPHONE NO. _____
AREA CODE EXTENSION

4. NAME OF RESPONDENT _____

_____

TITLE _____

5. QUESTIONNAIRE ADMINISTRATOR: _____

CODE: [ ]

VI. SERIALS

VI.A. WE DEFINE SERIALS AS ANYTHING WHICH IS PUBLISHED IN SUCCESSIVE PARTS AT REGULAR INTERVALS AND WHICH ARE INTENDED TO BE CONTINUED INDEFINITELY. SERIALS INCLUDE PERIODICALS, ANNUALS, MONOGRAPH SERIES, ANNUAL REPORTS, AND SERIAL PROCEEDINGS AND TRANSACTIONS OF SOCIETIES. PERIODICALS ARE DEFINED AS PUBLICATIONS WITH DISTINCTIVE TITLES THAT APPEAR IN SUCCESSIVE NUMBERS OR PARTS, USUALLY UNBOUND, AT STATED OR REGULAR INTERVALS. THEY GENERALLY CONTAIN ARTICLES BY SEVERAL CONTRIBUTORS.

DOES YOUR LIBRARY DISTINGUISH BETWEEN SERIALS AND PERIODICALS?

Y[ ] N[ ]

IF YES, DO YOU USE THE ABOVE DEFINITION Y[ ] N[ ]

IF NO, PLEASE DESCRIBE: _____

CODE:

VI.B. PLEASE GIVE THE FOLLOWING CURRENT ACQUISITIONS* STATISTICS IF AVAILABLE:

	PERIODICALS	TOTAL SERIALS
1968 - 69		
1969 - 70		
1970 - 71		
EST. 1971 - 72		

*excluding duplicates

CODE:

VI.C. ARE SERIALS HANDLED BY A SPECIAL SERIALS DEPARTMENT OR DIVISION? Y[ ] N[ ]

IF YES, DOES THE DIVISION ALSO PROCESS SERIALS FOR BRANCHES? Y[ ] N[ ]

IF YES, WHICH BRANCHES AND ~~WHAT VOLUME:~~ How many titles?

BRANCH	SERIALS TITLES
TOTAL:	

CODE:

VI.D. SERIALS DEPARTMENT STAFF:

(Please give F.T.E.'s)

	NUMBER	AVERAGE	SALARY
PROFESSIONAL			
CLERICAL			
TYPISTS			
TOTAL			

CODE:

VI.E. TOTAL SERIALS DEPARTMENT BUDGET FOR THE LAST THREE YEARS:

1968 - 69: $_____

1969 - 70: $_____

1970 - 71: $_____

EST. 1971 - 72: $_____

CODE:

VI.F. BY WHOM IS SERIALS SELECTION DONE?

DO YOU USE JOBBERS? Y[ ] N[ ]

IF YES, WHOM AND WHAT PERCENTAGE OF THE TITLES ACQUIRED DO THEY COVER?

JOBBER	% SUPPLIED

CODE:

VI.G. PLEASE BRIEFLY DESCRIBE CLAIMS PROCEDURES:

FOR MISSING ISSUES (gaps)

FOR ISSUES NOT YET RECEIVED

CODE:

VI.H. PLEASE BRIEFLY DESCRIBE BILLING PROCEDURES, I.E. INVOICE RECEIVED, MATCHED AGAINST KARDEX, FORWARDED TO BUSINESS OFFICE, ETC.:

CODE:

VI.I. WHAT ARE YOUR MAJOR PROBLEM AREAS IN SERIALS ACQUISITIONS, PROCESSING AND CONTROL?

CODE:

VI.J. IS YOUR EXISTING SYSTEM COMPUTER AIDED? Y[ ] N[ ]

IF YES, PLEASE DESCRIBE THE SYSTEM AND COMMENT ON YOUR SATISFACTION WITH IT:

CODE:

VI.K. PLEASE DESCRIBE SERIALS FILES:

NAME	ARRANGEMENT	MEDIUM (CARDS)	AVERAGE SIZE	USES OF FILE

CODE: [ ]

VII. CIRCULATION AND INTERLIBRARY LOAN CONTROL

1. NAME OF LIBRARY _____

2. ADDRESS _____

3. TELEPHONE NO. _____
AREA CODE EXTENSION

4. NAME OF RESPONDENT _____

TITLE _____

5. QUESTIONNAIRE ADMINISTRATOR: _____

CODE: [ ]

VII. CIRCULATION AND INTERLIBRARY LOAN CONTROL

(Please use F.T.E.'s)

A. CIRCULATION STAFF

	NUMBER	AVERAGE SALARY
PROFESSIONAL		
CLERICAL		
TYPISTS		
FILERS		
SHELVERS		

TOTAL: _____

CODE:

VII. CIRCULATION AND INTERLIBRARY LOAN CONTROL

B. WHAT GROUPS OF MATERIALS IN YOUR LIBRARY DO NOT CIRCULATE ?

CODE:

VII. CIRCULATION AND INTERLIBRARY LOAN CONTROL

C. OPEN STACKS OR CLOSED?

If Closed, who is permitted access?

CODE:

VII. CIRCULATION AND INTERLIBRARY LOAN CONTROL

D. DOES YOUR CIRCULATION SYSTEM INCLUDE THE FOLLOWING:

	Y	N
1. SERIALS		
2. PERIODICALS		
3. UNBOUND PERIODICALS		
4. I.L.L.		
5. ITEMS AT BINDERY		
6. ITEMS IN RESERVE COLLECTIONS		
7. MISSING ITEMS		
8. BRANCHES OR DEPARTMENTAL LIBRARIES		
9. CARRELLS		
10. HOLDS FOR WAITING BORROWERS		

CODE:

VII. CIRCULATION AND INTERLIBRARY LOAN CONTROL

E. DO YOU KEEP STATISTICAL BREAKDOWNS OF YOUR CIRCULATION RECORDS? Y: N:

IF YES, AND IF THEY ARE AVAILABLE, PLEASE GIVE ANNUAL FIGURES FOR:

	1968-69	1969-70	1970-71	Est. 1971-72
Undergrad. Circ.				
Graduate Circulation				
Faculty Circulation				
Staff Circulation				
"Other"Circulation				
No. Vols. on Resv.				
No. Vols. Held for Borrowers				
No. Overdue Notices				
No. Vols. Lost				
No. Vols. sent to Bindery				
TOTALS				

CODE:

VII. CIRCULATION AND INTERLIBRARY LOAN CONTROL

F. WHAT LOAN PERIODS DO YOU HAVE BY TYPES OF MATERIAL AND BORROWER?

LOAN PERIOD	TYPES OF MATERIAL	GRADUATE	UNDER-GRADUATE	FACULTY	STAFF	OTHER	CARREL

CODE:

VII. CIRCULATION AND INTERLIBRARY LOAN CONT'S

G. WHAT IS THE AVERAGE TIME REQUIRED FOR BINDING?

CODE:

VII. CIRCULATION AND INTERLIBRARY LOAN CONTROL

H. WHAT IS THE AVERAGE TIME FROM RECEIPT OF AN I.L.L. REQUEST TO GETTING THE BOOK OR PHOTOCOPY IN THE MAIL? :DAYS

WHAT IS THE AVERAGE NUMBER OF PAGES OF PHOTO COPIES SENT IN RESPONSE TO AN I.L.L. REQUEST? :PAGES

DO YOU CHARGE OTHER LIBRARIES FOR I.L.L.? Y: ☐ N: ☐

IF YES, WHAT CHARGE?

HOW MANY ITEMS HAVE YOU LENT ON I.L.L. FOR:

	PHOTO	ORIGINAL	TOTAL
1968-69			
1969-70			
1970-71			

CONT.

CODE:

VII. CIRCULATION AND INTERLIBRARY LOAN CONTROL

H. CONTINUED

WHAT ARE THE MAIN INSTITUTIONS TO WHICH YOU LEND ITEMS ON I.L.L. AND WHAT PERCENTAGE OF YOUR LOANS DO THEY COVER?

INSTITUTION	PERCENTAGE
1.	
2.	
3.	
4.	
5.	

CODE:

VII. CIRCULATION AND INTERLIBRARY LOAN CONTROL

I. WHAT IS THE AVERAGE TIME YOU MUST WAIT TO GET I.L.L. ITEMS FROM OTHER LIBRARIES, BEGINNING AT THE POINT OF USER REQUEST AND ENDING WITH NOTIFICATION OF RECEIPT OF ITEM TO USER? _____ :DAYS

HOW MANY ITEMS HAVE YOU BORROWED ON I.L.L. FROM OTHER LIBRARIES FOR:

	PHOTO	ORIGINAL	TOTAL
1968-69			
1969-70			
1970-71			

WHICH ARE THE MAIN INSTITUTIONS FROM WHICH YOU BORROW ITEMS ON I.L.L. AND WHAT PERCENTAGE OF YOUR I.L.L. BORROWING DO THEY COVER?

INSTITUTION	PERCENTAGE
1.	
2.	
3.	

USE REVERSE SIDE

CODE:

VII. CIRCULATION AND INTERLIBRARY LOAN CONTROL

I. CONTINUED

DO YOU CHARGE USERS FOR I.L.L.'S DONE FOR THEM? Y ☐ N ☐

If yes, what charge? _____

CODE:

VII. CIRCULATION AND INTERLIBRARY LOAN CONTROL

J. PLEASE DESCRIBE HOW I.L.L. FITS INTO YOUR LIBRARY ORGANIZATION (e.g., independent, part of circulation, part of reference, etc.)

STAFF	NUMBER	AVERAGE SALARY
PROFESSIONALS		
CLERICALS		
TYPISTS		

(Please see ETE'd)

CODE:

VII. CIRCULATION AND INTERLIBRARY LOAN CONTROL

K. WHAT CIRCULATION, I.L.L. and BINDERY STATISTICS DO YOU KEEP REGULARLY?

DO YOU SUBMIT REPORTS FROM THESE STATISTICS TO YOUR SUPERIORS? Y ☐ N ☐

MAY WE HAVE A RECENT COPY OF YOUR MONTHLY STATISTICS AND MOST RECENT REPORT? Y ☐ N ☐

CODE:

VII. CIRCULATION AND INTERLIBRARY LOAN CONTROL

	Y	N
L. IS AN IDENTIFICATION NUMBER FOR BORROWERS USED?	☐	☐

If yes, what is it? (i.e., social security no. or institutional id. no.)

IS A BORROWER'S CARD USED? ☐ ☐

If yes, please describe (i.e., name, address, number, picture, status code, etc.)

CODE:

VII. CIRCULATION AND INTERLIBRARY LOAN CONTROL

M. CIRCULATION OF MAJOR BRANCHES FOR LAST 3 YEARS:

	GRADUATE	UNDERGRADUATE	FACULTY	STAFF	OTHER
BRANCH 1: 1968-69					
1969-70					
1970-71					
BRANCH 2: 1968-69					
1969-70					
1970-71					
BRANCH 3: 1968-69					
1969-70					
1970-71					
BRANCH 4: 1968-69					
1969-70					
1970-71					

CODE:

VII. CIRCULATION AND INTERLIBRARY LOAN CONTROL

N. DO YOU HAVE AN AUTOMATED CIRCULATION SYSTEM? Y ☐ N ☐

If yes, please describe giving annual and monthly costs as well as equipment and personnel necessary for the automated system:

CODE:

VII. CIRCULATION AND INTERLIBRARY LOAN CONTROL

O. WHAT KIND OF CIRCULATION SYSTEM DO YOU HAVE?

CHARGING/DISCHARGING EQUIPMENT:

Please give name:

description:

cost:

ANNUAL COST OF MATERIALS FOR CIRCULATION: (itemize, i.e., charge cards, book pocket, date slips, etc.)

CODE:

VII. CIRCULATION AND INTERLIBRARY LOAN CONTROL

P. HOW MANY CIRCULATION POINTS DO YOU HAVE IN MAIN LIBRARY? _____

HOW MANY PERSONNEL AT EACH POINT? MIN._____ MAX._____

WHAT CHARGING/DISCHARGING EQUIPMENT AT EACH POINT? MIN._____ MAX._____

CODE:

VII. CIRCULATION AND INTERLIBRARY LOAN

Q. TOTAL ANNUAL CIRCULATION BUDGET:

1968-69: $_____

1969-70: $_____

1970-71: $_____

1971-72: (est.) $_____

CODE:

VII. CIRCULATION AND INTERLIBRARY LOAN CONTROL

R. WHAT ARE THE MAJOR PROBLEM AREAS IN THIS DEPARTMENT?

CODE:

VII. CIRCULATION AND INTERLIBRARY LOAN CONTROL

S. WHAT IS YOUR FINE STRUCTURE?

CODE:

VII. CIRCULATION AND INTERLIBRARY LOAN CONTROL

T. WHAT IS YOUR OVERDUE PROCEDURE ?

(Including billing for a lost title)

CODE:

VII. CIRCULATION AND INTERLIBRARY LOAN CONTROL

U. HOW MUCH STAFF TIME IS CONSUMED PER MONTH:

BY OVERDUES: _____ HRS. PER MONTH

BY FILING: _____ HRS. PER MONTH

BY SHELVING: _____ HRS. PER MONTH

CODE:

VII. CIRCULATION AND INTERLIBRARY LOAN CONTROL

V. IS YOUR BILLING DONE THROUGH THE INSTITUTION'S ACCOUNTING OFFICE? [ ] N [ ]

IF YES, PLEASE DESCRIBE:

CODE:

VII. CIRCULATION AND INTERLIBRARY LOAN CONTROL

W. NAME AND BRIEF DESCRIPTION OF FILES:

NAME	ARRANGEMENT	MEDIUM (CARDS)	FUNCTION	AVERAGE SIZE	USE

CODE: [ ]

VIII. PUBLIC SERVICES

1. NAME OF LIBRARY _____

2. ADDRESS _____

3. TELEPHONE NO. _____
AREA CODE EXTENSION

4. NAME OF RESPONDENT _____

TITLE _____

5. QUESTIONNAIRE ADMINISTRATOR: _____

CODE: [ ]

VIII. REFERENCE AND PUBLIC SERVICES

VIII.A. STAFF:

	NUMBER	AVERAGE SALARY
PROFESSIONAL		
CLERICAL		
TYPIST		
FILERS		
SHELVERS		
TOTAL		

(Please use F.T.E.'s)

CODE:

VIII.B. NUMBER OF TITLES IN REFERENCE COLLECTION: _____

NUMBER OF VOLUMES IN REFERENCE COLLECTION: _____

ANNUAL TURNOVER OF REFERENCE COLLECTION BY NUMBER OF TITLES:

_____ TITLES ADDED

_____ TITLES WEEDED

CODE:

VIII.C. IF YOU KEEP STATISTICS ON STAFF USE, PLEASE SUPPLY THE FOLLOWING DATA:

	1968-69	1969-70	1970-71
QUANTITY OF SUBJECT SEARCHES			
QUANTITY OF AUTHOR/TITLE SEARCHES			
QUANTITY OF REQUESTS TO COMPILE BIBLIOGRAPHIES BY:			
SUBJECT AREA			
AUTHOR			
SERIES			
OTHER			
QUANTITY OF REQUESTS FOR PERIODICAL MATERIAL EXCLUSIVELY			
QUANTITY OF REQUESTS FOR HELP WITH CARD CATALOGS			

CONT.

Continued

CODE:

VIII.C. IF YOU KEEP STATISTICS ON STAFF USE, PLEASE SUPPLY THE FOLLOWING DATA:

	1968-69	1969-70	1970-71
QUANTITY OF FACTUAL REQUESTS WHICH REQUIRED USE OF THE COLLECTION (Alamanacs, handbooks, etc.) TO LOCATE SPECIFIC INFORMATION			
OTHER			
TOTAL			

MAY WE HAVE THE SAME STATISTICS FOR BRANCHES WHICH HAVE KEPT SUCH RECORDS?

CODE:

VIII.D. PERCENT OF PROFESSIONAL TIME SPENT ON ADMINISTRATIVE DUTIES, I.E. SCHEDULING, ORDERING, BUDGETING:

PERCENT OF PROFESSIONAL TIME SPENT ON SHORT REFERENCE REQUESTS:

PERCENT OF PROFESSIONAL TIME SPENT ON LARGE OR LONG-TERM PROJECTS FOR FACULTY OR STUDENTS:

CODE:

VIII.E. PLEASE ESTIMATE THE PERCENT OF THE USE OF THE REFERENCE COLLECTION AND PUBLIC SERVICES STAFF MADE BY EACH CATEGORY (we want to know which user groups make the most and least demands on the time and resources of your staff)

	%
UNDERGRADUATE	
GRADUATE	
FACULTY	
STAFF	
OTHER	
	100%

CODE:

VIII.F. WHAT HAS THE REFERENCE BUDGET BEEN FOR EACH OF THE LAST THREE YEARS?

1968 - 69: _____

1969 - 70: _____

1970 - 71: _____

EST. 1971 - 72: _____

CODE:

VIII.G. HOW MANY PROFESSIONAL STAFF HAVE YOU ADDED (NOT replaced) ANNUALLY FOR THE LAST THREE YEARS?

1968 - 69: _____

1969 - 70: _____

1970 - 71: _____

CODE:

VIII.H. WHAT ARE THE MOST PRESSING NEEDS OF YOUR DEPARTMENT?

CODE:

VIII.I. NAME AND BRIEF DESCRIPTION OF FILES:

NAME	ARRANGEMENT	MEDIUM (CARDS)	FUNCTION	AVERAGE SIZE	USE OF FILES

APPENDIX 5.8

NELINET RECRUITING INFORMATION

nelinet

new england library information network

NEW ENGLAND LIBRARY INFORMATION NETWORK

NELINET is the acronym for the New England Library Information Network, an association of college, university, public, and state library agencies formed to provide cooperatively facilities and services no single library could afford. Sponsored by the New England Board of Higher Education, the association had its origin in the mid-1960's through the interest and initiative of the libraries of the six state universities of the region. Using a grant to NEBHE from the Council on Library Resources of Washington, D.C., research and development was started to create a pilot computer system which would provide automated cataloging services to these libraries and which would serve as the nucleus around which might be built a regional center dedicated to this and other automated services to all the libraries in New England. With these six libraries as testing grounds, the systems development firm of Inforonics, Inc. of Maynard, Massachusetts undertook the complex research responsibility.

NELINET's rationale is that through computer-oriented, regional cooperative efforts libraries can meet most effectively the challenges of expanding demand for use of their resources and of rising costs. Automation of library technical services, in NELINET's view, is essential for cost-effective regional cooperation.

The decision was made at the outset to concentrate initial development efforts on automation of the cataloging process. As the most complicated and most costly of all library technical services, and as a process subject to great redundancy as the same publication is necessarily processed by each owning library, cataloging was seen as having the most potential for computer-assisted service and for cost savings. If this process could, in fact, be automated and a common standard accepted by all libraries, NELINET knew that automation could, with relative ease, be applied to many other library processes.

NEW ENGLAND BOARD OF HIGHER EDUCATION
20 WALNUT STREET, WELLESLEY MASSACHUSETTS 02181 · Telephone 617-235-8071

NELINET's initial research was started at the same time that the Library of Congress began its development of machine-readable cataloging. As the nation's major producer of cataloging data, the Library of Congress' decisions were crucial to every library. NELINET had the great advantage of Inforonics, Inc. having been the initial designers of the Library of Congress automated system. The two developments went forward in close association in the pilot stages. NEBHE received successive grants from the Council on Library Resources and from the U.S. Office of Education for its project.

In 1970, the pilot testing phase of NELINET's efforts was completed successfully and the most advanced automated cataloging service in the nation was declared ready for regular application. The six charter members of the group began to receive fully usable catalog cards, book spine labels, and book card pockets via the automated process operated on a contractual basis by Inforonics, Inc. All data were based upon the machine-readable cataloging records (MARC) produced by the Library of Congress. Simultaneously with this cataloging service the system created a machine record of the catalogued holdings processed for each library; from this record it would be possible to print regional union catalog lists and individual library book catalogs. Although the initial unit costs were high, they compared favorably with the costs libraries experienced by using manual processing. This fact, plus the time saving involved - a once-a-week delivery time as compared with one of several weeks for manual operations - made the system highly attractive, even though many "bugs" remained. At this juncture NELINET could claim credit for a significant and successful pioneering effort in the service of libraries.

In 1971, with automated cataloging services in production, the primary effort of an expanded staff at NEBHE was to expand membership in NELINET. By the end of the year the number of members had quadrupled, and membership was broadened to include new categories of libraries beyond those at colleges and universities.

Also in 1971, the decision was made to move actively toward an autonomous computer center dedicated to NELINET's interests. During the latter half of this year and the first half of 1972, testing of an alternative production system was undertaken, with grant support from the Council on Library Resources and with the use of the Dartmouth College library as testing site. The alternative system used for the test was one developed by the Ohio College Library Center (OCLC) at Columbus, Ohio. The test proved successful and, in April, the members of NELINET voted

to adopt the processes of the OCLC system and to procede to the eventual establishment of a comparable center for New England. It is now planned to connect all NELINET libraries directly with the computer at OCLC as rapidly as the essential computer terminals and telephonic communications can be arranged.

Other NELINET activities have included the distribution of special purpose funds granted to NEBHE under Title IIA of P.L. 89-329 administered by the U.S. Office of Education, a survey of book collection overlap in member libraries, and the publication of a union list of the major microform holdings of the libraries of the state universities of New England. Currently, two Task Groups composed of NELINET members are exploring the feasibility of joint lists of serials holdings for New England academic libraries, and improved access to government documents through region-wide computer processing.

NELINET is thus one of the most significant developments on the contemporary library scene. For the member libraries, NELINET offers an opportunity to share the use of a computer facility dedicated solely to library use to enhance regional resource-sharing and cooperative cataloging, while providing local staff with experience in the techniques of automation. For the region, NELINET offers the prospect of access to machine-form bibliographic data independent of variable local staff and computer capabilities. For the nation, NELINET offers a model for the utilization of a regional system that has far reaching implications for national networking.

THE NEWSLETTER of the
New England Library Information Network

channel

NEW ENGLAND BOARD OF HIGHER EDUCATION
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CHANNEL will be issued bi-monthly to keep librarians and other interested persons informed about the current status of NELINET activities and other information pertinent to the membership. Although earlier newsletters were produced in 1968 and 1969, this publication should be considered the first of a new series.

ABOUT NEBHE

The New England Board of Higher Education (NEBHE) is a public service agency established in 1955 under the New England Higher Education Compact, and is organized and supported by the six New England states. Its purpose is to make maximum use of the region's higher education facilities through inter-institutional cooperation, and to increase opportunities in higher education for New England residents. NEBHE is concerned with all degree-granting institutions offering programs at the college level within New England. This includes colleges and universities – both public and private, junior colleges, community colleges, technical institutes, teachers' colleges, and university graduate and professional schools. Because libraries are an integral part of the educational process, NEBHE has long been concerned with the regional utilization of library resources; this interest culminated in NEBHE's sponsorship of the New England Library Information Network Project.

ABOUT NELINET

The New England Library Information Network (NELINET) presently consists of the New England State University Libraries, which, under a formal agreement administered by NEBHE, seek areas where cooperative effort to solve library problems can be applied. The NELINET libraries have worked together to coordinate acquisitions and to use various kinds of research materials jointly, in applying for Title II-A, Type C grants under the Highet Education Act of 1965, in the use of the teletypewriter and other communications facilities, as well as in the compilation of joint holdings and want lists.

The major emphasis of NELINET has been to establish a computer center for the use of the New England library community. The key aspect of the NELINET approach is *regionalism*. Although the present members are the State University libraries of Connecticut, Maine, New Hampshire, Rhode Island and Vermont, the proposed NELINET center is expected to serve most New England libraries, public or private, academic or other, which may find it advantageous to become a member.

FUNDING

NELINET has been funded by a series of grants from the Council on Library Resources, Inc., which in the past has subcontracted the technical aspects of the project to the computer applications firm of Inforonics, Inc., of Maynard, Massachusetts. The Council on Library Resources funded a pilot project to produce cataloging support products from the Library of Congress' experimental MARC I magnetic tapes, a follow-through project to produce essentially the same products from the MARC II tapes, and finally, the *Cataloging Support Services Sub-System*, which is now operating in a production mode. In addition, a grant from the Office of Education, completed in the summer of 1970, sponsored the development of a computer manipulatable *holdings file* that can be used for the production of union lists for individual, as well as clusters of libraries. This union catalog capability represents an essential part of future sub-systems for shared cataloging, acquisitions, serials control, readers services, and library management information.

Significant library applications can be implemented only on a computer system dedicated to serve the special needs of libraries independently of local computing centers. For member libraries, NELINET offers an opportunity to share such a computer facility, to use a machine form catalog while accumulating local staff experience with automated techniques, and to participate in the design and development of the national library network. For the New England region, NELINET offers the prospect of remote access to large machine form bibliographic data files. With the transfer of the Cataloging Support Sub-System to an operational mode in March 1970, it became apparent that NELINET required a full-time staff to administer the network, to obtain new research funds, and to provide stability and expertise for long range planning and future system development. Therefore, the NELINET Executive Committee, which consists of Dr. Alan D. Ferguson, Director of NEBHE, and the five State University librarians, agreed formally to provide adequate funds and support for an initial staff of three professionals and one support person.

NELINET STAFF APPOINTMENTS

Ron Miller became Director of NELINET on January 11, 1971. Mr. Miller was formerly a member of the NELINET Advisory Committee for about a year. For the last three years he has been the Coordinator of Library Systems for the Five Associated University Libraries in Syracuse, New York; prior to this position, he was a systems analyst at the ERIC Clearinghouse on Adult Education in the same city. He was also a staff member for Library 21, the American Library Association exhibit at the Seattle World's Fair. He has an M.L.S. from Rutgers and a Ph.D. dissertation in progress. Mr. Miller has taught, consulted and written many articles including "Network Organization: A Case Study of the Five Associated University Libraries (FAUL).", presented at the Conference on Interlibrary Communications and Information Networks, held at Airlie House, Warrenton, Virginia, September 28 – October 2, 1970 (to be published by ALA). He has been Upstate New York Chapter President of ASIS and is currently President-Elect of the New England Chapter. Shortly after assuming his new position, Mr. Miller announced the appointment of Liam M. Kelly as Assistant Director for Field Operations, Mary Jordan Coe as Research Associate, and Hope Havens as secretary to the group.

Mr. Kelly graduated from the Columban College, Dalgan Park, Ireland. He received a B.A. degree from Boston College and a Master of Library Science (M.L.S.) from the Catholic University of America, Washington, D.C. His professional associations include the American Library Association and the New England Library Association. He is a member of the *Iota* Chapter of Beta Phi Mu, the honorary library fraternity. Prior to joining NELINET, Mr. Kelly worked as a cataloger/bibliographer at the Bapst Library of Boston College and at the Widener Library of Harvard College. During the last two years he has been employed with Inforonics, Inc., of Maynard, Massachusetts, where he acquired considerable practical experience in library automation, computer typesetting and information processing systems.

Miss Coe, previously a Library Systems Analyst, received a B.A. degree from Southwestern at Memphis and a Master of Library Science (M.L.S.) at the University of North Carolina. She was a Public Health Service Trainee in Computer Librarianship at the Washington University School of Medicine Library in St. Louis, and while there conducted a research project on bibliographic retrieval, which is described in an article in the October, 1970 issue of the *Bulletin of the Medical Library Association*, entitled, "Uniqueness of Compression Codes for Bibliographic Retrieval". Miss Coe also did further graduate studies in the Department of Computer and Information Science at the University of North Carolina and at Washington University. As a member of the NELINET central staff, Miss Coe will be involved in technical evaluation and planning for expanding NELINET services to member libraries.

CURRENT STAFF ACTIVITIES

The immediate interest of the new NELINET staff focuses on an in-depth review and update of the Master Plan for the network's development. This activity can be broken down into four concurrent tasks:

1. A review of the development schedule and priorities
2. A review of machine hardware configurations (proposed and alternatives)
3. An evaluation of related projects and vendor services
4. Expansion of Network Membership

SCHEDULE

The staff has now established a preliminary schedule of development which is broken down into modules or sub-systems. Priorities for the next development stage are as follows:

1. Off-line cataloging support and union listing sub-system
2. Off-line User Services Support Sub-System (to include interlibrary loan and circulation control)
3. Off-line Serials Controls Sub-System
4. On-line Shared Cataloging Sub-System
5. On-line versions of 2 and 3 above
6. On-line Acquisitions Control System

Implementation of these systems require a computer center totally dedicated to supporting library services. Hopefully, we will achieve this goal within the alloted time frame.

HARDWARE REVIEW

Before going ahead with development of the next sub-system, a close review of an earlier system hardware recommendation is in order. This re-evaluation will take into account new equipment which has appeared since the earlier evaluation was completed. The present sub-systems operate on a Digital Equipment Corporation PDP-10/50.

MEMBERSHIP EXPANSION

While the NELINET System has grown considerably beyond the dimensions of the original Pilot Project, the membership has never been expanded beyond the original participants in the feasibility study. Although this, no doubt, is in keeping with the best conservative traditions of New England, the time is ripe for a reversal of this posture. Any meaningful development of the network requires the enrollment of a large number of New England private and public academic and research libraries. A decision to this effect was made at the recent Executive Committee meeting, and an early effort to enlarge the membership is underway now. In relation to the enrollment of new members, a Technical

Audit and a User Audit of present services will be undertaken. The purpose of these audits is to evaluate on-going and future services for present, as well as prospective members. The needs and reactions of at least twelve non-member libraries will be studied, and these results will be incorporated where necessary into a revised Master Plan. As a result of the above decision, a short position paper will be circulated to all head librarians and college presidents in the New England area. In this connection it might be appropriate to provide some statistics about NELINET constituency:

These statistics are taken from "FACTS 1970-1971 about New England Colleges, Universities, and Institutes", a booklet compiled and published recently by the New England Board of Higher Education. Out of a total of 246 institutions of higher education listed, 174 are four-year colleges. Out of this 174, 88 have graduate programs. The following is a breakdown by state:

STATE	FOUR-YEAR COLLEGES	W/GRADUATE PROGRAMS
CONNECTICUT	27	18
MAINE	20	4
MASSACHUSETTS	81	50
NEW HAMPSHIRE	17	5
RHODE ISLAND	13	6
VERMONT	16	5
TOTALS	174	88

CURRENT SERVICES

As mentioned above, in March, 1970, NELINET activities shifted from research and development status to the present operational production sub-system. These services are limited to two types of product:

1. Catalog cards, book pocket labels and "selin" spine labels
2. Listings of individual or collective holdings

Catalog support products are produced on a weekly request basis by Inforonics, Inc., the current vendor service to NELINET. Requests for these tailored products are received at Inforonics, Inc., each week. These requests are processed against the cumulated Master File along with the MARC tape which is usually received by Monday. Cards and labels are generated for all requests found in the Master File and these products are usually mailed to the libraries one week after the request was received.

From March 1961 through February 1971, 18,331 catalog product sets were supplied to seven participating libraries. If six cards per set is taken as the average, about 110,000 cards were generated during the first year of the service. This averages out to a mean of 9,165 cards per month. Over the year there has been steady growth in the use of the sub-system with a very evident dip in December, a short work month.

The ability of the system to list holdings of individual or groups of libraries has not been implemented yet, since the file contains only MARC records. To be truly a union file, local catalog records must also be added to the Master File. Procedures are being worked out now to provide members with this ability. This kind of input should be a normal part of a library's cataloging and technical processing operations in order not to add to heavy work burdens already placed upon the libraries. This goal may not become fully functional until the on-line shared cataloging sub-system becomes operational.

There are now approximately 115,000 titles in the NELINET Master File and the file is growing by about 2,000 titles a week. The recent RECON tape added 1969 English language imprints. The Library of Congress has plans to expand the MARC service to include other categories of library materials in the near future.

MICROFORM CATALOG AVAILABLE

A recent compilation entitled, *Joint List of Major Microform Holdings of the New England State University Libraries and the Vermont Council of Academic Libraries*, Second Edition, 1970, has been compiled by Lucy DeLuca and Charles Searing at the Wilbur Cross Library of the University of Connecticut. This ninety-page catalog contains newspapers, periodicals, government publications, theses and dissertations, and miscellanea. Available from the publisher, the New England Board of Higher Education, 20 Walnut Street, Wellesley, Massachusetts 02181, for $3.00.

NELINET PROJECT REPORTS FROM ERIC

NELINET Project reports are made available through the ERIC Document Reproduction Service. Four of these reports have been listed to date in *Research In Education*. These reports, with their ERIC document numbers are:

INFORONICS, INC., *Development of a Computer Processing Center for the New England State University Libraries*, submitted to the New England Board of Higher Education and the Council on Library Resources, Final Report, CLR-354, July 13, 1967. ED 028 799; MF – $0.50, HC – $3.15.

INFORONICS, INC., *New England Library Information Network: catalog data file creation for the New England regional library technical processing center*. Final Report of CLR-374, submitted to the New England Board of Higher Education, June 20, 1968. Prepared by James E. Agenbroad, Donald D. Hodgins, Robert H. Simmons. ED 026 077, MF – $0.50, HC – $3.30.

INFORONICS, INC., *New England Library Information Network: systems design and pilot operation of a regional center for technical processing for the libraries of the New England State Universities*. 2 Volumes. Final Report, contract no. CLR-385, submitted to the New England Board of Higher Education, April 5, 1968. Prepared by James E. Agenbroad, Lawrence F. Buckland, Ann T. Curran, Donald E. Hodgins, William R. Nugent, Robert H. Simmons. Vol. I, ED 026 078; MF – $0.25, HC – $2.15. Vol. II, ED 026 079; MF – $0.75, HC – $8.55.

INFORONICS, INC., *Demonstration of cataloging support services and MARC II conversion*. Final Report of Cl 425, January 2, 1969. Prepared by Lawrence F. Buckland, Ann T. Curran, William R. Nugent. ED 028 800. MF – $0.25, HC – $2.10.

OTHER RECENT NELINET PUBLICATIONS

New England Library Information Network, The Development and Testing of an Automated System of Catalog Products Production. Final Report, CLR grant 443. Pt. 1, *General Commentary*; Pt. 2, *NELINET System Design*, by Henriette Avram; Pt. 3, *Technical Report*, by Inforonics, Inc., February, 1970.

New England Library Information Network: Development of a Machine Form Union Catalog for the New England Library Information Network (NELINET). Final Report, Grant no. OEG-0-9-310404-4438(095). Pt. 1, Union Cataloging in New England: Past, Present, and Prospective: a preliminary survey, by Samuel Goldstein; Pt. 2, System Design and Programming, by Brent Byer, Douglas A. Campell, Mary Jordan Coe, Ann T. Curran, Donald J. MacDonald, and William R. Nugent. September, 1970.

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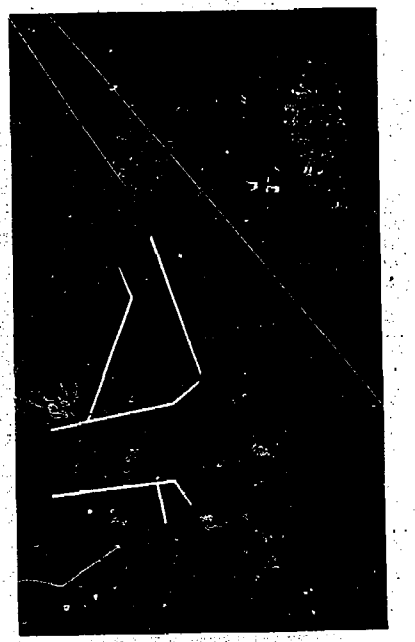
NELINET

1971-1972



New England Library Information Network
New England Board of Higher Education

NELINET

The New England Library Information Network (NELINET) presently consists of the New England State University Libraries, which, under a formal agreement administered by the New England Board of Higher Education (NEBHE) earnestly seek areas for common cooperation. At the present time, the NELINET libraries are working together in the coordinated acquisition and joint use of various kinds of research materials, in the use of teletypewriter and other communications facilities for interlibrary services, and in the production of joint holdings and want lists.

NELINET PROJECT

The most ambitious effort, known as the NELINET Project, is an attempt to establish a regional center for the provision of computer-aided services to New England libraries. An established policy of identifying and successively serving the areas in which present library operations can be most significantly improved or expanded has resulted in a developmental emphasis on technical processing, with initial attention being given to cataloging support and data file creation. Once these initial services are provided, additional services include acquisitions support and control, circulation and interlibrary loan control, accession listing, union listing, book form catalog production, library management information, and remote data base interrogation through computer terminals.

The key aspect of the NELINET approach is regionalism. Although the charter members are State University Libraries, NELINET is being designed to serve most New England libraries, public or private, academic or special, that may find it advantageous to become a member. The NELINET Center will be capable of handling at least 64 libraries; translated into New England terms, it will be capable of simultaneously servicing individual libraries and entire state library systems.

For the member libraries, NELINET offers an opportunity to share a computer facility dedicated solely to supporting library services and to share in the use of a machine form catalog while accumulating local staff experience with automated techniques. For the New England region, NELINET offers the prospect of accessing and manipulating machine-form bibliographic data, independent of variable local staff and computer capabilities. For the nation, NELINET offers one model for the regional utilization of national and regional library resources.

NEBHE

The New England Board of Higher Education is a public service agency, established in 1955 under the New England Higher Education Compact, and is organized and supported by the six New England States. Its purpose is to make maximum use of the region's higher education facilities through inter-institutional cooperation, and to increase opportunities in higher education for New England residents. Because libraries are an integral part of the educational process, NEBHE has long been vitally concerned with the regional utilization of library resources, whence its sponsorship of the New England Library Information Network.

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