This report describes the operations of the Pacific Northwest Bibliographic Center (PNBC) which is located at the University of Washington's Library in Seattle. The Center's Union Catalog contains bibliographic citations for 1,778,000 different titles held by 45 libraries in the Pacific Northwest. The Union Catalog is supplemented by microfilm files and several book catalogs, as well as the University of Washington Library's card catalog. These resources are estimated to describe and provide locations to approximately 2.75 million different titles. The filing and searching operations of PNBC are described in detail and costed. Flow-charts are provided. The characteristics of requests received, processed and those for which locations were not provided are described. PNBC's success rate in providing locations for requests is 83.11%. Of the requests forwarded by PNBC to potential lending libraries, 83.69% result in materials being delivered to the requesting library. A determination was made of the elapsed times for component elements in the sequence from a library requesting material, through processing within PNBC to the library receiving the material. Processing time within PNBC was found to be 13.01% of the total "turn-around" mean time of 19.75 days, and about 6% of the total mode time of 10.5 days. (Author)
Final Report

Project No. 1-l-050
Grant No OIX-X-71-0049(057)

An Operations Research Study
Of The
Pacific Northwest Bibliographic Center

David W. Taylor
Molly R. Mignon
Donald J. Grant

Washington State Library
Olympia, Washington 98504

June, 1972

The research reported herein was performed pursuant to a grant with the Office of Education, U.S. Department of Health, Education and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not therefore, necessarily represent official Office of Education position or policy.
ABSTRACT

This report describes the operations of the Pacific Northwest Bibliographic Center (PNBC) which is located at the University of Washington's Library in Seattle. The Center's Union Catalog contains bibliographic citations for 1,778,000 different titles held by 45 libraries in the Pacific Northwest. The Union Catalog is supplemented by microfilm files and several book catalogs, as well as the University of Washington Library's card catalog. These resources are estimated to describe and provide locations to approximately 2.75 million different titles.

The filing and searching operations of PNBC are described in detail and costed. Flow-charts are provided. The characteristics of requests received, processed and those for which locations were not provided are described. PNBC's success rate in providing locations for requests is 83.11%. Of the requests forwarded by PNBC to potential lending libraries, 83.69% result in materials being delivered to the requesting library.

A determination was made of the elapsed times for component elements in the sequence from a library requesting material, through processing within PNBC to the library receiving the material. Processing time within PNBC was found to be 13.01% of the total "turn-around" mean time of 19.75 days, and about 6% of the total mode time of 10.5 days.
PREFACE

This report is the end product of a study of the Pacific Northwest Bibliographic Center conducted from September 1971 through May 1972. The focus of the study was on the operations performed by the staff of PNBC.

We were fortunate that Molly R. Mignon, the Principal Investigator for the study, was a Center staff member serving as Head Reference Librarian. This allowed us, as the study proceeded, to immediately initiate the alterations in procedures indicated by the study's analyses. It was therefore possible to test and refine the operations during the period of the study itself.

This final report, rather than discussing how, when, and why changes in procedures were made, instead attempts to describe in detail the results of the study, i.e. how now, after these changes, the operations are conducted.

The Project Director for the study was David W. Taylor, Associate State Librarian, Planning and Research of the Washington State Library. Donald J. Grant, also of the State Library, served as Research Analyst.

The authors of this report wish to acknowledge the assistance provided by Lura Gibbons Currier, Director of the Pacific Northwest Bibliographic Center and the Center staff. The patience and courtesy exhibited by the staff, despite the pressures of a heavy work load, were at all times exemplary.

We wish to extend our thanks also to Barbara Calquhoun and other members of the clerical staff at the Washington State Library, who assisted in the preparation of the final report.
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CHAPTER I
OVERVIEW AND BACKGROUND

The Pacific Northwest Bibliographic Center is located within the Henry Suzzallo Library at the University of Washington. It occupies about 2,900 square feet on the second floor in an area adjacent to the University Library's Interlibrary Loan Office.¹

The Center employs 16.7 FTE personnel (Oct. 1, 1971) including 5 professional librarians, 4.5 sub-professional and/or clerical workers, and 7.2 FTE in student help. The operating budget for 1971-72 is $150,236. Grant funds from Washington and Montana state libraries and the U.S. Office of Education are providing an additional $42,201 for the current year, specifically designated for non-recurring projects and research. The basic operating funds are provided on a population percentage basis by each state with the plans for raising the several state allotments left to each state. Where full support is provided, all libraries within a state are eligible to use PNBC. Provision is made for individual library subscriptions in British Columbia.

The Center is a registered non-profit corporation, incorporated by the state library agencies of the five states. It is governed by a Board of Directors comprising seven members: one from each of the five incorporating states, one from the Pacific Northwest Library Association, and one from the University of Washington.

The Center houses a union catalog of 2,308,000 cards which list the books and other printed materials owned by 45 libraries in the region covered by Alaska, Washington, Oregon, Idaho, Montana, and British Columbia.² In addition to the card catalog are files of microfilm and book

¹. For floor plan see Exhibit I-1
². For complete listing see Appendix Exhibit A-1
Exhibit I-1

Pacific Northwest Bibliographic Center

Floor Plan

2,930 Square Feet

Bibliographies, Indexes, etc.

Union Catalogs

Card Files

Shelves

Tables

Carrels

Storage

Xerox

Reader

File

Desk

Teleprinter

Microfilm

Reader

Storage

Shelves

Card Files

Union Catalogs

Request File

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catalogs containing the records of holdings of several other libraries. A collection of bibliographies, general catalogs, serials holdings lists and reference works are also used to identify and locate books and special collections.3

The staff of the Center locates books and other information materials for libraries and their users. If the title desired is not owned in the region, it extends its activities outside the region.

The staff arranges interlibrary loans by routing requests to the proper source, and by giving alternative locations for use if the first library asked is unable to fill the request. Ordinarily the selection of lending library is made by type of library (preferably the same as requesting library) and proximity to requestor, but individual loan policies and the desirability of spreading the load are also factors. The use of liberal interlibrary loan privileges makes the resources of the major research collections available to all.

As well as responding to requests for specific titles, the Center also directs those in search of materials on specific subjects to the collections best able to serve them. In addition, the Center occasionally assists librarians and library users in identifying authors, titles, editions and other matters of bibliographical research.

The Center was founded in 1940 with a grant from the Carnegie Corporation and has, since the expiration of that grant, been supported by the libraries of the region. Until 1970 support had been in the form of individual library subscriptions. Since the 1970 reorganization an effort is being made to shift total financial support to the state library agencies of the five states. This method of support makes the Center's services more readily available to all citizens of each state and provides equal access to the Center by each library regardless of its type or size.

3. See Appendix Exhibit A-2
Four of the states have devised methods of raising their "fair share" portion of the current budget but the problem of financing the Center in Oregon remains yet to be resolved.

The Center has always been located in the University of Washington Library at Seattle.

At the time of its establishment the Center "was conceived broadly as an agency of regional library cooperation, both to facilitate the collective exploitation of the existing resources of the region and to foster the future growth of these resources." 4

A study of the Center by Raynard Swank published in 1957 described early efforts made toward these ends. "During the early years of the Center, this broad objective was pursued with vigor and imagination and with the enthusiastic support of the entire region. Indeed, before the Union Catalog and its related interlibrary loan services were well under way, the Center had begun to experiment boldly with other devices of library cooperation. Forays were made into the surveyal and description of regional resources, such as government documents, unpublished research materials, Northwestern Americana, and Latin American materials, and in 1943 Van Male's Resources of Pacific Northwest Libraries5 was published.

A bibliographic information service was offered to supply libraries of the region with data for acquisitions and cataloging purposes, the identification and comparison of editions, and the prevention of unnecessary duplication of acquisitions. To improve discounts, a joint purchase agreement between Pacific Northwest libraries and a major book jobber was attempted. A cooperative "last copy" program was adopted to prevent the discard of the titles unique to the region. An ambitious agreement

for regional library specialization was promoted to coordinate and integrate the development of library resources in the Pacific Northwest, to eliminate needless duplication and to build up within the region strong subject collections in fields of particular interest in the area. Throughout this period of hopeful pioneering, the services of the Center and its aspirations for the future were widely and effectively publicized by means of posters, articles, exhibits, field trips, and conference programs. 6

Swank found it necessary to paint a dark picture of what happened to these early bright dreams of library cooperation on a regional scale. "During succeeding years, however," he went on to say, "the vision gradually faded and the concept narrowed as one by one those early projects failed or receded into the background. Only the Union Catalog and interlibrary lending flourished. Not only has the Center become primarily a clearinghouse for interlibrary loans; it is also now in danger of failing even at that, because of the large arrearages in the maintenance of the Union Catalog. 7

Even though there were strong differences of opinion as to what PNBC should be, Swank found the profession on the whole unwilling to permit its demise.

"Many librarians of the region are satisfied that the Center should continue to concentrate on the Union Catalog and interlibrary lending, but others, while applauding the quality and value of these services, regret that other significant parts of the original program have not also flourished. The conviction persists that such a Center could, and should, contrib-

6. Swank. p.3
7. Ibid
bute more profoundly in a wider variety of ways to the exploitation and enrichment of regional resources. 8

Following the release of the full report of the Swank Survey, the Board of Managers of the Center set to work on implementing several of its recommendations, among which were:

"That the Board of Managers be replaced by a large Council to consist of representatives of the libraries that subscribe to the support of the Center and by an Executive Committee elected by and from the Council.

That the LC depository card catalog be discontinued.

That interlibrary loan services to the smaller public libraries continue to be diverted as much as possible from the Center to state library or other local agencies, and that the PNLA encourage the further development of such agencies in all states and provinces of the region.

That the University of Washington Library plan separate quarters for the Center as part of its building program, and that the Center's budget express all costs, including all the subsidies now provided by the Library.

That the income of the Center be increased and that attention be given to the following possible methods: (1) weighting the public library formula by states and provinces in order to reflect local differences in the demands upon the Center, or negotiating a special subscription from the Washington State Library; (2) raising the public library rates in relation to those of the academic; (3) revising upward the rates applied to Class B (income $5,000 to

libraries; (4) promoting additional subscriptions from all types of libraries, including special libraries; and (5) soliciting foundation grants."  

The Council, largely through its Executive Committee, began to determine policy for the Center. The LC depository function was assumed by the University. Emphasis for service to the smaller public libraries shifted to the states with the increasing strengths attained by the state library agencies through the Federal Library Services Act (later Library Services and Construction Act) which passed almost simultaneously with this Swank Recommendation. A new financial formula added some income to the Center, but several efforts to secure foundation grants were unsuccessful.

Both the momentum and the scope of library development were stepped-up throughout the Pacific Northwest when the principle of cooperation among different types of libraries was built into the Library Service and Construction Act as its Title III. As each state began to build internal machinery for interlibrary cooperation it began, also, to examine the external structure under which it had participated in interlibrary cooperation on a regional basis for more than two decades. Late in 1968, PNBC Council asked the Washington State Library to conduct a study of the Center to determine its position in the various programs of library cooperation being developed under Title III of LSCA. Implementation of this resulted in the extensive survey made by Lura Gibbons Currier during 1969.  

Even before this lengthy report had reached its final printing, the

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9. Swank, p.47
officers of the Pacific Northwest Library Association began determining what specific action should be taken in regard to its recommendations.

In the discussions that followed, there was extensive involvement of the library community. Those examining the question of PNBC's future included the Executive Committee of the PNBC Council; the full Council in a meeting called especially for this purpose; the state librarians of the five states who later incorporated the Center; a regionwide ad-hoc committee of member-users of PNBC who were not on the Council, appointed by the President of PNLA; the Executive Board of PNLA; the membership of PNLA in attendance at the annual conference in Ashland, Oregon in August 1970.

To assure continuity in the changing concepts for PNBC which had been clearly expressed by the librarians of the region in these numerous deliberations and to capitalize on the fund of information gained in the work done to produce the 1968-69 study, the Board of Directors employed Lura Gibbons Currier, author of the survey, as the first Director of the Center under its new organizational structure. The Staff began immediately to carry out the mandate of the Board of Directors to implement the recommendations of the 1969 survey.

So similar are the service concepts and the managerial needs expressed by both Swank and Currier that what has happened to date is that the new structure, increased financing, and additional staff are making it possible to implement, at least to some degree, both these surveys even though their publication spans twelve years.

Fully implemented to date have been those recommendations dealing with basic structure, Board composition, increased budget, improved equipment, upgraded salary scale, and liberalized service policies. The Center has been incorporated under the laws of the State of Washington
as a non-profit corporation with the five state library agencies as incorporators. The membership of the Board of Directors is based on the concept of the Center as a service agency designed to supplement the all-over library service plan for each state. It carries out also the recommendation that PNIA divest itself of administrative responsibility for PNBC and rather that its influence, through its member on the Board of Directors, be exerted in the policy making aspects of the Center. The operating budget for the last year under the previous set-up had been $55,565.18; in 1970-71 it was increased to $97,173 and in 1971-72 to $150,236. This has allowed upgrading of salaries to a level commensurate with duties performed, and made possible the purchase of needed furniture, communications equipment and bibliographic tools. In addition it has allowed PNBC to offer the new service of filling requests for periodical articles by photocopy, and has enabled the Center to assume many of the costs involved in its operation that were formerly borne by the University of Washington. A liberalized policy has greatly expanded the range of materials now accepted by PNBC for search, with the result that requests are now processed for fiction, juvenile books, new imprints, music scores and recordings and other specialized material; and these services are available to all borrowers without restriction.

These changes have coincided with and perhaps stimulated a drastic increase in the number of requests received and in the holding records filed with the Center. The conduct of this operations research study, Sept. 1971 - May 1972, thus occurred at an opportune time.
CHAPTER II

BIBLIOGRAPHIC RESOURCES

The Union Catalog is the primary bibliographic resource available at the Center. It is a main entry card catalog arranged in alphabetic order encompassing 4,800 drawers, 3,395 of which currently contain cards. The holdings of 45 Pacific Northwest libraries are included in the Union Catalog.\(^1\) In addition, the card catalog of the University of Washington Library is available within the building for inspection by Center staff.

Each of the drawers within the catalog, while containing cards limited to that drawer's narrow range of the alphabet actually contains several small alphabet "runs" of the same range. This is the result of a filing system which stresses making newly received cards quickly accessible to searchers without the time-consuming effort involved in interfiling a small number of cards within the much larger Union Catalog.

Another service provided by PNBC tends to complicate even further the internal arrangement of the catalog. This service is one of assisting member libraries in reporting their holdings to two National Union Catalog projects. The Center has assumed total regional responsibility for representation in the Pre-1956 NUC (Mansell) by photocopying its entire holdings of pre-1956 imprints and forwarding the original cards to the Library of Congress, the photocopies are filed in the PNBC Union Catalog.

A different method has been employed to report holdings of post-1956 titles to NUC. In this instance the holdings of only eleven of the contributing libraries are being reported. Here the original cards are forwarded to the Library of Congress. There they are reproduced and the original cards are returned to PNBC for filing in the Union Catalog.

\(^1\) See Appendix Exhibit A-1 for a complete listing.
In order to determine the number of new and old cards in the catalog, these sections were measured to the nearest tenth of an inch in each of 174 randomly selected drawers. In addition, all of the cards not filed were also measured. The measurements were then translated to card counts (100 cards to the inch). In order to be able to estimate the number of different titles represented by the cards at PNBC some 5,000 cards from the several alphabets were interfiled in one alphabet. By counting the number of different titles represented by the cards after interfiling it was possible to determine the ratio of new titles produced per new cards filed. This method then provided an estimate of card and title holdings as of April 15, 1972.

TOTAL CARDS AT PNBC 2,308,000
TOTAL DIFFERENT CARD TITLES AT PNBC 1,778,000

The distribution of these titles by date of publication was established from a random sample of 554 titles. The median publication date of the holdings of the union catalog is 1957-58. The mode is 1967. The range of dates recorded from the sample extended from 1972 to 1745. The distribution is summarized in Exhibit II-1.
Exhibit II-1

Age of Main Entries in PBNBC's Union Catalog
April 3, 1972 -- Sample of 554

<table>
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<th>Date of Publication</th>
<th>Percent of Total</th>
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<td>1971</td>
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<td>1970</td>
<td>3.79</td>
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<tr>
<td>1969</td>
<td>4.15</td>
<td>9.92</td>
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<tr>
<td>1968</td>
<td>4.33</td>
<td>14.25</td>
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<tr>
<td>1967</td>
<td>5.42</td>
<td>19.67</td>
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<tr>
<td>1966</td>
<td>3.79</td>
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<td>1965</td>
<td>4.87</td>
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<td>1964</td>
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<td>1963</td>
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<td>1950</td>
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<td>1930 - 1939</td>
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<td>1920 - 1929</td>
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<td>1910 - 1919</td>
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<td>Before 1870</td>
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<td>100.00</td>
</tr>
</tbody>
</table>
The number of locations per title was also examined. The low incidence of duplication of titles (Exhibit II-2) is particularly striking. Almost one half of the titles are held by only one library. Two-thirds of the titles are held by fewer than three libraries.

Exhibit II-2

PNBC's Union Catalog
Number of Locations Per Title
April 14, 1972 - Sample of 592

<table>
<thead>
<tr>
<th>Number of Locations Per Title</th>
<th>Percentage of all Titles</th>
<th>Cumulative Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>48.31</td>
<td>48.31</td>
</tr>
<tr>
<td>2</td>
<td>17.57</td>
<td>65.88</td>
</tr>
<tr>
<td>3</td>
<td>7.77</td>
<td>73.65</td>
</tr>
<tr>
<td>4</td>
<td>4.73</td>
<td>78.38</td>
</tr>
<tr>
<td>5</td>
<td>5.07</td>
<td>83.45</td>
</tr>
<tr>
<td>6</td>
<td>4.73</td>
<td>88.18</td>
</tr>
<tr>
<td>7</td>
<td>2.03</td>
<td>90.21</td>
</tr>
<tr>
<td>8</td>
<td>3.04</td>
<td>93.25</td>
</tr>
<tr>
<td>9</td>
<td>1.69</td>
<td>94.94</td>
</tr>
<tr>
<td>10</td>
<td>1.35</td>
<td>96.29</td>
</tr>
<tr>
<td>More than 10</td>
<td>3.71</td>
<td>100.00</td>
</tr>
</tbody>
</table>

The mean number of locations per title is 3.2308. When combined with sample data showing the precise locations for each of the 592 titles it was possible to estimate the distributions of locations among the libraries represented by PNBC's holdings. Those libraries with the greatest monographic title holdings listed at PNBC are as follows:
Exhibit II-3

PNBC's Union Catalog
Locations (Titles) Recorded at PNBC

<table>
<thead>
<tr>
<th>Library</th>
<th>Percentage of Total Locations</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of British Columbia</td>
<td>13.21</td>
</tr>
<tr>
<td>University of Oregon</td>
<td>10.40</td>
</tr>
<tr>
<td>Seattle Public</td>
<td>7.58</td>
</tr>
<tr>
<td>Library Association of Portland</td>
<td>6.02</td>
</tr>
<tr>
<td>Oregon State University</td>
<td>5.94</td>
</tr>
<tr>
<td>Washington State Library</td>
<td>4.77</td>
</tr>
<tr>
<td>Oregon State Library</td>
<td>4.38</td>
</tr>
<tr>
<td>University of Montana</td>
<td>4.01</td>
</tr>
<tr>
<td>Vancouver Public</td>
<td>3.99</td>
</tr>
<tr>
<td>Tacoma Public</td>
<td>3.60</td>
</tr>
<tr>
<td>All other Libraries</td>
<td>36.10</td>
</tr>
</tbody>
</table>

The number of titles shown as being held at only one library were also noted. The libraries with the greatest number of titles unique to the union catalog are listed below. While the rank order of the libraries approximates that of Exhibit II-3, the unique character of the University of British Columbia Library's collection relative to that of other libraries becomes evident.
Exhibit II-4

PNRC's Union Catalog
Libraries Holding Unique Titles

<table>
<thead>
<tr>
<th>Library</th>
<th>Percentage of Total Unique Titles</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of British Columbia</td>
<td>21.28</td>
</tr>
<tr>
<td>University of Oregon</td>
<td>12.06</td>
</tr>
<tr>
<td>Seattle Public</td>
<td>11.35</td>
</tr>
<tr>
<td>Oregon State University</td>
<td>9.93</td>
</tr>
<tr>
<td>Library Association of Portland</td>
<td>8.51</td>
</tr>
<tr>
<td>Washington State Library</td>
<td>4.96</td>
</tr>
<tr>
<td>Vancouver Public</td>
<td>4.26</td>
</tr>
<tr>
<td>Oregon State Library</td>
<td>3.55</td>
</tr>
<tr>
<td>University of Montana</td>
<td>2.84</td>
</tr>
<tr>
<td>Tacoma Public</td>
<td>2.13</td>
</tr>
<tr>
<td>All other Libraries</td>
<td>19.13</td>
</tr>
</tbody>
</table>

The presence of the University of Washington Library's card catalog is, of course, a great asset to the Center's operations and searches of that catalog are a part of the Center's routine procedures. A study was conducted to determine the degree to which the University of Washington's holdings supplements the holdings of libraries with bibliographic records contained in the Union Catalog. A random sample of 368 titles was drawn from the U of W's catalog and searched against PNRC's Union Catalog. A total exact duplication (precise match of title and edition) of 230 titles was found. Thus, 138 U of W titles were unique relative to Union Catalog holdings and 37.5% of the University's title holdings (or 305,700 titles) are estimated to supplement the 1,778,000 different titles represented at PNRC.

These 2,083,700 different catalog card titles are further supplemented by book catalog and microfilm files of the records of the Oregon State Library, the King County Library System, Washington State University Library, and other libraries.

2. See Chapter VI and Exhibit VI-2 for details.
Library and several other major libraries. These files and additional bibliographic resources are cited in Appendix Exhibits A-1 and A-2.

In the absence of a statistically rigorous estimate of the total number of different titles represented by these resources -- not possible within the confines of this study -- we would suggest that between 2,500,000 and 3,000,000 different title records are accessible at the Bibliographic Center -- all of these describing resources available in libraries of the Pacific Northwest.
CHAPTER III
CHARACTERISTICS OF REQUESTS

The growth in interlibrary loan requests received at the Pacific Northwest Bibliographic Center over the last twenty years is recorded in the following table.

Exhibit III-1
Interlibrary Loan Requests Received at PNBC
1953 - 1972

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Number of Requests</th>
</tr>
</thead>
<tbody>
<tr>
<td>1953</td>
<td>10,723</td>
</tr>
<tr>
<td>1954</td>
<td>11,524</td>
</tr>
<tr>
<td>1955</td>
<td>12,394</td>
</tr>
<tr>
<td>1956</td>
<td>11,714</td>
</tr>
<tr>
<td>1957</td>
<td>11,856</td>
</tr>
<tr>
<td>1958</td>
<td>13,615</td>
</tr>
<tr>
<td>1959</td>
<td>12,741</td>
</tr>
<tr>
<td>1960</td>
<td>12,260</td>
</tr>
<tr>
<td>1961</td>
<td>13,678</td>
</tr>
<tr>
<td>1962</td>
<td>14,092</td>
</tr>
<tr>
<td>1963</td>
<td>14,465</td>
</tr>
<tr>
<td>1964</td>
<td>15,348</td>
</tr>
<tr>
<td>1965</td>
<td>16,223</td>
</tr>
<tr>
<td>1966</td>
<td>16,077</td>
</tr>
<tr>
<td>1967</td>
<td>18,122</td>
</tr>
<tr>
<td>1968</td>
<td>19,368</td>
</tr>
<tr>
<td>1969</td>
<td>17,511</td>
</tr>
<tr>
<td>1970</td>
<td>17,766</td>
</tr>
<tr>
<td>1971</td>
<td>21,213</td>
</tr>
<tr>
<td>1972</td>
<td>31,502*</td>
</tr>
</tbody>
</table>

*Estimate; 28,378 through May '72

Development of Pacific Northwest Regional Health Sciences Library, to which all appropriate requests were to be sent, no doubt accounts for the sudden reversal in volume from 1968 to 1969. The increase in FY 1971 volume was sudden and has since been continuing sharply upward. Since Feb.
1971, each succeeding month has established an all-time monthly high.

The number of user libraries has also increased dramatically within the last few years. In 1969-70, 192 member libraries used PNBC. During calendar 1971, 279 libraries within the region sent ILL requests to the Center. Those libraries placing the most requests with PNBC are listed in the following table.

### Exhibit III-2

**Libraries Placing Requests With PNBC; The 25 Leading Requestors**

**July 1971 - December 1971**

<table>
<thead>
<tr>
<th>Library</th>
<th>Number of Requests</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Alaska</td>
<td>682</td>
</tr>
<tr>
<td>Washington State Library</td>
<td>558</td>
</tr>
<tr>
<td>Timberland Regional (Wa)</td>
<td>409</td>
</tr>
<tr>
<td>King County (Wa)</td>
<td>388</td>
</tr>
<tr>
<td>Alaska State Library</td>
<td>380</td>
</tr>
<tr>
<td>Seattle Public (Wa)</td>
<td>380</td>
</tr>
<tr>
<td>North Central Regional (Wa)</td>
<td>329</td>
</tr>
<tr>
<td>Western Washington State College</td>
<td>275</td>
</tr>
<tr>
<td>University of Oregon</td>
<td>272</td>
</tr>
<tr>
<td>Spokane Public (Wa)</td>
<td>265</td>
</tr>
<tr>
<td>Billings Public (Mt)</td>
<td>259</td>
</tr>
<tr>
<td>Nez Perce County (Id)</td>
<td>256</td>
</tr>
<tr>
<td>Weyerhaeuser Timber Co. (Wa)</td>
<td>241</td>
</tr>
<tr>
<td>Idaho State University</td>
<td>231</td>
</tr>
<tr>
<td>Washington State University</td>
<td>225</td>
</tr>
<tr>
<td>Spokane County (Wa)</td>
<td>221</td>
</tr>
<tr>
<td>University of British Columbia</td>
<td>216</td>
</tr>
<tr>
<td>University of Puget Sound (Wa)</td>
<td>214</td>
</tr>
<tr>
<td>University of Idaho</td>
<td>199</td>
</tr>
<tr>
<td>Pierce County Library (Wa)</td>
<td>180</td>
</tr>
<tr>
<td>Oregon State Library</td>
<td>179</td>
</tr>
<tr>
<td>Evergreen State College (Wa)</td>
<td>178</td>
</tr>
<tr>
<td>Kitsap Regional (Wa)</td>
<td>169</td>
</tr>
<tr>
<td>University of Montana</td>
<td>150</td>
</tr>
<tr>
<td>Tacoma Public (Wa)</td>
<td>149</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>7,005</strong></td>
</tr>
</tbody>
</table>

1. Currier, p. 53a
Exhibit III-3 shows the distribution of requests received by type of agency. Data from that table is further summarized in Exhibit III-4 and compared to similar data from the Currier study.

The use of PNBC's Union Catalog by the interlibrary loan staff of the University of Washington to assist that institution's borrowing, is not reflected in these presentations.
Exhibit III-3

Interlibrary Loan Requests Received
By Type of Agency
July 1971 - December 1971

<table>
<thead>
<tr>
<th>Description</th>
<th>Number of Requests</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic, Public</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Universities</td>
<td>2,495</td>
<td>19.04</td>
</tr>
<tr>
<td>Four Year Colleges</td>
<td>545</td>
<td>4.16</td>
</tr>
<tr>
<td>Two Year Colleges</td>
<td>561</td>
<td>4.28</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
<td>.05</td>
</tr>
<tr>
<td>Academic, Private</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Universities</td>
<td>657</td>
<td>5.01</td>
</tr>
<tr>
<td>Four Year Colleges</td>
<td>675</td>
<td>5.15</td>
</tr>
<tr>
<td>Two Year Colleges</td>
<td>18</td>
<td>.14</td>
</tr>
<tr>
<td>Other</td>
<td>10</td>
<td>.08</td>
</tr>
<tr>
<td>Public Libraries</td>
<td>6,190</td>
<td>47.24</td>
</tr>
<tr>
<td>State Libraries</td>
<td>1,237</td>
<td>9.44</td>
</tr>
<tr>
<td>Federal Agencies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Military</td>
<td>126</td>
<td>.96</td>
</tr>
<tr>
<td>Executive Branch Agencies</td>
<td>57</td>
<td>.44</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>.02</td>
</tr>
<tr>
<td>State Agencies (other than State Libraries)</td>
<td>12</td>
<td>.09</td>
</tr>
<tr>
<td>Special Libraries</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business and Industry</td>
<td>386</td>
<td>2.95</td>
</tr>
<tr>
<td>Private Organizations and Associations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospitals</td>
<td>42</td>
<td>.32</td>
</tr>
<tr>
<td>Denver Bibliographic Center</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public</td>
<td>2</td>
<td>.02</td>
</tr>
<tr>
<td>Special</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>17</td>
<td>.13</td>
</tr>
<tr>
<td>Region Covered by Denver Bibliographic Center</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic</td>
<td>3</td>
<td>.02</td>
</tr>
<tr>
<td>Public</td>
<td>5</td>
<td>.04</td>
</tr>
<tr>
<td>Special</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>.02</td>
</tr>
<tr>
<td>California</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic</td>
<td>1</td>
<td>.01</td>
</tr>
<tr>
<td>Public</td>
<td>8</td>
<td>.06</td>
</tr>
<tr>
<td>Special</td>
<td>3</td>
<td>.02</td>
</tr>
<tr>
<td>States Outside Pacific NW</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Denver Region and California</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic</td>
<td>33</td>
<td>.25</td>
</tr>
<tr>
<td>Public</td>
<td>7</td>
<td>.05</td>
</tr>
<tr>
<td>Special</td>
<td>2</td>
<td>.02</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>.01</td>
</tr>
<tr>
<td>TOTAL</td>
<td>13,103</td>
<td>100.02</td>
</tr>
</tbody>
</table>
Exhibit III-4
Interlibrary Loan Requests Received
By Library Type

<table>
<thead>
<tr>
<th>Type of Library</th>
<th>1969-70 Percent</th>
<th>July-Dec., 1971 Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic</td>
<td>27.08%</td>
<td>38.19%</td>
</tr>
<tr>
<td>Public</td>
<td>58.85%</td>
<td>47.41%</td>
</tr>
<tr>
<td>State</td>
<td>3.65%</td>
<td>9.44%</td>
</tr>
<tr>
<td>Special</td>
<td>10.42%</td>
<td>3.30%</td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTALS</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

2. Currier, p.53a

It should be noted that less than one-half of the requests recently received have been from public libraries.

Exhibit III-5 reveals that more than half the requests received are from Washington and that less than one percent are from outside the region.

Exhibit III-5
Interlibrary Loan Requests Received
By Geographic Area
July 1971 - April 1972

<table>
<thead>
<tr>
<th>Area</th>
<th>Requests Received by PNBC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
</tr>
<tr>
<td>Alaska</td>
<td>2,569</td>
</tr>
<tr>
<td>Idaho</td>
<td>2,074</td>
</tr>
<tr>
<td>Montana</td>
<td>2,738</td>
</tr>
<tr>
<td>Oregon</td>
<td>3,833</td>
</tr>
<tr>
<td>Washington</td>
<td>13,078</td>
</tr>
<tr>
<td>British Columbia</td>
<td>800</td>
</tr>
<tr>
<td>SUB TOTAL FOR REGION</td>
<td>25,092</td>
</tr>
<tr>
<td>Outside Region</td>
<td>148</td>
</tr>
<tr>
<td>GRAND TOTAL</td>
<td>25,240</td>
</tr>
</tbody>
</table>
An analysis of 3,632 requests was made to determine the means by which requests were transmitted to the Center. Mail requests were the dominant method and accounted for 79.74% of all requests. Teletype requests amounted to 17.59% while telephone requests represented only 2.67% of the total.

In order to determine the detailed characteristics of requests received at the Center, an analysis was made of all requests logged-out on each of ten working days in the period Sept.-Dec., 1971. The total number of requests studied was 1,258.

The time lapse between the date of the request (typed on the ILL form) and its receipt at the center was calculated for 1,103 items. The distribution of elapsed times is shown in Exhibit III-6 (time over weekends included).

**Exhibit III-6**

*Elapsed Time Between Date of Request and Receipt at PNBC*

<table>
<thead>
<tr>
<th>Days Elapsed</th>
<th>Number of Requests</th>
<th>Percentage</th>
<th>Cumulated Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>73</td>
<td>6.88</td>
<td>6.88</td>
</tr>
<tr>
<td>1</td>
<td>73</td>
<td>6.88</td>
<td>13.76</td>
</tr>
<tr>
<td>2</td>
<td>239</td>
<td>22.53</td>
<td>36.29</td>
</tr>
<tr>
<td>3</td>
<td>244</td>
<td>23.00</td>
<td>59.29</td>
</tr>
<tr>
<td>4</td>
<td>174</td>
<td>16.40</td>
<td>75.69</td>
</tr>
<tr>
<td>5</td>
<td>143</td>
<td>13.48</td>
<td>89.17</td>
</tr>
<tr>
<td>6</td>
<td>32</td>
<td>3.02</td>
<td>92.19</td>
</tr>
<tr>
<td>7</td>
<td>18</td>
<td>1.70</td>
<td>93.89</td>
</tr>
<tr>
<td>8</td>
<td>16</td>
<td>1.51</td>
<td>95.40</td>
</tr>
<tr>
<td>9</td>
<td>4</td>
<td>.38</td>
<td>95.78</td>
</tr>
<tr>
<td>10</td>
<td>9</td>
<td>.85</td>
<td>96.63</td>
</tr>
<tr>
<td>11-26</td>
<td>36</td>
<td>3.37</td>
<td>100.00</td>
</tr>
<tr>
<td>TOTALS</td>
<td>1,061</td>
<td>100.00</td>
<td>--</td>
</tr>
</tbody>
</table>

Mean elapsed time 3.62 days

3. Mondays: Sept. 27, Nov. 8; Tuesdays: Oct. 12, Nov. 2; Wednesdays: Oct. 6, Nov. 17; Thursdays: Sept. 23, Dec. 16; Fridays: Sept. 17, Nov. 5.
Those requests in transit for longer than four days were generally a result of routings through a state library. Those received the same date of the request were all transmitted to PNDC by teletype or telephone.

Thirty-four percent of the requests had been routed to PNDC via state libraries. Of these, 58% were from the Washington State Library.

Some of the specific characteristics of the 1,258 requests studied are as follows:

Exhibit III-7

Types of Materials Requested
Based on Sample of 1,258

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage of all Requests Received</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serials</td>
<td>26.63%</td>
</tr>
<tr>
<td>Fiction</td>
<td>2.07</td>
</tr>
<tr>
<td>Foreign Language Titles</td>
<td>7.39</td>
</tr>
<tr>
<td>German</td>
<td>2.86</td>
</tr>
<tr>
<td>French</td>
<td>1.83</td>
</tr>
<tr>
<td>Russian</td>
<td>1.03</td>
</tr>
<tr>
<td>Spanish</td>
<td>.87</td>
</tr>
<tr>
<td>Others</td>
<td>.79</td>
</tr>
<tr>
<td>Juveniles</td>
<td>.56</td>
</tr>
<tr>
<td>Theses</td>
<td>.79</td>
</tr>
<tr>
<td>Genealogies and Local Histories</td>
<td>3.74</td>
</tr>
<tr>
<td>Government Documents</td>
<td>2.38</td>
</tr>
</tbody>
</table>

A comparison of the distribution of imprint dates for items requested (Exhibit III-8) with the distribution of imprint dates for items contained in the Union Catalog (Exhibit II-1) reveals:

1. That the median age of imprints requested is of a more recent date (1960-61) than the median age of Union Catalog holdings (1957-58);
2. That the percentage of requests for recent imprints (1970 to
date) is greater than the proportion of holdings for that period (10.38% vs. 5.77%);

3. That a smaller percentage of pre-1900 requests are made (6.43%) than are represented by the percentage of holdings for that period (10.1%).
### Exhibit III-8

#### Imprint Dates of Items Requested - Sample of 1,108

<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
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<td>4.33</td>
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<td>99.97</td>
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<td><strong>1108</strong></td>
<td><strong>99.97</strong></td>
<td><strong>99.97</strong></td>
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A study of the 1,258 requests comprising the ten day sample revealed that 231 requests (18.36%) were received with defective bibliographic citations. The most common types of errors were (in order): incomplete author, incorrect author, misspellings and typographical errors, serial titles scrambled. It is estimated that about half of these defective requests required verification before the search could be completed.
CHAPTER IV
PROCESSING OF REQUESTS

The process of responding to requests for location data at the Center requires in each instance a search of the union catalog and, if necessary, additional bibliographic resources. This chapter describes this search process and presents time and cost data for this key function.

During the study of these operations, a number of procedural changes were made at the Center. Many, but certainly not all, of these changes were a result of the descriptive and analytical efforts required by this study. Alterations made during the initial phase of the analysis were incorporated into the flowcharts and time and cost studies. However, it became necessary to "freeze" the continuously evolving system at a fixed point in order to be able to describe the routines in comprehensible detail. January 1, 1972 was chosen as the "freeze" point and thus the flowchart of the searching routines (Exhibit IV-1) and the time and cost data reflect the procedures at that time.

For the purpose of simplifying the description of search routines, we have made distinctions between "routine" and "problem" requests. Routine requests include

(a) Requests for monographs which were forwarded to library locations the same day they were received or the next working day after receipt. In general, these items are located inside the region, via the PNBC catalog, the University of Washington catalog, or other resources located in the Center offices;

(b) Requests for serials filled by photocopy from University of Washington collections. Again, these also are usually processed and mailed the day of receipt or the next working day.
START SUBROUTINE "A"

OPEN MAIL, ALPHABETIZE BY STATE & LIBRARY - PUT IN SORTER

STAMP TRANSACTION NO. ON WORKSLIPS

LOG IN REQUESTS, ATTACH WORKSLIPS, COUNT & ENTER IN STATISTICS

STAMP CATE & RECORD TRANSACTION NO. ON REQUESTS; SORT SERIALS FROM MONO.

ALPHABETIZE BY 1ST LETTER SERIALS TO MONOGRAPHS

PUT IN FILE FOR SEARCHERS

START SUBROUTINE "B"

TAKE REQUESTS FROM FILE

CHECK PNRC UNION CATALOG

ITEM FOUND?

NO

CHECK UW CATALOG FOR BACKFILE

FOUND?

YES

CHECK UW PERIODICALS CURRENTLY REC'D LIST

FOUND?

NO

SEARCH CATALOG

SUBROUTINE "A" CLERICAL PROCESSING OF INCOMING REQUESTS
PACIFIC NORTHWEST BIBLIOGRAPHIC CENTER
SEARCHING ROUTINE

FOUND? NO

CHECK CBI OR OTHER BIBLIO. SOURCE

YES

FOUND? NO

CHECK PUBLISHERS CURRENT CATALOG

YES

FOUND? NO

CHECK F.B., P.W. & OTHER

YES

NO

RECORD PRICE, ETC., ON WORKSLIP

NO

FOUND?

NO

FOUND?

NO

FOUND?

NO

FOUND?

NO

FOUND?

NO

FOUND?

NO

CHECK TIBERLAND & OREGON CATALOGS

YES

FOUND?

NO

CHECK WAU CATALOG

NO

CHECK LC, NUC AND/OR REGISTER

YES

LOCATIONS FOUND?

NO

CONSULT OTHER LIBRARY CAT., INDEX, BIBLIO.

NO

LOCATIONS FOUND?

NO

TELEPHONE LIBRARIES AND/OR OTHER AGENCIES FOR LOCS.

NO

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"G" CLERICAL PROCESSING
OF OUTGOING REQUESTS

START SUBROUTINE "G"

TAKE REQ. FROM "TO BE TYPED" FILE

TYPE LOCS. ON REQ. IN RANK ORDER

DETACH LAST COPY OF REQUEST

SORT REQ. FOR MAILING

STUFF ENVELOPES ATTACH MAILING LABELS

WEIGH & STAMP ENVELOPES

LOG OUT FROM LAST COPY

PUT IN REQ. TO BE TYPED FILE

PHOTOCOPY REQ. & ATTACHED MATERIAL

DETACH LAST COPY OF REQ. STAPLE TO RPT. FORM

STAPLE FORM FOR STATE LIB. TO REQUEST
"D" SEARCHING FOR ROUTINE REQUESTS AND IDENTIFICATION OF NONROUTINE
A "problem" request, for the purposes of this study, is defined as any request for a monograph or serial which is held two or more days in PNBC for extended search. This category includes the following classes of requests:

(a) Requests received with defects in main entry or other parts of the citation which necessitate searching for verification. These are often eventually located through the PNBC catalog after the correct entry has been established. Since the PNBC catalog is an author list only, with relatively few cross references, the importance of a correct citation is critical.

(b) Requests for photocopies (or loans) of articles in periodicals which cannot be filled from the University of Washington collections. These often require extensive search for verification as well as for locations, and not infrequently a dozen or more serials lists and other bibliographic resources must be consulted for a single request. Occasionally such a request will be filled locally by photocopy, if the search leads to its location in one of the University of Washington libraries after verification, but this happens infrequently.

(c) Correctly cited monographs which cannot be located in the Northwest region. These require one or more of the following:

(1) Telephoning academic or large public and regional libraries in Washington whose holdings are not represented in PNBC. A number of libraries are telephoned each day in an attempt to locate requested items;

(2) Consulting the National Union Catalog and the Library
of Congress Register of Additional Locations;

(3) Consulting other library catalogs in the University of Washington collection;

(4) Sending teletype inquiries to the:
   California State Library Union Catalog (Daily)
   Library of Congress (Daily)
   Bibliographical Center for Research, Rocky Mountain Region, Inc. (Occasionally)

(5) Asking the Library of Congress to circularize (via its Weekly List of Unlocated Research Books) for titles not listed in LC's own records.

The narrative description of searching routines which follow, describes procedures as of January 1, 1972. Footnotes are used to update where appropriate.

Subroutine A: Clerical Processing of Incoming Requests

When incoming requests are received, they are alphabetized by state of origin and grouped by requesting libraries. Transaction numbers are stamped on the workslips, and these are attached to the request forms. Requests are then logged in¹ and entered in the statistics, the transaction number and date of receipt are recorded on the request form, serials are separated from monographs, and requests are alphabetized by main entry.²

¹. Logging in is no longer done. The daily log has been superseded by retention of a copy of each request form, together with the work record, in a numerical file.
². Alphabetizing is no longer done at this point. It was found to be more efficient to have each searcher alphabetize any group of requests taken from the file for preliminary search.
Subroutine B: Searching for Routine Requests and Identification of "Problem" Requests.

This subroutine represents the procedure of "routine" search, i.e., utilizing PNBC resources for locating materials within the region. Each searcher removes an easily manageable number of requests from either the monograph or serial section of the file. Monograph requests are first routinely checked against the PNBC catalog. If locations are found, these are recorded on the workslip. When two or more locations are obtained from the PNBC catalog, the request is put directly in the file of outgoing requests to be typed and forwarded (see Subroutine C). Remaining requests with fewer than two locations are next checked against the University of Washington catalog. If the item is found here, the University of Washington call number is written on the workslip, the University location file is checked and the location(s) recorded in the space provided on the workslip. If the book is in the main library building and if the University of Washington is the selected location, shelf is checked to determine whether it is available. If it is not on the shelf, a brief check is made of circulation records and the resulting information is recorded on the workslip.

All monograph requests having two or more locations at this point are put in the typing file to be forwarded.

3. This procedure is now changed in 3 respects: (a) King County Book Catalog, received in April 1972, is routinely consulted immediately after PNBC Union Catalog; (b) After Union Catalog, all further searching is done, wherever possible by title to allow corrections of main entry errors early in search; (c) To avoid waste in filling requests where multiple locations are not readily available, single locations are now sent on with a "bounce back" notice to be returned immediately to PNBC for further searching for any which can't be filled.

4. Since these routines were described on flowchart, new workslips have been put into use with considerable increase in efficiency. A "routine" workslip is used for subroutines B and C. Separate workslips for problem serials and monographs are used for requests carried through subroutines D, E, or F.
Subroutine C: Searching for Routine Requests Filled by Photocopy from University of Washington Collections.

If the requested item is an article in a serial, the "routine" search procedure consists of first consulting the University of Washington list of Serials Currently Received. If the article is (a) in a serial presently received by the U of W, and (b) in an issue recorded as held in the serials record, the call number and campus location(s) are recorded on the workslip and the request is placed in the file of materials to be retrieved and photocopied. If the serial is not found in U of W serials list, the U of W catalog is checked to determine whether the library has a backfile of the serial including the requested issue. If so, the call number is recorded, location file checked and request placed in the photocopy file. Further handling is routine: Serials are retrieved, articles photocopied, material is mailed out promptly to the requesting library and serials are returned to their University locations.

Subroutine D: Problem Searches for Monographs.

This subroutine applies to requests for monographs having fewer than two usable locations as a result of the preliminary searching process (i.e., checking PNBC, King County and University of Washington Catalogs). 

5. The practice of telephoning branches of the U of W library to locate serial articles has been largely discontinued. At present a PNBC staff member devotes nearly full time to retrieving and photocopying serials. Requests for serials located only in the Health Sciences library are forwarded to that library, via a daily courier, to be filled.

6. The definition of "problem" searches has been altered since this study was begun. With the adoption of the new "routine" workslip, the definition of a problem search has come to mean a request that cannot be located inside the region after consulting all regional resources now available to PNBC. The number of these resources has grown since Sept. 1971 from 3 (PNBC, Timberland and Oregon State Library catalogs) to upwards of five, including the King County book catalog and Washington State University catalog on microfilm. The catalogs of three state college libraries will soon be added, increasing the resources of PNBC—and also adding to the number of steps involved in the "routine" searching process.
The first step in this subroutine is to select the appropriate search strategy. This is determined by the nature and the imprint date of the material requested. When this has been decided, the request will be checked against an appropriate combination of regional resources which may include the Oregon State Library catalog, Timberland-North Central Regional Catalog, and the microfilm catalog of Washington State University. If this stage of search results in a single regional location, the request will usually be forwarded to that location. If no locations are found, the request is replaced in the reassignment file. The search supervisor will then attach a green workslip (for advanced monograph searches), and indicate on it the first steps to be taken in the advanced stage of search. This will involve consulting various bibliographic tools, notably the National Union Catalog and Library of Congress Catalog, Books in Print, and many others. The request will be handled by the entire advanced searching staff. If no locations are found, but bibliographic data can be verified, the request will probably be referred to

7. The decision regarding search strategy is now made by the searching supervisor. After preliminary search is completed, those items with fewer than two regional locations are placed in a file labelled "to be reassigned". The search supervisor then examines these, marks on the workslips which sources are to be consulted next, and places the request in the appropriate file section (e.g., "to be searched in Oregon/Timberland/King County," "search microfilm catalogs," etc.) In most cases more than one further source to be checked is indicated. After the first one has been checked, it is the searcher's responsibility to see that it is placed in the file for the next step indicated. If at any point in the search it appears that further bibliographic work is needed before searching can be completed, the request is put back for reassignment. In some cases these requests are sent back to the requesting library attached to a new form requesting further information, which informs the asking library what work has been done so far and what further information is needed. In most cases, bibliographic data can be completed or verified from bibliographic resources available in PNBC or the University of Washington library.

8. Single-location requests are now sent out with a form attached, asking that the lending library return the request intact to PNBC if it is unable to fill it. This eliminates the time-consuming and duplicative process of requiring the asking library to resubmit it for problem searching.
the California Union Catalog and/or the Library of Congress, via teletype.9 Further procedure is the same as that described for problem serials searches.

Subroutine E: Searching for "Problem" Serials.

If the requested serial is not in any of the University of Washington library collections, further search is required, utilizing a number of serials lists acquired by PNBC during the past year. The number of these consulted and the order in which this is done will vary depending on the nature of the material requested. (The procedure for serials searching has not yet been systematized to the same degree as that for monographs; however, what is described here is now fairly typical.) In general, those serials requests not satisfied from University of Washington resources will next be checked against regional serials lists, and locations recorded on the blue workslip now used for advanced serials searches. If fewer than two locations result from consulting these lists, further regional lists will be consulted, and eventually extra-regional and specialized serials lists when necessary. If at any point there arises doubt concerning the accuracy of the citation on the request, the Union List of Serials and/or New Serial Titles will be consulted for verification and/or locations. If the title is not listed in these sources further bibliographic work may be required to verify the citation. This may involve consulting various periodical directories or other bibliographic resources. When bibliographic data is verified, various techniques of advanced searching for locations may be applied. These most frequently consist of inquiries to specific libraries (including the Library of Congress) via teletype or telephone.

9. Report to the requesting library is made at this point (see footnote 11)

10. In the case of "rush" requests, telephone calls are made routinely to determine whether the material is available and can be copied or loaned immediately.
In the case of requests referred to the Library of Congress for locations, the request form is placed in the union file of requests satisfied and in process, filed in numerical order by transaction number, and a flag is attached to the form to indicate the request is still in process and awaiting a reply. When a reply is received, the request is forwarded to a lending library and the asking library is advised. If there are no locations, PNBC may ask the Library of Congress to circularize for the material, depending on its nature and the urgency of the user's need. If this is done a report to this effect is sent to the borrower; otherwise a report will be sent informing him that no locations have been found and the search is being abandoned.


For newly published materials, the search process is somewhat different. When first reassignment is made, these will usually be checked in some of the same resources described in subroutine D, since the Oregon State Library and King County catalogs include many recent (i.e., 1971) imprints. Beyond this, they will usually be checked against the card supplement (for Post-July 1971 acquisitions) to the WSU catalog, and the file of newly-received cards supplementing the PNBC catalog. If this results in no locations, the search supervisor then attaches a green "problem" search workslip and indicates that Books in Print (or Forthcoming Books, or both) should be checked. The searcher checks the

11. This also represents a departure from routine described on the flowchart. It is now standard practice for PNBC to send a report to the asking library at this point, advising that the request has been referred to the Library of Congress (or elsewhere) and that a further report will be sent when a reply is received. A new reporting form has been devised for this purpose.

12. In general, this applies to post-1970 imprints. The above account applies to current practice based on revisions in procedure made as a result of this study. Procedure described on the flow charts represent practice followed at the time the study was undertaken.
appropriate source, records whether the item is in print, and if so, the price and any other pertinent data. The search supervisor then decides whether to ask the borrowing library to purchase it (e.g., in the case of fiction or inexpensive paperbacks); to request purchase by a state library; or to continue the search outside the region, in which case subroutine D is followed. Usually a recommendation for purchase will be made. In some instances, large regional libraries whose holdings are not recorded in PNBC (Sno-Isle, Port Vancouver) or other more specialized libraries, will be telephoned to determine whether they have the requested material.

Subroutine G: Clerical Processing of Outgoing Requests.

This is the endpoint of all searches. Requests are taken from the typing file by the clerks, locations are typed on the request form in ranked order, and the address of the first library location is stamped in the address box using the Addresserprinter. The last copy of the request is detached and stapled to the workslip(s). Requests are then sorted for mailing, envelopes are stuffed, and statistics of outgoing requests recorded. Mail is weighed and metered and dispatched or taken to the post office. Last copies of requests, with work records attached, are then filed in the union file of requests satisfied or in process.

13. This is now done on a new form designed for the purpose including all pertinent bibliographic data and requesting a report be sent to the asking library regarding any action taken by the state or other library to whom purchase has been recommended. This practice is a response to the concern of the PNBC Board of Directors for developing regional library resources.

14. PNBC is encouraging the use of a 6-part request form, which allows retention of a file copy with the work record. When the 6-part form is not used it is necessary to photocopy the request form to obtain a file copy.

15. Since the daily log is no longer kept, this must be done at an earlier point, prior to mailing.

16. The step on the flowchart describing "logging out" no longer applies, due to the changed system of record keeping.
Flowtimes in minutes were obtained for each subroutine described above by having each employee record the actual activity time in a daily log. The average times for each individual were joined with comparable salary data in order to compute the average cost of each subroutine.

A standardizing factor of 35% for unproductive time was added to the cost of each subroutine. This includes such activities as coffee breaks, meetings, instruction, personal telephone calls, idle chatter and personal time. Because unproductive time is difficult to measure accurately by direct time observations or diary data, 35% is used as most closely approximating standard industrial engineering practice for technical processing of data. In addition to collecting time and cost data the volume of requests processed for each subroutine was determined. This provided the basis for fixing the proportion of all requests processed during each subroutine. The findings of these analyses are summarized in Exhibit IV-2.
Exhibit IV-2

Direct Labor Costs for Processing Requests at PNBC

<table>
<thead>
<tr>
<th>Subroutine</th>
<th>Sample Size</th>
<th>Time in Minutes</th>
<th>Direct Labor Cost</th>
<th>Proportion of All Requests</th>
<th>Prorated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>551</td>
<td>1.182</td>
<td>.0873</td>
<td>1.000</td>
<td>.0873</td>
</tr>
<tr>
<td>B</td>
<td>1,358</td>
<td>4.02</td>
<td>.4523</td>
<td>1.000</td>
<td>.4523</td>
</tr>
<tr>
<td>C</td>
<td>203</td>
<td>18.45</td>
<td>2.1925</td>
<td>.149</td>
<td>.3267</td>
</tr>
<tr>
<td>D</td>
<td>321</td>
<td>49.0</td>
<td>5.3935</td>
<td>.094</td>
<td>.5070</td>
</tr>
<tr>
<td>E</td>
<td>87</td>
<td>53.15</td>
<td>7.3204</td>
<td>.064</td>
<td>.4685</td>
</tr>
<tr>
<td>F</td>
<td>192</td>
<td>5.04</td>
<td>1.7621</td>
<td>.141</td>
<td>.2485</td>
</tr>
<tr>
<td>G</td>
<td>506</td>
<td>2.2</td>
<td>.1351</td>
<td>1.000</td>
<td>.1351</td>
</tr>
<tr>
<td>TOTALS</td>
<td>3,218</td>
<td>18.8693</td>
<td>$2.2254</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Direct salaries only, supervision and benefits excluded.
2. Mean time per request.

Note: Searching costs are calculated for FY 1973 projections in Appendix Exhibits A-8 and A-9.

The great variation in time and cost - a factor of the difficulty of the request - is immediately apparent. The simplest search routine (A-B-G) requires 7.4 minutes and costs about 67 cents. A "problem" serials search (A-B-E-G), on the other hand, requires, on the average, 60.5 minutes and costs $8.00. The mode and mean direct labor costs per request are $0.67 and $2.2254 respectively. The mode and mean labor time per request are 7.4 minutes and 18.8693 minutes respectively.
CHAPTER V
DISPOSITION OF REQUESTS

Exhibit V-1 records the distribution of all requests processed by PNBC and forwarded to potential lending libraries for the period July-December 1971.

Exhibit V-1
Distribution of Requests Sent to Lending Libraries by PNBC
July - December 1971

<table>
<thead>
<tr>
<th>Library</th>
<th>Requests To</th>
<th>Percent of Total</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seattle Public (Wa)</td>
<td>958</td>
<td>10.33</td>
<td>10.33</td>
</tr>
<tr>
<td>Washington State Library</td>
<td>940</td>
<td>10.13</td>
<td>20.46</td>
</tr>
<tr>
<td>University of Washington</td>
<td>641</td>
<td>6.91</td>
<td>27.37</td>
</tr>
<tr>
<td>Oregon State Library</td>
<td>552</td>
<td>5.95</td>
<td>33.32</td>
</tr>
<tr>
<td>Tacoma Public (Wa)</td>
<td>551</td>
<td>5.94</td>
<td>39.26</td>
</tr>
<tr>
<td>Everett Public (Wa)</td>
<td>485</td>
<td>5.23</td>
<td>44.49</td>
</tr>
<tr>
<td>University of Oregon</td>
<td>441</td>
<td>4.75</td>
<td>49.24</td>
</tr>
<tr>
<td>Spokane Public (Wa)</td>
<td>367</td>
<td>3.96</td>
<td>53.20</td>
</tr>
<tr>
<td>Library Assoc. of Portland (Or)</td>
<td>328</td>
<td>3.54</td>
<td>56.74</td>
</tr>
<tr>
<td>University of Puget Sound (Wa)</td>
<td>305</td>
<td>3.29</td>
<td>60.03</td>
</tr>
<tr>
<td>Pacific N.W. Health Sciences (Wa)</td>
<td>285</td>
<td>3.07</td>
<td>63.10</td>
</tr>
<tr>
<td>Oregon State University</td>
<td>243</td>
<td>2.62</td>
<td>65.72</td>
</tr>
<tr>
<td>University of British Columbia</td>
<td>219</td>
<td>2.36</td>
<td>68.08</td>
</tr>
<tr>
<td>University of Idaho</td>
<td>216</td>
<td>2.33</td>
<td>70.41</td>
</tr>
<tr>
<td>Gonzaga University (Wa)</td>
<td>175</td>
<td>1.89</td>
<td>72.30</td>
</tr>
<tr>
<td>Boise Public (Id)</td>
<td>172</td>
<td>1.85</td>
<td>74.15</td>
</tr>
<tr>
<td>Reed College (Or)</td>
<td>168</td>
<td>1.81</td>
<td>75.96</td>
</tr>
<tr>
<td>Vancouver Public (BC)</td>
<td>121</td>
<td>1.30</td>
<td>77.26</td>
</tr>
<tr>
<td>Idaho State University</td>
<td>117</td>
<td>1.26</td>
<td>78.52</td>
</tr>
<tr>
<td>University of Montana</td>
<td>115</td>
<td>1.24</td>
<td>79.76</td>
</tr>
<tr>
<td>Whitman College (Wa)</td>
<td>101</td>
<td>1.09</td>
<td>80.85</td>
</tr>
<tr>
<td>Montana State University</td>
<td>79</td>
<td>.85</td>
<td>81.70</td>
</tr>
<tr>
<td>University of Oregon-Medical Sch.</td>
<td>79</td>
<td>.85</td>
<td>82.55</td>
</tr>
<tr>
<td>Willamette University (Or)</td>
<td>66</td>
<td>.71</td>
<td>83.26</td>
</tr>
<tr>
<td>Timberland Regional (Wa)</td>
<td>53</td>
<td>.57</td>
<td>83.83</td>
</tr>
<tr>
<td>Other Libraries Within Region</td>
<td>349</td>
<td>3.76</td>
<td>87.59</td>
</tr>
<tr>
<td>Libraries Outside Region</td>
<td>1151</td>
<td>12.41</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Totals 9277 100.00 -
Statistical data maintained by the center staff and summarized monthly provided the basis for the following area distribution of requests from PNBC.

Exhibit V-2
Area Distribution of Requests from PNBC
July 1971 - April 1972

<table>
<thead>
<tr>
<th>Area</th>
<th>Requests by PNDC to Lending Libraries</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alaska</td>
<td></td>
<td>8</td>
<td>.03</td>
</tr>
<tr>
<td>Idaho</td>
<td></td>
<td>1,041</td>
<td>4.12</td>
</tr>
<tr>
<td>Montana</td>
<td></td>
<td>507</td>
<td>2.01</td>
</tr>
<tr>
<td>Oregon</td>
<td></td>
<td>3,299</td>
<td>13.07</td>
</tr>
<tr>
<td>Washington</td>
<td></td>
<td>8,836</td>
<td>35.01</td>
</tr>
<tr>
<td>British Columbia</td>
<td></td>
<td>724</td>
<td>2.87</td>
</tr>
<tr>
<td>Pacific N.W. Health Sciences Reg. Lib.</td>
<td></td>
<td>423</td>
<td>1.68</td>
</tr>
<tr>
<td>Filled by photocopy from University of</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Washington materials</td>
<td></td>
<td>3,883</td>
<td>15.38</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Area</th>
<th>Requests by PNDC to Lending Libraries</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional Subtotal</td>
<td></td>
<td>18,721</td>
<td>74.17</td>
</tr>
<tr>
<td>Outside Region</td>
<td></td>
<td>2,255</td>
<td>8.93</td>
</tr>
<tr>
<td>Unable to Provide Locations</td>
<td></td>
<td>4,264</td>
<td>16.89</td>
</tr>
<tr>
<td>GRAND TOTAL</td>
<td></td>
<td>25,240</td>
<td>99.99</td>
</tr>
</tbody>
</table>

The predominance of requests to loan placed on the Washington libraries is evident. Seven of the top ten lenders are libraries within Washington, and they and others in the State contribute more than 50% of the loans.

The high rate of fills by photocopy is important. It should be noted that this service is a successful response made directly to the requesting library and avoids the more time-consuming (and overall more costly) procedure of transmitting the request to a potential lending library and of asking that library to retrieve copy and mail material to the requesting library.
It should also be noted that during the period July 1971 - April 1972, about 9% of the requests had to be satisfied by libraries outside the region and that about 17% of the requests were not satisfied at all. Significant improvement in both these categories is expected as a result of the Center acquiring, in May 1972, the microfilm records of the holdings of several academic libraries.  

Approximately 27% of the requests received were for printed materials in serials. The fill rate for these requests was a high 95%, of which 55% were filled by photocopy.

The elapsed processing time within PNBC was studied by analyzing 1,139 requests. Findings are summarized in the following table.

Exhibit V-3

Elapsed Processing Time Within PNBC in Working Days

<table>
<thead>
<tr>
<th>Working Days Elapsed</th>
<th>Number of Requests</th>
<th>Percentage</th>
<th>Cumulated Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>427</td>
<td>37.49</td>
<td>37.49</td>
</tr>
<tr>
<td>1</td>
<td>310</td>
<td>27.22</td>
<td>64.71</td>
</tr>
<tr>
<td>2</td>
<td>134</td>
<td>11.76</td>
<td>76.47</td>
</tr>
<tr>
<td>3</td>
<td>91</td>
<td>7.99</td>
<td>84.46</td>
</tr>
<tr>
<td>4</td>
<td>35</td>
<td>3.07</td>
<td>87.53</td>
</tr>
<tr>
<td>5</td>
<td>43</td>
<td>3.78</td>
<td>91.31</td>
</tr>
<tr>
<td>6</td>
<td>12</td>
<td>1.05</td>
<td>92.36</td>
</tr>
<tr>
<td>7</td>
<td>8</td>
<td>.70</td>
<td>93.06</td>
</tr>
<tr>
<td>8</td>
<td>9</td>
<td>.79</td>
<td>93.85</td>
</tr>
<tr>
<td>9</td>
<td>9</td>
<td>.79</td>
<td>94.64</td>
</tr>
<tr>
<td>10</td>
<td>8</td>
<td>.70</td>
<td>95.34</td>
</tr>
<tr>
<td>11-105</td>
<td>53</td>
<td>4.66</td>
<td>100.00</td>
</tr>
<tr>
<td>TOTALS</td>
<td>1,139</td>
<td>100.00</td>
<td>--</td>
</tr>
</tbody>
</table>

Mean elapsed time - 2.57 working days

1. Appendix Exhibit A-1
Almost two-thirds of the requests received are processed within 24 hours. Three-fourths of all requests are completed within 48 hours of receipt.

The "problem" requests, i.e., those requiring more than two days to process, are not only time-consuming but as Exhibit IV-2 revealed, also very expensive. An examination of the characteristics of these problem requests was made. The results are summarized in Exhibit V-4. Note that the characteristics are not mutually exclusive.

Exhibit V-4

Characteristics of "Problem" Requests

Sample of 410 Titles

<table>
<thead>
<tr>
<th>Characteristics (not mutually exclusive)</th>
<th>Percent of Incidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monographs</td>
<td>78.29</td>
</tr>
<tr>
<td>Serials</td>
<td>21.22</td>
</tr>
<tr>
<td>Phonorecords</td>
<td>.49</td>
</tr>
<tr>
<td>Have locations within region</td>
<td>42.99</td>
</tr>
<tr>
<td>Have locations outside region</td>
<td>40.65</td>
</tr>
<tr>
<td>Verified but no locations found</td>
<td>18.46</td>
</tr>
<tr>
<td>Could not verify</td>
<td>3.41</td>
</tr>
<tr>
<td>Main entry defective</td>
<td>22.20</td>
</tr>
<tr>
<td>Only locations will not loan</td>
<td>3.90</td>
</tr>
<tr>
<td>Located in NW library not in PNBC's records</td>
<td>1.71</td>
</tr>
<tr>
<td>New imprints (1970-71)</td>
<td>3.17</td>
</tr>
<tr>
<td>&quot;Uncommon&quot; title</td>
<td>1.95</td>
</tr>
<tr>
<td>Variant title found</td>
<td>2.68</td>
</tr>
<tr>
<td>Genealogy/local history</td>
<td>5.61</td>
</tr>
<tr>
<td>No apparent reason for &quot;problem&quot;</td>
<td>11.22</td>
</tr>
</tbody>
</table>
The locations obtained for these "problem" requests are summarized in the following table.

Exhibit V-5
How "Problem" Request Locations Were Obtained
Sample of 410 Titles

<table>
<thead>
<tr>
<th>How Obtained (not mutually exclusive)</th>
<th>Percent of Incidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Union catalog within region</td>
<td>24.63</td>
</tr>
<tr>
<td>Union catalog outside region (previously searched)</td>
<td>3.41</td>
</tr>
<tr>
<td>NUC/LC</td>
<td>7.80</td>
</tr>
<tr>
<td>Mansell</td>
<td>7.32</td>
</tr>
<tr>
<td>Union list of serials</td>
<td>5.61</td>
</tr>
<tr>
<td>New serial titles</td>
<td>4.39</td>
</tr>
<tr>
<td>University of Washington catalogs</td>
<td>18.54</td>
</tr>
<tr>
<td>LC register</td>
<td>3.17</td>
</tr>
<tr>
<td>Teletype to California</td>
<td>4.88</td>
</tr>
<tr>
<td>Teletype to LC</td>
<td>7.07</td>
</tr>
<tr>
<td>Telephone calls</td>
<td>1.46</td>
</tr>
<tr>
<td>Serials, holdings list</td>
<td>2.68</td>
</tr>
<tr>
<td>Other or not indicated</td>
<td>7.56</td>
</tr>
</tbody>
</table>

A comparison was made between "no location" (unfilled) requests and those for which locations could be found. Both groups were very similar in respect to the age and subject content of the requests. However, the unfilled requests were judged to be of a more technical or esoteric nature. The only striking difference between the two groups was the greater incidence of foreign language titles among the unfilled—19.18% vs. 7.39%.

The origins of unfilled requests (by library type) were compared with the origins of all requests received. As Exhibit V-6 indicates, requests from academic libraries seem to be somewhat more difficult to fill than requests from others.
## Exhibit V-6

Requests Received vs. Requests Without Northwest Locations

<table>
<thead>
<tr>
<th>Type of Library</th>
<th>Pct. of All Requests Received</th>
<th>Pct. of All Requests Having No N.W. Locations*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic</td>
<td>38.19</td>
<td>46.72</td>
</tr>
<tr>
<td>Public</td>
<td>47.41</td>
<td>45.08</td>
</tr>
<tr>
<td>State</td>
<td>9.44</td>
<td>3.28</td>
</tr>
<tr>
<td>Special</td>
<td>3.30</td>
<td>3.28</td>
</tr>
<tr>
<td>Other</td>
<td>1.66</td>
<td>1.64</td>
</tr>
<tr>
<td>Totals</td>
<td>100.00</td>
<td>100.00</td>
</tr>
</tbody>
</table>

* Sample of 122 requests

In order to determine the degree of success experienced by libraries in receiving the library material they requested through PNBC, a questionnaire was distributed to 102 libraries using the Center's services. Each of the libraries was asked to record whether the requests listed on the form had been filled by the arrival of material from the lending library, and if so, when. Responses were received from 95 libraries.

The requests relevant to those libraries totaled 331. Of these, materials were received which satisfied 277 requests (83.69%). The elapsed time between the mailing of the request from PNBC to a potential lending library and the arrival of the material in the original requesting library for each of the requests is presented in Exhibit V-7.
### Exhibit V-7

Elapsed Time Between PNBC’s Forwarding of Requests and the Arrival of Materials in the Requesting Library

<table>
<thead>
<tr>
<th>Days Elapsed</th>
<th>Number of Requests</th>
<th>Percentage of Total</th>
<th>Cumulated Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>.72</td>
<td>.72</td>
</tr>
<tr>
<td>2</td>
<td>7</td>
<td>2.53</td>
<td>3.25</td>
</tr>
<tr>
<td>3</td>
<td>11</td>
<td>3.97</td>
<td>7.22</td>
</tr>
<tr>
<td>4</td>
<td>16</td>
<td>5.78</td>
<td>13.00</td>
</tr>
<tr>
<td>5</td>
<td>15</td>
<td>5.42</td>
<td>18.42</td>
</tr>
<tr>
<td>6</td>
<td>26</td>
<td>9.39</td>
<td>27.81</td>
</tr>
<tr>
<td>7</td>
<td>39</td>
<td>14.08</td>
<td>41.89</td>
</tr>
<tr>
<td>8</td>
<td>21</td>
<td>7.58</td>
<td>49.47</td>
</tr>
<tr>
<td>9</td>
<td>12</td>
<td>4.33</td>
<td>53.80</td>
</tr>
<tr>
<td>10</td>
<td>22</td>
<td>7.94</td>
<td>61.74</td>
</tr>
<tr>
<td>11</td>
<td>12</td>
<td>4.33</td>
<td>66.07</td>
</tr>
<tr>
<td>12</td>
<td>14</td>
<td>5.05</td>
<td>71.12</td>
</tr>
<tr>
<td>13</td>
<td>7</td>
<td>2.53</td>
<td>73.65</td>
</tr>
<tr>
<td>14</td>
<td>2</td>
<td>.72</td>
<td>74.37</td>
</tr>
<tr>
<td>15</td>
<td>6</td>
<td>2.17</td>
<td>76.54</td>
</tr>
<tr>
<td>16</td>
<td>3</td>
<td>1.08</td>
<td>77.62</td>
</tr>
<tr>
<td>17</td>
<td>5</td>
<td>1.81</td>
<td>79.83</td>
</tr>
<tr>
<td>18</td>
<td>2</td>
<td>.72</td>
<td>80.15</td>
</tr>
<tr>
<td>19</td>
<td>14</td>
<td>5.05</td>
<td>85.20</td>
</tr>
<tr>
<td>20</td>
<td>3</td>
<td>1.08</td>
<td>86.28</td>
</tr>
<tr>
<td>21</td>
<td>2</td>
<td>.72</td>
<td>87.00</td>
</tr>
<tr>
<td>22</td>
<td>2</td>
<td>.72</td>
<td>87.72</td>
</tr>
<tr>
<td>23</td>
<td>4</td>
<td>1.44</td>
<td>89.16</td>
</tr>
<tr>
<td>24</td>
<td>3</td>
<td>1.08</td>
<td>90.24</td>
</tr>
<tr>
<td>25</td>
<td>4</td>
<td>1.44</td>
<td>91.68</td>
</tr>
<tr>
<td>26</td>
<td>1</td>
<td>.36</td>
<td>92.04</td>
</tr>
<tr>
<td>27</td>
<td>2</td>
<td>.72</td>
<td>92.76</td>
</tr>
<tr>
<td>28</td>
<td>1</td>
<td>.36</td>
<td>93.12</td>
</tr>
<tr>
<td>29</td>
<td>2</td>
<td>.72</td>
<td>93.84</td>
</tr>
<tr>
<td>30</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>2</td>
<td>.72</td>
<td>94.56</td>
</tr>
<tr>
<td>33-125</td>
<td>15</td>
<td>5.42</td>
<td>99.98</td>
</tr>
</tbody>
</table>

**Total** | **277** | **99.98** | **99.98**

Mean Elapsed Time - 13.56 days
The reasons why materials were not ultimately received by the requesting library were also queried by research study staff. The responses made by these libraries were based on status reports received from the potential lending libraries.

### Exhibit V-8

**Reasons Stated for Non-Receipt of Materials**

<table>
<thead>
<tr>
<th>Reason</th>
<th>Number of Requests</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item missing or not owned</td>
<td>19</td>
<td>35.19</td>
</tr>
<tr>
<td>Item not for circulation</td>
<td>11</td>
<td>20.37</td>
</tr>
<tr>
<td>Request cancelled</td>
<td>4</td>
<td>7.41</td>
</tr>
<tr>
<td>&quot;Not our request&quot;</td>
<td>2</td>
<td>3.70</td>
</tr>
<tr>
<td>Photocopy provided</td>
<td>2</td>
<td>3.70</td>
</tr>
<tr>
<td>Error of lender, still waiting</td>
<td>1</td>
<td>1.85</td>
</tr>
<tr>
<td>No explanation</td>
<td>15</td>
<td>27.78</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>54</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>
CHAPTER VI
MAINTENANCE OF UNION CATALOG

The growth in the number of main entry cards received from reporting libraries by PNBC during the last 20 years is recorded in the following table.

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Number of Cards Received</th>
</tr>
</thead>
<tbody>
<tr>
<td>1953</td>
<td>101,176</td>
</tr>
<tr>
<td>1954</td>
<td>103,507</td>
</tr>
<tr>
<td>1955</td>
<td>128,618</td>
</tr>
<tr>
<td>1956</td>
<td>122,838</td>
</tr>
<tr>
<td>1957</td>
<td>125,349</td>
</tr>
<tr>
<td>1958</td>
<td>131,690</td>
</tr>
<tr>
<td>1959</td>
<td>133,236</td>
</tr>
<tr>
<td>1960</td>
<td>143,172</td>
</tr>
<tr>
<td>1961</td>
<td>150,642</td>
</tr>
<tr>
<td>1962</td>
<td>147,434</td>
</tr>
<tr>
<td>1963</td>
<td>148,878</td>
</tr>
<tr>
<td>1964</td>
<td>171,699</td>
</tr>
<tr>
<td>1965</td>
<td>160,966</td>
</tr>
<tr>
<td>1966</td>
<td>192,746</td>
</tr>
<tr>
<td>1967</td>
<td>193,731</td>
</tr>
<tr>
<td>1968</td>
<td>219,352</td>
</tr>
<tr>
<td>1969</td>
<td>269,137</td>
</tr>
<tr>
<td>1970</td>
<td>261,429</td>
</tr>
<tr>
<td>1971</td>
<td>290,862</td>
</tr>
<tr>
<td>1972</td>
<td>425,350*</td>
</tr>
</tbody>
</table>

*Estimate; 393,543 through May '72

The significant increase in cards received for 1969-1971 was due largely to expansion of acquisition and cataloging efforts at the University of British Columbia. The abrupt upswing during FY 1972 was due to the addition of the holdings, either partial or complete, of 6 libraries
to the bibliographical records of the Center. These were the libraries of Washington State University, the University of Alaska, Western Washington State College, Central Washington State College, Eastern Washington State College and the Montana State Library.

A flowchart of the Center's card filing routines along with withdrawal procedures is presented in Exhibit VI-2. Reference to this exhibit may assist the reader in interpreting the following summary description. Again, the procedures were those in effect as of January 1, 1972. Changes made since are described in footnotes. As of this writing, filing had been drastically curtailed. The increased searching workload, plus several staff terminations, had necessitated assignment of all personnel to the searching effort most of the time.

When new cards are received to be added to the PNBC catalog, the packages are immediately unwrapped and the origin noted. If no packing slip stating the total number of cards in the shipment is received, it is then necessary to measure the cards to estimate the total number shipped and record this in the statistics. Once this has been done, the cards are checked to determine whether they are stamped with the originating library's location code. If they are not, PNBC personnel must then stamp each card with the location code. Coded cards are then checked against the list of eleven libraries for whom PNBC reports locations of post-1956 imprints to the National Union Catalog. Ordinary, any cards to be forwarded are separated according to imprint date

1. Since this is a time-consuming and costly process, libraries are expected to code their cards before shipping.
2. This procedure has been discontinued.
"A" SUBROUTINE FOR FILING AND CATALOG MAINTENANCE

"F" SUBROUTINE FOR DRAWERS PROCESSED FOR PRE '56

START SUBROUTINE "G"

ONE SET NEW CARDS IN OR OUT
OF DRAWERS

"G" SUBROUTINE FOR CHRONOLOGICALLY DIVIDED
DRAWERS UNPROCESSED FOR PRE '56

START SUBROUTINE "G"

MORE PRE THAN POST?

YES

REPLACE POST

NO

GET NEXT "G" CARD

STAMP WITH CODE

NO

ARE CARDS CODED?

YES

UNIV. OF B.C.??
65
PACIFIC NORTHWEST BIBLIOGRAPHIC CENTER
FILING ROUTINE

"D" SUBROUTINE OF PRELIMINARY ACTIVITIES FOR ALL CARDS PRIOR TO FILING

EXHIBIT
"D" SUBROUTINE OF PRELIMINARY ACTIVITIES FOR ALL CARDS PRIOR TO FILING

START SUBROUTINE "D"

STUDENT CHOOSES A LETTER

CHECK DRAWER FOR LETTER

ANY CARDS?

NO

YES

CHOOSE A DIFFERENT LETTER

TAKE CARDS FROM ALL ALPHABETS

NO

ANY OTHER CARDS TO NUC

PLACE LEFTOVER CARDS IN STORAGE

TAKE FULL BOXES TO MAIL ROOM

NO

CARDS LEFT OVER?

YES
RETURN EQUIP. TO OFFICE

PLACE LAST COPY CARDS IN DRAWER

MEASURE DISCARDS & WITHDRAWN RECORD & STORE

YES

POST '56 BEEN FILED?

NO

PREPARE TO FILE IN POST '56 ONLY

SETUP FOR CODING

REMOVE DRAWER RDD

NO

ANY WITHDRAWN?

YES

PICKUP WITHDRAWN

CHOOSE A DIFFERENT LETTER

TAKE CARDS FROM ALL ALPHABETS

END FILING ROUTINE

EXHIBIT VI-2
(i.e., pre-1956 from post-1956) before sending to PNBC. If they are not, then the separating must be done by PNBC staff. Once the separation is completed any unalphabetized cards must be alphabetized by main entry. This is done in the following manner: cards are first sorted into piles for each initial letter of the main entry, using a large cardboard sorter which is marked off into squares, each square representing a letter of the alphabet. The resulting piles of cards (e.g., all entries beginning with "A") are then alphabetized individually, and put together in one continuous alphabet. Post-1956 cards are then packed in boxes and wrapped for mailing.

Cards which are to remain in PNBC are handled as follows. After cards are alphabetized, the filer takes a packet of cards from some part of the alphabetical file of pre-sorted cards in the PNBC office (normally these will all be entries beginning with the same letter), and goes to the card catalog drawer containing other entries for the part of the alphabet to be filed. The filer then gathers all cards from any separate alphabets that may be filed in the front of the catalog drawer (i.e., new cards to be interfiled, or cards for items withdrawn from library collections). The first catalog drawer to be filed into is removed, the rod is taken out, and cards and coding equipment are laid out

3. Again, libraries are urged to do this before shipping to PNBC to cut down on the amount of handling done by PNBC.
4. This forwarding of cards has been discontinued due to excessive cost, long absence of cards from PNBC's records, and objection by LC to this method of reporting. As of July 1, 1972, all libraries will forward their cards directly to NUC.
5. This file represents the current filing backlog of new cards. These will normally consist of a number of alphabets for each letter, arranged in order to allow searchers to consult them when necessary.
6. Small alphabets of new cards and/or cards from the former supplementary catalog are still filed at the front of most drawers in the catalog.
7. Rod is no longer removed each time cards are filed in a drawer. The cards are dropped by removing the rod only after a sufficient number (according to the judgment of the filer) have been placed in a drawer. The purpose of this change was to save time.
preparatory to coding. Cards are interfiled, with like cards gathered together. The best example is selected for coding, the cards coded by machine, any withdrawn locations are crossed out and new locations underlined. Cards are then filed, the rod replaced in the drawer, and the drawer is put back in the catalog. This routine is repeated until all cards are filed.

A separate subroutine is required for filing into drawers containing cards already processed for inclusion in the National Union Catalog of Pre-1956 Imprints, (Mansell) in which pre- and post-1956 imprints have not yet been interfiled. If the individual drawer contains more pre-56 imprints than post-56, the post-56 portion is removed and interfiled in the pre-56 portion. If there are more post-1956 imprints, this procedure is reversed.

A third subroutine is followed for catalog drawers containing the latter portion of the alphabet which have not yet been processed for Mansell. Such drawers are chronologically divided, and this division will be maintained in the filing procedure until PNBC's part in the

---

8. Coding is done with an automatic coding machine from Pitney-Bowes, an adaptation of the Addressprinter. Codes are printed on the card, and the coder/filer underlines those codes for libraries holding the book described on the card.

9. Currently, no coding is being done due to the scarcity of personnel available for coding.

10. PNBC is still in the process of duplicating (by Xerox) all cards for pre-1956 imprints for inclusion in the pre-1956 project. After photocopying, the original cards are mailed to the Library of Congress; the Xerox copies are then refilled in the PNBC catalog. At present, each catalog drawer from Mc-Z is divided into pre-1956 and post-1956 sections to facilitate the Mansell Project. As each letter is completed, the contents of the drawers are interfiled, into one alphabet.

11. At present this constitutes M to Z.
Mansell project is completed. In this subroutine, the new cards to be filed are first separated into pre- and post-1956 imprints, and each group is interfiled into the appropriate section of the file drawer.

Flowtimes were obtained for each filing subroutine, using methods described in the preceding chapter. Again a standardizing factor of 35% for unproductive time was added to the cost of each subroutine.

As Exhibit VI-3 reveals, subroutine E is the most time-consuming and expensive filing activity. The comparison of titles to determine whether or not there is an exact match is the dominant cost here, but, it should be noted that coding itself also contributes significantly to the more than 1 minute and 20 seconds required for this subroutine.

The necessity of alphabetizing cards not so received (subroutine C), even though this accounts for only 35% of the shipments, adds 30 cents to the average total cost of filing 100 cards.
### Exhibit VI-3

*Direct Labor Costs for Filing Cards in PNBC's Union Catalog*

<table>
<thead>
<tr>
<th>Subroutine</th>
<th>Sample Size</th>
<th>Time in Minutes per 100 Cards</th>
<th>Direct Labor Cost per 100 Cards</th>
<th>Proportion of all cards Received</th>
<th>Prorated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Receipt and Preliminary Sorting</td>
<td>45,027</td>
<td>1.0328</td>
<td>.0170</td>
<td>1.00</td>
<td>.0170</td>
</tr>
<tr>
<td>B Alphabetized and Divided Pre &amp; Post '56</td>
<td>1,380</td>
<td>1.485</td>
<td>.0802</td>
<td>.65</td>
<td>.0521</td>
</tr>
<tr>
<td>C Unalphabetized Cards</td>
<td>9,084</td>
<td>23.0</td>
<td>.8464</td>
<td>.35</td>
<td>.2962</td>
</tr>
<tr>
<td>D Preliminary Activities for all Cards</td>
<td>13,312</td>
<td>1.485</td>
<td>.0802</td>
<td>1.00</td>
<td>.0802</td>
</tr>
<tr>
<td>E Filing, Coding and Withdrawing</td>
<td>2,491</td>
<td>121.50</td>
<td>3.3594</td>
<td>1.00</td>
<td>3.3594</td>
</tr>
<tr>
<td>F Drawers Processed for Pre '56</td>
<td>1,515</td>
<td>15.7</td>
<td>.4142</td>
<td>.15</td>
<td>.0621</td>
</tr>
<tr>
<td>G Drawers Unprocessed for Pre '56</td>
<td>5,037</td>
<td>5.80</td>
<td>.1823</td>
<td>.60</td>
<td>.1094</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>77,846</strong></td>
<td><strong>138.8681^2</strong></td>
<td></td>
<td></td>
<td><strong>3.9764</strong></td>
</tr>
</tbody>
</table>

1. Direct salaries only, supervision and benefits excluded
2. Mean time per 100 cards

**NOTE:** Costs for filing are calculated for FY 1973 projections in Appendix Exhibits A-8 and A-9.
CHAPTER VII
PNBC USERS -- A SURVEY OF POLICIES, PRACTICES AND OPINIONS

In January 1972, a questionnaire was mailed to 114 academic, public and special libraries within the Pacific Northwest requesting information on a broad range of interlibrary loan related policies and practices. Ninety-five libraries (83%) completed and returned forms.

Ninety-five percent of respondents reported using the services of PNBC in filling interlibrary loan requests. Four of the five non-users provided an explanation stating that they were not members or that PNBC services are "too expensive for our small budget." Those libraries are in fact eligible for service since their state library agencies make payment for all libraries within the state.

Thirty percent of those reporting route requests to PNBC immediately after determining that the wanted item is not in their own library and without themselves conducting a bibliographic search or requesting the item from another library. The majority of the other 70% route their requests immediately to a state library. The remainder, mostly university, four-year college and special libraries, conduct a search for locations before forwarding the request.

Use of the state library for interlibrary loans follows a predictable pattern. Almost all public libraries use the state libraries as their first requesting point. (Oregon provides an exception in that the availability of the Oregon State Library's book catalog allows public libraries to contact PNBC directly if the OSL catalog does not show ownership.) About 50% of community colleges normally route requests through the state library. Only 18% of university, four-year college and special libraries regularly route through the state library.
The responses to detailed requests for statistical information on handling interlibrary loan requests were generally sparse and inconsistent, revealing that no library questioned maintained data in comprehensive summary form. Consequently, the data provided is of the "best guess" variety and should be interpreted cautiously. An analysis of the reported average elapsed time between placing a request and the receipt of the wanted material established a median time of 16 days, books requiring 23 days and photocopy requests 12 days. However, the range of elapsed time was reported from 3 days to 4 months. On the other hand, when asked how long it took them to respond to a request, 60% claimed response within one day, and 86% reported an average response time of less than 3 days.

Collectively the responding libraries reported sending 17,192 requests to PNBC during 1971. This comprises about 70% of the total requests received by PNBC in calendar 1971. The collective fill-rate for these libraries was 83% but, again, reporting varied so widely as to cast doubt on the estimations. For example, a small public library in Oregon reported a fill rate of only 54% while a large public library in Washington reported that 100% of its requests were satisfied.

Item number eight of the questionnaire asked: "When an interlibrary loan request is received via PNBC with several library locations indicated and your library's copy is out, missing, or otherwise unavailable to you, do you:

a. routinely forward the request to the next location listed?

b. return the request form to the originating library?

c. other (please specify)"

Fifty five percent of those libraries responding to the question...
reported that they "return the request form to the originating library."

Libraries were asked to indicate what "services PNBC might perform for libraries in the Northwest Region which it is not now performing." Four suggested services were described and space provided for libraries to describe other services they would like PNBC to render. Libraries were then asked to rank the proposed services in numerical order from 1 to 5 (1, most useful, 2 next most useful, etc.). These services were described as follows:

a. Expanded bibliographic services. These might include bibliographies on demand; a periodical publication with each issue devoted to a regional bibliography on a selected subject, with Northwest locations given for each item listed; issuing bibliographies of special materials such as films and recordings, periodical holdings, pamphlet collections or other uncataloged materials, etc. in the region.

b. Expanded reference services, involving handling of reference questions which would be referred to PNBC through existing state informational systems.

c. Distribution of data collected by PNBC concerning regional resource weaknesses in bookstocks for use in development of your library's collection.

d. A PNBC "last copies" collection program. This would involve the collection and preservation of the last copies in the region of older imprints (these have often been discarded in the past). Cooperating libraries would box their last copies and rarely used items after "weeding" their collections, and ship them to PNBC."
The ranking of these suggested services is summarized as follows:

Exhibit VII-1
Library Rankings of Suggested PNDC Services

<table>
<thead>
<tr>
<th>Suggested Service</th>
<th>Percent of Respondents Which Ranked Services 1-5 (Most useful-Least useful)</th>
<th>Mean of Weighted Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expanded bibliographic services</td>
<td>46.8 17.7 20.3 11.4 3.8</td>
<td>2.076</td>
</tr>
<tr>
<td>Expanded reference services</td>
<td>39.0 23.4 10.4 22.1 5.2</td>
<td>2.312</td>
</tr>
<tr>
<td>Distribution of PNDC data</td>
<td>21.4 37.5 14.3 25.0 1.8</td>
<td>2.482</td>
</tr>
<tr>
<td>&quot;Last Copies&quot; collection program</td>
<td>19.5 29.9 28.6 19.5 2.6</td>
<td>2.558</td>
</tr>
</tbody>
</table>

Thirty-one libraries commented on "other services" which they want from PNDC. Many libraries asked for "more acceptance of telephone requests when time is important to the borrower." Several comments were made on the need for a teletype network between major libraries in the Pacific Northwest with linkage to PNDC. Other comments included: "Add to the PNDC staff a specialist in U.S. Government Publications," "Prepare bibliographies on genealogy," "Provide ILL workshops," "We feel that PNDC should continue to be what it is and no more—a locating agency—a good one!"

One of the large public libraries— one who is both a primary user of PNDC and a major lender to other libraries—responded as follows: "We need more speed in getting requests to the patrons. I feel I am failing most of the time, because so often other libraries seem to take a long time in answering our requests, such as the status of them, etc."
and much time is wasted waiting for replies to questions. I can't understand how a library can take so long to answer unless they are much busier than we. Perhaps they don't have full-time help, or there are hold-ups in the mailing rooms. The patrons get quite discouraged if they have to wait longer than two weeks. I have one patron who has waited about six months! However, that was for a rare book. It would be a great help if we knew what the lending library had in mind when we send a request but do not receive a reply."

Only 25% of libraries responded to a question asking what additional information PNBC could collect that libraries would find useful in improving collection development and management. Suggestions included: "Reliable cost studies of ILL -- Union List of Serials in the Pacific Northwest -- ILL policies of different libraries might be helpful -- Regular checklist of new publications by Northwest authors and about the Northwest, for acquisitions librarians -- Location information on A-V materials similar to the location information now available on printed materials -- None of the above items seem really useful to us. In view of financial problems, prefer that PNBC concentrate on switching-center function and building a more inclusive Union Catalog, and slow-up on these "dreams of glory."

Libraries were asked "Does your library publish a serials holdings list, or contribute to a union list of holdings? If so, please give title of list." Sixty-two percent of respondents reported publishing or contributing to a union list. Thirty-two lists were mentioned.¹

Fifty-three percent (41 libraries) replied that they would be interested in acquiring the catalogs of major research libraries in the Northwest if they were available on microfilm and at a cost within the

1. See Appendix Exhibit A-3
library's budget. Forty-five percent (35 libraries) said they would not be interested. Two libraries replied "maybe".

The ability of libraries to use materials in various micro-formats was surveyed as were practices regarding photocopy costs. Responses are reported in Appendix Exhibits A-4 and A-5 respectively.
A. Summary of Changes/Improvements

We observed in the first chapter that the timing of this study was particularly opportune. Reorganization had occurred recently and the new Director had begun initiating the changes which had been advocated as part of her earlier extensive study of the Center.

This operations research study soon became engrained in the daily operations of the Center and the study's data summaries, flow-charts and analyses became the basis for a stream of procedural changes.

Rather than attempt to determine which of the changes (improvements?) were directly attributable to the study and which would have occurred as part of "normal" adjustments by the new Director, we will simply list the changes which we consider significant and which have occurred since October 1970.

Organization and Administration

The base of financial support has been shifted from individual library memberships to the state library agencies.

Contacts between the director and various state agencies and libraries within the region were increased and deepened.

A more liberal search policy has been enacted which has removed many former restrictions and broadened the range of materials acceptable for search.

The Center assumed a number of costs formerly borne by the University of Washington, e.g. one FTE staff, telephone charges, supplies.
Equipment has been purchased for expanded services, e.g. photocopy machinery, a microfilm camera, microfilm reader/printer, adding and coding machines, a calculator, furniture, etc.

File Organization and Routines

A "catch-up" project was conducted during the summer of 1971 to eliminate the supplementary catalog.

A new coding system has been introduced utilizing a custom designed adaptation of an Addresserprinter.

Photocopy machinery is being used to duplicate cards for the Mansell Pre-1956 NUC, thereby making possible the permanent retention in PNBG of a photocopy of the original card.

Filing routines are undergoing constant analysis and experimentation in order to maximize rapid access and efficiency.

Searching Routines

A transaction number system for the control of requests has been adopted.

After considerable analysis and testing a new, more carefully sequenced and more tightly controlled searching procedure has been initiated.

Three new searching worksheets, each adapted to different strategies of search, are being utilized.

Teletype was installed and used for determining locations outside the region (via LC, California State Library Union Catalog, Rocky Mountain Bibliographical Center, etc.)

New reporting forms and procedures have been implemented.
First steps have been taken to develop library resources in the region by alerting the state libraries to lacunae and providing suggestions for purchase of in-print materials.¹

Record-Keeping and Statistics

Experimentation was conducted with various economic means of developing an historical record of requests received and their disposition. A six-part request form was adopted with one copy to be retained in PNBC. The retained copies are filed numerically by transaction number with the work record attached.

The Center has begun issuing monthly statistical reports on requests received and forwarded with percentage analyses showing borrowing and lending relationships among five member states. These reports are being mailed to board members and state libraries.

A detailed and cumulated record of requests filled by photocopy is also produced. This serves to document the use made of the University of Washington's collection.

Personnel

The services of a reference consultant were secured for six months to assist with the general reorganization.

An experienced reference librarian has been hired to serve as permanent searching supervisor.

An additional professional librarian was hired as an assistant on the research project and is being retained as a permanent staff member.

¹. See Appendix Exhibit A-7
New personnel classifications, together with a revised salary schedule, have been adopted to bring position titles and salaries more closely into line with the level of duties performed.

Additional clerical help has been employed to speed up searching, to assist the Director in fiscal and administrative tasks, and to handle the added work-load resulting from the increasing number of requests.

General

A policy has been initiated of photocopying readily available library materials and mailing the copies directly to the requesting library.

The collection of bibliographic materials has been expanded, including the addition of a number of serials holdings lists.

The addition of TWX provides communication with libraries nationwide; a Dataphone adaptation connects PNBC with the Idaho LITTY Network. The University of Alaska and PNBC have pooled finances to operate Telex equipment, providing teletype communication with Alaska and British Columbia.

Telephone services have been expanded, and an increased use is being made of SCAN, WATS and long distance in searching for locations and reporting to libraries.

First attempts have been made to establish access to uncataloged materials by compiling a directory of ERIC collections with a compendium of regional library lending policies; and by acquiring subject bibliographies and records of special collections in the region.

The complete retrospective holdings records of four additional major academic libraries are being added to PNBC. This is being
accomplished through the purchase of microfilming effort. These records are being supplemented by the receipt of cards representing their current acquisitions.

The services of an accounting firm were secured to perform the first audit of PNBC's financial records, and to continue to provide necessary accounting services. An improved bookkeeping system has been developed by the accountants and is now in use.

B. General Discussion and Recommendations

The immense value of PNBC as a major bibliographic resource becomes obvious when one observes the very low incidence of duplication within the Union Catalog. Approximately one-half of the titles represented are available in only one of the more than 40 libraries whose resources are included (Exhibit II-2). Furthermore, the distribution of the total number of titles held by each indicates that any one library would--without PNBC--experience a very low probability in accurately "guessing" which other library within the region might have the title (Exhibit II-3). Continued primary reliance on mail service for interlibrary loaning would mean long delays in getting "do not own" reports and the very inefficient requirement that several libraries would usually have to be contacted before any one request was satisfied. Even with extensive telecommunication interconnections, the inefficiencies of such guesswork would, after a considerable cost, merely be moderated, not eliminated. PNBC certainly provides a unique service.

The distribution of requests received by their imprint dates
(Exhibit III-8) and the additional time and cost of providing locations for new imprints when not first "found" in searching for routine requests. (Exhibit IV-2) indicates that the failure to promptly file newly received cards will reduce the Center's "fill ratio" and increase its costs.

While we agree with the policy of concentrating on searching when the volume of requests is great, we believe that even then a minimal effort of filing should be maintained. At such times filers might file only those cards for libraries who have the highest incidence of titles unique to all others (Exhibit II-4).

The researchers believe that while changes in the search routines have improved efficiency and allowed the Center, with only a minor increase in searching man-hours, to respond to a massive increase in demand, that procedures still should be improved.

While 90% of requests are processed within five days after receipt, only 4% are processed within the next five days. We believe that this is a result of long delays between searches when the request merely "sits" in a file. In addition, 5% of the requests stay within PNBC for more than ten days. Again, we feel this is not the result of a search routine of such greater commensurate length but is rather a matter of losing control of the search.

We recommend the following:

1. "Normal" routine searches should be extended through additional file searches such as the WSU microfilm catalog before being assigned "problem" status;

2. Every effort should be made to assign the more experienced searchers to problem searches only;
3. At a predetermined fixed time after the receipt of a request, a searcher should be assigned the responsibility of staying with a request (without returning it to the file) until an end-search decision point is reached and

4. At this point a supervisor should decide where the request is to be routed, i.e. to LC to circularize, to another union catalog or bibliographic center, etc.

While the fixed times of items 3 and 4 above should be set after experimentation, we would suggest five and seven days after receipt to be initial target goals. Even if these changes were to extend slightly the mean elapsed time in process, the prevention of inordinate delays for some 7% of the requests we believe would be worth it.

It is possible with the data from this study to get, for the first time, a profile of the turn-around time for the interlibrary loan process in the Pacific Northwest. This involves the summing of three mean elapsed times as follows:

Elapsed time from date of request to receipt at PNBC (Exhibit III-6) 3.62 days

Elapsed processing time within PNBC (Exhibit V-3) 2.57 days

Elapsed time between PNBC's forwarding and arrival of the material in the requesting library (Exhibit V-7) 13.56 days

Total Mean Elapsed Time 19.75 days
The mean time within PNBC, then, is 13.01% of the total "turn-around-time". The data in Exhibit V-7 reveals quite a difference between the mode (7 days), the median (8 days) and the mean of 13.56 days—caused by the extended tail of the Poisson distribution (to 125 days). However, if we consider the modal times (3 days, one-half day, and seven days) the percentage of total time consumed at PNBC is only 5.88%. The point here—and it is significant—is that PNBC processing time is only a small percentage of the time required for interlibrary loaning.

This consideration, it seems to us, is crucial when one examines the issue of automation at PNBC. If we were to eliminate 99% of the mean time required to process a request at PNBC we would reduce the interlibrary loan turn-around-time by only 12.88%—and this would, of course, be very expensive. But, such a reduction of processing even with the most sophisticated automated systems seems unlikely since we are dealing with a high incidence of defective bibliographic citations in the received requests and a sizable proportion of problem searches. These difficulties, would defy the capabilities of any current machine-based bibliographic search system of which we are aware.

Of course a reduction in turn-around time well in excess of 13% is possible, if libraries can, by remote terminal access, conduct on-line searches of a PNBC machine readable data base. This is considerably more expensive and sophisticated, requiring the solution of problems more likely to be resolved adequately if approached on a national basis.

The use of telecommunication devices linking the major interlibrary loan borrowers and lenders of the region with PNBC has far better prospects. With the regular use of teletype or telefacsimile in transmitting requests to PNBC and from it to the lending library, about four days time
could be saved which would be a 20% reduction in turn-around time. The terminals needed for this are common-place and lease for about $50 a month.

The efforts described above under "Record-keeping and Statistics" reveal that raw and summary statistical data is being maintained and is in some instances published. In addition to this, we would suggest that special studies be made occasionally to test the operational effectiveness of PNBC's services and interlibrary loan processes generally. We would recommend the following:

1. A rank distribution of libraries making most use of PNBC (i.e. Exhibit III-2);
2. A rank distribution of libraries making the most loans in response to requests forwarded from PNBC;
3. A continuing comparison of 1 and 2 above which would provide a check on the degree of success in spreading the "burden of loaning";
4. A periodic survey of elapsed time data within PNBC (Exhibit V-3) as a base measure of internal effectiveness;
5. An occasional survey of the time required for the interlibrary loan procedures preceding and following PNBC processing (Exhibits III-6 and V-7) with an analysis of findings by library so that the Center can catch and report "bottlenecks" in the system.

Many of the responses to the questionnaire (Chapter VII) seemed to indicate that interlibrary loan service is not considered of very high
priority. This judgement is supported by the prevalence of defective bibliographic citations in the requests received at PNBC from libraries both large and small and of all types. In addition, the questionnaire uncovered much ignorance about PNBC policies and operations. We would recommend the following as a course of action targeted on these problem areas:

1. Continued broad involvement of the Director in regional library activities in order to foster a greater awareness of the quality and potential of Center activities;

2. Participation with the state library agencies and others as opportunity provides, in developing and conducting interlibrary loan workshops and training sessions;

3. Publication, on an occasional basis of brochures, pamphlets, fliers, and the like which would be mailed with processed requests and would explain Center and ILL policies and procedures and urge cooperation with them.

The researchers believe that during the last year and a half, the Center, as a result of strong leadership at both the policymaking and administrative levels, has returned to its original function as "an agency of regional library cooperation, both to facilitate the collective exploitation of the existing resources of the region and to foster the future growth of these resources". The Center's success during the last 18 months in greatly improving the efficiency and effectiveness of its operations has resulted in a striking increase in the demand for its services; and these demands show no indication of receding; indeed, the rate of growth continues to expand.

1. Swank, p.2
Our projections for FY 1973 indicate that 500,000 cards will be received from contributing libraries and that 50,000 interlibrary loan requests will be placed with the Center. We are concerned that funds for the support of PNBC be sufficient to cover the costs of satisfying these heavy demands. The rapid increase in volume during the last two years we believe to be an indication of the enormous latent demand for interlibrary loan service which exists in the Northwest. It would be a pity if after these very encouraging recent efforts, PNBC would be unable to cope with the demands on its services which it has helped foster.

We suggest that PNBC, by continuing to emphasize and strengthen the bibliographic services it now offers, is making its most effective contribution to fostering the growth of interlibrary cooperation at the state and regional levels.
APPENDICES
Exhibit A-1
Libraries With Holdings Recorded in PNDC's Union Catalog

Alaska
University of Alaska, College

British Columbia
Provincial Archives, Victoria
Provincial Library, Victoria
University of British Columbia Library, Vancouver
Vancouver Public Library, Vancouver

Idaho
Boise Public Library, Boise
Idaho State University Library, Pocatello
University of Idaho Library, Moscow
University of Idaho Law Library, Moscow

Montana
Historical Society of Montana Library, Helena
Montana College of Mineral Science and Technology Library, Butte
Montana State Library, Helena
Montana State University Library, Bozeman
University of Montana Library, Missoula

1. Cards received beginning October 1971 for originally cataloged items and recent acquisitions to Skinner Collection only
2. Last cards received August 1969
3. Last cards received June 1965
4. Last cards received November 1963
5. New acquisitions only beginning October 1971
Oregon

Eastern Oregon College Library, LaGrande
Library Association of Portland
Mt Angel Abbey Library St. Benedict
Oregon College of Education Library, Monmouth
Oregon Historical Society Library, Portland
Oregon State Library, Salem
Oregon State University Library, Corvallis
Oregon State University Institute of Marine Biology Library, Coos Bay
Portland State University, Portland
Reed College Library, Portland
Southern Oregon College Library, Ashland
University of Oregon Library, Eugene
University of Oregon Dental School Library, Portland
University of Oregon Law Library, Eugene
University of Oregon Medical School Library, Portland
University of Oregon Oriental Museum Library, Eugene
Willamette University Library, Salem

Washington

Ben Tidball Memorial Library, Olympia
Central Washington State College Library, Ellensburg
Eastern Washington State College Library, Cheney
Everett Public Library, Everett

6. Last cards received November 1967
7. Currently updated by book catalog supplements (non-fiction) and catalog cards (fiction)
8. Last cards received April 1958
9. Cards for recent acquisitions received beginning December 1971. Base holdings on microfilm.
10. Cards for recent acquisitions received beginning January 1972. Base holdings on microfilm.
Gonzaga University Library, Spokane
Seattle Public Library, Seattle
Spokane Public Library, Spokane
Tacoma Public Library, Tacoma
University of Puget Sound Library, Tacoma
University of Washington Library, Seattle
University of Washington Law Library, Seattle
Washington State Library, Olympia
Washington State University Library, Pullman
Western Washington State College, Bellingham
Whitman College Library, Walla Walla

11. Not in Union Catalog, but its catalog is available for consultation.
12. Cards for recent acquisitions received beginning August 1971. Base holdings on microfilm.
13. Cards for recent acquisitions received beginning October 1971. Base holdings on microfilm.
Exhibit A-2
Additional Holdings Records in PNHIC
Supplementing The Union Catalog and Microfilm Files

I. Other Library Catalogs

King County Library System. Book Catalog. (Adult and Juvenile) Seattle 1972. (21 volumes)


Timberland Regional Library. Book Catalog. (Adult and Juvenile) (15 volumes and supplements through February, 1972)

II. Book Catalogs of Special Collections and Materials.


University of Idaho Library. Basque Collection. 1971; Checklist of Western Americana in the Day-Northwest Collection... 1969; Checklist of theses and dissertations accepted for higher degrees at the University of Idaho through May 30, 1966, 1966; Theses and dissertations submitted to the graduate school during the period June, 1967, through May 15, 1968. (supplement to above).

Public Library Commission, Victoria, B.C., Open Shelf Division. Picture catalog listing reproductions of famous paintings. 1942


1970 Washington State Film Catalog.

Washington Newspapers and historical materials on microfilm in the Washington State Library. 1966

Genealogical Material in the Oregon State Library. No date (mimeo)

"County and Local Historical Material in the Ohio State Archeological and Historical Society Library." Reproduced from Ohio Archaeological and Historical Quarterly, Volume 54, no. 3, July-September, 1945.

Puget Sound Power and Light Company Library. Book list as of January 1, 1971. (Includes periodical holdings)

The New York State Library. Checklist of books and pamphlets in science and technology. Albany, 1960; Checklist of books and pamphlets in American History. Albany, 1960; Checklist of books and pamphlets in the social sciences... Albany, 1960. (PNBC also has supplements to this for April, 1955-December, 1958)

Tacoma Public Library and Tacoma Community College Library. A selected sample of books by and about American Indians with special emphasis on the Pacific Northwest, a cooperative project. 1970. (Gives TPL and TCC call numbers)

Tacoma Public Library. Japanese-American in the Pacific Northwest, a bibliography prepared by the staff of the Tacoma Public Library found in the collections of the library. 1971.


III Serials Holdings Lists

In addition to such standard lists as the LC Union List of Serials, New Serial Titles, the World List of Scientific Periodicals and Chemical Abstracts Service Source Index, PNBC has the following:

University of Washington Libraries. Current serials received. 1971

Pioneer Valley Union List of Journal and Serial Holdings: Amherst College, Forbes Library, Hampshire Inter-Library Center, Mount
Holyoke College, Smith College, University of Massachusetts, as of January 1, 1971.


San Francisco Public Library. Periodical titles currently received with supplementary list of government periodicals. 1968.

Serial publications held by the Marine Biological Laboratory Library and the Woods Hole Oceanographic Institution. 1965.

Argonne National Laboratory, Library Services Department. Argonne list of serials. 1965.


The Southwestern Union List of Serials, a regional union list of serial holdings as reported by 30 participating libraries. 1969.

Rarely held scientific serials in the Midwest Inter-Library Center. 1963 (PNBC also has a 1964 supplement.)

Four college libraries Union List of Journal and Serial Holdings as of July 1, 1969. (Includes Amherst, Mount Holyoke, Smith, University of Massachusetts, and Hampshire Inter-Library Center)

Oxford University, Commonwealth Forestry Institute Library. List of periodicals and serials. 3rd edition, 1968.

California State Library. Periodical titles currently received. 1967 (PNBC also has supplement four as of May 1, 1971)


Oregon State Library. Periodicals currently received. 1970.


The Pacific Fisheries Experimental Station, Vancouver, B.C. List of Serials in the Library... 1951.

Idaho State University Library. Medical periodicals and serials list. Revised 1970


Washington State University, Pullman. Music periodicals catalogued in the Washington State University Library. No date.

Washington State University, Pullman. Periodicals held by Washington State University Humanities Library dealing wholly or in part with German language and literature. 1971.


Southern Oregon Library Federation. Union list of serials to 1969.


In addition to the above, PNBC also has a number of bibliographies on various subjects prepared by staff members of libraries in the region. These as a rule reflect the holdings of their own libraries. They include a variety of uncatalogued materials, eg., pamphlets, films, and government documents.
Exhibit A-3

Serials Lists To Which Pacific Northwest Libraries Contribute

Union List of Serials
New Serial Titles
Periodicals and Serials, University of Alaska Library
Union List of Periodicals in the Anchorage Area
OSU-OSL Pilot Project Union List of Serials
Boeing Union List of Serials
Northwest Association of Private Colleges and Universities Union List of Periodicals
Union List of Serials in Libraries of the Spokane, Washington Area
Union list being developed includes the holdings of the two colleges and public library in Walla Walla County (Wash.)
Union List of Serials in Idaho Libraries
Carroll College Periodical Titles
Wenatchee Valley College Library, Periodicals List
University of Montana Serials Currently Received
North Central Regional Library (Wash.) Magazines on File at Headquarters
Survey of Scientific Journals and Other Works of Importance to Chemists and other Scientists available in the Libraries of Portland, Oregon and Immediate Environs
University of Idaho-Washington State University Union List of Serials, 1963
Periodical Holdings, Willamette University Learning Resource Center
Periodical Holdings, Highline College Library (Wash.)
University of Victoria Serials Holdings Catalogue
Southern Oregon Library Federation Union List of Serials
Periodical Holdings, Timberland Regional Library (Wash.)
Periodicals Currently Received by the Oregon State Library
Chemical Abstracts Source Index
Pacific Northwest Forestry Library Serials
Periodical Holdings of the Fort Vancouver Regional Library System (Wash.)
Union List of Serials Holdings of Libraries in Great Falls, Montana
List of Periodicals (Big Bend Community College, Wash.)
Union List of Periodicals in Washington State Library Branches
University of British Columbia Serial Holdings, 1970
Periodical Holdings in Southeast Alaska Libraries, 1969
Boise State College Library List (Title and Subject)

1. As reported by the libraries queried.
### Exhibit A-4

**Libraries In The Region That Can Use Materials In Microform**

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<th>Copy Facilities</th>
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<td>Microfiche</td>
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<td>Yakima Valley Regional Library</td>
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</tbody>
</table>

* no information or cannot interpret

The practices of libraries within the region regarding filling interlibrary loan requests by photocopy were also examined. Exhibit VII-3 presents the responses received.
### Exhibit A-5

Libraries In The Region That Fill Interlibrary Loan Requests By Photocopy

<table>
<thead>
<tr>
<th>Library</th>
<th>Per page charge</th>
<th>Service charge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alaska State Library</td>
<td>(12)</td>
<td>no</td>
</tr>
<tr>
<td>University of Alaska, College</td>
<td>10¢</td>
<td>no</td>
</tr>
<tr>
<td>University of Alaska, Geophysical</td>
<td>10¢</td>
<td>no</td>
</tr>
<tr>
<td>Institute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anchorage Community College</td>
<td>10¢</td>
<td>yes</td>
</tr>
<tr>
<td>Big Bend Community College</td>
<td>10¢</td>
<td>yes(1)</td>
</tr>
<tr>
<td>Boise Public Library</td>
<td>10¢</td>
<td>no</td>
</tr>
<tr>
<td>Boise State College</td>
<td>10¢</td>
<td>no</td>
</tr>
<tr>
<td>Bonneville Power Admin. Library,</td>
<td>5¢</td>
<td>no</td>
</tr>
<tr>
<td>Portland</td>
<td></td>
<td></td>
</tr>
<tr>
<td>University of British Columbia</td>
<td>15¢</td>
<td>no(10)</td>
</tr>
<tr>
<td>University of British Columbia,</td>
<td>15¢</td>
<td>no</td>
</tr>
<tr>
<td>Woodward Library</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Camas Public Library</td>
<td>10¢</td>
<td>*</td>
</tr>
<tr>
<td>Carroll College</td>
<td>10¢</td>
<td>no</td>
</tr>
<tr>
<td>Central Washington State College</td>
<td>10¢</td>
<td>$1.00 for large projects</td>
</tr>
<tr>
<td>College of Idaho</td>
<td>10¢</td>
<td>no</td>
</tr>
<tr>
<td>Defence Research Establishment</td>
<td>none</td>
<td>no</td>
</tr>
<tr>
<td>Pacific, Victoria</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fort Steilacoom Community College</td>
<td>5¢</td>
<td>no</td>
</tr>
<tr>
<td>Fort Vancouver Regional Library</td>
<td>10¢</td>
<td>no</td>
</tr>
<tr>
<td>Gonzaga University</td>
<td>10¢</td>
<td>no</td>
</tr>
<tr>
<td>Great Falls Public Library</td>
<td>25¢</td>
<td>no</td>
</tr>
<tr>
<td>Helena Public Library</td>
<td>25¢</td>
<td>*</td>
</tr>
<tr>
<td>Library</td>
<td>Per page charge</td>
<td>Service charge</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>-----------------</td>
<td>----------------</td>
</tr>
<tr>
<td>Highline College</td>
<td>10¢</td>
<td>no</td>
</tr>
<tr>
<td>Idaho Falls Public Library</td>
<td>15¢</td>
<td>*</td>
</tr>
<tr>
<td>Idaho State University</td>
<td>5¢</td>
<td>no</td>
</tr>
<tr>
<td>University of Idaho</td>
<td>10¢</td>
<td>no(6)</td>
</tr>
<tr>
<td>Jackson County Library</td>
<td>10¢</td>
<td>no</td>
</tr>
<tr>
<td>Josephine County Library</td>
<td>10¢</td>
<td>no</td>
</tr>
<tr>
<td>Juneau Community College</td>
<td>10¢</td>
<td>no</td>
</tr>
<tr>
<td>King County Library</td>
<td>none</td>
<td>no</td>
</tr>
<tr>
<td>Kitsap Regional Library</td>
<td>10¢</td>
<td>*</td>
</tr>
<tr>
<td>Lewis and Clark College</td>
<td>10¢</td>
<td>no</td>
</tr>
<tr>
<td>Library Association of Portland</td>
<td>10¢(7)</td>
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</tr>
<tr>
<td>Linfield College</td>
<td>10¢</td>
<td>(11)</td>
</tr>
<tr>
<td>Lower Columbia College</td>
<td>5¢</td>
<td>no</td>
</tr>
<tr>
<td>Madigan General Hospital -- Special Services Library</td>
<td>5¢</td>
<td>no</td>
</tr>
<tr>
<td>Missoula Public and County Free Lib.</td>
<td>15¢</td>
<td>no</td>
</tr>
<tr>
<td>Montana State Library</td>
<td>none</td>
<td>no</td>
</tr>
<tr>
<td>Montana State University</td>
<td>10¢</td>
<td>$1.00 minimum</td>
</tr>
<tr>
<td>University of Montana</td>
<td>10¢</td>
<td>no</td>
</tr>
<tr>
<td>North Bend (Ore.) Public Library</td>
<td>10¢</td>
<td>no(13)</td>
</tr>
<tr>
<td>North Central Regional Library</td>
<td>10¢(8)</td>
<td>no</td>
</tr>
<tr>
<td>Olympic College</td>
<td>10¢</td>
<td>no</td>
</tr>
<tr>
<td>University of Oregon</td>
<td>10¢</td>
<td>yes*</td>
</tr>
<tr>
<td>Oregon State Library</td>
<td>10¢(2)</td>
<td>(3)</td>
</tr>
<tr>
<td>Oregon State University</td>
<td>10¢</td>
<td>no(4)</td>
</tr>
<tr>
<td>Pacific University</td>
<td>10¢</td>
<td>$1.00 minimum</td>
</tr>
<tr>
<td>Library</td>
<td>Per page charge</td>
<td>Service charge</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>-----------------</td>
<td>----------------</td>
</tr>
<tr>
<td>Portland State University</td>
<td>5¢</td>
<td>no</td>
</tr>
<tr>
<td>University of Portland</td>
<td>10¢</td>
<td>*</td>
</tr>
<tr>
<td>University of Puget Sound</td>
<td>10¢</td>
<td>50¢ minimum</td>
</tr>
<tr>
<td>Rocky Mountain College</td>
<td>10¢</td>
<td>no</td>
</tr>
<tr>
<td>Seattle University</td>
<td>5¢</td>
<td>no</td>
</tr>
<tr>
<td>Southern Oregon College</td>
<td>10¢</td>
<td>no</td>
</tr>
<tr>
<td>Spokane Public Library</td>
<td>10¢</td>
<td>no</td>
</tr>
<tr>
<td>Tacoma Public Library</td>
<td>10¢</td>
<td>no</td>
</tr>
<tr>
<td>Tektronix Inc., Beaverton, Oregon</td>
<td>none</td>
<td>no</td>
</tr>
<tr>
<td>Timberland Regional Library</td>
<td>none</td>
<td>no</td>
</tr>
<tr>
<td>Umatilla County Library</td>
<td>10¢</td>
<td>yes(1)</td>
</tr>
<tr>
<td>University of Victoria</td>
<td>10¢</td>
<td>yes(5)</td>
</tr>
<tr>
<td>Walla Walla Dist., Corps of Engineers</td>
<td>none</td>
<td>no</td>
</tr>
<tr>
<td>Washington State Library</td>
<td>none</td>
<td>no</td>
</tr>
<tr>
<td>Washington State University</td>
<td>5¢</td>
<td>no</td>
</tr>
<tr>
<td>Wenatchee Valley College</td>
<td>none</td>
<td>no</td>
</tr>
<tr>
<td>Western State Hospital, Ft. Steilacoom</td>
<td>none</td>
<td>no</td>
</tr>
<tr>
<td>Western Washington State College</td>
<td>none</td>
<td>no(9)</td>
</tr>
<tr>
<td>Weyerhauser Company, Longview</td>
<td>*</td>
<td>no</td>
</tr>
<tr>
<td>Whitman College</td>
<td>10¢</td>
<td>no</td>
</tr>
<tr>
<td>Whitworth College</td>
<td>10¢</td>
<td>no</td>
</tr>
<tr>
<td>Willamette University</td>
<td>10¢</td>
<td>no</td>
</tr>
<tr>
<td>Yakima Valley Regional Library</td>
<td>10¢</td>
<td>*</td>
</tr>
</tbody>
</table>

*No information or uninterpretable
1) No figures given
2) First ten prints free for government agencies
3) $1.00 minimum for mail orders and those requiring billing
4) Send quotation first for orders over $1.00
5) If over $1.00
6) Additional charge only when an invoice is required; borrowing library is notified of this in advance
7) First ten prints free, 10¢ each thereafter
8) First three pages free, 10¢ thereafter
9) No charge at present. If one is imposed, borrowers will be notified in advance
10) If cost exceeds $5.00, estimate is given in advance
11) 10¢ per page for first five pages; over five, $1.00 minimum.
   Five copies or less free to NAUCU libraries
12) First twenty pages free, 10¢ per page thereafter
13) If volume of demand increases, a service charge may be added
EXHIBIT A-6
PNBC Operations Research Study
Library Questionnaire

Name of Library:

Type of Library (Academic, public, industrial, etc.):

Name and Title of Person completing questionnaire:

Please return this questionnaire no later than

1. Does your library make use of the services of PNBC in filling
   interlibrary requests:
   a. yes____
   b. no____

2. If answer to above question is "yes",
   a. How many requests to your statistics indicate you have sent to
      PNBC since the beginning of the current (calendar, fiscal)
      year?______________________________
   b. What percentage of your total loan requests for the same period
      does the above figure represent?__________________percent

3. Does your library send requests to PNBC selectively? If so, what
   types of requests do you ask PNBC to search for, as opposed to
   those you prefer to handle directly?


4. If you answered "no" to question number 1, what are your reasons
   for not using the services of PNBC? (please be candid!)

5. Which of the following kinds of data on interlibrary lending and
   borrowing do you keep in your library?
   a. For items borrowed:
      1. Date request originated________________
      2. Borrower's name____________________
      3. Author of book or article____________
4. Title of book or periodical
5. Where request was sent
6. Date request was sent
7. Date first report received
8. Date material received
9. Date cancelled or further action taken
10. Number of libraries to which request was sent before material was obtained
11. Whether request was filled by photocopy
12. Whether request was handled by mail, telephone, or teletype
13. Number of requests filled through PNBC
   Number of other means
14. Number of PNBC requests not filled
15. Number of PNBC requests filled by libraries outside the NW region

b. For items loaned:
1. Original date of request
2. Requesting library
3. Borrower's name
4. Author
5. Title
6. Date request was received in your library
7. Date you mailed material or forwarded request to another library
8. Number of libraries to which request was sent before it came to you
9. Number of loan requests you receive (or a daily log of these)
10. Do you categorize loans by type of borrowing library (i.e., academic, public, special) ________

11. Number of loan requests received that you are unable to fill ________

12. Reasons for not filling those:
   a. Percent missing ______
   b. Percent non-circulating ______
   c. Percent checked out ______
   d. Other (specify) ______

13. Disposition made of unfilled requests (sent back to original library, forwarded to next library location listed, etc.) ________

14. Number of requests indicating your library as a second choice ______ third choice ______

15. Number of requests routed to you through PNBC ______

6. What routine is followed for handling incoming loan requests in your library? (Please list each step involved in filling a loan request)

7. Approximately how long do you estimate it takes to fill an average loan request in your library? (i.e., time from date request is received to date material is mailed)
   a. 1 day or less ______
   b. 2-3 days ______
   c. 3-5 days ______
   d. more than 5 days ______

8. List factors involved in determining the average time stated above; e.g., longest time lapse from receipt of request and day it is filled; shortest time, etc.

9. When an interlibrary loan request is received via PNBC with several library locations indicated and your library's copy is out, missing, or otherwise unavailable, do you:
   a. routinely forward the request to the next location listed? ______
   b. return the request form to the originating library? ______
   c. other (please specify) ______
10. One of the objectives of the present research project is to determine what possible services PNBC might perform for libraries in the Northwest Region which it is not now performing. Following is a list of some possible services. Please indicate which of these you think would be most useful to your library, ranking them in numerical order from most useful to least useful (1=most useful, 2=next most useful, etc.) Your comments are invited.

   a. Expanded bibliographic services. These might include bibliographies on demand; a periodical publication with each issue devoted to a regional bibliography on a selected subject, with Northwest locations given for each item listed; issuing bibliographies of special materials, such as films and recordings, periodical holdings, pamphlet collections or other uncataloged materials, etc., in the region.

      Rank__________
      Comments:

   b. Expanded reference services, involving handling of reference questions which cannot be satisfied from local resources. (These would probably be best handled by telephone, via SCAN)

      Rank__________
      Comments:

   c. Distribution of data collected by PNBC concerning regional resources and weaknesses in bookstocks for use in development of your library's collection. This might evolve into one or more cooperative acquisitions programs.

      Rank__________
      Comments:
d. A PNBC "last copies" collection program. This would involve
the collection and preservation of the last copies in the
region of older imprints (those have often been discarded
in the past). Cooperating libraries would box their last
copies and rarely used items after weeding their collections,
and ship them to PNBC. These books would be stored in a
warehouse, and would be available for loan via request through
PNBC.

Rank________

Comments:

e. Other services you think would be useful to your library
(please list and describe).

Rank________

11. Would your library be willing to pay a fee for any of the above
services, e.g., a special bibliography?

yes______ no_______

12. In your opinion, what additional data could PNBC collect that
would provide your library with useful information for collection
development and management?

13. Does your library keep any statistics on the number of loan
requests that are forwarded to you after being sent to one or
more other libraries?

yes______ no_______
14. If answer to 13 is "yes", can you tell us:

   a. What number and/or percentage of all the loan requests you
      receive from other libraries are routed to you by another
      library that could not fill the request?_________________

   b. Of these, how many requests listed your library as a second
      choice?_______ third choice?_______

   c. How many of the requests on which your library appeared as
      a second choice were you able to fill?________

   d. How many of the requests on which your library appeared as
      a third choice were you able to fill?________

15. From your statistics, how much time elapses from the day you send
    a request to PNBC until you receive the document requested? For
    the current calendar year, please give the following:

   a. In days, what is the least amount of time it took to obtain
      material requested through PNBC?

   b. What was the longest time required for filling a PNBC
      request?____________

   c. What is the average time?________

   d. Do the above figures include requests sent or filled by mail
      only?________ If not, please specify how many were handled
      by telephone and/or teletype:

   e. Do your statistics distinguish between requests filled by
      xerox copy and others? If so, please give average time
      for filling a Xerox request to PNBC:________

   f. Average time for a book request from PNBC:________

16. How many (and what percentage) of the requests you sent to PNBC
    this year were not filled?________ Of these did you receive
    useful reports or recommendations for any (e.g., suggested State
    Library purchase, suggestions of libraries to contact directly)?

17. Of those requests filled through PNBC, how many were filled by
    libraries outside the Northwest Region?________
18. Does your library presently report its acquisitions to PNBC? ______
   If so, how long has it been doing so? ____________________________
   a. Did PNBC originally receive your complete catalog? ____________
   b. If not, which of your holdings have been reported? ____________
   c. Which ones have not? ____________________________

19. Does your library publish a serials holdings list, or contribute to a union list of serials holdings? ____________________________
   If so, please give title of list: ____________________________

20. If the catalogs of major research libraries in the Northwest were available on microfilm at a cost within your budget, would you be interested in acquiring them? ____________________________

21. Does your library have microform readers that are available for users? ____________________________
   Please indicate which and number of the following you have:
   a. microfilm readers ____________
   b. microfilm reader/printers ____________
   c. microfiche readers ____________
   d. microfiche reader/printers ____________
   e. Readex microcard readers ____________
   f. Other (please specify): ____________

22. Does your library offer photocopying services? ____________________________
   a. If so, do you have:
      1. a xerox copying machine? ____________
      2. other (specify) ____________________________
   b. What is the per page charge for photocopying? ____________
**PNBC Reporting...**

**Date:**

**Subject:** Building Resources in the Pacific Northwest

**Background:** Among the concerns of the library community is the number of titles of general interest which are unobtainable from the libraries of the Region. PNBC's Board of Directors feels that the knowledge which PNBC acquires through its searches regarding informational gaps should be shared with the participating state libraries, who in turn can make decisions as to how these gaps might be filled. This tentative report form has been devised as a means of letting the libraries know where these gaps occur in order that the requesting libraries may receive the information they need as rapidly as possible.

**Report on:**

**PNBC transaction number:**

**Author of Requested Title:**

**Title of Requested Material:**

**Publisher:**

**Date:**

**Additional Information found by PNBC:**

<table>
<thead>
<tr>
<th>This is a suggestion that this title be purchased by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alaska State Library</td>
</tr>
<tr>
<td>Idaho State Library</td>
</tr>
<tr>
<td>Montana State Library</td>
</tr>
<tr>
<td>Oregon State Library</td>
</tr>
<tr>
<td>Washington State Library</td>
</tr>
</tbody>
</table>

**Other library:**

<table>
<thead>
<tr>
<th>This is an informational copy to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alaska State Library</td>
</tr>
<tr>
<td>Idaho State Library</td>
</tr>
<tr>
<td>Montana State Library</td>
</tr>
<tr>
<td>Oregon State Library</td>
</tr>
<tr>
<td>Washington State Library</td>
</tr>
</tbody>
</table>

**Identical copy of this report is being sent to the requesting library:**

<table>
<thead>
<tr>
<th>(date)</th>
</tr>
</thead>
</table>

**STATE LIBRARY REPORT TO REQUESTING LIBRARY**

- State Library will purchase; reserve is filed for requesting library
- State Library will purchase; file a new request about ________ (date)
- State Library has decided NOT to purchase
- State Library suggests that it would be more appropriate for requesting library to purchase
- State Library suggests that title should be borrowed from outside the Region
- State Library suggests that since this title is so new we should wait to see if some library within the Region purchases later; suggests PNBC hold the request for ________ months to see if any library does purchase.

Form 72-6 95

113
<table>
<thead>
<tr>
<th>ITEM</th>
<th>SUB-TOTAL</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIRECT WAGES for filing cards</td>
<td>19,882(^1)</td>
<td></td>
</tr>
<tr>
<td>DIRECT WAGES for processing, ILL requests</td>
<td>111,878(^2)</td>
<td></td>
</tr>
<tr>
<td>DIRECT WAGES for Mansell Project (Photocopying 200,000 cards)</td>
<td>2,157</td>
<td></td>
</tr>
<tr>
<td>Salaries for Administration and Supervision</td>
<td>22,314</td>
<td></td>
</tr>
<tr>
<td>Salary Increase, 3% (.03 x 156,231)</td>
<td>4,687</td>
<td></td>
</tr>
<tr>
<td>TOTAL SALARIES</td>
<td></td>
<td>160,918</td>
</tr>
<tr>
<td>Benefits at level of FY 1972 (11.06% of Salaries)</td>
<td>17,798</td>
<td></td>
</tr>
<tr>
<td>Benefits Increase, 1% (.01 x 160,918)</td>
<td>1,609</td>
<td></td>
</tr>
<tr>
<td>TOTAL BENEFITS</td>
<td></td>
<td>$ 19,407</td>
</tr>
</tbody>
</table>

1 Based on estimate of 500,000 cards to be filed
2 Based on estimate of 50,273 requests to be received
<table>
<thead>
<tr>
<th>Item</th>
<th>Budgeted FY 1972</th>
<th>Projected Costs FY 1973</th>
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</thead>
<tbody>
<tr>
<td>Salaries</td>
<td>$129,080.95</td>
<td>$160,918</td>
</tr>
<tr>
<td>Benefits</td>
<td>9,970.00</td>
<td>19,407</td>
</tr>
<tr>
<td>Consultant Fees</td>
<td>2,780.00</td>
<td></td>
</tr>
<tr>
<td>Travel</td>
<td>3,000.00</td>
<td>3,000</td>
</tr>
<tr>
<td>Supplies</td>
<td>5,127.83</td>
<td>7,950</td>
</tr>
<tr>
<td>Telephone</td>
<td>1,200.00</td>
<td>1,200</td>
</tr>
<tr>
<td>Teletype</td>
<td>4,500.00</td>
<td>4,500</td>
</tr>
<tr>
<td>Postage</td>
<td>3,000.00</td>
<td>4,750</td>
</tr>
<tr>
<td>Printing</td>
<td>750.00</td>
<td>1,200</td>
</tr>
<tr>
<td>Photocopy</td>
<td>6,546.17</td>
<td>4,500</td>
</tr>
<tr>
<td>Repairs &amp; Maintenance</td>
<td>500.00</td>
<td>600</td>
</tr>
<tr>
<td>Legal &amp; Accounting</td>
<td>2,800.00</td>
<td>2,800</td>
</tr>
<tr>
<td>Taxes &amp; Licenses</td>
<td>700.00</td>
<td>700</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>206.00</td>
<td>250</td>
</tr>
<tr>
<td>Furniture &amp; Equipment</td>
<td>11,196.09</td>
<td>1,000</td>
</tr>
<tr>
<td>Books &amp; Library Materials</td>
<td>2,610.57</td>
<td>1,000</td>
</tr>
<tr>
<td>Catalog Expansion</td>
<td>8,469.15</td>
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</tr>
<tr>
<td>TOTAL</td>
<td>$192,436.76</td>
<td>$213,775</td>
</tr>
</tbody>
</table>

Univ. of Wash. Services

<table>
<thead>
<tr>
<th>Item</th>
<th>Budgeted FY 1972</th>
<th>Projected Costs FY 1973</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Space (Rent, Utilities, etc. $5.75 per sq. ft.)</td>
<td>---</td>
<td>16,848</td>
</tr>
<tr>
<td>Payroll, Audit, Mail Service, etc. (@ 4.96% of salaries &amp; benefits)</td>
<td>---</td>
<td>8,950</td>
</tr>
</tbody>
</table>

GRAND TOTAL: $239,573

1 Includes funds from grants by Montana State Library, Washington State Library, U.S. Office of Education