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Final Report

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PERSONNEL FOR RESEARCH LIBRARIES
Qualifications, Responsibilities and Use

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U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

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ACKNOWLEDGEMENTS

Like all research projects, this study had its conceptual and operational difficulties. The conceptual problems encountered are detailed in the Introduction to this report. Operationally, the retirement of Dean Neal Harlow necessitated a restructuring of the research team. Dr. Edward Angus was added to the staff in the capacity of Principal Investigator, but left that position after one year to move to another university. Thereafter the analysis and writing phases became a continuing responsibility of this writer.

Unusually extensive acknowledgements are due several persons in connection with this project. While this writer is Author of the report, four associates of the Bureau of Library and Information Science Research contributed so heavily to the study that they could be considered co-authors. First, Ralph Blasingame, Associate Dean of the Rutgers Graduate School of Library Service, was overall director of the study and contributed to its conceptual development. Second, Dr. Ernest DeProspo, Jr., Professor of Library Service, contributed strategically throughout the project. Third, Dr. Henry Voos, Professor of Library Service, assisted with much needed criticism at crucial points during the analysis and writing. Finally, we are indebted to Kay McGinty, Research Associate of the Bureau, for her persistent efforts toward the completion of this project. Mrs. McGinty's role as compiler and editor of this report, as well as her supervision of the data preparation and analysis phases of the project, warrant this writer's profuse thanks.

The research team also gratefully acknowledges the cooperation and contributions of the administrators and staff members of the research libraries examined, and the faculty members who were selected at those respective universities. Their help was of course critical to success of the project. They are not identified here because, as is explained in Chapter One, a guarantee of anonymity was given them when the data were collected.

It is sincerely hoped that the methodology and findings of this study can be of assistance to organizational planners and administrators of academic research libraries.

Chapter One

INTRODUCTION

This project is the outgrowth of a series of meetings that began in November of 1965. At that time the Board of Directors of the Association of Research Libraries indicated that the organization should accept responsibility for investigating possible programs that would result in the greater availability of more adequately trained research library personnel. This decision reportedly was based upon two main factors: first, evidence at that time indicated varying degrees of less than adequate numbers of staff combined with less than satisfactory utilization of some of the manpower available, and second, other library organizations had advanced plans concerning the education and training of librarians. The Board appointed an Advisory Committee on Education for Research Librarianship with the task of defining the objectives of a comprehensive study of the education and training requirements of research library personnel. Following a meeting of the Advisory Committee held in May, 1966, at which a series of observations and proposed topics for the investigation were made, an outline for a study was discussed at a second meeting in July. Neal Harlow, at that time Dean of the Rutgers Graduate School of Library Service, was asked to write a proposal along the lines of the Committee's outline. Dean Harlow proposed a three-phase study. The first phase, a pilot project, would seek to define, analyze and evaluate existing services, staff levels and types, the education, backgrounds, sources, recruitment, and utilization of personnel. The second phase would forecast for the next decade, on the basis of the above, needed services, levels and types of personnel, educational requirements, potential sources and utilization of personnel. The third phase would recommend and describe new and modified programs relating to education, recruitment and continuing evaluation of research library personnel.

A formal proposal containing these objectives was submitted to the U.S. Office of Education in 1968. Following agency reviews, some substantial revisions were made, the proposal was resubmitted in September, 1968, and was funded in April of 1969.

The funded project ultimately developed into a pilot study designed to explore methodologies for forecasting research library personnel needs. Because the term "pilot study" occasioned much misinterpretation, it might be well at the outset to state what is meant by the term. By pilot study, we follow the lead of Abraham Kaplan in identifying it as "...an experiment designed to establish the magnitudes of certain variables that will play a part in a major experiment that is being planned."[1] The major experiment that was

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1 Kaplan, Abraham. The Conduct of Inquiry: Methodology for Behavioral Science. (Scranton, Pa., Chandler Publishing Company, 1964) pp. 148-149.

being planned, as mentioned above, was a comprehensive review of the education, recruitment and continuing evaluation of research library personnel.

As the brief resume of the history of the project that is given below details, an approach more akin to what Kaplan calls a "heuristic experiment" can be discerned. Hueristic experiments are "...designed to generate ideas, to provide leads for further inquiry or to open up new lines of investigation." The combination, then, of a pilot study and a heuristic experiment is felt to provide the opportunity for revised thinking as to what is the problem in research library manpower planning.

The Problem:

The key problem that this study attempts to answer is:

> What major variables contribute most substantially to the deployment of library personnel in university research environments?

The substantive question that then arises is: How does one go about the task of ascertaining what these variables are?

In that this study is primarily methodological, it should be helpful to elaborate to some degree on the changes and modifications that took place during the life of the project. There are three central stages of project development that should be examined: (1) the original proposal that specified manpower description; (2) an orientation toward the research process as a determinant of personnel and service needs, and (3) the specification of top administrators as key actors in the decisional process of matching client needs with personnel deployment.

Manpower Description: The original proposal essentially hypothesized that the best way to forecast future personnel needs was to examine, in depth, present patterns of manpower deployment including procedures of recruitment, training, and assignment for research library positions, descriptions of present personnel in terms of the attributes they bring to the job, and the eventual mix of persons and jobs that result in services to client groups.

An assumption embodied in the original proposal was that present patterns of manpower allocation can be used to "predict" or forecast future personnel deployment. This assumption was challenged as the project began to develop for at least two reasons:

a. Only under conditions of certainty as to future events can such an assumption be maintained. Linear extrapolation

(a. - cont.)

assumes that internal factors such as goals, and external factors such as economic conditions, social and political forces will remain essentially unchanged.

b. The assumption implies that present operations are well known and predictable. That is, that present operations, service procedures, or policies do and will have predictable consequences. However, given the methods of performance measurement now used in research libraries (i.e., number of staff, circulation, amount of book stock, etc.) such an assumption does not seem tenable.

Thus, merely to describe what is at present and project linearly into the future has a definite danger of incorrectness. Expansion of the project seemed warranted.

Research Process Orientation: The limiting features of the original proposal were especially apparent in the area of determining the present and future demands that would be placed on library personnel and libraries by research oriented clients. Not only are personnel needs dependent upon the backgrounds, levels and responsibilities of the staff but also on the kinds and quantities of services to be provided as determined by the expectations of the individual researcher.

The project staff concluded that operational models of the research library alone were not sufficient to assess personnel needs, that models were also needed of the information-seeking behavior of researchers. Further, much thought and development went into the character of types of information that might be utilized by university-based researchers as a prelude to the development of refined information-seeking models.

The thinking of the project staff at that time was that in the absence of assessments of informational needs and changes in informational technology, manpower planning becomes an abstract exercise. For this reason, a significant portion of the project activity was necessarily spent on thinking through a broad range of questions, such as: What constitutes research? Which are the groups involved in research? What informational needs do they have? In what ways can these demands be satisfied? What predictions or assessments can be made relative to research activities and consequently information needs in the coming decades?

The general methodology at this point in the project can be briefly summarized as follows: (a) describe library personnel in terms of the measurable attributes they bring to the job; (b) construct service profiles of various library units; (c) construct models of information types and information used by university researchers; and (d) map out the points of congruence between the library and the researcher. Methods of data gathering were devised and a general framework for analysis spelled out.

A Conference on the Study: In order to elicit opinion and advice on the proposed methodology, a conference of knowledgable experts was called. Fourteen participants met at Rutgers University in mid-November, 1969, to review the project and offer criticism and advice. Included were two university library directors, a national research library director, a psychologist, a sociologist, two researchers with expertise in medical library research, and various library school faculty members.

Following a general background statement of the project, the participants were asked to react to the methodology that was proposed. The initial discussions centered around the broad dimensions of the study, that is, the study of information types by various types of researchers and the interface between the library and those researchers. While it was generally agreed that an understanding of each was a necessary dimension of the total project, it was thought that the lack of sufficient time, funds and personnel prohibited performing a sufficiently detailed analysis. As several participants mentioned, a large number of studies have been published pertaining to various kinds of users and their information seeking patterns. Additionally, there have been several studies on library personnel, concerned with such topics as professional career patterns, as well as studies which could be classified as general interpretations of future trends of research libraries. It was thought that a duplication or replication of these would be inappropriate, if not meaningless.

The end result of the conference confirmed the basic premise that there are two major models that should be considered for investigation: that of the researcher as information user and that of the information delivery system as practiced in university libraries. However, it was suggested that a manageable approach to the study of manpower for research libraries might best be accomplished by examining top management personnel on the premise that these individuals are probably the most influential forces in determining the types, quantities, and utilization patterns of library personnel. In effect, the critical role played by top management was felt to be that of matching the resources to the demands. Thus, the way in which top administrators viewed this role, what steps they took in trying to match these two elements, and what they saw as the chief impediments to this process could lead to better manpower planning.

Top Management Orientation: The outgrowth of the conference was, then, a more intensive investigation of the role of the top management in deploying personnel to meet client needs for information. The approach taken is embodied in a letter from the Project Director to the Program Officer of U.S. Office of Education seeking authorization for the proposed changes, an excerpt of which follows:

> Therefore on the basis of the extensive literature in the field of administrative organization and management, our in-

(letter, cont.)

vestigations to date and discussions of the conference participants, it is the opinion of the research team that the top management of the academic research library is in very large measure responsible for determining the types and kinds of service programs and personnel to be found in the library. Further, it would be fruitless to make forecasts concerning library manpower without recognizing the administrator's influence in these matters. Thus it is our intention to examine manpower needs and utilization in the context of top management of academic research libraries. It is thought that the attributes, perceptions, performances, goals, etc. of the top management will prove to be more useful indicators for manpower assessments than the approach used heretofore. In the approach outlined in this paragraph several conceptual models of academic research libraries are contemplated. Through field visits to several sites, and questions concerning managerial style, internal personnel management systems, organizational behavior, regional and national systems, etc. will be analyzed and related to the models. On the basis of the field visit observations and analyses, refined models will be developed. From these, we will assess the influence of top management on the types and kinds of manpower required by academic research libraries. Implications of pursuing certain managerial styles and operations, as they relate to manpower and services, will be set forth on the basis of our findings and forecasts. In this way, individual academic research libraries can examine their institutional goals and programs and make some judgments concerning manpower requirements necessary to fulfill their objectives.

Summary: The approach thus developed to examine the major variables that condition the deployment of personnel in research libraries places emphasis on the role of top management in this process. In succeeding chapters of this report, a detailed explanation of the methodology is given, descriptive data are presented on the goals and constraints of top management, on the evaluations of clients toward the informational delivery system that is the library as well as their personal preferences toward information types, and on the deployment and attitudes of library personnel. Finally, the study concludes with an assessment of the possible models available to effectuate increased congruence between the information delivery system and the users of information, models that necessarily stress the critical role of the administrators of research library systems.

As a final note, it should be reemphasized that the study reported here attempts to raise questions, explore ideas, and speculate on possible models of library management. To repeat, the study has the characteristics of an heuristic experiment.

Chapter Two

METHODOLOGY

This study, as mentioned earlier, is an attempt to develop a methodology or methodologies for the study of manpower for research libraries. The method finally used consists of focussing attention on three central groups that either affect or are affected by manpower decisions in research libraries. These include: a) top administrators; b) professional library staff personnel; and c) clients, or faculty, as in the case of t e selected research libraries. It is felt that the relationships between these three groups largely determine what types of library personnel will be selected, how they will be utilized, and what their effect will be in terms of contribution to research efforts.

Methods of Selection

The population base from which samples of administrators, staff and faculty were chosen were member institutions of the Association of Research Libraries. According to statistics published by ARL, seventy-six universities were members during the academic year 1968-1969. In addition, several national and large public library systems were members of the association. It was from this group of large research libraries that the samples were chosen.

Selection of the Academic Libraries. From the base of seventy-six academic research libraries, a sample of eight libraries were selected for investigation. In addition, one university library was selected as the site for pretesting the interview and questionnaire instruments.

The eight libraries were chosen by applying a series of selection criteria to the total population. These criteria are as follows:

a) Variation in the size of collections.
b) Variation in geographical location.
c) Variation in proximity to other library resources.
d) Variation in private vs. public funding.

It was thought desirable to have as great a mix of these four characteristics as possible. Thus, the selection process consisted of comparison between and among these criteria across the population base of seventy-six university libraries. The final selection illustrates the degree to which the study team was able to achieve such a mix.

Three of the selected libraries have very large collections (ranking third, seventh, and eighth within ARL). Two of these are private while the third is public. Two others have relatively small collections while the others have what might be called "medium-sized" collections for ARL members. The three largest libraries are dispersed geographically. One is on the West Coast, one in America's "Heartland", and the third on the periphery of the Northeast Corridor. The remaining libraries include one in a major metropolitan city on the East Coast,

Table 2-1

Rank Order Comparisons of Selected University Libraries Against Population Base on Selected Criteria (1968-69)

	Volumes in Library	Volumes Added (Gross)	Total Staff (FTE)	Total Expenditures Books	Total Expenditures Salary/Wages	Total Operating Expenditures	Public or Private
University A	48	66	55	49	56	54	public
University B	3	8	10	7	10	10	public
University C	7	6	6	8	9	8	private
University D	8	2	9	9	7	7	private
University E	36	35	47	36	38	39	public
University F	25	49	27	38	34	37	public
University G	20	38	29	47	35	43	private
University H	66	48	35	42	36	42	private
University P (pretest)	24	20	44	16	32	26	public

two in the South, one in a border state, and one in the Rockies. The pretest site, Rutgers, is located in the New York-Philadelphia corridor.

In terms of proximity to other library resources, the libraries could be classified as follows:

isolated	Universities A,B, and E
relatively isolated	Universities C,F, and G*
close	University D
very close	University H and pretest

*(However, Universities F and G are very close to each other and thus have the opportunity for a high level of interaction.)

In summary, the decisions made on selecting the sample of ARL libraries included the above four criteria and intuitive judgments all aimed at getting as great a mix of characteristics of the population base as possible.

Table 2-1 gives additional information on each of the selected academic libraries in terms of standard statistical descriptors. The ranks given are those occupied by each of the sample libraries within the total population base of seventy-six ARL academic libraries.

Selection of Top Administrators. As was stated in the concluding portion of Chapter One, the decision was made to interview and examine top management personnel in the selected libraries because they are "probably the most influential forces in determining the types, quantities, and utilization of manpower in their respective libraries." Top management was defined so as to include: a) directors and associate directors; b) major department heads (technical services and public services); and c) chief staff in the areas of personnel administration and financial administration.

Initial contact with the directors of the selected libraries requested their cooperation with the study and asked for pertinent data concerning the library's organization, staffing patterns, and personnel lists. From these data, decisions were made by the study team on persons to be interviewed and appointments were made with the selected persons.

A total of thirty-one persons were interviewed in the eight universities studied. All the directors (or acting directors) and in most cases, both the heads of technical services and public service departments, were interviewed.

The number of interviews per library was as follows:

University A	3
University B	5
University C	4

University D	5
University E	4
University F	4
University G	3
University H	3
Pre-test-Rutgers	3

In some cases, persons selected to be interviewed were not available because of conflicting schedules or emergency, out-of-town trips. No one refused to be interviewed, almost all were most generous with their time, and few held back (in the judgment of the interviewers) either comments or information.

Interviewing Procedures. All the interviews were conducted from February through April, 1970. All interviewing was done by the Principal Investigator and the Senior Research Associate. (Each director was interviewed by this two-member interviewing team; a majority of the other interviews were conducted in the same manner.) Each interview averaged two and one-half hours in length and was usually conducted in the office of the respondent.

A note seems appropriate at this point on the technique of joint interviewing. Because the nature of the information being sought was essentially opinion and critical assessment of developments in personnel needs and utilization within research libraries, the interview situation was deliberately designed to be flexible, open-ended, and aimed at developing a discussion atmosphere with the respondent. The researchers felt that by having two interviewers ask questions and request elaboration on points, such a discussion atmosphere would be more likely to be created. This appears to have been the case.

The interview generally followed the form of a) an introduction or explanation of the project by the Principal Investigator, b) a detailed discussion of the issues posed as questions, and c) elaboration on any specific points deemed necessary by the interviewers. Notes were taken by both interviewers and these were integrated at a later point and reconstructed for the record.

Selection of Library Professional Staff. In an effort to delve into the backgrounds, attitudes and opinions of "professional" staff personnel, a mail questionnaire was constructed and sent to all professional staff members in the selected library systems. The population base was defined as those persons identified by either position title or rank as having "professional" status. For the most part, we took the library system's definition of "professional" as our definition. Thus, for example, at Library E we selected those persons listed in the directory with titles ranging from "instructor" through "professor." At Library C, we chose persons having titles ranging from subject area bibliographer to Assistant Librarian, though not persons identified as "library assistants." At Library Dpersons having titles ranging from Librarian I through III and persons with supervisory responsibility were selected. For Universities

A,B,F,G, and H, we were provided with lists of persons identified specifically as "professional staff members." In summary, we attempted to have the libraries themselves define their "professional staff."

In all, questionnaires were sent to 632 persons in the eight library systems; the questionnaire was not sent to persons who were interviewed in person. As is shown in Table 2-2, Library B had the largest number of professional staff members while Library A had the fewest. The mean number of professional staff per library was seventy-nine.

The selected staff members were mailed questionnaires on or about May 5, 1970 and the covering letter requested a response no later than May 22, 1970. A follow-up post card was sent shortly after the stated deadline but elicited only minimal response.

As is indicated in Table 2-2, the overall response rate was slightly over 70 percent. Seventy-four percent of the staff members at Libraries C and H responded while only 66 percent of G's staff members responded, creating a range of 8 percent from highest response rate to lowest. It is felt that the rate of response is adequate to base judgments on the attitudes of persons in the eight libraries surveyed. Moreover, available data indicate that the persons responding are generally representative of the persons holding professional positions in the libraries studied (See Table 2-3).

Table 2-2

Response Rate to the Library Staff Questionnaire by University Affiliation

	Total Population	Number Responding	Percent Responding
University A	41	29	73%
University B	194	134	70
University C	112	83	74
University D	87	60	69
University E	46	31	70
University F	47	32	68
University G	59	39	66
University H	46	34	74

As Table 2-3 indicates, persons with supervisory responsibility (supervisors and branch library heads) and specialists (curators, bibliographers, systems analysts) were more likely to respond than were people without such characteristics. Branch librarians and general librarians (no specialization given) were least likely to respond. The greatest disparity between respondents and the total sample to which the questionnaire was sent is in the category "general librarian" which contained 21 percent of all respondents, but 25 percent of the total sample. However, because of the generally high response rate and the fact that the sample represented the entire universe, such disparity is not considered significant.

Table 2-3

Distributions of Respondents and of Total Sample to which Staff Questionnaire was Sent, and Response Rate, by Position Title

Position Title: (Bases)	Total Sample (632)	Respondents (445)	Response Rate
Supervisor	17%	20%	84%
Head Librarian, Branch	8	10	92
Branch Librarian	10	8	58
General Librarian	25	21	59
Cataloger	23	20	62
Reference Librarian	7	7	77
Curator, Bibliographer	10	12	84
Systems Analyst	*	1	100
Other	*	1	100
	100%	100%	

(* Less than 0.5 percent.)

Taking the three categories of position title with the lowest response rate, i.e. branch librarians, general librarians, and catalogers, the distributions and response rates for each university provide more assurance of accurate representation.

Table 2-4

Response Rates for Selected Position Titles by University

University:	Branch Librarians	(N)	General Librarians	(N)	Catalogers	(N)
A	100%	(2)	38%	(3)	78%	(7)
B	57	(20)	56	(38)	70	(28)
C	71	(10)	94	(30)	37	(7)
D	25	(1)	69	(9)	56	(14)
E	50	(2)	75	(3)	50	(5)
F	-	(0)*	33	(4)	63	(5)
G	-	(0)*	29	(2)	60	(15)
H	-	(0)*	31	(5)	100	(7)
		(35)		(94)		(88)

* No branches.

The large numbers of Library B staff members who occupy these three categories is sufficient to effect the strength of the total breakdown. Fifty-seven percent of all branch librarians responding were at Library B, as were 40 percent of all general librarians and 32 percent of all catalogers.

In summary, there do not appear to be major categories of nonrespondents that could destroy the representativeness of the respondents. As stated above, higher percentages of the supervisory personnel and specialized personnel responded than did the lower levels, but the distribution of respondents matches fairly well the distribution of the sample selected (see Table 2-3).

Selection of Faculty Sample. In order to investigate the attitudes toward the library system and the information needs of faculty members, a sample was selected of the instructional faculty at each of the eight universities. In order to assure that the faculty would be a) predominantly full-time, and b) involved in teaching as well as research, rules for the selection incorporated the following points:

1) Eligible respondents are those with titles as follows:
   - Professor
   - Associate Professor
   - Assistant Professor
   - Instructor
   - Lecturer

2) Persons with titles such as the following were judged to be not eligible:

Research Specialist
Clinical Professor
Adjunct Professor
Professor Emeritus
Visiting Professor
Artist in Residence
Graduate Assistant
Research Assistant or Associate
Teaching Assistant

3) Deans and other administrative personnel were only included if their title also indicated that they held formal academic rank such as listed in item 1 above.

While there is a rationale for including all persons working for the university in academic positions, the difficulties in separating out persons with only part-time or noninstructional functions are great. Therefore, it was decided to include only those persons who had the greatest probability of combining both research and teaching. Students were eliminated from consideration and only the faculty user group was focussed on, as it was presumed that their perspective on the library would be the most valuable one for a pilot methodological study such as this one.

Lists of faculty members were obtained for each university. For the most part these were telephone-directory-type listings. The lists had to be "cleaned" of nonfaculty staff members, such as secretaries, and noneligible faculty, as described above. In all but one case the directories were for the academic year 1969-70. In one case where the only available directory was for the 1968-69 year, University D, a larger than normal sample was taken in order to compensate for changes that might have occurred in staffing (e.g. some listed faculty might have since moved on).

After the lists of eligible faculty were constructed, a systematic sample was taken of each university faculty list. The procedure for selecting a systematic sample consisted of the following: a) determining the total number of eligible faculty for each school; b) dividing that number by the desired sample size (200 in all cases except University D, where it was 300) in order to establish a sampling interval; c) choosing a random number from within the first interval frame; and d) selecting every nth person from the list of eligibles. As Table 2-5 shows, at least 10 percent of the eligible faculty were chosen in every case and in one case 30 percent were selected.

Table 2-5

Percent of Eligible Faculty Selected

University:	Eligible	Total Selected	Percent Selected
A	1,369	226	17%
B	2,169	214	10
C	1,557	224	14
D	954	282	30
E	1,112	218	20
F	1,418	201	14
G	919	229	25
H	1,020	204	20
Total	10,518	1,798	17

The questionnaire that was mailed to the faculty members is discussed later. However, in order to assess the representativeness of the samples of the eight universities, an analysis was made of the departmental affiliations of persons who returned the questionnaire and those who did not. This data for nonrespondents was obtained from the selection lists while department was simply taken from the questionnaire for those who responded.

Table 2-6 indicates the distribution of the 1,798 cases that constitute the total sample. As can be seen, the rates of usable responses range from a high of 43 percent to a low of 26 percent. The category "nonusable response" indicates that the questionnaire was returned incomplete, for one of a variety of reasons, e.g. that the addressee had moved, or changed jobs within the university, or was no longer employed on a full-time basis.

Table 2-6

Distribution of the Total Sample

University:	Usable Responses		Nonusable Responses		No Response		Total
A	98	42%	17	8%	111	49%	226
B	92	43	17	8	105	49	214
C	91	41	17	7	116	52	224
D	84	30	13	5	185	65	282
E	82	38	9	4	127	58	218
F	78	39	4	2	119	59	201
G	75	33	11	5	143	62	229
H	54	26	6	3	144	71	204
Total	654	36%	94	5%	1,050	59%	1,798

While the response rate was less than desired, it also was somewhat expected at the initial stages. Many factors may have depressed the response rate including time of year, the format of the questionnaire, and the nature of the topic. However, these factors are present in all mail questionnaire procedures; attempts were made to obtain additional response with a follow-up letter, but subsequent responses were minimal.

In an effort to check to see if certain types of persons were returning the questionnaire and others were not, data was obtained for all respondents and nonrespondents on their departmental affiliation. Table 2-7 compares the percent distributions of respondents and the total sample, among the various departments, by school.

As the table indicates, there are some differences between the respondents and the total sample. For example, a higher percentage of all of the respondents were in the natural sciences than is indicated in the total sample. Similarly, a slightly higher proportion of the sample is in the humanities than is reflected in the respondents. However, from this analysis it was concluded that the respondents generally correspond closely to the total sample when the schools are aggregated. When individual schools are examined on these characteristics, there are some relatively strong divergences between the respondents and the sample. For example, when looking at University B, it is obvious that persons in the natural sciences responded out of proportion to their numbers in the sample. Likewise, at University H, the humanities faculty responded in greater numbers than would be anticipated, while those in the professional schools did not. However, even given these disparities, it is felt that the respondent classes by school are generally representative of the schools from which they were drawn.

In summary, a mailed questionnaire was sent to a sample of faculty members at each of the eight universities. Overall, 36 percent of the people to whom questionnaires were sent returned a usable response. While there are some disparities between the respondents and the total sample when departments are examined, the differences overall are minimal.

Analytical Procedures

Three main data-gathering instruments were used in an effort to explore the central questions of the study. They included an open-ended, relatively unstructured interview guide, a mailed questionnaire to professional staff members in the selected libraries, and a mailed questionnaire to a sample of faculty members at the same universities. The rationale behind each of these instruments, the problems of composition and presentation, and the design of analytical frameworks for the data are discussed below.

Pretesting. A series of interview schedules and questionnaires were prepared in rough form, examined by persons skilled in questionnaire design, and administered to a sample of persons at Rutgers University.

Table 2-7

Percentage Distribution of Respondents and Total Sample, by University and by Academic Department

(Bases)	A Resp/Samp (98) (209)	B Resp/Samp (92) (197)	C Resp/Samp (91) (207)	D Resp/Samp (84) (269)	E Resp/Samp (82) (209)	F Resp/Samp (78) (197)	G Resp/Samp (75) (218)	H Resp/Samp (54) (198)	All Schools Resp/Samp (654) (1704)
Natural Sciences	21 17	24 16	36 28	11 7	7 9	4 4	12 9	4 5	16 12
Physical Sciences	14 14	27 27	22 21	21 24	26 27	18 12	12 13	22 19	20 20
Humanities	23 25	25 30	22 30	25 31	37 40	31 36	33 28	45 36	29 32
Professions	14 15	20 23	18 16	15 12	27 21	17 20	7 7	19 34	17 18
Law	3 1	1 1	1 3	1 3	0 0	1 1	1 1	4 4	1 2
Medicine	23 28	0 0	1 2	27 23	1 1	29 27	35 42	2 1	15 16
Area Studies	1 0	2 2	0 0	0 0	1 0	0 0	0 0	0 0	1 0
Other	1 0	1 1	0 0	0 0	1 2	0 0	0 0	4 1	1 0
Total	100 100	100 100	100 100	100 100	100 100	100 100	100 100	100 100	100 100
Department Unknown	(17)	(17)	(17)	(13)	(9)	(4)	(11)	(6)	(94)

The interview schedule was pretested using the top administrative staff of the Rutgers University Library. From an initial detailed list of questions, four central issues were made the focus of the interviews with more detailed questions incorporated as subparts of these four. Because of the nature of these four central areas, it was concluded that a highly flexible interviewing procedure would yield the types of responses desired.

The pretest of the professional library staff questionnaire was also executed at Rutgers. The entire system, including branch campuses at Camden and Newark as well as the geographically separate units in and around New Brunswick, was sampled. The pretest instrument included thirty-four main questions, with numerous subparts. Essentially, it asked for background data on the respondent, including job activities, educational background, experience, rank or status, and so on. Other questions requested information concerning the number of employees supervised, the subject area specialties (if any) of the respondent, etc.

There was also a series of questions intended to explore such variables as job success, personal orientation to the library's administrative structure and leadership patterns, opinions on recruitment and developments in the field, and involvement in decision-making, both within the library and within the university at large. For the most part, all these questions were open-ended and allowed the respondent to elaborate in any particularly relevant areas. This use of open-ended questions caused problems in both coding and in interpreting the responses. People did not always respond within the bounds of the question. Thus, while the research staff was anxious to allow the maximum freedom of response to those being questioned, the procedure using open-ended questions was abandoned in the final mailed instrument to professional staff. This, it is hoped, helped to assure comparability.

The pretest of the faculty questionnaire was drawn from the Rutgers Staff Directory using the same decision rules as were later applied to the other eight universities. This version of the questionnaire included an elaborate investigation into faculty research and information sources used to support such research. Through a variety of check-off devices, rankings, and ratings, the questionnaire attempted to measure: a) the extent and direction of research specialties; b) information sources of all types used in the research endeavors; c) information used at various stages in the research process; d) methods of interfacing with information; 3) ratings of university library services in support of cited research areas; and f) evaluations of possible changes in information source availability and/or use in the future. In addition, background information was requested of each researcher. The ten-page questionnaire was designed with a one-hour time limit in mind. However, conscientious researchers reported that administration time averaged closer to two hours, and was even three hours in some cases. Because of the low response rate, 15 percent of those sent out, attributed to the questionnaire's length and complexity, the pretest instrument was revised extensively. The final version was pretested and found to be easily

understood and not very time-consuming. However the changes necessitated the elimination of detailed examinations of research in progress and its correlation with information services of the library. (See Appendix for questionnaires.)

Final Version of the Interview Schedule. The final interview schedule for the personal interviews with top administrators is designed to permit the interview to be loosely structured and promote a maximum of freedom in response. As was mentioned previously, two interviewers were present in each interviewing situation and contributed additional questions for clarification of issues raised, etc.

The four central areas that constituted the main framework of the interview were: 1) an assessment of the degree to which the 1970's would be different from the 1960's in terms of the library's programs, budget, and technological processes; 2) an assessment of these effects on the university's goals and programs including the degree to which the university can and will support the university library through budget decisions, services, linkages with other university libraries and personnel allotments; 3) an evaluation of the continuing problem of centralization versus decentralization, particularly in terms of the respondent's concern with the problem and the direction of his inclinations; and 4) an assessment of the problems of providing administrative expertise within the library including the use of professional administrators rather than library-school-trained persons. These questions represent the core of the interviews; as discussed above, the interviewers added questions where they seemed relevant.

Final Version of the Library Professional Personnel Questionnaire. As stated earlier, it was the intent of the library staff questionnaire to determine the background characteristics of the library staff members and to inquire about their attitudes on a range of problems, situations, relationships, and issues that might be present in their library or in the field of librarianship. The questions on personal background are essentially unchanged from the pretest instrument. Substantial revision was necessary, however, in the attitude section for the following reasons: a) lack of comparability to the responses to the original open-ended questions; b) obvious misunderstanding of some of the questions; and c) a stronger focus on job interrelationships was desired -- e.g. between workers, between supervisor and worker, between the nature of the job and worker satisfaction.

The general format used in the attitude section was a type of Likert[1] scale ranging from strongly agree to strongly disagree. Statements were made and the staff member was asked to respond to the statement by circling one of five possible levels of agreement/disagreement. Space was provided for comments in case the respondent felt that clarification was necessary. However, very few persons made such comments.

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1 Likert, Rensis, The Human Organization. (McGraw-Hill, New York) 1967.

Overall, the instrument was designed to develop an evaluation of job satisfaction, internal communication within the library, the effects of management style, and the perceptions of interaction between clients and librarians as well as between librarians and other librarians.

Final version of the Faculty Questionnaire. The final version of the faculty questionnaire constituted a drastic revision of the pretest instrument. As mentioned earlier, the first pretest questionnaire was very lengthy and complex, which is believed to have accounted for the low response rate (15 percent). The final version was considerably shorter and more limited in scope. Instead of the heavy concentration on "research" that was the base of the pretest questionnaire, the final version stressed general information sources used for both teaching and research.

The questionnaire attempted to trace the location of materials used in teaching and/or research from a variety of sources. In addition, it questioned the respondents on their methods of maintaining current awareness and the services of the library that could or would be of assistance. It also asked the faculty members to assess future developments in information dissemination in their subject areas. Finally, it asked for opinion on programs or policies that should be adopted to strengthen the library's capacity to provide service to them, the consumers.

An attempt was then made to have faculty members evaluate the resources, services and facilities of the university's library system. Respondents were asked to rate a variety of these items in two ways: first, the quality of these items in relation to the faculty member's teaching and/or research requirements; and second, to indicate the degree of their importance to the respondent. The evaluation, then, should entail two distinct ratings. First, it would have the faculty member rate the quality of the library system, overall, and second, the importance of that service to himself/herself.

Design of Analytical Frameworks. In general terms, the three data-gathering instruments discussed above were intended to provide the following pieces of information:

Interviewing schedule - data on the perceptions of top administrators as to the changes in the library's external environment that would be likely to occur in the coming decade; data on the types of decisions that would have to be made in recognition of these developments; data on administrators' perceptions of organization structures most likely to enhance decision-making in these areas; and, perceptions of types of administrative and specialized personnel that would be needed to operate the systems envisioned.

Professional Staff Questionnaire - the background characteristics of people presently working in academic research libraries; perceptions of communication patterns within the library; perceptions of management style by superior officials including amount of responsibility granted, utilization of talents and skills, internal mobility within the organization, etc.; data on the demands on the time of the respondents by various groups; and the perceptions of librarians as to the directions the field will take in the coming years.

Faculty Questionnaire - background dat .; fields of research interest; the information systems used and relied upon; anticipated changes in information dissemination techniques in the near future; and faculty ratings of their library systems in terms of services, resources, and facilities.

Summary

The methodology reported in this chapter covers two broad areas of the research process: the selection of the samples, and the analysis. The two are interdependant, and in fact constitute a single methodology, but are discussed here as separate processes to insure clarity.

The first step in the selection process was the decision to choose eight university research libraries for investigation of systems of manpower decision-making. Within each university, three subsystems of decision groups were observed. First, the top administrators were selected. Second, all library staff members designated as "professional" were selected. Third, a sample of university faculty members believed to hold full-time appointments on the instructional staff was selected.

A total of 31 top administrators were interviewed in the sample libraries. Within the eight libraries that constituted the academic research library segment, 632 persons were sent questionnaires and 445, or 70 percent of these returned them in a usable form. In the faculty sample 1,798 names were chosen and a total of 654 usable returns were obtained (36 percent). Some differences were noted concerning those who returned the questionnaires and the total sample, but the differences were judged to be unimportant.

The original data-gathering instruments were subjected to pretests and found to be deficient in some respects. The library staff questionnaire was redesigned to include more structured questions and the focus was shifted to include a more direct look at the effects of management style. The faculty questionnaire was completely revised in light of the pretest, and was made much shorter and less complex.

Chapter Three

LIBRARY ADMINISTRATORS

An overview of three levels of administrators in academic research libraries shows few differences in the profiles of the three levels -- directors, "second-in-commands", and other high administrative officials -- based on several professional background criteria. Mean averages were computed on five variables; in all seven indicants were used to compare and describe the individuals holding positions at the three levels. The table below gives a rough profile of each of the three types by giving the mean value of each of five background characteristics:

Table 6-1

Characteristics of Administrators - Mean Values

	Directors (8)	Second-in-Command (8)	Other Administrators (15)
Age	53	51	51
Number of years of library experience	25	23	25
Number of other libraries worked in	3.5	2	2
Number of other positions held in current library	1.4	1.6	1.6
Number of publications	2.6	1.5	.75

There is virtually no difference between the mean age of those second-in-command and the next lower level of administrators, and the directors' mean age is only two years greater than those two. Only one director, an acting director, was under 40 years old.

Directors differ from those below them in having worked in an average of 3.5 libraries before joining their present institution (a range of from 1 to 6 previous library affiliations), while those below worked in an average of 2 other libraries. This suggests that vertical mobility may be related to geographical mobility; i.e. ascending to the directorship is achieved by moving to different universities. This hypothesis is further substantiated by the fact that there is little vertical mobility from the lower ranks to the directorship in these

libraries. Most directors had held no other, or only one other position in the library they now direct. Three of the eight held no previous position in that library, three held one other, one held two others, and one held six other positions. Of the three having held one other position, that position was Acting Director in two cases.

Of the eight directors, five have been directors for less than five years; two of these are acting directors. Two have been in their present positions 12 and 13 years, respectively, and one has been director for 24 years.

Number of publications is the only variable examined which appears to be directly correlated with level of administration in the library. Overall, directors have the greatest numbers of publications, those second-in-command are next, and other administrators have the least. It does not appear to be a critical variable in determining directorship, however, as half the directors have published, and half have not. Neither is possession of the Ph.D. degree related to attaining the position of director of a research library (on the basis of the data examined). Four of the directors have the Ph.D. degree and four do not. (Of the four Ph.D.'s, two have published and two have not.)

The interviews with the administrators in the research libraries selected cover three general areas:

a) the future goals of the university, the library, and the individual interviewed;
b) the present constraints to effective action;
c) the types of personnel needed in the future to effect the perceived goals of the library.

In this section these topics will be discussed and opinions of the administrators summarized, with direct quotes used where applicable. Respondents will not be identified because of a guarantee of anonymity. The presentation is reportorial and no interpretation will be attempted at this point.

Future Goals and Conditions

The future plans, goals, and conditions perceived by the university library administrators encompass the following areas:

1) decentralization
2) increased automation
3) growth in public services
4) need for internal management change
5) increased involvement in networks
6) changing relationships with faculty and administration
7) continued print orientation in collection development

Decentralization:

Most administrators perceived a need for the establishment of divisional libraries on their campuses. Some advocated the decentralization for public services only, retaining centralized technical services. One rationale used was that "...libraries must recognize that they can't be all things to all people. We must specialize." The trend was toward the establishment of major divisional libraries, however, not a proliferation of small, departmental libraries. One administrator expressed an opposing view, criticizing the trend toward specialized libraries attempting to serve both graduate and undergraduate populations. He felt that the overlap of the graduate and undergraduate libraries was too great and did not benefit the system to the degree to which its advocates claimed. Most of the administrators expressed a distaste and distrust for small departmental collections. The general inclination seemed to be to bring together such collections in divisional plans.

Increased Automation:

In assessing changes they would have to make in their operations to cope with the future, administrators frequently mentioned the necessity or inevitability of automation. At the time of the interviews automation of some routines (serials, circulation, card production, etc.) had been implemented in some of the libraries, but in varying amounts. In general, automation of manual routines was felt to be inevitable, if not already in effect. For the future, most perceived a movement toward information-retrieval systems, and this elicited negative projections, or at least expressions of uneasiness from most respondents. The two extreme points of view on the issue were represented by the director who felt quite strongly that machine-readable data would always be supplementary to the traditional book stock, and in contrast, one who felt that on-line systems must ultimately prevail. The major points that administrators made in connection with automation were: that to some extent it is inevitable; that it can not be expected to cut costs; that while information-retrieval systems, on-line, are a possibility for the future, their implementation is not expected to change the basic character of the library during the next 10 to 15 years; and that if automation and information-retrieval systems could be designed to work, they might lead to higher degrees of cooperation with other libraries than now exist or are planned.

Growth in Public Services:

One aspect of the projection that public service orientation will increase is contained in the above discussion of the development of divisional libraries. That is, divisional libraries will focus more

strongly on personal services than on selecting, processing, and controlling collections. Another indicant of this expected increase in emphasis on public service is the personnel needs projected -- the need for "service-minded" staff. This latter attitude is by no means all-pervasive; but a segment of those interviewed expressed dissatisfaction with present staff attitudes, and felt that priorities in the research library must be reordered so as to stress service.

Need for Internal Management Change:

Several top administrators voiced the opinion that they will have to stimulate management change within the library if they are to meet any of the goals they have set. One administrator cited management development and training programs as being essential. Performance measures were also mentioned as important. Another administrator stressed the necessity of getting new management blood into the organization by increasing movement between academic institutions and middle management. Little change was predicted in terms of actually restructuring the organization. It is possible that shifts in types of personnel hired would create some structural change, but such change was not reported as expected by those interviewed.

Increased Involvement with Networks:

In general, top administrators foresaw the development and expansion of networks of research libraries to supply the informational needs of their faculties. Responses to such perceptions of future developments were varied, however. One administrator saw a future demand for networks of all types of library's, regional and national. Another discussed his libraries present involvement with cooperative endeavors such as PL 480 and the Farmington Plan. Others linked their future plans to the outcome of developments of information-retrieval systems, particularly computer-based systems.

The single most important constraint to participation in cooperative networks was the policy of book selection and collection development. The largest libraries in the group studied were directed by administrators who were of the opinion that they must continue to collect heavily in all areas, and particularly those areas in which they had traditionally been strong. They felt that they could not rely on other libraries to collect with their needs in mind, could not expect rapid enough delivery of needed materials, and finally, they saw themselves as primarily suppliers of needed materials, not as borrowers. The smaller libraries in the group were less positive that they could continue a collect-everything policy. Thus, they were more anticipatory of the development of networks, although they felt they would be based on the needs of larger libraries.

Changing Relationships with Faculty and Administration:

The major change foreseen in the area of relationships between the library and the faculty and administration focussed on the question of who should have responsibility for building collections. In general, it was felt that the pattern had been set in larger libraries of having the library assume almost all of this responsibility, and this was expected to continue. The smaller schools reported the continuing involvement of faculty in this area because of the library's deficiencies in subject competence, or to faculty resistance to accepting their guidance. But they too saw themselves increasingly becoming the primary selection arm for the university.

In respect to trends in interdisciplinary approaches to teaching and research, some expressed the feeling that the library should be a more active proponent of this, by encouraging divisional plans for libraries.

Finally, one administrator forecast greater control by the university administration throughout the university system. He felt that the power had shifted from the faculty to the administration and would continue in this direction for some time to come. Thus, he felt that a policy of working with the administration would be a much more effective one than a primary orientation to the faculty.

Continued Print Orientation in Collection Development:

As reported earlier, administrators acknowledged the increasing indications of a trend toward information-retrieval systems but were reluctant, for the most part, to see those developments as having a profound effect on past and present orientations toward the book as the prime informational form. They saw information-retrieval systems as being supplementary, even if they were developed to the point of cost efficiency.

Present and Future Constraints

The plans that top administrators are formulating for the future do not seem unusual or surprising. Neither are the contraints they presently operate under, or feel they will have to operate under in the future, unfamiliar. One can perceive almost a litany being devised by top administrators, either to rationalize their present actions or to explain a lack of "innovative" planning. Lack of money, simply, is the explanation most of the administrators give for their present and predicted plight.

The litany runs as follows:

= I'd get into sophisticated reference service, information-retrieval, computers...

Cont.

- If I had the money.

= I'd hire more people to process more materials,

- If I had the money.

= I'd cooperate with other libraries more...

- If I had the money.

= I could prevent a decrease in cooperation, and a retrenchment...

- If I had the money.

= Money is becoming harder to get and it will probably be worse in the future, but...

- If I had the money...

Money, money, money!

And top administrators do not foresee increased funding for their operations. In fact, they see either stabilization of, or cuts in, their budgets. This affects the decisions they can, may, or must make regarding the future plans of the library:

"The library's future role is dependent on money."

"Automation won't cut costs, it will raise them."

"If the Library of Congress gets additional funding then I will need fewer professionals (for cataloging). If not, then more professionals will be needed."

"Funds will be shorter in the future."

"Private schools will need more funds."

"All programs will level off unless we can get state and/or Federal funds, and if we don't, it will force us into more cooperative ventures."

"I can't afford people to develop new programs."

"Financial pressures will force the library to emphasize services that have social relevance." (Ed.: The context suggests that this is viewed as a negative development.)

While a few of the comments indicated a belief that stable or decreasing funds would force administrators into new and different kinds of arrangements (networks; more or less professionals), the general tenor of the discussions indicated that a shortage of funds would necessitate a status quo approach to planning and development. Automation was not seen as a potential cure for financial difficulties; nearly all administrators saw its expansion as more costly, rather than cheaper than present methods.

Two other constraints were mentioned with some frequency in the interviews. First, that university administrators hold library administrators at their mercy. Second, that the faculty either demands new programs with no thought to where the money will come from or that it isn't concerned enough to fight for and with the library for increased funding. Not a few library administrators indicated that they were typically left out of the decision-making process within the university, and cited numerous examples of new programs being initiated without the knowledge of or sufficient forewarning to the library executive. While not a new problem for university library administrators (i.e., insufficient forewarning of new programs), the persistence of the problem suggests a continuing question of status in the university community for library administrators.

The faculty also continue to plan, or not plan, without regard to library problems. As is noted above, complaints were voiced about the lack of concern of faculty who had gained approval of new programs, for library resources to support those programs. And, especially in the smaller schools, the complaint was made that the faculty doesn't care about library resources, even in standard undergraduate terms.

To summarize the comments, there is expressed both a positive and a negative perspective on the future. The positive emphasizes what could happen if money were forthcoming; the negative says that it won't be forthcoming and the library administration must retrench.

Personnel Needs for the Seventies

Personnel needs for the future was the primary topic continually stressed in the interviews. The preceding discussions on goals and constraints have described the conditions under which the new personnel will have to operate.

In general, the interviews with top administrators indicate that four types of personnel would be needed in the seventies: subject specialists, systems people, administrators, and paraprofessionals. The interviews also revealed considerable disagreement as to the most desirable background for each of these types of personnel. For each type responses ranged from a high degree of librarianship orientation to low librarianship orientation; i.e., from the position that persons in each type of position should be strongly grounded in traditional

library practices as commonly taught in library schools, to the position that library education is not necessary -- "I'll train them myself."

Subject Specialists:

With only one or two exceptions, administrators expressed a greater need for subject specialists in the coming decade. Most often they specified a need for individuals with a minimum of two advanced degrees -- a subject Master's and an MLS. The two main uses for this expertise were given to be a) collection development, and b) research assistance. Most directors indicated these two distinct areas, either directly or indirectly, so this dichotomy will be used to discuss this type of personnel.

One of the main reasons for hiring additional specialists for this purpose was the reported relinquishing of selection and collection management responsibilities by faculty to librarians. Areas of competence stressed were languages and particular area studies, with capabilities to concentrate on retrospective buying rather than just current acquisitions. Two types of reservations were expressed by the administrators about potential qualifications of applicants for such positions. One administrator felt that it was difficult to get really good, qualified people because the most competent individuals would tend to remain within their discipline as a career, while those coming into the library profession would be more or less "dregs." The same type of problem was mentioned in reference to hiring a Ph.D. from a field with limited employment opportunities. Thus some administrators felt it necessary to require an MLS of such subject specialists, so as to insure the proper motivation and library orientation; others were willing to take their chances on motivation and strive for subject competence.

It was also felt by many administrators that a subject specialization was essential to "decent reference service." However respondents from some of the smaller schools felt that highly specialized personnel would not help them in achieving this goal -- they expressed a desire for more generalists. They were concerned that specialists might gravitate toward others in their specialty, dealing only perfunctorily with more general reference problems. One administrator noted that what a librarian most needs to deal with scientists is a large working vocabulary in the area, rather than special training in the area. Similarly another director gave as the major reason for requiring a second masters', "It helps a person to talk to the faculty."

Systems Specialists:

The most often repeated comment concerning the future need for systems specialists was that they must know something about libraries, this evidently a reaction to what one administrator called "the charlatans" in the field of computers and automation. It was apparent from the interviews that more than one administrator had had a negative experience with a system designer or purveyor of mechanized goods, and thus the insistance that librarians must become conversant with the ins and outs of the computer world. In general, the reluctant attitude toward automation and its implementation in the future can account for the lack of

emphasis by administrators on personnel requirements in this area. Need was expressed for a few relatively high-level automation experts with a strong library background, and a much larger group of clerical nonprofessional or paraprofessional personnel to staff the new systems.

Management Expertise:

Two types of administrative expertise were focussed on in the interviews. First, basic and advanced management training were specified as desirable for present staff members. Second, a need was expressed for specialists in the areas of purchasing and accounting, budget planning, and personnel systems; these specialists were expected to come from a source outside library schools.

The basic qualification mentioned by all administrators as necessary for administrative personnel was a sympathetic attitude toward libraries. Most felt that in addition to this, a strong library background was a prerequisite. It was generally felt that a nonlibrarian should not fill top administrative posts in libraries.

The training of middle managers in management techniques was an area frequently explored in the interviews. It was recognized that a great deal of the problem rested with top management. As one director put it, "The big problem is to get library managers to get middle managers to utilize techniques of management, and also to get top managers to invest in management development in their own library." Another administrator explained it in this way, "The top administrators don't know how to get people trained in administration because they don't have the training themselves." Prescriptions for management development ranged widely. The executive-development-seminar approach was seen as having some value, but a more frequent comment paraphrased the cliche, "Experience is the best teacher." Workshops on supervisory practices, budget planning, and so on were seen as the most feasible alternative.

One of the many complaints expressed by the administrators was that librarians emerge from degree programs with virtually no knowledge of or appreciation for management. Such library school training as there is was termed "largely irrelevant" by one administrator, while another said that library schools were not capable of developing management training programs, and that these should be handled by business schools and other institutions with expertise in this area.

Finally, the need for several different types of management training was pointed out by one administrator. He felt that some individuals are more administratively-oriented, and that these people would seek out the specialized training that is available, as in MPA and MBA programs. Those who are not inclined toward administration, but who hold administrative positions would benefit more from exposure to group leadership techniques, organizing concepts, and other basic skills.

Nonprofessionals:

Consistently, administrators projected that the nonprofessional ranks would increase in relation to the professionals. Changes in ratios from 2:1 to 4:1 or even 8:1 were predicted. And forseeing financial restraints, many saw professional lines being split to allow additional clerical lines.

These subprofessionals, paraprofessionals, nonprofessionals, or clerks would perform the basic line duties of the organization. They would be primarily in technical services, but some utilization in public service areas was also contemplated.

Given the increased utilization of LC copy and the availability of MARC tapes, few catalogers were expected to be needed, and of the original cataloging that would remain, language competence was felt to be the most critical factor, not library school training.

Another factor favoring the increased utilization of other-than-professional personnel was the recognition that a relatively cheap source of manpower exists on most university campuses in student and faculty wives. Often possessing college degrees and even advanced degrees, they can be tapped for many library jobs and not have to be considered for advancement to higher positions due to their relatively short tenure on the campus. In addition the mobility of this group from campus to campus frequently yields people with experience in library work and thus an experienced person can be hired at a low cost.

Many administrators complained of the difficulty of getting good people for the purely clerical grades. General university hiring policies were criticized, and there were admissions of high turnover rates (low salaries and the nature of the work were given as explanations).

Summary

Findings on personnel needs for the future are as follows:

1) Specialists in specific disciplines will be needed to cope with the bibliographic and research information needs of graduate students and faculty.

2) Persons trained in systems design and operations will be needed to plan and implement the projected automated systems (MARC tapes and their implications for library processing was the most common example given of this expected development).

3) Administrative expertise was recognized as being an increasingly necessary talent.

4) A new type of functionary will be utilized who will receive his/her library training either on the job or in specialized training sessions.

As one administrator pointed out, "No matter where people are brought into the organization, almost all of them need some sort of specialty." It became increasingly clear during the interviews with top administrators that the days of the "general librarian" are numbered, if not over. Specialists are in demand and will be brought from other fields if library educators cannot produce them. Administrators want people with an orientation toward libraries and feel that the library schools should be finding and providing these types of specialists, but are failing to do so.

Chapter Four

FACULTY USERS

As one part of a methodological study concerning research library manpower, a segment of the total picture should be information concerning the attitudes of faculty users. Specifically, the research team wanted to determine if there were differences among faculty members in terms of information access and use and whether these differences are correlated with specific professional backgrounds, universities, or academic ranks. This chapter discusses that investigation as carried out in the eight universities selected for the study.

A questionnaire for faculty members was constructed, pretested, revised, and mailed to a systematic sample of academics in the eight universities. The questionnaire dealt with several aspects of faculty characteristics and attitudes, including professional background, library use, awareness of information sources in professional specialty, perceptions of future trends in information dissemination, suggestions for improvement of library services, and perceptions of the quality and importance of a variety of library services.

Determinants of Library Use

The questionnaire mailed to faculty members contained six major categories of questions as mentioned above. The rationale for the selection of these areas is given in Chapter Two, and what is presented here is a description of some findings that stem from the investigation. This section deals with professional background, library use, information awareness, future trends in information dissemination, and improvements for library services. Each of the categories will be discussed (a) in terms of the total population of respondents, (b) by university, (c) by subject field, and (d) by academic rank. The discussion is less analytical than it is descriptive.

Professional Background. Tables 4-1, 4-2, and 4-3 show the sample distribution on each of the key background variables, i.e. university affiliation, subject field, and academic rank. Tables 4-2a and 4-3a show the distribution of the latter two variables, subject field and academic rank, within each university.

Table 4-1

Distribution of Faculty Respondents by University

(Base)	(654)
University A	15%
University B	14
University C	14
University D	13
University E	13
University F	12
University G	11
University H	8
	100%

Table 4-2

Subject Field of Faculty Respondents

(Base)	(652)
Natural Sciences	16%
Physical Sciences	20
Humanities	29
Professional Humanities (e.g. library science)	17
Law	2
Medicine	15
Area Studies	1
	100%

Table 4-3

Academic Rank of Faculty Respondents

(Base)	(654)
Full Professor	35%
Associate Professor	25
Assistant Professor	31
Instructor	6
Lecturer	2
Other Faculty	1
No Response	*
	100%

* Less than 0.5 percent.

Table 4-2a

Subject Field of Faculty Respondents, by University

	A	B	C	D	E	F	G	H
(Bases)	(98)	(92)	(91)	(84)	(82)	(78)	(75)	(54)
Natural Sciences	22%	24%	36%	11%	7%	4%	12%	4%
Physical Sciences	14	27	22	21	26	18	12	22
Humanities	23	25	22	25	37	31	33	46
Professional Humanities	14	20	18	16	27	17	7	18
Law	3	1	1	1	0	1	1	4
Medicine	22	0	1	26	1	29	35	2
Area Studies	1	2	0	0	1	0	0	0
Miscellaneous	1	1	0	0	1	0	0	4
	100%	100%	100%	100%	100%	100%	100%	100%

Table 4-3a

Academic Rank of Faculty Respondents, by University

	A	B	C	D	E	F	G	H
(Bases)	(98)	(92)	(91)	(84)	(82)	(78)	(75)	(54)
Full Professor	31%	34%	44%	39%	33%	33%	42%	24%
Associate Professor	23	28	18	29	25	23	28	22
Assistant Professor	41	30	32	20	33	30	29	31
Instructor	3	7	4	2	7	9	1	15
Lecturer	0	0	2	5	1	5	0	2
Other Faculty	0	1	0	5	0	0	0	6
No response	2	0	0	0	1	0	0	0
	100%	100%	100%	100%	100%	100%	100%	100%

Additional information on professional background is provided in Tables 4-4 and 4-5. Table 4-4 shows the highest earned degree held by a respondent and clearly shows the preponderance of doctorates among faculties. Table 4-5 shows the years of service a respondent has given to the university of which he is a faculty member. Tables 4-4a and 4-5a (as in Tables 4-2a and 4-3a above) show distributions within each university in the sample.

Table 4-4

Highest Degree Earned by Faculty Respondent

(Base)	(654)
Ph.D.	65%
Doctor of Education	3
Other professional doctorate	12
Master of Science	5
Master of Arts	6
Other Master's	4
B.A. or equivalent	3
Foreign degree	1
No response	1
	100%

Table 4-4a

Highest Degree Earned by Faculty Respondent, by University

	A	B	C	D	E	F	G	H
(Bases)	(98)	(92)	(91)	(84)	(82)	(78)	(75)	(54)
Ph.D.	59%	72%	80%	61%	66%	49%	64%	68%
D.Ed.	6	4	0	1	5	3	0	4
Other doctorate	16	0	6	21	10	14	24	4
M.S.	4	9	5	2	6	11	3	4
M.A.	6	7	1	5	7	13	1	9
Other master's	6	3	3	4	4	5	1	6
B.A./B.S.	2	3	2	5	1	3	3	5
Foreign degree	0	0	1	1	1	0	3	0
No response	1	2	2	0	0	2	1	0
	100%	100%	100%	100%	100%	100%	100%	100%

Table 4-5

Respondent's Years of Service to the University

(Base)	(654)
One year or less	11%
2 to 5 years	41
6 to 10 years	17
11 to 15 years	12
16 to 20 years	6
21 to 25 years	7
26 years or more	5
No response	1
	100%

Table 4-5a

Respondent's Years of Service to the University, by University

	A	B	C	D	E	F	G	H
(Bases)	(98)	(92)	(91)	(84)	(82)	(78)	(75)	(54)
One year or less	6%	11%	9%	8%	16%	19%	2%	24%
2 to 5 years	56	35	39	27	42	33	40	54
6 to 10 years	16	16	14	29	13	22	19	9
11 to 15 years	10	11	18	17	12	12	9	4
16 to 20 years	2	8	6	5	6	6	11	4
21 to 25 years	7	10	8	8	10	5	3	5
26 years or more	3	6	5	6	1	0	15	0
No response	1	3	0	0	0	3	1	0
	100%	100%	100%	100%	100%	100%	100%	100%

Library Use. Nearly 80 percent of all the respondents indicated they viewed their university library as the principal source of information necessary to support their research or teaching needs. Table 4-6 shows the responses to this question for each university.

Table 4-6

Use of University Library as Principal Information Source, by University
"Is the main university library or one of its branches the principal source of information necessary to support your teaching and/or research?"

	A	B	C	D	E	F	G	H
(Bases)	(98)	(92)	(91)	(84)	(82)	(78)	(75)	(54)
Yes	89%	78%	77%	73%	81%	81%	80%	73%
No	11	21	23	27	17	19	20	27
No response	0	1	0	0	2	0	0	0
	100%	100%	100%	100%	100%	100%	100%	100%

When the responses are examined by subject fields, there are no significant differences among those sampled. Those in the professional humanities indicated the least reliance (41 percent) upon the library as their principal source of information, while natural scientists indicated the highest reliance (85 percent). Examination by academic rank indicated that those of lower rank were slightly more inclined to view the library as their main source of information than were respondents in the senior ranks.

Most respondents further indicated that they were more inclined to use a branch of the university library than the larger main library collection. The responses for the total sample were as follows:

Table 4-7

Faculty Users' Choice of Library Facility
"Do you normally use the main library or a branch?"

(Base)	(654)
The main university library	26%
A branch of the university library	41
A branch and the main library	9
Neither	20
No response	4
	100%

Distributions of responses to this question for each university are given in Table 4-7a.

Table 4-7a

Faculty Users' Choice of Library Facility, by University

	A	B	C	D	E	F	G	H
(Bases)	(98)	(92)	(91)	(84)	(82)	(78)	(75)	(54)
Main library	22%	21%	25%	14%	29%	27%	32%	50%
Branch	53	43	44	44	37	41	40	13
Both	7	13	3	9	10	10	4	13
Neither	12	21	23	28	16	19	19	22
No response	6	2	5	5	7	3	5	2
	100%	100%	100%	100%	100%	100%	100%	100%

Respondents were asked to indicate where the materials they used were located if they did not use the university library system. While the total number of responses (nonusers) was small (72) and quite varied, the most frequently mentioned source was the category "personal, office, or laboratory collections." The pattern was similar among users, who were next asked what other sources they used to supply information to support their teaching and research activities (in addition to the university library system). By far the two most frequently mentioned categories of sources were "personal...collections" and "abstracts and bibliographies." These other sources, and the frequencies with which they were mentioned, are shown in Table 4-8. There were no significant variations in this pattern when the responses were examined by university, subject field, and academic rank.

Table 4-8

Other Information Sources Used by Faculty

"What other information sources, other than your personal library or self-generated data, do you use to supply information necessary to your teaching and/or research (e.g., special libraries, abstracting services, bibliographies, indices, etc.?) Please provide specific references."

(Base)	(654)
Abstracts, bibliographies, ERIC, etc.	32%
Personal, office, or lab collection	31
Other university library units	10
Other university libraries, nonlocal	10
Special libraries or agencies	9
Conferences, meetings, papers, etc.	5
Other university libraries, local	4
International sources; miscellaneous	3
Other local sources (e.g. public libraries)	2

Respondents were asked to indicate what they considered a reasonable period of time in which material desired but not available in the university collection could be borrowed from another source. Table 4-9 shows the responses to this question.

Table 4-9

Reasonable Length of Time in Which to Borrow Unavailable Material from Another Source

"If material you desire is not currently available in the university collection, indicate what you would consider a reasonable period of time in which the material could be borrowed from another source and made available to you:"

(Base)	(654)
Less than 24 hours	3%
24 to 48 hours	11
2 to 4 days	31
5 to 7 days	29
8 to 14 days	17
Over 14 days	4
No response	5
	100%

Again there was little variation in this pattern of responses when they were examined by university, academic rank, and subject area.

When asked to rate the university library or a branch containing materials relevant to their individual interests in terms of accessibility

(here meaning the physical distance of the collection from the faculty member), most respondents considered the library "very accessible."

Table 4-10

Accessibility of the Library Facilities

"In terms of physical location (distance), is the university library or a branch containing materials relevant to your teaching and/or research..."

(Base)	(654)
Very accessible	69%
Accessible	20
Moderately accessible	7
Moderately inaccessible	3
Nearly inaccessible	1
	100%

While there were some differences, Table 4-10a shows that the general trend of perceived accessibility shown above prevailed in most universities examined.

Table 4-10a

Accessibility of Library Facilities, by University

	A	B	C	D	E	F	G	H
(Bases)	(98)	(92)	(91)	(84)	(82)	(78)	(75)	(54)
Very accessible	65%	69%	78%	78%	65%	61%	72%	65%
Accessible	23	25	15	14	11	31	18	29
Moderately accessible	9	3	3	6	13	8	5	6
Moderately inaccessible	2	3	3	2	10	0	4	0
Nearly inaccessible	0	0	1	0	1	0	1	0
No response	1	0	0	0	0	0	0	0
	100%	100%	100%	100%	100%	100%	100%	100%

Analysis by subject area revealed that physical scientists tended to view the library as slightly less accessible than faculty in other areas, and that among the academic ranks, assistant professors viewed the library as less accessible, while the other ranks fitted the general pattern.

Awareness of Sources in Specialty. A series of questions were asked the faculty members concerning their methods and perceived ability in maintaining current awareness of new information in their particular field or area of specialty. Table 4-11 shows the methods most frequently mentioned by the entire sample, and Table 4-11a shows responses by subject area.

Table 4-11

Means of Maintaining Current Awareness

"What methods do you use to maintain current awareness in your field or specialty (e.g., periodic browsing, abstracts, index services, bibliographies, etc.)?"

(Base)	(654)
Periodic browsing	62%
Abstracts, preprints	44
Reading journals, book catalogs	42
Bibliographies	34
Index services	28
Personal contacts	18

Table 4-11a

Means of Maintaining Awareness, by Subject Field

(Bases)	Natural Sciences (105)	Physical Sciences (133)	Humanities (190)	Professional Humanities (111)	Law (10)	Medicine (96)
Periodic browsing	70%	69%	61%	55%	50%	58%
Abstracts, preprints	52	41	34	50	40	53
Journals, catalogs	31	42	49	51	50	30
Index services	28	16	25	26	80	46
Bibliographies	28	12	56	39	30	20
Personal contacts	12	17	20	25	10	15

Divisions by academic rank indicated that lower ranking faculty members tend to rely more upon bibliographies and journal reading, while higher ranks are slightly more inclined to use indices and showed more reliance on personal communications and contacts to keep abreast of new developments in their field. When the respondents are examined by university, no significant differences appear from the overall pattern.

A slight majority (52 percent) of all faculty respondents reported that they were presently able to maintain the desired level of current awareness. When responses are examined by subject area differences are observed in the proportions of positive responses within various fields. When the responses are analyzed by university, the differences are not as marked.

Table 4-12a

Maintain Desired Level of Awareness, by Subject Field

"Do you think you are presently able to maintain the level of awareness of new information in your specialty that you desire?"

	Natural Sciences	Physical Sciences	Human- ities	Professional Humanities	Law	Medicine
(Bases)	(105)	(133)	(190)	(111)	(10)	(96)
Yes	40%	58%	59%	40%	70%	52%
No	60	41	40	58	30	48
No response	0	1	1	2	0	0
	100%	100%	100%	100%	100%	100%

Table 4-12b

Maintain Desired Level of Awareness, by University

	A	B	C	D	E	F	G	H
(Bases)	(98)	(92)	(91)	(84)	(82)	(78)	(75)	(54)
Yes	43%	53%	59%	55%	57%	42%	56%	48%
No	57	45	41	44	43	55	44	52
No response	0	2	0	1	0	3	0	0
	100%	100%	100%	100%	100%	100%	100%	100%

It is interesting to compare the proportion of respondents who indicated their university library was the principal source of information (80 percent) with the proportion that expect their university library to assist them in maintaining current awareness (59 percent). Analysis by each of the three primary variables -- university, subject field, and academic rank -- show differences can be attributed to all three.

Table 4-13a

Expect Library Assistance, by University

"Would you expect the library to assist you in maintaining current awareness?"

	A	B	C	D	E	F	G	H
(Bases)	(98)	(92)	(91)	(84)	(82)	(78)	(75)	(54)
Yes	68%	52%	62%	54%	62%	65%	51%	57%
No	30	43	35	44	36	32	48	41
No response	2	5	3	2	2	3	1	2
	100%	100%	100%	100%	100%	100%	100%	100%

Table 4-13b

Expect Library Assistance, by Subject Field

	Natural Sciences	Physical Sciences	Human- ities	Professional Humanities	Law	Medicine
(Bases)	(105)	(133)	(190)	(111)	(10)	(96)
Yes	53%	49%	63%	71%	100%	54%
No	46	47	34	25	0	44
No response	1	4	3	4	0	2
	100%	100%	100%	100%	100%	100%

Table 4-13c

Expect Library Assistance, by Academic Rank

	Full Professor	Associate Professor	Assistant Professor	Instructor
(Bases)	(230)	(160)	(203)	(37)
Yes	53%	56%	65%	76%
No	44	41	34	19
No response	3	3	1	5
	100%	100%	100%	100%

The respondents were then requested to indicate what services the library might provide that would be useful to the individual in maintaining current awareness. First-mentioned items are shown with their frequencies of mention in Table 4-14.

Table 4-14

Services Potentially Useful in Maintaining Awareness

"What services might the library provide which would be useful in maintaining awareness (e.g., circulating copies of journals, tables of content pages, publishers catalogues, etc.)?" (First item mentioned only.)

(Base)	(654)
Circulating table of content pages	20%
Circulating copies of journals	14
Making available publishers' catalogs, acquisition lists	11
Convenience features (e.g. parking)	8
Book reviews, abstracts, bibliographies	5
Computer hardware; software	1
Previews or displays	1

Tables 4-14a, 4-14b, and 4-14c show the responses by the three groupings:

Table 4-14a

Library Services to Maintain Awareness, by University

	A	B	C	D	E	F	G	H
(Bases)	(98)	(92)	(91)	(84)	(82)	(78)	(75)	(54)
Tables of contents	20%	11%	29%	27%	16%	17%	17%	28%
Circulating journals	17	16	4	10	24	10	13	13
Publishers' catalogs	10	13	8	10	9	14	16	9
Book reviews, abstracts	9	4	2	6	2	8	9	4
Convenience features	8	9	6	4	13	8	9	13
Computer hard-ware, software	2	1	0	2	1	3	0	0
Previews, displays	2	2	1	0	1	1	1	2

Table 4-14b

Library Services to Maintain Awareness, by Subject Field

	Natural Sciences	Physical Sciences	Human-ities	Professional Humanities	Law	Medicine
(Bases)	(105)	(133)	(190)	(111)	(10)	(96)
Tables of contents	27%	25%	16%	23%	10%	12%
Circulating journals	13	10	15	17	20	13
Convenience features	11	9	6	11	0	7
Publishers catalogs	6	4	19	14	10	8
Book reviews, abstracts	4	5	5	5	0	12
Computer hard-ware, software	2	2	0	1	0	3
Previews, displays	1	3	2	0	0	0

Table 4-14c

Library Services to Maintain Awareness, by Academic Rank

(Bases)	Full Professor (230)	Associate Professor (160)	Assistant Professor (203)	Instructor (37)
Tables of contents	20%	19%	21%	32%
Circulating journals	13	9	18	14
Publishers' catalogs	11	8	10	27
Convenience features	5	11	10	5
Book reviews, abstracts	5	4	6	3
Computer hardware, software	1	3	1	0
Previews, displays	1	2	2	0

As stated previously, the tables show only the first-mentioned item. The responses were coded to show as many as four items; however, by the third-mentioned item, the frequency of response was quite small. By including second- and third-mentioned items, the percentages for mentions of "tables of contents" and "publishers' catalogs" increased by 7 and 10 percent respectively, and the proportions mentioning "book reviews, abstracts" and "convenience features" rose by one-third. It must be noted that the first three items on the list (those mentioned most frequently) were the illustrative examples used in the question itself, and thus may be somewhat over-represented in frequencies of faculty mentioning them as desirable services in helping to maintain an awareness of developments in their fields.

Perceptions of Future Trends. One of the objectives of this study was to determine what new developments in the research process might occur in the coming decade that would have a bearing on research libraries. The respondents were first asked whether they foresaw any new forms of information collection and/or distribution in their subject field or area of research interest, and secondly they were asked to describe such developments. Of those responding, 56 percent predicted new forms, while 36 percent did not foresee any new developments. When the data were examined separately for each university, sizable variation was evident. Less than half the faculty of University C foresaw new developments in information dissemination in their fields, while nearly two-thirds of the faculty respondents at Universities D and F predicted such developments. By subject area, faculty members in law and the humanities were least likely to predict new developments, but the differences were not dramatic. Higher ranking faculty members were more apt to predict changes in information dissemination than were their lower ranking colleagues, but here the differences were even smaller.

Table 4-15a

Foresee New Forms of Information Dissemination, by University

"Thinking ahead to the early 1980's, do you foresee any significantly new forms of information collection and/or distribution in your subject field or area of research interest?"

	A	B	C	D	E	F	G	H
(Bases)	(98)	(92)	(91)	(84)	(82)	(78)	(75)	(54)
Yes	50%	52%	47%	66%	52%	65%	57%	61%
No	41	40	45	32	38	23	37	30
No response	9	8	8	2	10	12	6	9
	100%	100%	100%	100%	100%	100%	100%	100%

Table 4-15b

Foresee New Forms of Information Dissemination, by Subject Field

	Natural Sciences	Physical Sciences	Humanities	Professional Humanities	Law	Medicine
(Bases)	(105)	(133)	(190)	(111)	(10)	(96)
Yes	57%	57%	49%	60%	50%	62%
No	37	35	42	32	40	32
No response	6	8	9	8	10	6
	100%	100%	100%	100%	100%	100%

Table 4-15c

Foresee New Forms of Information Dissemination, by Academic Rank

	Full Professor	Associate Professor	Assistant Professor	Instructor
(Bases)	(230)	(160)	(203)	(37)
Yes	58%	58%	53%	49%
No	36	36	37	38
No responses	6	6	10	13
	100%	100%	100%	100%

The responses to the second part of the question, describing types of new developments, were varied. It was clear, however, that the area in which the greatest innovation was expected was some type of computer-based information-retrieval system of either a local or national base.

Thirty-four percent of the faculty responding specified such systems. Related, but not specifically computer-based, were abstracting and indexing services (by 8 percent), and new media developments, including various microforms (by 6 percent). There were no sharp differences among respondents by subject field or academic rank, but faculty at Universities D and H mentioned computerized information-retrieval systems twice as often as did faculty at University A, and much more frequently than those at Universities B, C, or E (37 percent at D and H, compared with 16 percent at A, and 24, 21, and 23 percent respectively at the latter universities).

Table 4-16a

Description of New Developments, by University

"If yes (see question in Table 4-15a), please briefly describe these developments?"

	A	B	C	D	E	F	G	H
(Bases)	(98)	(92)	(91)	(84)	(82)	(78)	(75)	(54)
Computerized information-retrieval systems	16%	24%	21%	37%	23%	33%	31%	37%
Specific CIR system	11	3	7	4	5	5	11	7
New media, microforms	11	13	7	6	9	15	8	9
Audio systems	11	7	6	11	7	7	0	6
Abstracting, indexing services	6	9	7	12	7	6	5	7
Data banks	5	1	1	4	6	6	1	2
Electronic display devices	3	2	2	2	5	4	3	4
Preprints	0	0	2	1	0	1	1	0

Improvements in Library Service. The last open-ended question on the faculty questionnaire asked what new policies or programs the respondent would like to see adopted by the library in terms of his own personal requirements or the university's academic programs. Responses were few in number and quite varied. The comments mainly concerned what are here termed "convenience features" such as loan policies, hours of operation, copying services, alerting services, etc. Few faculty mentioned increasing finances or staff in the library. When the replies were examined by the three variables used throughout, there were considerable differences.

Table 4-17a

Policy Changes Recommended, by University

"What programs or policies would you like to see the library and university administrations adopt with respect to strengthening the library's services, collections and/or personnel either in terms of your own personal requirements or the university's academic programs?"

	A	B	C	D	E	F	G	H
(Bases)	(98)	(90)	(91)	(84)	(82)	(78)	(75)	(54)
Convenience features	44%	40%	32%	37%	46%	55%	33%	56%
Links with national systems	10	4	1	5	5	0	4	2
Alerting services	9	2	4	4	9	12	7	7
Increased finances	7	1	2	8	16	4	4	7
Decentralization	5	4	1	5	4	5	0	11
Increased staff	4	1	3	4	6	8	11	6
Miscellaneous other	2	6	0	0	2	0	1	2
"I'm satisfied now"	10	20	23	19	5	8	13	4

University F and University H faculty were most likely to mention convenience features, while C and G faculty put the least emphasis on these. Increased financing was a need felt at University E and evidently not felt at B and C, for serving the needs of the university communities. In general, the faculties of Universities B, C, and D (the three largest library collections) were more likely to feel satisfied with their university library systems than those of other schools sampled; University H (the smallest collection) and E faculties were least likely to express satisfaction. Increased staff was most often mentioned as a necessity at Universities F and G; links with national systems were desired at University A. Decentralization was frequently mentioned for the University H library.

By subject field, faculty members in the humanities were most likely to suggest a need for increased financing and to mention convenience features; they were least likely to express satisfaction with the facilities of their library system. Physical science and law faculty were most likely to be satisfied. Alerting services were suggested most often by faculty members in the natural sciences.

Table 4-17b

Policy Changes Recommended, by Subject Field

(Bases)	Natural Sciences (105)	Physical Sciences (133)	Human-ities (190)	Professional Humanities (111)	Law (10)	Medicine (96)
Convenience features	39%	29%	51%	45%	30%	44%
Alerting services	10	5	6	7	0	5
Increased staff	6	3	6	5	0	3
Links with national system	4	5	4	6	0	1
Increased finances	2	4	11	5	20	4
Decentrali-zation	2	3	6	7	10	1
Miscellaneous other	3	2	1	2	0	2
"I'm satisfied now"	15	20	8	14	30	13

Table 4-17c

Policy Changes Recommended, by Academic Rank

(Bases)	Full Professor (230)	Associate Professor (160)	Assistant Professor (203)	Instructor (37)
Convenience features	44%	42%	46%	62%
Increased finances	8	5	5	0
Increased staff	7	6	2	3
Alerting services	6	8	7	5
Links with national system	6	2	4	5
Decentralization	4	7	2	5
Miscellaneous other	2	0	4	0
"I'm satisfied now"	17	13	10	11

By academic rank, the major differences seem to be that the higher ranking faculty are more apt to suggest increased staff and financing, indicating a greater sympathy toward the library's limitations. They were also more likely to express satisfaction with existing policies of the library.

Quality and Importance of Library Services and Resources

The final step in obtaining the perceptions and opinions of academic faculty of their library facilities consisted of obtaining evaluations on thirteen aspects of the services and resources of their university library system. Each aspect was evaluated on two dimensions: first, on its quality, as perceived by the faculty member; and second, on the importance of that aspect to the faculty member in his teaching and research. The respondent rated each aspect for quality and importance by using a five-point scale ranging from "1-Very high" to "5-Very low". Overall, the ratings were high for both quality and importance, for all aspects. Therefore the analysis that follows attempts to show trends and to point out differences between the highest rankings and those slightly below.

The thirteen aspects that were evaluated were:

- book collection
- periodical collection
- reference materials
- other resources (pamphlets, maps, microforms, etc.)
- technical services of the library
- reference services of the library
- lending services of the library
- adequacy of professional library staff
- adequacy of professional services to users
- acquisition of materials in (respondent's) specialty
- physical facilities of the library
- provision of branch libraries with subject or area specialties
- overall rating of the library

Book Collection. As the following table indicates, both the quality and importance of the book collection were rated high, overall, with more than 70 percent rating their library high or very high on each. Importance was rated higher than quality, perhaps indicating some slight dissatisfaction with the book resources.

There were no differences on ratings of quality by subject field but on importance, those in the humanities had the highest proportion of "very high" ratings. The highest ratings on quality by university were given at B and C (those with the largest collections), while the University H faculty rated its book collection (the smallest) the lowest on quality. Universities A and E were also rated relatively low on quality of book collection (they had the next smallest collections). In terms of importance, the lowest ratings were given at Universities A and F.

Table 4-18

Ratings on Quality and Importance of Book Collection

"Please evaluate the following services, resources, and facilities of the university library system. Circle the overall quality of the items listed in terms of (A) your research and teaching requirements on the chart to the left and (B) the relative importance of each item to those requirements on the chart to the right. The score is: 1-very high; 2-high; 3-medium or acceptable; 4-low; and 5-very low." (Base=654)

Quality		Importance	
1 Very high	32%	1 Very high	47%
2 High	38	2 High	28
3 Medium	19	3 Medium	16
4 Low	5	4 Low	5
5 Very low	1	5 Very low	2
No response	5	No response	2
	100%		100%

There was a correlation between academic rank and the ratings given the quality of the book collection, with full professors giving the highest ratings, followed by associates, and instructors giving the lowest. However the lower ranks equalled or surpassed the upper ranks on giving high ratings on the importance of the book collection. (See Appendix Tables 1 through 13 for detailed breakdowns on each evaluation of an aspect of the library system.)

We may conclude that universities with larger collections will receive higher ratings than those with smaller collections. Also, respondents seem to rate importance lower than quality at larger universities, while the reverse is true at smaller universities. Finally, the higher academic ranks are likely to give the highest ratings to their library's collection in terms of its quality, and the lower ranks give the highest ratings in terms of the importance of the collection to them.

Periodical Collection. There was a rather sizable difference between the ratings on the quality and those on the importance, overall, of the periodical collections. Over 25 percent more respondents rated the importance of the periodical collection "Very high" than rated the quality of such collections highest.

The highest quality ratings were given by natural science faculty and the lowest by those in the humanities. Natural scientists also rated the importance of the periodical collection high. The lowest ratings on importance came from the physical scientists -- a surprising finding, in view of the facts concerning efforts to provide periodical materials in this area.

Table 4-19

Ratings on the Quality and Importance of Periodical Collection
(Base=654)

Quality		Importance	
1 Very high	41%	1 Very high	67%
2	36	2	21
3	15	3	5
4	4	4	3
5 Very low	1	5 Very low	1
No response	4	No response	3
	100%		100%

Once again, the larger the university library system, the larger the proportion of higher ratings by faculty members and vice versa. In this aspect, however, periodical collection, large universities also received high ratings on the importance of the collection. On quality, there were no differences in the ratings by academic rank, but on importance, instructors gave periodical collection the highest ratings. In general, importance of the periodical collection received higher ratings than did quality. This pattern held when the responses were examined by university, by subject field, and by academic rank.

Reference Materials. This aspect of the libraries' resources was rated similarly by the faculties in terms of quality and importance. Compared with ratings on book and periodical collections, the ratings were low, with barely a third giving a "Very high" rating.

Table 4-20

Ratings on the Quality and Importance of Reference Materials
(Base=654)

Quality		Importance	
1 Very high	33%	1 Very high	30%
2	34	2	25
3	18	3	24
4	5	4	11
5 Very low	1	5 Very low	5
No response	10	No response	6
	100%		100%

Physical scientists rated reference materials lowest on both quality and importance, while the other subject areas did not differ from one another on their rating of this aspect. Again, size was apparently a a determining factor when the quality ratings were examined by university. Those in the larger institutions rated the quality of reference materials higher than did those in smaller institutions. There was a slight tendency among the faculties of larger universities to rate importance of reference materials lower than they did quality.

High ratings tended to be correlated somewhat with academic rank; full professors rated the quality of the reference materials high and instructors rated it low. The reverse was the case with the importance of this collection.

A tentative conclusion might be that reference materials are not viewed in very positive terms among faculty members. They see the quality of such collections as relatively low (compared to other resources) but do not rate the collections as very important to their teaching or research needs, either.

Other Resources. This category, which included maps, pamphlets, microforms, records, and films, received the lowest ratings of any aspect of the library system in terms of both quality and importance. Overall, the quality of these resources was rated higher than its importance, with 38 percent of the respondents rating its importance "Very low" or "Low".

Table 4-21

Ratings on the Quality and Importance of Other Resources
(Base=654)

Quality		Importance	
1 Very high	15%	1 Very high	10%
2	22	2	15
3	29	3	26
4	12	4	20
5 Very low	4	5 Very low	18
No response	19	No response	11
	100%		100%

There was little difference on quality ratings by subject field, but importance was rated highest for other resources by those in the professional humanities (which included education and librarianship). The highest ratings on quality were again given at the larger schools, the lowest at the smaller schools. The direction was reversed for ratings on importance. Academic rank made very little difference in the ratings on other resources.

Technical Services. The acquisitions, processing, and control functions of the library systems were generally equally rated on quality and importance.

Table 4-22

Ratings on Quality and Importance of Technical Services
(Base=654)

Quality		Importance	
1 Very high	31%	1 Very high	38%
2	31	2	33
3	22	3	18
4	7	4	3
5 Very low	2	5 Very low	2
No response	7	No response	6
	100%		100%

On quality, natural science faculty rated technical services highest and humanities faculty rated it lowest. However the humanities faculty gave it the highest ratings on its importance to their research and teaching requirements, while physical science and medical faculty rated importance lowest.

Ratings on quality and size were again found to be directly related. Also, again high quality ratings were associated with large collections, and low importance ratings, while low quality and high importance ratings were given by faculties from small universities. High rank and high ratings on quality were also directly related, although there were no differences in importance ratings by rank.

Reference Services. Turning now to some of the interpersonal services, in relation to reference services, quality and importance are rated almost identically.

Table 4-23

Ratings on the Quality and Importance of Reference Services
(Base=654)

Quality		Importance	
1 Very high	28%	1 Very high	28%
2	31	2	30
3	25	3	21
4	4	4	9
5 Very low	2	5 Very low	3
No response	10	No response	8
	100%		100%

The lowest ratings on quality were given by faculty in the physical sciences and medicine. Only those in the professional humanities rated importance significantly higher than quality. Overall, there were few differences by subject field.

The pattern of large resources leading to lower importance ratings was again repeated, although the differences were not as great as those among the quality ratings, where the pattern was reversed.

There was a slight correlation between rank and ratings on quality and importance.

Lending Services. Overall, quality and importance were rated about equally for lending services. The highest importance was attached to this function by the humanities faculties -- perhaps because of their use of this service via their students. Universities B and C again gave the highest ratings on quality, but the importance ratings were about 10 percent lower for lending services. Faculty at G gave the lowest importance rating.

Table 4-24

Ratings on the Quality and Importance of Lending Services
(Base=654)

Quality		Importance	
1 Very high	36%	1 Very high	34%
2	32	2	30
3	17	3	18
4	5	4	7
5 Very low	2	5 Very low	3
No response	9	No response	8
	100%		100%

Instructors rated lending services the highest both on quality and importance, and there appeared to be a slight inverse correlation between rank and importance.

Adequacy of Professional Library Staff. Evaluations of the adequacy of the professional personnel who worked in the library systems showed littied difference in terms of quality versus importance. There were major differences, however, by university and by rank. There was almost no difference by subject field.

Table 4-25

Ratings of the Adequacy of Professional Library Staff
(Base=654)

Quality		Importance	
1 Very high	28%	1 Very high	29%
2	35	2	36
3	21	3	20
4	5	4	5
5 Very low	2	5 Very low	3
No response	9	No response	8
	100%		100%

Humanities and medical faculties gave fewer high ratings to this aspect of the library system than did the other faculty respondents, in terms of quality. On the importance dimension, the professional humanities faculties gave the highest ratings.

Professional staff were rated highest at Universities B and C, while they received very low ratings at University H. This was on the quality index. An inverse relationship existed between quality and importance, within universities by size, the pattern previously mentioned.

There was a decidedly direct relationship between high quality rankings and rank; professors rated staff high and instructors rated them low on quality. There were no real differences in the importance ratings by rank.

Adequacy of Professional Services to Users. There was no difference, overall, in the ratings on the quality and importance of professional services to users.

Table 4-26

Ratings on the Adequacy of Professional Services to Users
(Base=654)

Quality		Importance	
1 Very high	24%	1 Very high	26%
2	31	2	32
3	24	3	23
4	6	4	6
5 Very low	2	5	3
No response	12	No response	11
	100%		100%

Within subject fields, the highest proportion of very high ratings on quality were among natural science faculties, while the highest importance ratings were among humanities faculties.

Quality ratings showed considerable variation from university to university. The highest ratings were at Universities B and C and the lowest ratings at the smaller schools. There was very little difference on the importance scale ratings, a pattern also previously observed.

Little difference was seen when the ratings were examined by rank, either for quality or importance.

Acquisition of Materials in (Respondent's) Specialty. The greatest difference between quality and importance ratings was found on this item. Twenty-nine percent rated the quality of acquisitions "Very high" while 66 percent gave it a "Very high" in terms of importance. There were no observable differences by subject field on quality, but the lowest ratings on importance were given in the physical sciences and medicine.

The larger library systems were rated highest on quality, but were rated similarly to the smaller systems on importance. However, in general, the number of "Very high" responses increased from quality to importance. This seems to indicate that even in the larger, wealthier libraries, faculty members want more materials in their specialties.

There were few differences by rank, but the disparity noted above was greatest among instructors, 22 percent of whom gave a "Very high" rating for quality, while 76 percent gave a "Very high" rating for importance.

Table 4-29

Ratings on the Provision of Branch Libraries
(Base=654)

Quality		Importance	
1 Very high	30%	1 Very high	37%
2	23	2	21
3	17	3	14
4	8	4	7
5 Very low	10	5 Very low	10
No response	12	No response	11
	100%		100%

Overall Ranking of Quality and Importance of the Library System. Importance of the library system was, as expected, rated higher than the quality of the specific systems. Those in the natural and physical sciences were the most positive toward the quality of the present system, but the differences by subject field were not great.

Table 4-30

Ratings on the Overall Quality and Importance of the Library
(Base=654)

Quality		Importance	
1 Very high	31%	1 Very high	50%
2	39	2	32
3	20	3	8
4	3	4	2
5 Very low	1	5 Very low	1
No response	6	No response	7
	100%		100%

By university, the highest ratings on quality were at Universities B and C. Library H was rated lowest on overall quality, with Libraries A and E also relatively low. On the importance ratings, faculties at Universities B and C also gave the highest ratings. There was little difference by academic rank, although instructors gave the highest ratings of all for overall importance.

(For detailed tables on the above ratings, by university, by subject field, and by academic rank, see Appendix Tables 1 through 13.)

Chapter Five

PROFESSIONAL LIBRARY STAFF

The study team was interested in determining staff perceptions in three areas relative to their functioning in academic research libraries: perceptions of the nature and extent of working relationships on the job; attitudes toward authority and responsibility in the organization; and perceptions of what changes, if any, might take place in academic librarianship in the coming decades. A questionnaire was designed and pretested on the staff members of the Rutgers University Library. A great deal of descriptive information about the staff member was collected with this instrument, in addition to attitudinal data in the areas described above. This chapter is a presentation of information collected by the questionnaire. The first part of the chapter will be concerned with describing the respondents, and this will be followed by a discussion of each of the three above-mentioned areas in terms of the independent variables of sex, age, university, and managerial responsibility.

Characteristics of Professional Library Staff

Overall, 66 percent of the professional personnel in the libraries examined were female and 34 percent male. Although there are almost twice as many females as males on the staffs of these libraries, even one-third is a considerably larger representation of men than might be expected, given the proportion they constitute of the profession as a whole.

Only at one university, is there an equal division between males and females on the library staff. All the rest generally mirror the overall pattern of twice as many females as males. At the two universities with the highest proportions of females, over 75 percent of the staff members responding were female.

Table 5-1

Sex Differences by University

	Male	Female	Sex Unspecified	(Bases)
University A	21%	79%	0%	29
University B	27	72	1	134
University C	35	64	1	83
University D	42	58	0	60

(Table 5-1, cont.)	Male	Female	Sex Unspecified	(Bases)
University E	48	52	0	31
University F	19	75	6	32
University G	28	69	3	39
University H	41	59	0	34

In general, respondents are fairly evenly distributed by age. A little over half are under 40 years old, thus within the first twenty years of their potential employment span. Retirements, then, can be expected to have little impact on these systems, overall, in the near future.

Table 5-2

Age Distribution of Library Staff Respondents

(Base)	(445)
Under 30 years old	26%
30 to 39	26
40 to 49	20
50 to 59	20
60 and older	7
No response	1
	100%

There are equal proportions of males and females in the two groups, i.e. under 40 and over 40 years of age. The youngest library staff was encountered at University B where 42 percent were under the age of 30. Universities D,E and H also have relatively young staffs with more than half of the personnel under 40 years of age. Universities A and F had the oldest staff complements with 48 percent and 60 percent, respectively, over 50 years old.

Table 5-2a

Age Differences by University

	Under 30	30-39	40-49	50-59	60 and over	(Bases)
University A	17%	14%	21%	38%	10%	29
University B	42	22	16	16	5	134
University C	21	23	28	24	4	83
University D	27	27	25	17	5	60
University E	23	36	26	10	3	31
University F	9	28	3	44	16	32
University G	18	33	21	10	15	39
University H	21	41	21	9	9	34

Thirty percent of the respondents identify themselves as branch heads or division heads, with primary responsibility. The job titles reported were coded into categories and the population was as follows:

Table 5-3

Distribution of Library Staff by Job Title

(Base)	(445)
Division head	20%
Branch head	10
Branch librarian	8
Librarian	21
Cataloger	20
Reference Librarian	8
Bibliographer/Curator	12
Systems Analyst	1
	100%

On the basis of job title and the reports given of their major job activities, staff members were divided into three groups for later analysis, as indicated by the lines on left side of Table 5-3. The three were supervisors, general librarians, and specialists.

Findings of this study indicate a general tendency for males to inhabit the higher administrative posts in research libraries. Almost twice as many men as women, proportionately, are heads of divisions or branches in the systems studied. Two-thirds of all women function in the areas of traditional librarianship (i.e. cataloging, reference), and only 10 percent are specialists. Twice as large a proportion of men as women are specialists in these libraries.

Table 5-3a

Distribution of Job Titles by Sex

(Bases)	Male (143)	Female (294)
Division head	27%	15%
Branch head	15	8
Branch librarian	6	9
Librarian	15	24
Cataloger	11	24
Reference librarian	6	9
Curator/Bibliographer	18	10
Systems Analyst	1	*
No response	1	1
	100%	100%

* Less than 0.5 percent.

More than twice as many, proportionately, from the older age group are at the managerial level as from the younger age group.

As noted earlier, approximately 30 percent of all respondents indicated that they held titles that are equated with administrative responsibility. The lowest percentage of administrative personnel was found at University B (17 percent), while the highest was at University F (49 percent). Universities F,G, and H have only branch heads -- no one designated as branch librarian -- which suggests that branches are largely single-person units at these three universities.

Table 5-3b

Distribution of Job Titles by University

(Bases)	A (29)	B (134)	C (83)	D (60)	E (31)	F (32)	G (39)	H (34)
Division	28%	8%	14%	30%	22%	40%	26%	28%
Branch head	17	9	14	5	22	9	5	6
Branch librarian	7	14	12	2	7	0	0	0
Librarian	10	28	37	15	10	13	5	15
Cataloger	21	21	8	23	16	16	38	21
Reference librarian	10	5	7	12	7	6	13	9
Curator/Bibliographer	7	14	8	10	13	16	10	21
Systems analyst	0	0	0	3	3	0	0	0
No response	0	1	0	0	0	0	3	0
	100%	100%	100%	100%	100%	100%	100%	100%

Respondents were also asked to describe their major job activities. Considering only those activities mentioned first by the respondents, over half of the men and less than a third of the women listed administration. Book selection was also over-proportionately cited as a responsibility by men, while women were much more likely to mention cataloging, processing, and reference functions. If administrative and selection tasks can be assumed to have a larger degree of independent decision-making responsibilities attached to them, it appears from the data that men are more likely to exercise such responsibilities.

Table 5-4a

Major Job Activities, by Sex

(Bases)	Male (143)	Female (294)
Administration	50%	30%
Book selection	15	7
Cataloging	14	29
Processing	8	14
Public service	2	3
Reference	6	14
Research and development; systems analysis	4	0
No response	2	3
	100%	100%

No significant differences appear between the two age groups in the major job activity mentioned, although slightly more older librarians mentioned managerial duties first.

There are some differences in the utilization of personnel when universities are compared. For example, 24 percent of Library E's professional personnel are in book selection; 25 percent of G's professional personnel are in cataloging. At Library B 26 percent of the professional personnel are in processing activities, while only 7 percent are in public service activities.

The discrepancies between Table 5-3b and Table 5-4b are interesting and important. While 50 percent of Library F's personnel indicate that they have administrative titles, only 33 percent say they perform administrative functions. This is reversed at Library B, where 17 percent have administrative titles but 25 percent list administrative duties.

Table 5-4b

Major Job Activities, by University

(Bases)	A (29)	B (134)	C (83)	D (60	E (31)	F (32)	G (39)	H (34)
Administration	23%	25%	26%	26%	28%	34%	23%	27%
Book selection	13	10	13	14	24	15	9	17
Cataloging	15	19	16	19	11	13	25	12
Processing	18	26	11	14	10	10	16	14
Public service	18	7	14	10	14	12	13	13
Reference	13	13	17	14	10	13	13	13
Research and development; systems analysis	0	0	3	3	3	3	1	4
	100%	100%	100%	100%	100%	100%	100%	100%

(Percentages of "No Response" on these bases were less than 0.5.)

In order to estimate the span of control of the top administrators of the libraries, respondents were asked to give the job title of the individual to whom they reported. As could be expected 65 percent reported to the head of a unit to which they were assigned. Over 14

percent of the respondents claim to report directly to the Director of Libraries, suggesting overall a rather large span of control, if the pattern is consistent in all the libraries. (In fact, the only library differing radically in this was Library B, the largest).

Table 5-5

Individual Reported to by Professional Staff Members (Base)	(445)
Head of unit	65%
Associate Director for Technical Services	5
Associate Director for Public Services	8
Director of Libraries	14
Director of Libraries and an outside person	2
Outside person	1
Other	3
No response	2
	100%

Given the higher administrative positions of the males, it is not unexpected that they report to "same unit" superiors in smaller proportions than do women. Almost half the men reported to superiors outside their own unit while only 23 percent of the women did so.

Table 5-5a

Individual Reported to, by Sex

(Bases)	Male (143)	Female (294)
Head of unit	50%	71%
Associate Director, Technical Services	6	4
Associate Director, Public Services	11	7
Director of Libraries	25	10
Director and outside person	5	1
Outside person	2	1
Other	1	4
No response	1	2
	100%	100%

Twice as many older librarians report to high administration officials as younger ones, which is consistent with job title and job activity differences by age. The most horizontally organized university library was Library E, where only 29 percent report to an individual in the same unit. Libraries B and D, two of the largest, are the most vertically organized with 77 and 72 percent in these categories, respectively.

Table 5-5b

Proportions of Staff Reporting to Specific Individuals, by University

	(Bases)	Head of own unit	Director Technical Services	Director Public Services	Director
Library A	(29)	55%	7%	24%	10%
Library B	(134)	77	1	12	1
Library C	(83)	59	11	1	18
Library D	(60)	72	2	0	22
Library E	(31)	29	10	36	16
Library F	(32)	56	0	0	31
Library G	(39)	64	10	3	18
Library H	(34)	62	3	0	27

The most common degree level of the library staff respondents was an MLS with no other master's degree. More than half of those surveyed had attained this level. When persons with both an MLS and another master's were included, the total proportion of respondents with at least an MLS is 69 percent. Except for those with only a bachelor's degree, few have only non-library-science degrees.

Table 5-6

Highest Degree Level Attained by Professional Staff Members

(Base)	(445)
Bachelor's	16%
Master of Library Science	53
Master of Arts or Science	6
MLS and MA or MS	16
MLS and DLS	1
MLS and PhD	2
MA/MS and PhD	3
Other combination	2
No response	1
	100%

Educational attainment is higher among males than among females. Thirteen percent of the males have the doctorate in some area while only 3 percent of the females have such a degree. One-fifth of the females have only a bachelor's degree and females are more likely to have only an MLS than are males. More than twice as many males have a combination of an MLS and another master's degree than do females.

Table 5-6a

Highest Degree Level Attained, by Sex

(Bases)	Male (143)	Female (294)
Bachelor's	5%	20%
Master of Library Science	45	58
Master of Arts of Science	7	5
MLS and MA or MS	27	11
MLS and DLS	1	*
MLS and PhD	5	1
MA/MS and PhD	6	2
Other combination	2	2
No response	2	0
	100%	100%

The older age group has a higher percentage of advanced degrees (MLS and other master's degree and above) than does the younger age group.

The educational backgrounds of staff members are generally consistent between universities. Library B has the largest proportion of persons with only a BA or MLS (78 percent), while Library D has the smallest (53 percent). Library F has the largest percentage of persons with the doctorate (18 percent) while respondents from Library H reported none.

Table 5-6b

Highest Degree Level Attained, by University

(Bases)	A (29)	B (134)	C (83)	D (60)	E (31)	F (32)	G (39)	H (34)
Bachelor's	17%	18%	15%	12%	7%	13%	23%	12%
Master, LS	41	60	52	41	64	56	41	58
MA/MS	10	3	7	10	7	9	0	6
MLS + MA/MS	24	12	13	27	16	3	21	24
MLS + DLS	0	2	0	0	0	0	0	0
MLS + PhD	3	2	1	2	3	9	3	0
MA/MS + PhD	3	1	5	2	3	9	8	0
Other combination	0	2	6	0	0	0	3	0
	100%	100%	100%	100%	100%	100%	100%	100%

(* Less than 0.5 percent.)

A series of questions was asked to determine the extent of the respondent's professional experience. Information requested included the total number of years of professional experience, the number of years (in a professional capacity) at present institution, the number of years in present position, and any non-library training or experience.

There were no differences by sex in years of professional experience (thus, we might infer that length of experience is not a critical factor in advancement to administrative positions). However, almost two-thirds of the males had some other occupational experience while only half the females had such experience.

In terms of total length of professional experience, Library B and Library H have the largest proportions of relatively inexperienced staff members -- i.e. persons with less than two years experience. Library F has the most experienced group; 39 percent have over twenty years in the profession.

Table 5-7

Years of Professional Experience ofStaff Members, by University

	A (29)	B (134)	C (83)	D (60)	E (31)	F (32)	G (39)	H (34)
Less than 1 year	0%	16%	4%	10%	0%	0%	13%	18%
1 - 2 years	7	19	9	13	13	6	8	15
3 - 4 years	7	19	10	26	18	6	8	6
5 - 6 years	24	10	15	8	26	9	8	3
7 - 10 years	21	14	17	12	26	17	24	26
11 - 20 years	17	14	24	18	3	23	15	20
21 - 30 years	17	5	15	8	7	33	19	6
More than 30 years	7	3	6	5	7	6	5	6
	100%	100%	100%	100%	100%	100%	100%	100%

Just over half of those questioned had worked in their present library less than five years. Twenty-six percent had been there between five and ten years, and 22 percent had been there longer than ten years.

Table 5-8

Years Spent at Present Institution by Professional Staff Members
(Base=445)

Less than one year	15%
1 to 2 years	18
3 to 4 years	19
5 to 6 years	14
7 to 10 years	12
More than 10 years	22
	100%

There were no differences by sex in professional experience at present institution, or in years in present position. Considering the relative inexperience of the staffs at B and H, it is not surprising that those two also have the highest percentages of people with less than one year in their present position. However, in four libraries (including H), over 20 percent of the staff members said that they had been in their present positions for eleven or more years--Libraries C,F,G, and H.

Table 5-9

Years in Present Position, by University

	A (29)	B (134)	C (83)	D (60)	E (31)	F (32)	G (39)	H (34)
Less than 1 year	10%	29%	12%	15%	10%	4%	10%	40%
1 - 2 years	21	25	24	30	35	28	21	18
3 - 4 years	35	18	18	31	26	28	15	15
5 - 6 years	10	13	13	7	13	6	10	6
7 - 10 years	10	10	13	7	16	6	18	0
11 years or more	14	5	20	10	0	28	26	21
	100%	100%	100%	100%	100%	100%	100%	100%

More than half the librarians questioned had worked in no library previous to the one in which they were employed at the time they received the questionnaire. A quarter had worked in one other library, and 12 percent had worked in two others. Considering the age spread of the respondents and the number of years spent in their employing libraries, interlibrary mobility appears to be unexpectedly low. Further inquiry might determine that many of these professional staff members were employed in non-library situations during part of their careers. (See Table 5-6.)

Table 5-10

Number of Other Libraries Worked in by Professional Staff Members

(Base-445)

None	50%
One other	24
Two others	12
Three others	5
Four others	4
Five or more	3
No response	2
	100%

There is no difference by sex in the number of libraries worked in. Perhaps surprisingly, there is very little difference in the two age groups in reported number of other libraries worked for. Not only does this indicate a stable older work force, but also gives rise to speculation as to the consequences of similar behavior on the part of the younger age group.

Professional staff members in the academic libraries were asked if they had academic rank or status at their university. Fifty-eight percent reported that they did. They were then asked if they had salary scale, rank and benefits equivalent to those of the teaching faculty. About one-third reported equivalent salary scale, 43 percent equivalent rank, and 58 percent equivalent benefits and privileges.

There are almost no differences between men and women, overall, in reported possession of academic rank, rank equivalent to teaching faculty, and salary scale equivalent to teaching faculty. Men, however, are more likely to perceive privileges and benefits equivalent to those of teaching faculty than are women; 64 percent of the men responded "yes" to this item, compared to 54 percent of the women.

At Libraries A, B, and E, librarians report that they have academic rank. At libraries D and H, librarians overwhelmingly report that they do not. At libraries C, F, and G, there appears to be some confusion as to their status.

Table 5-11

Possession of Academic Rank by Library Staff, by University

	A (29)	B (134)	C (83)	D (60)	E (31)	F (32)	G (39)	H (34)
Have Academic Rank	97%	89%	56%	15%	100%	38%	26%	3%
Do not have academic rank	3	9	43	83	0	47	64	97
Don't know	0	0	0	0	0	6	0	0
No response	0	2	1	2	0	9	10	0
	100%	100%	100%	100%	100%	100%	100%	100%

However, the responses to the individual aspects of academic "rank and status" as equivalent to those of teaching faculty are less clearly defined. Although at several schools many of the librarians claim to have academic rank, few claim an equivalent salary scale with teaching faculty. For example virtually all librarians at Library E reported having academic rank but just a little more than a third claim equivalent salary scales. The largest percentage reporting equivalent salary scale was the 66 percent at Library B, and the smallest was 6 percent at Library H.

Table 5-12

Comparison of Responses to Aspects of Rank and Status, by University

	A	B	C	D	E	F	G	H
Perceive equivalent salary scale with faculty ...equivalent	24%	66%	23%	15%	36%	19%	10%	6%
rank ...equivalent	86	82	16	8	77	13	13	3
benefits	86	68	55	30	74	50	64	27

Large proportions of the staffs are not enrolled in course work leading to another degree. Of those who are so enrolled, there are equal proportions of males and females. However, half of the males enrolled are in doctoral programs, while only one in ten females are enrolled at that level.

Table 5-13

Enrollment in Degree Programs, by Sex

(Bases)	Male (143)	Female (294)
No	87%	88%
Yes, MLS	3	7
Yes, Masters	3	2
Yes, DLS	1	0
Yes, Other Doctorate	5	1
No response	1	2
	100%	100%

Few of the professional personnel who responded were engaged in teaching any courses for credit. However, males were more likely to be teaching than females. Among the males teaching, the majority were teaching in the humanities.

Table 5-14

Teach Any Courses for Credit, by Sex

(Bases)	Male (143)	Female (294)
No	79%	93%
Yes, Library Science	6	3

(Table 5-14, cont.)	Male	Female
Yes, Social Science	1	*
Yes, Science	1	0
Yes, Humanities	10	1
Yes, Orientation	1	1
Yes, Other Professional	2	0
Yes, No response	0	2
	100%	100%

Respondents were asked specifically whether any of four areas were associated with their major activities in the library. The areas were foreign languages, a particular geographical area, a particular subject field, or another professional specialization, i.e. archives, systems analysis, personnel. Very few of the respondents responded positively to the question; 80 percent answered "No". Slightly more males than females answered the question positively. There is no difference between the age groups in terms of their involvement in subject or other professional specializations.

Given the choice of identifying themselves as "Librarian" or "Professional Specialist" almost all females (93 percent) considered themselves librarians. Seventy-nine percent of the males considered themselves so. This suggests that the expressed desires of the directors (see Chapter Three) for subject specialists and other non-librarian professional positions do not coincide with the actual existence of such lines. The fact that nearly forty percent of males have two masters or higher degrees, and yet only 18 percent call themselves professional specialists is perplexing. This may be accounted for by males who do not consider administration a professional specialty.

Table 5-15

Librarian or Professional Specialist, by Sex

(Bases)	Male (143)	Female (294)
Librarian	79%	93%
Social Science Specialist	4	2
Science Specialist	0	*
Humanities Specialist	9	2
Automation Specialist	1	*
Other, Combination	4	1
Law	0	0
Medicine	0	*
NR or Neither	2	1
	99%	99%

(* Less than 0.5 percent.)

Relationships with Colleagues and Clients

In an effort to ascertain staff members perceptions of the ease or difficulty of working with various organizational and client groups, a question was devised that asked for an evaluation of each of several groups with which a staff member might be expected to deal. Four dealt with other people in the work organization (i.e., other co-workers, supervisor, top administration, and workers outside of the immediate work unit) while the other three dealt with client groups (undergraduates, junior and senior faculty members). As the Tables 5-16 through 5-22 indicate, few staff members feel that any of the groups are difficult to work with.

Table 5-16

Relations with Work Group
(Base=445)

Easy to work with	78%
Varies	17
Difficult	1
No Contact	1
No Response	3
	100%

Table 5-17

Relations with Immediate Superior
(Base=445)

Easy to work with	69%
Varies	23
Difficult	6
No Contact	1
No Response	1
	100%

Table 5-18

Relations with Top Administrators
(Base=445)

Easy to work with	34%
Varies	27
Difficult	6
No Contact	32
No Response	1
	100%

Table 5-19

Relations with Other Employees
(Base=445)

Easy to work with	46%
Varies	48
Difficult	1
No Contact	4
No Response	1
	100%

A high proportion of the respondents felt that it was easy to work with those in their immediate work group (78 percent). A smaller percentage (69 percent) reported the same concerning their immediate supervisor. About one-third of the respondents reported "no contact" with top administrators. Thirty-four percent reported them "easy to work with" and 27 per cent reported that relations varied.

In terms of relationships with clients, about one third of the staff reported "no contact". Undergraduates were slightly more likely to be reported as "easy to work with" than were faculty members. Senior faculty were more frequently mentioned as easy to work with than junior faculty.

When the attitudes toward work and client groups are examined by sex, some differences are evident in the responses. Women are slightly more likely to report their work group and their immediate supervisor as "easy to work with", while men are more likely to describe the relationship as varied. As discussed earlier it was found that men are more likely to occupy administrative positions and thus have access to a broader range of "non-immediate" work groups. Thus, men are much more likely to have interaction with top administrators and view that relationship as easy while women show their relatively lower position within the hierarchy by reporting 39 percent "no contact" with top administrators.

Table 5-20

Relations with Undergraduates
(Base=445)

Easy to work with	46%
Varies	16
Difficult	1
No Contract	34
No Response	3
	100%

Table 5-21

Relations with Junior Faculty
(Base=445)

Easy to work with	34%
Varies	27
Difficult	3
No Contact	34
No Response	2
	100%

Table 5-22

Relations with Senior Faculty
(Base=445)

Easy to work with	41%
Varies	25
Difficult	*
No Contact	32
No Response	2
	100%

(* Less than 0.5 percent)

Age was found to have very little influence on the responses to work and client group relations. Only two significant differences were observed. First, twice as many young people reported no contact with top administrators as did older people. Second, younger librarians had a tendency to have fewer contacts with junior and senior faculty members than did older librarians. However, both age groups were the same in the amount of contact with undergraduates. (More detailed tables are presented in the Appendix).

In order to see whether or not the specific organization - i.e., university -- had any influence on work relationships, the responses were analyzed by this variable. The main differences between universities on organizational relationships occurred in the amount of contact with the top administrator. High amounts of contact were reported in Library E and Library H and very low rates of contact with top administrators at Library B. There was twice as much difficulty of relationship with top administrators reported at Libraries F, G, and H as in other schools.

The ranges of relationships between staff members and clients can be rather extreme. At Library F, only 9 percent of the staff members reported no contact with clients while at Libraries D and G, 50 percent gave this response. This pattern is consistently held through junior and senior faculty members. Overall, the most difficulty with a client group appears to be with junior faculty; undergraduates are consistently rated as being easiest to work with.

Although relations with graduate students were not inquired about on this questionnaire, 13 percent of the respondents took the option of mentioning this group. Of those mentioning graduate students, two-thirds reported them easy to work with and the remaining respondents described relations as varying.

Attitudes Toward the Job

One of the crucial elements in this study has been the determination of the attitudes of staff members toward their jobs, their superiors and the environment in which they operate. Assessments of the future needs for manpower are, at their base, dependent upon the ways in which top administrators both view their role and responsibility and how they put those views into action. It is felt that the assessment of the staff on those matters will be important in determining just what policies are in effect and how those who carry out the job feel about those policies.

The questionnaire posed a total of fifteen questions intended to identify patterns of staff utilization, morale, hierarchical relationships and motivation. Some of the questions are based on research done by Rensis Likert[1] while others were devised and pretested by the research staff.

The questions consisted of statements, which respondents were asked to rate on a continuum from "strongly agree" to "strongly disagree". These ratings were coded, and in the final analysis, collapsed to three categories -- agree, disagree, and not sure.

"My talents, experience, and background are fully utilized with only minor exceptions."

A majority of respondents were positive in feeling that what they as individuals had to contribute was well used. Very little difference was observed between males and females, but overall older librarians tended to be more satisfied than young librarians. Only about half the younger librarians felt that their talents and background were fully utilized while almost three-fourths of the older ones felt that theirs were.

Insofar as the managerial class is concerned, managers were more apt to agree than non-managers, overall. At Library F both groups were generally in agreement with the statement, while at Libraries G and H both groups were comparatively low in this respect. Interestingly, at these two schools the managers were more negative than the non-managers.

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1 Likert, Rensis The Human Organization: Its Management and Value. (New York, McGraw-Hill Book Company, 1967).

"In order to advance to a better paying, more responsible position, I will have to move to another library or non-library job."

This question was asked in order to see the degree of potential mobility within the organization that was perceived by employees. In the aggregate, respondents were fairly divided in their feelings about the necessity of moving for advancement. Approximately one-third of the respondents were fairly sure that they could move up within their present university library systems, but there was a large group of "not sure" responses and a plurality of responses that indicated that a move would be necessary for advancement.

There was very little difference between males and females in their responses, and age apparently made little difference. However, older librarians were much more apt to not respond to the question, possibly indicating that they were more restricted in their alternatives, i.e. that moves were not feasible or possible.

The managers at Libraries A, E, and H indicated that the situation was limited for them at their present university. At Library F the non-managers felt this way, while the Library F managers saw advancement opportunities right at hand. Similarly, Library E non-managers felt they could advance where they were. In general, the non-managers at Libraries E and F and the managers at G were fairly decisive as to what course of action they must take, as an investigation of their low rates of "not sure" responses indicated.

"I find myself doing many clerical tasks that could be handled effectively by someone less qualified than I."

The question of librarians being required to do what are essentially clerical tasks that are perceived to be beneath their levels of training and experience has been often cited. In that it is felt that this is a probable misutilization of manpower, the question was asked of this group of respondents. More than half felt that they were required to do unnecessary clerical tasks. Females were slightly more apt to agree with the statement than were males. There was virtually no difference between older and younger librarians on this question.

Perhaps indicative of the organizational climate, the highest incidence of agreement, among managers, came at Library A. However, Library B was quite high in agreement that unnecessary clerical chores were performed by both managers and non-managers, (managers, 64 percent agreement; non-managers, 63 percent). Strongest disagreement was expressed by non-managers at Libraries E and H and managers at Library C. The biggest disparities between managers and non-managers occurred at Libraries E and F. Library F's managers disagreed; their non-managers agreed with the statement. At Library E the exact opposite was the case; managers agreed and non-managers disagreed.

"Much of my work seems unimportant to me."

Few people felt their work to be unimportant; over three-quarters of those responding felt that their work was unimportant to them. Males and females did not disagree in this respect. There was a slightly greater tendency for younger people to agree that their work was unimportant to them, but the trend still was decidedly toward the importance of the work.

Insofar as managers and non-managers at the various universities were concerned, the highest levels of agreement were by non-managers at Library A (29 percent) and managers at Library G (25 percent).

"I am given full responsibility for all aspects of my job."

Three-quarters of the repondents felt that they had full responsibility for the work they were assigned. Males were slightly more likely to agree than females, but the differences were slight. Also, older librarians more frequently perceived full responsibility; the differences again were slight.

At Library E both managers and non-managers were nearly unanimous in their agreement with the statement. Managers at Libraries F and G also had very high agreement rates (94 percent and 100 percent, respectively). The managers at Libraries A and H (the smallest libraries) and the non-managers at Library B (the largest), had the highest rates of disagreement. Both levels at Library A had low rates of agreement, thus indicating a perception of less than full authority to carry out their jobs. Overall, managers were more likely to agree than non-managers although this trend was reversed at the two smallest libraries, as mentioned above.

"My career has been about what I expected it to be."

This question was an attempt to identify differences between expectations and realities on the job. More than half of the librarians questioned felt that their career had developed as expected while the remainder were evenly divided between disagreeing and not sure. No basic differences were found between the sexes (perhaps surprisingly); slight differences were found between younger and older librarians, with a larger proportion of younger librarians disagreeing.

The highest overall rate of agreement was at Library E but managers at Libraries F and G and non-managers at Library A also agreed in large proportions. The highest rates of disagreement were at Library H, among both groups, and among managers at Library A (the smallest), and among non-managers at Libraries B and D (two of the largest).

"My superiors give me jobs that should be handled by persons with skills other than those I possess."

Overall, there was high disagreement with this statement and no differences by sex or age. The managers at Library A and the non-managers at A and F were more likely to agree, although the percentages of agree responses were still low. Again, it is apparent that staff members, by and large, felt that the jobs they were assigned were commensurate with the skills they possessed.

"My expectations were very high when I entered the field."

While there was general agreement with this statement, it was not as great as that expressed in the earlier question concerning fulfillment of expectations. In general, about half the librarians had high expectations on entering the library field while a fourth did not have high expectations, or were unsure. Males tended to more frequently report having had high expectations, as did older librarians.

Managers at Library A, who had relatively high rate of disagreement with expectations matching reality, had a high rate of agreement on this question, indicating that expectations were high initially. In other words, Library A managers had high initial expectations and those expectations were not fulfilled in their jobs. Library F managers also had high initial expectations. Those with the lowest initial expectations were Library B and H non-managers.

"My formal library education did a very good job in preparing me for library work."

The opinions on the relevance of formal education appears to be evenly divided between those who are positive and those who are negative. There were considerable numbers of people who were either not sure or who did not respond to the statement.

Males were slightly less positive on the benefits of their formal education than were females. However, a high percentage of males did not respond to the statement. Fewer young librarians saw the relevance of formal education to the job than did older librarians. One can speculate that the newer curricula of library schools may not agree with the prevailing patterns of work experience on the job.

Managers were generally more apt to agree than non-managers, which perhaps indicates more relevance to administrative posts than to other library tasks. The highest agreement rates were found among managers at Libraries A and C which, in the case of A, may mean that the education prepared them for jobs that did not materialize (see previous description on career expectations). At Libraries E and H agreement was low, and indicated that the formal library education was inadequate in

their cases.

"My opinion is asked for and generally respected in matters that directly affect my department."

The respondents generally agreed that their opinions were asked on departmental matters (72 percent). Males and older librarians were more likely to agree than females and younger librarians. This is somewhat expected because the former two groups are more likely to occupy administrative posts in the libraries and thus would be expected to have a greater voice in departmental matters.

There were two exceptions to the overall agreement among managers: Libraries A and F, where higher percentages of non-managers agreed than managers. Managerial identification aside, the highest rates of disagreement (non-involvement in decision-making) were found at Libraries B and G.

"My opinion is asked for and generally respected in matters that concern the broad operations of the library."

As a counterpoint to the question on involvement in departmental decision-making, the statement on involvement in broad library policy making was included. Not unexpectedly, most respondents disagreed with the statement. Only a quarter agreed. Males (more frequently identified as administrators) were more in agreement than were females. The younger librarians were more decisive in saying that they were not consulted on broad library matters.

Managers were naturally more apt to feel they were involved in this level of decision-making. However, within universities the differences in responses between managers and non-managers fluctuates. For example, at Library E, equal proportions of managers and non-managers agreed with the statement (a high proportion of managers were not sure). At Library C, 65 percent of the managers agreed and only 15 percent of the non-managers agreed. This is probably an indication of the more tightly organized nature of that system. Non-managers at Libraries A and G had the highest rates of disagreement (76 and 74 percent, respectively).

"I have a great deal of latitude in deciding what I will do in my job."

Freedom to decide the particulars of the job was generally claimed by the respondents. Two-thirds felt that they had a great deal of latitude. Males perceived this freedom more frequently than females, and slightly more older librarians expressed this opinion than did younger libraians.

Managers, once again, had higher rates of agreement than non-managers at all institutions with one exception -- Library H (the smallest). Here, agreement was generally lower among managers than among non-managers. Managers at four schools -- D,B,E, and F --had high rates of agreement, while non-managers at B,C, and G rated their freedom as low. As mentioned before, Library H managers perceived their freedom to be generally low.

"If I am going to get ahead here, I will have to move more into administrative work."

Almost half of those responding felt that they would have to increase their involvement in administrative work if they wanted to get ahead. Males and females showed no differences between them in this respect. Older librarians saw this necessity less frequently.

There were very few differences by university or by managerial level. Library E managers did feel this necessity more greatly than did managers in other schools. Libraries C and F managers were the least likely to be in agreement.

"My chances for advancement in this library system are pretty good."

Fairly even division was observed in the attitudes toward this statement. While there was no difference between age categories, males did perceive their chances as being better for promotion than females.

Perceptions of promotion possibilities were close to the mean of 31 percent in most universities. Both managers and non-managers at Library E tended to perceive greater opportunities within the system than did these groups in other universities. Once again, Library A managers were negative in their attitudes and saw few chances for advancement. Similarly, non-managers at Libraries F and H saw little future in their systems.

"To what extent do upper-level administrators have confidence and trust in lower-level personnel?"

More than half of those questioned felt that administrators had "quite a bit" or "a great deal" of confidence and trust in lower-level personnel. Only 12 percent felt that there was "very little" trust. Males were more likely to view the situation positively than females. Older librarians tended to be positive while younger librarians were just about evenly split.

The highest rates of agreement came from all Library E personnel and the managerial group of Library B. Library G managers also were

generally positive on this question, though not as intensely as at the two schools mentioned above. The most negative responses were again among Library A managers and Library H non-managers.

"To what extent do you feel free to discuss important matters concerning your job with your immediate superior?"

Almost half of the respondents saw communications as being completely free and open with their immediate superiors. Males and older librarians sensed this freedom slightly more than did females and younger librarians.

The highest frequencies of "...entirely free and candid" were among Library B and E managers and Library F non-managers. The highest frequencies of negative answers were among Library A managers, Library B non-managers, and both groups at Library H.

"I am generally satisfied with the kind of work I am presently doing."

There was general satisfaction with present positions among the respondents. Seventy-one percent agreed or strongly agreed with the statement. Males and females were equally as satisfied, but older librarians were more likely to be satisfied than were younger librarians.

High satisfaction was recorded at Libraries E and F. Managers at Library B and non-managers at G were also highly satisfied. Dissatisfaction was greatest at Library A among managers and at Library B among non-managers.

Attitude Response Patterns: Summary

In looking at the intercorrelations between the questions described in the previous pages, three main patterns emerge. First, there are those items that are positively related to each other at the .001 level; second, there are those that are negatively related to the others at this same level; and third, there are those items that are generally not related to the other questions (at the chosen significance level). A description of these relationships by question while tedious, does point out some of the prevailing patterns.

A. Those who felt that they must move to another library or non-library job in order to advance report that they:

- perform clerical tasks
- feel their work is unimportant
- often get work that others should do
- feel they must move into administration in order to advance.

(A. cont.)
In addition, they:

- do not feel their talents are well utilized
- do not feel their career has met their expectations
- are not asked about departmental matters
- are not asked about broad library policy matters
- do not see their chances of advancement as being good
- are not satisfied with their present work
- tend to feel that top administrators have little confidence and trust in them
- find it difficult to communicate with their immediate superior.

No relationship was found with job responsibility, initial expectations, formal library education, or latitude in job decision-making.

B. Those who find themselves doing clerical tasks that could be handled by others less qualified, feel that:

- they must move to advance
- their work is unimportant
- they get work that others could do.

They also:

- feel their talents are not fully utilized
- are not given full responsibility for their jobs
- are not asked about departmental or broad library matters
- feel their formal education in librarianship was not very good
- have little latitude in job decision-making
- see little chance for advancement in the library system
- are not satisfied with their work
- see administrators as having little confidence and trust
- cannot communicate with their immediate superior.

No relationship was seen between clerical tasks and (a) career expectations, (b) need to move into administration for advancement, or (c) initial expectations.

C. People who report that their work seems unimportant to them:

- do clerical tasks
- feel they must move in order to advance
- get work others could do
- see administration as the line of advancement.

(C. cont.)
They also feel:

- their talents are not fully utilized
- they do not have full responsibility for their job
- have not realized their career expectations
- had low initial expectations
- are not asked about departmental or broad library matters
- have little latitude on the job
- see advancement possibilities as poor
- are dissatisfied with their job
- see little confidence or trust in top administrators
- cannot communicate with their superiors.

No relationship between work importance and formal library education.

D. Finally, those who feel that they get jobs that others should do feel virtually the same as those whose work seems unimportant to them. The only exception is the addition of one non-relationship to the list. That is, these people showed no relationship between getting jobs others could do and their expectations when they came into the field.

These four descriptions also hold in reversed position. That is, if one changes statement A to read "For those who felt that they need NOT move to another library or a non-library job in order to advance..." the direction of the statements are from negative to positive and positive to negative. For example, if the above statement were posed, the description would read, in part: does not perform clerical tasks, feel their work is important, don't get work others could do, feel their talents are well utilized, feel their career has met their expectations, etc. In general, this type of statement is one that most of the respondents to the questionnaire could make and did make. However, there were enough respondents who took the opposite position so that we can state the negative case as well as the positive case.

The second set of relationships (or in this case, non-relationships) concern those items that have little or no correlation with the other items. Three items were not significant in a majority of the cases with other items at the .001 level; i.e. they were of lower significance. These statement items are: (a) My expectations were very high when I entered the field; (b) My formal library education did a very good job in preparing me for library work; and (c) If I am going to get ahead here, I will have to move more into administrative work. The last item (c) had more relationships than did the other two.

A. Initial high expectations was only related to:

- the feeling that talents were being fully utilized
- a good preparation in formal library education
- general satisfaction with their work
- the work was important to them.

This of course says quite a bit, but compared to other items it is less predictive of general attitudes.

B. Satisfaction with library education was related to:

- talents fully utilized
- does not perform clerical tasks
- had high initial expectations
- feelings of high confidence and trust on the part of superiors.

C. The felt need to move into administrative work for advancement was related to:

- the need to move in order to advance
- work is unimportant
- getting work that others could do
- talents are not fully utilized
- chances for advancement are not good
- generally dissatisfied with the position
- sees little confidence and trust on the part of superiors
- has difficulty in communicating with immediate superior.

The final set of cases, and the most extensive, were those that were generally positively related to most of the other items.

A. For those who felt that their talents and background were being fully utilized in their position:

- there was no need to move to advance
- they did not do clerical tasks
- their work was important to them
- they did not do work others should do
- they need not move into administration to advance
- they had full responsibility for their jobs
- their opinions were asked on departmental and other matters
- they have great latitude in decision-making
- chances for advancement were good
- their career was as they expected and their initial expectations were high
- they felt a great deal of confidence and trust coming from their superiors
- they communicate with their superiors
- their library education prepared them well.

While this appears to be a perfect situation, we must caution that the description must be read with the thought in mind that not every individual so responding would have the same pattern. This analysis merely gives us additional evidence of those organizational attitudes that go together into an attitude of satisfaction or dissatisfaction with the job situation.

The following non-correlations were found:

1. No relationship between having full responsibility for a job and (a) must move to advance, (b) high expectations, (c) good library education, (d) the need to move into administration in order to advance.

2. No relationship between the degree of latitude in decision-making and the necessity to move for advancement, as well as b, c, and d above.

3. No relationship between whether or not a career was as expected and doing clerical work, as well as b, c, and d above.

4. No relationship between whether or not opinions are sought on departmental matters and b, c, and d above.

5. No relationship between communication with immediate superior and b and c above.

6. No relationship between chances for advancement in the system and c and d above.

7. No relationship between confidence and trust by superiors and high expectations.

8. No relationship between satisfaction and formal library education.

Future Changes in Librarianship

Part of this study has been an investigation of the future events that will make demands on the academic library in the direction of change. Such change will have a decided effect on the manpower situation in academic libraries bringing with it demands for new or expanded skills, differences in the qualifications necessary to fill positions, and quite possibly a need for different personal qualities in persons holding these positions.

In an effort to get at some of the types of change situations that might affect the library manpower picture, we pretested and asked the staff members of the eight library systems to assess the possible directions of change in the academic library field in the coming decade. From

the literature and from opinions expressed by a pretest group, four major issues that would affect library personnel were identified.

First, the literature has abounded with speculation and plans for national cataloging centers, an event that would theoretically have its impact on the staff composition of academic libraries. Thus, a question was constructed that attempted to get staff members assessments of the possible future existence of this state of affairs.

Second, interviews and reports indicated that employers were increasing the number of non-professional personnel in libraries -- academic, school and others. Did library staff members currently on the payroll see this as becoming a more usual situation?

Third, there has been talk for some time about the need for more subject specialists in libraries; i.e. for people with a professional library background and a subject competency who would/could work for and with the increasingly specialized faculty and students of today's universities. As we have pointed out earlier, academic libraries do hire their share of persons with two masters' degrees (MLS plus a subject master's) but among the professional complement of the staff this is apparently becoming more of a required qualification.

Fourth, whether or not the computer is going to replace and/or radically change the type of personnel currently in libraries has been a subject of much talk, hope, speculation, and damnation. Developments of computer-based information systems at a number of universities gave rise to the speculation that, economics aside, such a trend is becoming well established.

Finally, as perhaps a clue to staff members' feelings of the stability of the coming decade in academic libraries, we ventured a general question as to the degree to which the decade would see radical change in their work situations. Comments and additions were requested, but responses were rarely offered.

Over two-thirds of the respondents feel that in the future cataloging will be done in national centers or regional centers. Males and females are usually divided on the issue but younger librarians are more apt to envision this taking place. Those personnel in the larger universities are more likely to answer affirmatively than those in the small universities.

An equal percentage felt that more non-professional staff would be hired in academic libraries, although with more of the cataloging work being done nationally and regionally (much of which might be transferred to non-professionals) this would appear to be contradictory. Males and females do not differ on this item although the older librarians see this trend more frequently than do the younger librarians. In general,

there were few differences between universities.

Slightly more than half of the respondents feel that two masters' will be minimal qualification for academic library professional work in the future. Perhaps because of their higher incidence of "two-degree" holding, men tend to agree with the statement more readily than women. A slightly larger group of older librarians hold this view than younger librarians. The highest rate of agreement was found at University A and the lowest at University G.

Very few staff members see the efforts in the information retrieval business as slackening. Over three-quarters of those sampled see widespread use of these media of information dissemination. Men and women, old and young are in agreement. Universities C and D with relatively large-scale investments in such matters showed the greatest agreement while the lowest rates of agreement were found at B and G; schools with relatively modest investments in information-retrieval.

Radical changes will be widespread in the next ten years according to the majority of the respondents. Nevertheless, the responses are less positive than the preceding statements indicate. The response was fairly uniform across all the personal characteristics of the respondents but Library G managers were the most positive that few radical changes were in the wind.

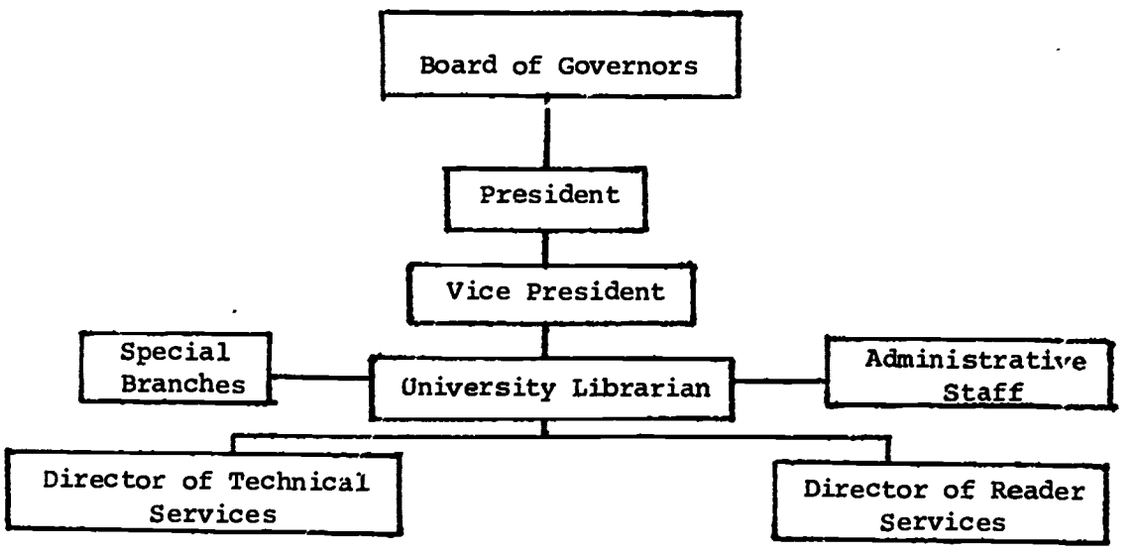
Chapter Six

CONCLUSIONS

Based upon the interviews and questionnaire data obtained in this study and upon general knowledge of academic libraries, several models that depict aspects of manpower deployment can be suggested. The first, in organization chart form, is generally descriptive of the prototype university library, i.e. the normal case. The second, also in organization chart form, depicts a significant departure from the first model. This organizational form has been implemented at Columbia University. The third model is expansive in concept and intends to illustrate the interaction of a variety of variables that ultimately have impact on or demand reaction from university libraries. Each model has its manpower implications, and thus implications for library management.

The Prototype University Library: The general features of the prototype university library are well known, stressing the division of the library's work into technical services and public services. (See Figure 1, below.) Within these two functional types, the usual pattern of division places processes within technical services (cataloging, acquisitions, serials control), and clientele, or place, within public services (departments where branches are located, undergraduate libraries). Within departments of public services, reference and circulation may also be further broken down.

Figure 1



The assumption behind structuring an organization along such lines as these appear to flow from the classical, or traditional, organization theory. The assumptions include acceptance of the idea of a well known, agreed upon purpose of the organization, a stable environment in which the organization must work, a thorough knowledge of what processes or tasks must be performed to accomplish the goal or purpose, and a system of control that insures compliance with the stated procedures. All in all, the model for action is that of a bureaucracy.

Some of the implications that must be considered when one attempts to achieve this model form are: (a) that organizational rigidity may be an outcome; (b) that multiple goals and rapidly changing environmental conditions are not well handled; and (c) that training must be for a particular task, a task which is well-defined.

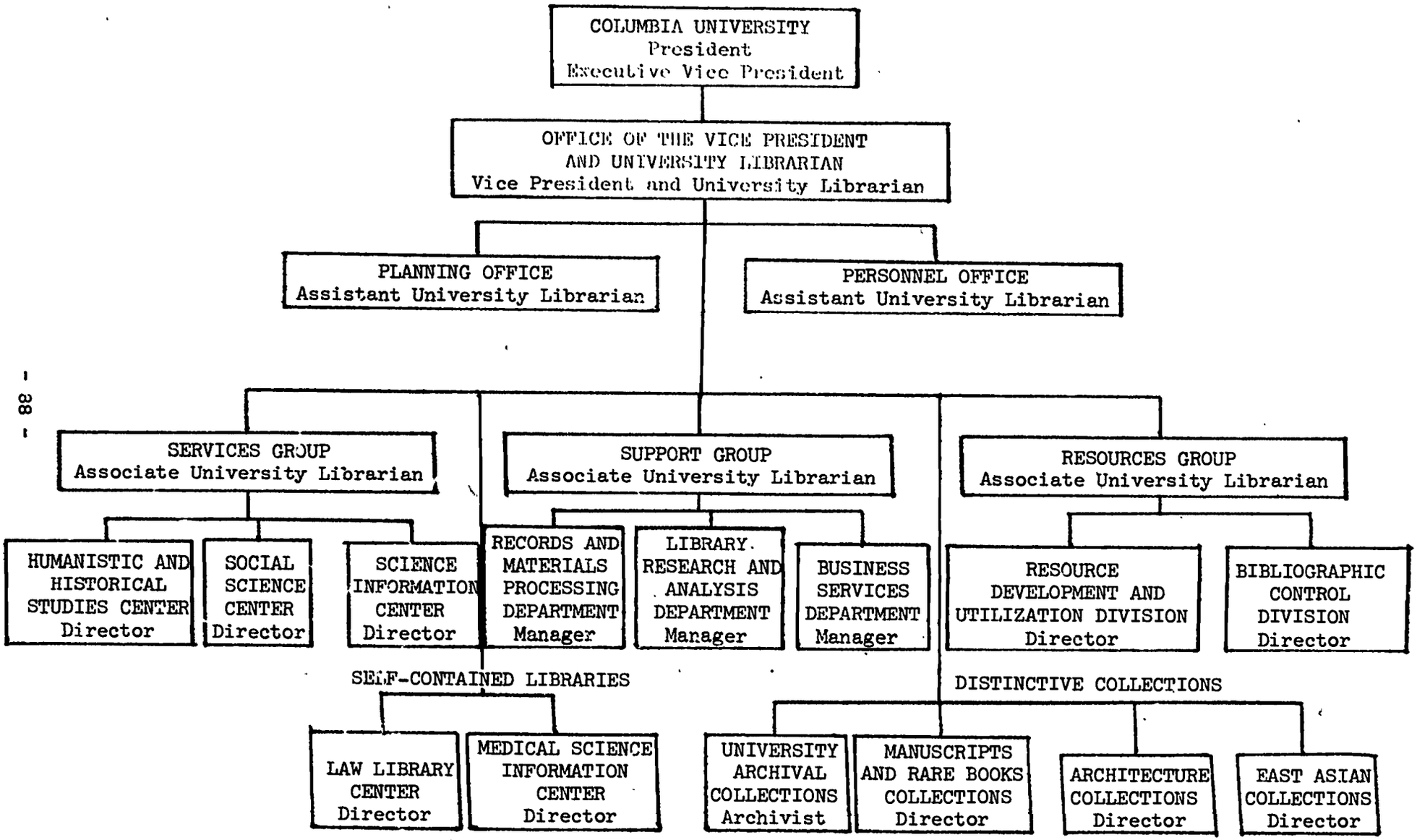
The Columbia University Library Model: What may well become a new prototype library form is suggested by the recently adopted Columbia University form. (See Figure 2, next page.)[1] This model represents a significant move upward in the university hierarchy for the library director and a new combination of responsibilities within the organization. Specifically, three main functional groups are defined: (1) Resources Group - responsible for upper level reference, selection and collection development; (2) Services Group - responsible for first level direct contact with clients; and (3) Support Group - responsible for supportive services including ordering, processing and maintenance routines. From the standpoint of manpower utilization, the model has interesting implications in that it appears to suggest that types of personnel are a prime determininant of organization structuring. Thus, one would be lead to believe that the support group would be staffed mainly with clerk grades or sub-professionals, the services group with paraprofessionals or first-level professionals, and the resources group with professionals and subject specialists.

We can only speculate at this point as to the intended management styles that would be utilized in each of the three groups. If some of the findings of researchers such as Feidler, Lawrence and Lorsch, and others of the "situational approach to management" school are applicable, it would appear that three different styles might be needed, based on the hypothesis that the environment that the support group must face is more stable than the environment that must be faced by the resources group.[2] Such an approach recognizes that one style does not fit all conditions and is a significant departure from present patterns of management in libraries.

1 Organization and Staffing of Libraries of Columbia University: A Summary of the Case Study, Booz, Allen and Hamilton, Inc. (Association of Research Libraries, Washington, D.C.) 1972.

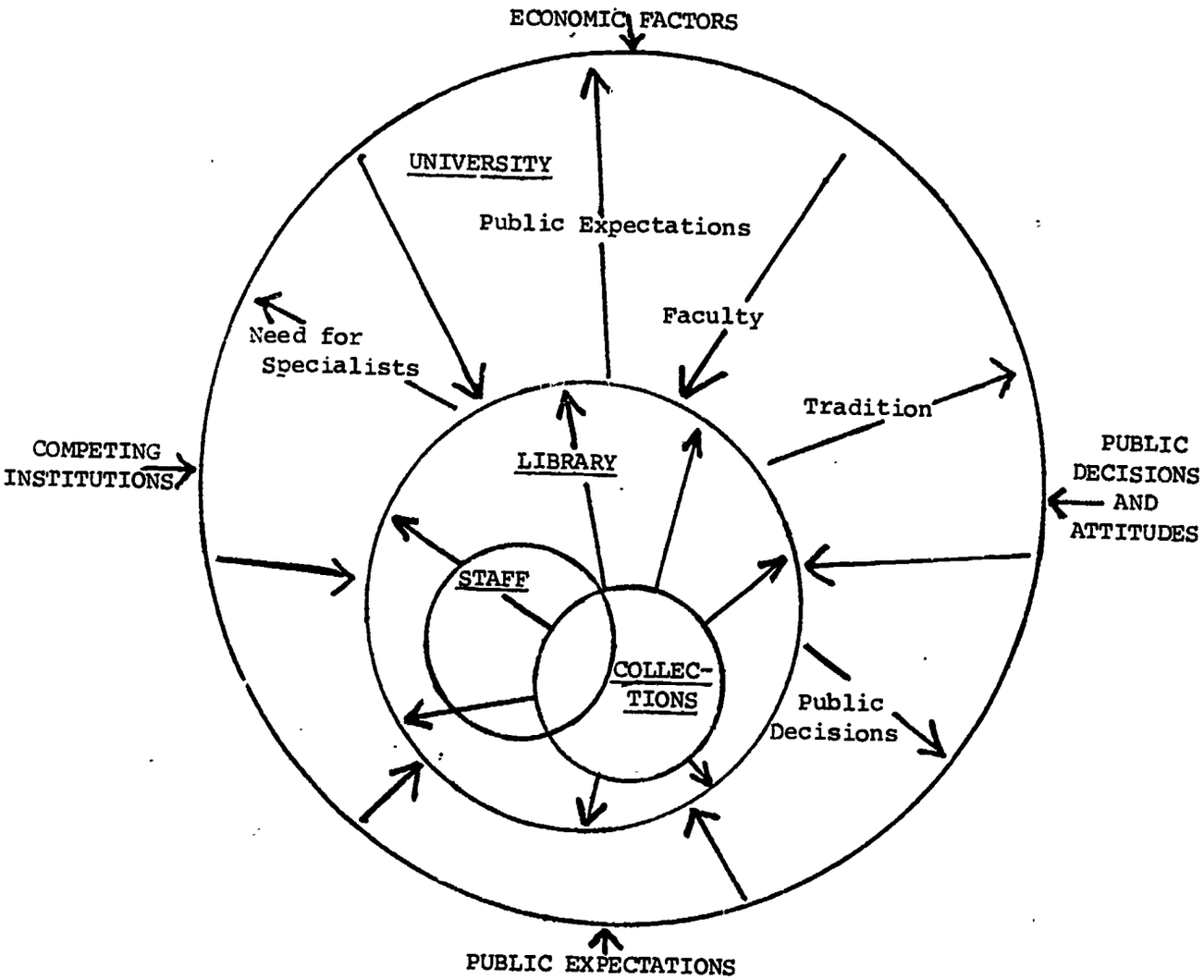
2 For a comparative discussion of this literature see Robert J. Mockler's review article in The Harvard Business Review, May/June 1971, pp. 146-55.

Figure 2


COLUMBIA UNIVERSITY
President
Executive Vice President
OFFICE OF THE VICE PRESIDENT
AND UNIVERSITY LIBRARIAN
Vice President and University Librarian
PLANNING OFFICE
Assistant University Librarian
PERSONNEL OFFICE
Assistant University Librarian
SERVICES GROUP
Associate University Librarian
SUPPORT GROUP
Associate University Librarian
RESOURCES GROUP
Associate University Librarian
HUMANISTIC AND HISTORICAL STUDIES CENTER Director
SOCIAL SCIENCE CENTER Director
SCIENCE INFORMATION CENTER Director
RECORDS AND MATERIALS PROCESSING DEPARTMENT Manager
LIBRARY RESEARCH AND ANALYSIS DEPARTMENT Manager
BUSINESS SERVICES DEPARTMENT Manager
RESOURCE DEVELOPMENT AND UTILIZATION DIVISION Director
BIBLIOGRAPHIC CONTROL DIVISION Director
SELF-CONTAINED LIBRARIES
DISTINCTIVE COLLECTIONS
LAW LIBRARY CENTER Director
MEDICAL SCIENCE INFORMATION CENTER Director
UNIVERSITY ARCHIVAL COLLECTIONS Archivist
MANUSCRIPTS AND RARE BOOKS COLLECTIONS Director
ARCHITECTURE COLLECTIONS Director
EAST ASIAN COLLECTIONS Director

The Environmental Model: A model that is predictive of future manpower needs must begin with a realization of what might be termed "field forces" or rumblings in the world external to the direct control of the university. As Figure 3 illustrates, these external forces might be grouped under four main headings: economic factors, public decisions and attitudes, public expectations, and actions of competing institutions. As the diagram suggests. the university operates within an environment which exerts pressures on it, while supplying it with spiritual and financial support. The balance between these pressures and supports influences the level at which all programs and services (including the library) are able to operate.

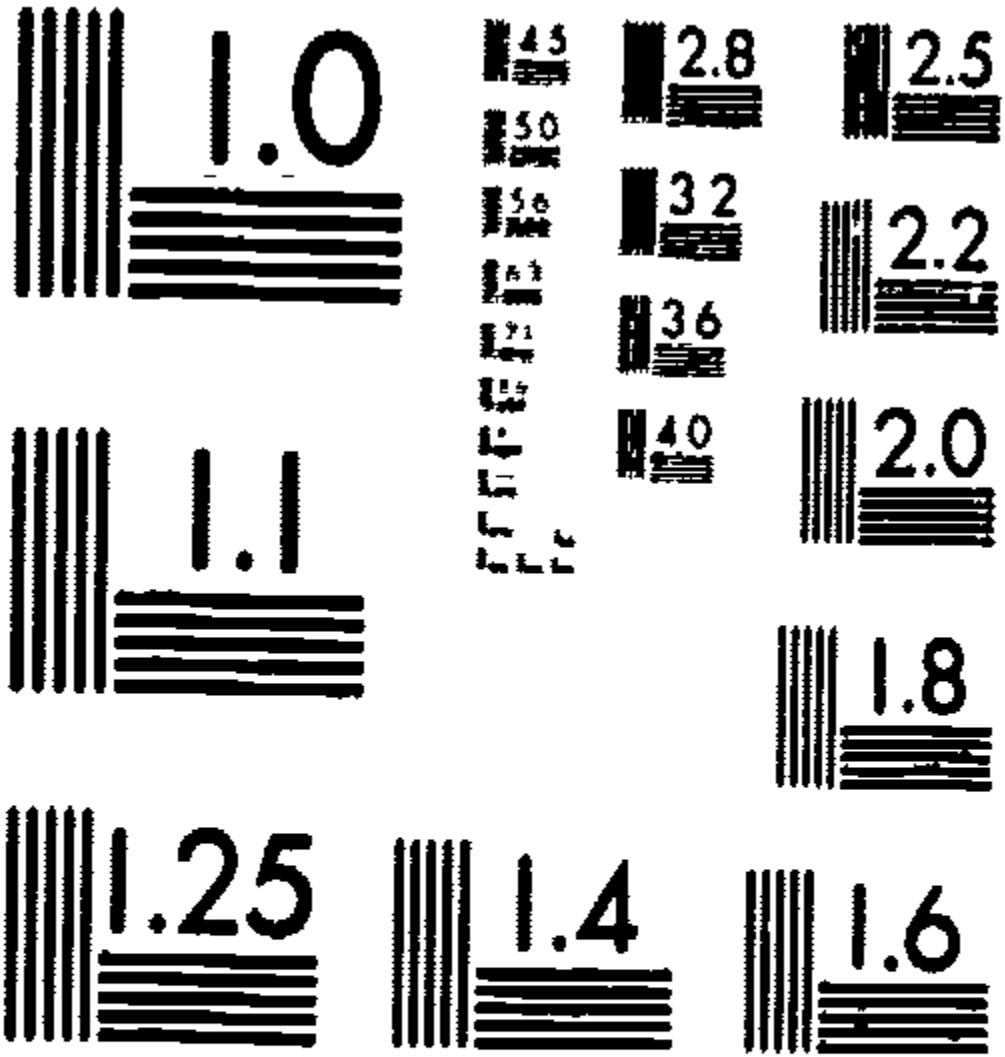
Figure 3



For predictive purposes, at this level, one crucial element for planning purposes is to determine the relative volatility or change in a given environmental sector. The more change in a sector, the less predictable that sector, and thus the more input necessary internally (through manpower) into ideas: the discovery of available alternatives, and sheer creativity in problem-solving. Thus, certain types of personnel are needed to handle this changing and fluctuating environment. But if change is slow and extreme fluctuations in that environment are seldom experienced, prediction is more possible and procedures are more capable of being devised to handle the routine expectations of that environment. Thus, jobs can be determined more precisely, training can be more specific, and characteristics of personnel more tightly determined.

This process of diagnosis of environments and the degree of present and expected change within an environment can also be viewed within the internal boundaries of the university. A similar process of reasoning as given above can be followed. One can expect that the most significant pressures will be exerted by the faculty, and in particular, by an elite group within the faculty. The supports of the library to counter-balance these pressures come from the collections.

However, the financial support must be adequate to pay staff salaries as well as to supply a continually growing series of collections in many special fields. In a real sense, then, two aims of maintaining a staff and of constantly increasing the collections are in competition.



MICROCOPY RESOLUTION TEST CHART

Appendix Tables 1 through 13a, b, and c provide detailed breakdowns of responses to question 10, which requests faculty to rate aspects of their university's library system. Answers are given for each university, subject field, and academic rank.

Appendix Table 1a

Ratings on Book Collection, by University

"Please evaluate the following services, resources, and facilities of the university library system. Circle the overall quality of the item... in terms of (A) your research and teaching requirements...

(Bases)	A (98)	B (92)	C (91)	D (84)	E (82)	F (78)	G (75)	H (54)
Quality								
1 Very high	15%	65%	53%	36%	11%	26%	35%	7%
2 High	48	26	34	39	32	44	54	30
3 Medium	25	7	7	14	39	20	5	46
4 Low	9	1	2	5	9	4	1	13
5 Very low	0	0	0	1	2	1	1	2
No response	3	1	4	5	7	5	4	2
	100%	100%	100%	100%	100%	100%	100%	100%

"... and (B) the relative importance of each item to those requirements."

Importance								
1 Very high	38%	51%	51%	49%	51%	37%	51%	43%
2 High	33	25	18	24	31	44	23	31
3 Medium	21	17	20	18	7	11	13	18
4 Low	4	1	8	6	5	4	9	2
5 Very low	2	3	0	0	2	1	1	4
No response	2	3	3	3	4	3	3	2
	100%	100%	100%	100%	100%	100%	100%	100%

Appendix Table 1b

Ratings on Book Collection, by Subject Field

(Bases)	Natural Sciences (105)	Physical Sciences (133)	Human-ities (190)	Professional Humanities (111)	Law (10)	Medicine (96)
Quality						
1 Very high	35%	35%	34%	30%	20%	27%
2	45	38	31	40	60	42
3	11	15	25	22	10	21
4	5	5	5	5	10	5
5 Very low	0	1	1	0	0	1
No response	4	6	4	3	0	4
	100%	100%	100%	100%	100%	100%
Importance						
1 Very high	43%	35%	61%	47%	80%	32%
2	27	38	21	27	10	32
3	22	15	11	17	10	20
4	5	5	3	5	0	10
5 Very low	0	2	2	2	0	3
No response	3	5	2	2	0	3

Appendix Table 1c

Ratings on Book Collection, by Academic Rank

(Bases)	Full Professor (230)	Associate Professor (160)	Assistant Professor (203)	Instructor (37)
Quality				
1 Very high	38%	34%	28%	27%
2	39	40	36	38
3	17	20	21	27
4	3	1	11	5
5 Very low	*	0	2	0
No response	3	5	2	3
	100%	100%	100%	100%
Importance				
1 Very high	51%	44%	43%	54%
2	27	29	30	27
3	15	16	17	16
4	4	6	6	0
5 Very low	1	3	1	0
No response	2	2	3	3
	100%	100%	100%	100%

Appendix Table 2a

Ratings on Periodical Collection, By University

(Bases)	A (98)	B (92)	C (91)	D (84)	E (82)	F (78)	G (75)	H (54)
Quality								
1 Very high	21%	67%	71%	48%	16%	32%	43%	13%
2	49	25	21	33	39	41%	45	30
3	25	4	2	8	29	18	5	31
4	3	0	0	4	7	3	1	20
5 Very low	0	0	1	2	1	1	1	4
No response	2	3	4	5	7	5	4	2
	100%	100%	100%	100%	100%	100%	100%	100%
Importance								
1 Very high	63%	75%	74%	73%	61%	70%	62%	54%
2	26	11	17	14	24	23	25	28
3	5	4	3	4	9	3	9	7
4	4	3	2	4	1	1	1	7
5 Very low	1	1	0	2	1	0	0	2
No response	1	6	4	3	4	3	3	2
	100%	100%	100%	100%	100%	100%	100%	100%

Appendix Table 2b

Rating on Periodical Collection, By Subject Field

(Bases)	Natural Sciences (105)	Physical Sciences (133)	Human- ities (190)	Professional Humanities (111)	Law (10)	Medicine (96)
Quality						
1 Very high	51%	43%	35%	40%	30%	38%
2	37	39	29	30	60	42
3	8	7	22	20	10	14
4	0	3	8	5	0	1
5 Very low	0	1	2	2	0	1
No response	4	7	4	3	0	4
	100%	100%	100%	100%	100%	100%
Importance						
1 Very high	78%	60%	68%	67%	60%	66%
2	14	27	16	19	40	25
3	4	5	9	4	0	4
4	1	2	3	6	0	1
5 Very low	0	0	2	1	0	1
No response	3	6	2	3	0	3
	100%	100%	100%	100%	100%	100%

Appendix Table 2c

Ratings on Periodical Collection, by Academic Rank

(Bases)	Full Professor (230)	Associate Professor (160)	Assistant Professor (203)	Instructor (37)
Quality				
1 Very high	43%	44%	37%	41%
2	39	38	31	27
3	11	12	20	16
4	3	1	6	13
5 Very low	*	1	3	0
No response	4	4	3	3
	100%	100%	100%	100%
Importance				
1 Very high	70%	68%	65%	76%
2	20	22	21	16
3	5	4	6	5
4	2	3	4	0
5 Very low	*	1	1	0
No response	3	2	3	3
	100%	100%	100%	100%

Appendix Table 3a

Ratings on Reference Materials, by University

(Bases)	A (98)	B (92)	C (91)	D (84)	E (82)	F (78)	G (75)	H (54)
Quality								
1 Very high	22%	58%	54%	39%	17%	24%	27%	13%
2	44	26	24	36	31	40%	43	30
3	26	8	7	8	29	19	9	44
4	3	2	1	4	7	8	9	6
5 Very low	0	0	1	2	2	0	1	0
No response	5	6	13	11	14	9	11	7
	100%	100%	100%	100%	100%	100%	100%	100%
Importance								
1 Very high	30%	38%	38%	31%	33%	19%	23%	19%
2	31	13	19	24	18	42	33	18
3	20	24	22	23	29	19	19	44
4	12	10	9	15	11	12	13	6
4 Very low	4	6	8	1	4	3	4	9
No response	3	9	4	6	5	5	8	4
	100%	100%	100%	100%	100%	100%	100%	100%

Appendix Table 3b

Ratings on Reference Materials, by Subject Field

(Bases)	Natural Sciences (105)	Physical Sciences (133)	Human-ities (190)	Professional Humanities (111)	Law (10)	Medicine (96)
Quality						
1 Very high	38%	23%	37%	37%	30%	32%
2	38	27	32	35	30	43
3	11	21	16	20	40	17
4	3	5	6	4	0	4
5 Very low	1	1	2	1	0	0
No response	9	23	7	3	0	4
	100%	100%	100%	100%	100%	100%
Importance						
1 Very high	29%	14%	36%	40%	40%	28%
2	26	18	25	22	10	39
3	25	27	23	25	20	17
4	14	16	9	8	30	6
5 Very low	2	11	3	2	0	7
No response	4	14	4	3	0	3
	100%	100%	100%	100%	100%	100%

Appendix Table 3c

Ratings on Reference Materials, by Academic Rank

(Bases)	Full Professor (230)	Associate Professor (160)	Assistant Professor (203)	Instructor (37)
Quality				
1 Very high	36%	35%	30%	30%
2	32	34	36	38
3	17	19	18	19
4	5	5	4	2
5 Very low	0	0	3	3
No response	10	7	9	8
	100%	100%	100%	100%
Importance				
1 Very high	29%	27%	30%	41%
2	28	28	19	27
3	23	26	25	16
4	9	12	13	11
5 Very low	4	4	8	0
No response	7	3	5	5
	100%	100%	100%	100%

Appendix Table 4a

Ratings on Other Resources (Pamphlets, Microforms), by University

	A	B	C	D	E	F	G	H
(Bases)	(98)	(92)	(91)	(84)	(82)	(78)	(75)	(54)
Quality								
1 Very high	4%	35%	27%	19%	4%	9%	13%	2%
2	22	23	30	15	20	23	23	24
3	46	17	11	29	35	31	28	33
4	10	8	8	8	16	15	13	17
5 Very low	4	2	3	4	6	5	3	6
No response	14	15	21	25	19	17	20	18
	100%	100%	100%	100%	100%	100%	100%	100%
Importance								
1 Very high	7%	14%	13%	9%	13%	9%	7%	4%
2	20	13	10	14	15	15	16	20
3	27	24	25	23	28	26	28	28
4	24	16	24	25	11	24	16	22
5 Very low	17	19	18	12	27	17	20	15
No response	5	14	10	17	6	9	13	11
	100%	100%	100%	100%	100%	100%	100%	100%

Appendix Table 4b

Ratings on Other Resources (Pamphlets, Etc.), by Subject Field

	Natural Sciences	Physical Sciences	Human-ities	Professional Humanities	Law	Medicine
(Bases)	(105)	(133)	(190)	(111)	(10)	(96)
Quality						
1 Very high	18%	13%	15%	18%	10%	11%
2	23	20	25	23	30	15
3	24	30	27	31	20	33
4	14	7	9	15	20	16
5 Very low	4	2	5	3	0	5
No response	17	28	19	10	20	20
	100%	100%	100%	100%	100%	100%
Importance						
1 Very high	9%	7%	11%	17%	30%	4%
2	19	9	13	25	10	10
3	29	22	27	27	20	25
4	24	20	21	15	10	24
5 Very low	14	23	19	10	10	24
No response	5	19	9	6	20	13
	100%	100%	100%	100%	100%	100%

Appendix Table 4c

Ratings on Other Resources (Pamphlets, Etc.), by Academic Rank

(Bases)	Full Professor (230)	Associate Professor (160)	Assistant Professor (203)	Instructor (37)
Quality				
1 Very high	15%	17%	14%	13%
2	22	24	19	30
3	28	25	33	24
4	13	12	11	11
5 Very low	4	3	5	3
No response	18	19	18	19
	100%	100%	100%	100%
Importance				
1 Very high	10%	11%	9%	11%
2	19	17	10	16
3	25	26	26	32
4	18	18	24	24
5 Very low	16	19	22	11
No response	12	9	9	6
	100%	100%	100%	100%

Appendix Table 5a

Ratings on Technical Services of Library, By University

(Bases)	A (98)	B (92)	C (91)	D (84)	E (82)	F (78)	G (75)	H (54)
Quality								
1 Very high	19%	50%	50%	40%	17%	24%	25%	13%
2	34	27	27	30	33	30	44	26
3	34	9	9	14	27	31	21	33
4	6	8	2	4	10	8	3	17
5 Very low	2	1	1	4	3	1	3	6
No response	5	5	11	8	10	6	4	5
	100%	100%	100%	100%	100%	100%	100%	100%
Importance								
1 Very high	33%	38%	43%	33%	37%	39%	41%	41%
2	39	35	29	36	32	36	26	24
3	18	12	15	20	19	15	23	24
4	3	4	4	2	5	1	3	4
5 Very low	1	4	1	4	1	4	3	2
No response	6	7	8	5	6	5	4	5
	100%	100%	100%	100%	100%	100%	100%	100%

Appendix Table 5b

Ratings on Technical Services of the Library, by Subject Field

(Bases)	Natural Science (105)	Physical Science (133)	Humanities (190)	Professional Humanities (111)	Law (10)	Medicine (96)
Quality						
1 Very high	41%	35%	21%	38%	50%	26%
2	35	27	28	29	20	41
3	12	18	29	20	30	22
4	4	5	11	8	0	2
5 Very low	3	2	4	2	0	2
No response	5	13	7	3	0	7
	100%	100%	100%	100%	100%	100%
Importance						
1 Very high	39%	31%	45%	36%	70%	30%
2	38	31	26	38	20	36
3	17	18	18	18	10	21
4	3	4	4	3	0	2
5 Very low	0	3	2	2	0	6
No response	3	13	5	3	0	5
	100%	100%	100%	100%	100%	100%

Appendix Table 5c

Ratings on Technical Services of Library, by Academic Rank

(Bases)	Full Professor (230)	Associate Professor (160)	Assistant Professor (203)	Instructor (37)
Quality				
1 Very high	39%	33%	25%	19%
2	30	29	32	46
3	19	23	24	19
4	3	6	10	13
5 Very low	2	4	2	0
No response	7	5	7	3
	100%	100%	100%	100%
Importance				
1 Very high	40%	40%	35%	43%
2	34	30	32	32
3	14	22	19	14
4	3	3	5	3
5 Very low	3	2	3	0
No response	6	3	6	8
	100%	100%	100%	100%

Appendix Table 6a

Ratings on Reference Services of Library, by University

	A	B	C	D	E	F	G	H
(Bases)	(98)	(92)	(91)	(84)	(82)	(78)	(75)	(54)
Quality								
1 Very high	9%	45%	50%	32%	18%	28%	25%	11%
2	42	27	29	26	28	28	38	29
3	39	11	7	20	36	28	23	41
4	4	5	2	5	5	4	3	6
5 Very low	1	3	0	3	1	1	3	6
No response	5	9	12	14	12	11	8	7
	100%	100%	100%	100%	100%	100%	100%	100%
Importance								
1 Very high	22%	37%	39%	23%	28%	29%	17%	33%
2	44	20	24	23	33	36	35	28
3	18	17	14	27	23	20	27	20
4	9	11	9	14	10	3	8	9
5 Very low	2	5	4	4	0	3	5	4
No response	5	10	10	9	6	9	6	6
	100%	100%	100%	100%	100%	100%	100%	100%

Appendix Table 6b

Ratings on Reference Services of The Library, by Subject Field

	Natural Sciences	Physical Sciences	Human-ities	Professional Humanities	Law	Medicine
(Bases)	(105)	(133)	(190)	(111)	(10)	(96)
Quality						
1 Very high	34%	22%	31%	32%	40%	22%
2	34	26	28	29	30	42
3	21	22	27	25	20	27
4	2	5	4	5	10	2
5 Very low	1	3	2	4	0	1
No response	8	22	8	5	0	6
	100%	100%	100%	100%	100%	100%
Importance						
1 Very high	27%	23%	30%	40%	40%	22%
2	35	23	29	26	30	40
3	23	19	22	19	30	22
4	8	13	9	9	0	5
5 Very low	2	7	2	1	0	6
No response	5	15	8	5	0	5
	100%	100%	100%	100%	100%	100%

Appendix Table 6c

Ratings on Reference Services of The Library, by Academic Rank

	Full Professor	Associate Professor	Assistant Professor	Instructor
(Bases)	(230)	(160)	(203)	(37)
Quality				
1 Very high	34%	28%	25%	24%
2	30	30	32	32
3	22	26	26	33
4	2	4	6	5
5 Very low	2	3	2	0
No response	10	9	9	6
	100%	100%	100%	100%
Importance				
1 Very high	30%	31%	25%	32%
2	30	24	35	35
3	20	24	20	19
4	8	12	8	6
5 Very low	5	2	3	0
No response	7	7	9	8
	100%	100%	100%	100%

Appendix Table 7a

Ratings on Lending Services of The Library, by University

	A	B	C	D	E	F	G	H
(Bases)	(98)	(92)	(91)	(84)	(82)	(78)	(75)	(54)
Quality								
1 Very high	27%	50%	49%	39%	26%	28%	33%	37%
2	41	23	26	28	40	32	38	31
3	19	16	6	18	19	22	16	19
4	5	3	4	6	4	8	1	6
5 Very low	0	1	1	2	1	2	4	0
No response	8	7	14	7	10	8	8	7
	100%	100%	100%	100%	100%	100%	100%	100%
Importance								
1 Very high	27%	40%	39%	36%	38%	32%	22%	39%
2	42	24	19	25	28	33	47	26
3	20	18	16	21	19	18	13	20
4	4	4	8	11	7	9	5	6
5 Very low	1	5	7	1	1	1	5	2
No response	6	9	11	6	7	7	8	7
	100%	100%	100%	100%	100%	100%	100%	100%

Appendix Table 7b

Ratings on Lending Services of The Library, by Subject Field

	Natural Sciences	Physical Sciences	Humanities	Professional Humanities	Law	Medicine
(Bases)	(105)	(133)	(190)	(111)	(10)	(96)
Quality						
1 Very high	36%	40%	36%	37%	50%	29%
2	32	26	29	37	10	41
3	13	16	20	16	20	17
4	9	1	5	4	0	5
5 Very low	1	1	2	2	10	2
No response	9	16	8	4	10	6
	100%	100%	100%	100%	100%	100%
Importance						
1 Very high	31%	30%	41%	33%	20%	32%
2	36	26	24	32	20	40
3	19	19	19	17	20	16
4	4	9	7	8	0	4
5 Very low	4	3	2	4	30	2
No response	6	13	7	6	10	6
	100%	100%	100%	100%	100%	100%

Appendix Table 7c

Ratings on Lending Services of The Library, by Academic Rank

	Full Professor	Associate Professor	Assistant Professor	Instructor
(Bases)	(231)	(160)	(203)	(37)
Quality				
1 Very high	40%	31%	34%	51%
2	26	38	39	24
3	21	16	13	11
4	3	4	6	8
5 Very low	1	3	1	0
No response	9	8	7	6
	100%	100%	100%	100%
Importance				
1 Very high	31%	33%	36%	49%
2	28	32	34	27
3	22	19	15	8
4	9	6	4	5
5 Very low	4	4	3	0
No response	6	6	8	11
	100%	100%	100%	100%

Appendix Table 8a

Ratings On Adequacy of Professional Library Staff, by University

	A	B	C	D	E	F	G	H
(Bases)	(98)	(92)	(91)	(84)	(82)	(78)	(75)	(54)
Quality								
1 Very high	15%	43%	48%	35%	16%	18%	32%	6%
2	37	30	29	34	34	37	40	44
3	39	16	7	13	23	26	17	30
4	3	1	4	2	11	5	3	13
5 Very low	1	2	0	6	5	3	1	0
No response	5	8	12	10	11	11	7	7
	100%	100%	100%	100%	100%	100%	100%	100%
Importance								
1 Very high	18%	40%	33%	30%	26%	33%	23%	28%
2	41	31	31	33	45	28	42	29
3	31	8	16	25	17	19	19	24
4	2	10	8	1	2	4	4	9
5 Very low	2	3	2	4	3	4	3	4
No response	6	8	10	7	7	12	9	6
	100%	100%	100%	100%	100%	100%	100%	100%

Appendix Table 8b

Ratings On Adequacy Of Professional Library Staff, by Subject Field

	Natural Sciences	Physical Sciences	Human-ities	Professional Humanities	Law	Medicine
(Bases)	(105)	(133)	(190)	(111)	(10)	(96)
Quality						
1 Very high	30%	31%	23%	32%	30%	26%
2	36	35	34	32	30	38
3	22	14	22	23	40	24
4	2	2	8	8	0	2
5 Very low	2	2	3	0	0	4
No response	8	16	10	5	0	6
	100%	100%	100%	100%	100%	100%
Importance						
1 Very high	28%	21%	30%	39%	30%	29%
2	41	39	35	27	50	34
3	19	18	19	21	20	23
4	5	6	5	4	0	2
5 Very low	2	4	2	3	0	5
No response	5	12	9	6	0	7
	100%	100%	100%	100%	100%	100%

Appendix Table 8c

Ratings On Adequacy Of Professional Library Staff, by Academic Rank

(Bases)	Full Professor (231)	Associate Professor (160)	Assistant Professor (203)	Instructor (37)
Quality				
1 Very high	35%	28%	[illegible]	19%
2	34	37		35
3	19	21	22	32
4	4	3	8	3
5 Very low	1	3	3	0
No response	7	8	9	11
	100%	100%	100%	100%
Importance				
1 Very high	32%	35%	22%	30%
2	35	32	37	43
3	19	20	23	8
4	4	4	6	5
5 Very low	4	2	3	0
No response	6	7	9	14
	100%	100%	100%	100%

Appendix 9a

Ratings On Adequacy Of Professional Services to Users, by University

(Bases)	A (98)	B (92)	C (91)	D (84)	E (82)	F (78)	G (75)	H (54)
Quality								
1 Very high	12%	39%	44%	30%	12%	13%	23%	7%
2	35	25	25	25	31	36	41	35
3	38	16	7	25	33	28	21	28
4	9	8	4	3	2	9	3	15
5 Very low	0	1	1	4	6	1	3	4
No response	6	11	19	13	16	13	9	11
	100%	100%	100%	100%	100%	100%	100%	100%
Importance								
1 Very high	22%	33%	32%	18%	24%	26%	25%	28%
2	41	23	25	36	40	33	33	24
3	22	26	22	30	16	23	23	19
4	7	4	6	2	5	23	4	13
5 Very low	2	3	3	2	1	5	4	7
No response	6	11	12	12	14	10	11	9
	100%	100%	100%	100%	100%	100%	100%	100%

Appendix Table 9b

Ratings On Adequacy Of Professional Services to Users, by Subject Field

(Bases)	Natural Science (105)	Physical Science (133)	Human-ities (190)	Professional Humanities (111)	Law (10)	Medicine (96)
Quality						
1 Very high	34%	23%	19%	24%	30%	21%
2	29	29	29	29	40	40
3	22	17	30	28	10	24
4	6	6	6	9	10	5
5 Very low	1	0	4	3	10	3
No response	8	25	12	7	0	7
	100%	100%	100%	100%	100%	100%
Importance						
1 Very high	26%	16%	24%	37%	30%	32%
2	36	28	35	33	30	30
3	25	29	19	15	30	27
4	5	4	7	6	0	4
5 Very low	1	4	4	2	10	2
No response	7	19	11	7	0	5
	100%	100%	100%	100%	100%	100%

Appendix Table 9c

Ratings On Adequacy Of Professional Services To Users, by Academic Rank

(Bases)	Full Professor (231)	Associate Professor (160)	Assistant Professor (203)	Instructor (37)
Quality				
1 Very high	30%	24%	20%	16%
2	27	33	33	38
3	25	24	24	24
4	5	5	8	11
5 Very low	2	3	3	0
No response	11	11	12	11
	100%	100%	100%	100%
Important				
1 Very high	29%	28%	22%	27%
2	30	32	34	40
3	24	24	22	14
4	4	6	7	3
5 Very low	3	2	4	0
No response	10	8	11	16
	100%	100%	100%	100%

Appendix Table 10a

Ratings On Acquisition Of Materials In Your Specialty, by University

	A	B	C	D	E	F	G	H
(Bases)	(98)	(92)	(91)	(84)	(82)	(78)	(75)	(54)
Quality								
1 Very high	19%	52%	41%	32	7%	26%	33%	17%
	41	29	37	35	34	31	46	31
	26	12	10	18	25	27	11	30
	9	2	6	8	22	9	3	13
	3	1	0	2	2	1	3	6
	2	4	6	5	10	6	4	3
	100%	100%	100%	100%	100%	100%	100%	100%
Important								
1 Very high	64%	72%	66%	62%	71%	68%	66%	57%
2	25	13	23	23	12	21	21	26
3	6	7	3	8	9	6	7	7
4	3	2	1	0	1	1	1	4
5 Very low	0	1	1	1	1	0	0	2
No response	2	5	6	6	6	4	5	4
	100%	100%	100%	100%	100%	100%	100%	100%

Appendix Table 10b

Ratings On Acquisition Of Materials In your Specialty, by Subject Field

	Natural Sciences	Physical Sciences	Human- ities	Professional H manities	Law	Medicine
(Bases)	(105)	(133)	(190)	(111)	(10)	(96)
Quality						
1 Very high	29%	32%	28%	33%	40%	22%
2	46	37	32	27	0	44
3	14	15	24	22	40	17
4	5	8	8	13	10	9
5 Very low	2	0	3	2	0	3
No response	4	8	5	3	10	5
	100%	100%	100%	100%	100%	100%
Importance						
1 Very high	72%	59%	70%	72%	70%	53%
2	18	26	17	16	20	25
3	5	6	5	5	0	14
4	2	1	2	3	0	1
5 Very low	0	0	2	1	0	1
No response	3	8	4	3	10	6
	100%	100%	100%	100%	100%	100%

Appendix Table 10c

Ratings On Acquisition Of Materials In Your Specialty, by Academic Rank

(Bases)	Full Professor (231)	Associate Professor (160)	Assistant Professor (203)	Instructor (37)
Quality				
1 Very high	35%	33%	24%	22%
2	39	36	34	24
3	15	16	23	32
4	6	8	12	14
5 Very low	*	3	4	3
No response	5	4	3	5
	100%	100%	100%	100%
Importance				
1 Very high	67%	66%	65%	76%
2	23	20	20	11
3	5	7	5	11
4	1	2	3	0
5 Very low	0	1	2	0
No response	4	4	5	2
	100%	100%	100%	100%

* Less than 0.5 percent.

Appendix Table 11a

Ratings On Physical Facilities Of Library, by University

(Bases)	A (98)	B (92)	C (91)	D (84)	E (82)	F (78)	G (75)	H (54)
Quality								
1 Very high	19%	34%	50%	37%	17%	19%	39%	37%
2	29	28	25	36	20	16	20	33
3	34	19	15	17	33	28	23	17
4	13	12	3	9	16	19	8	9
5 Very low	2	4	1	6	6	10	5	2
No response	3	3	6	5	8	8	5	2
	100%	100%	100%	100%	100%	100%	100%	100%
Importance								
1 Very high	22%	29%	35%	23%	27%	23%	23%	32%
2	34	23	28	31	27	26	32	33
3	29	26	20	22	31	28	22	24
4	11	13	2	12	6	14	12	7
5 Very low	1	2	7	6	4	4	3	2
No response	3	7	8	6	5	5	8	2
	100%	100%	100%	100%	100%	100%	100%	100%

Appendix 11b

Ratings On Physical Facilities Of Library, by Subject Field

	Natural Sciences	Physical Sciences	Human-ities	Professional Humanities	Law	Medicine
(Bases)	(105)	(133)	(190)	(111)	(10)	(96)
Quality						
1 Very high	34%	34%	26%	35%	50%	28%
2	24	26	27	22	20	22
3	24	17	25	29	10	23
4	11	10	12	9	10	14
5 Very low	2	5	6	2	10	7
No response	5	8	4	3	0	6
	100%	100%	100%	100%	100%	100%
Importance						
1 Very high	32%	23%	25%	30%	50%	22%
2	31	31	26	27	20	35
3	18	29	27	26	20	26
4	11	7	12	11	0	7
5 Very low	3	1	6	2	10	3
No response	5	9	4	4	0	7
	100%	100%	100%	100%	100%	100%

Appendix 11c

Ratings On Physical Facilities Of Library, by Academic Rank

	Full Professor	Associate Professor	Assistant Professor	Instructor
(Bases)	(231)	(160)	(203)	(37)
Quality				
1 Very high	38%	29%	28%	24%
2	20	26	28	22
3	21	26	25	30
4	11	11	10	19
5 Very low	5	4	5	3
No response	5	4	4	2
	100%	100%	100%	100%
Importance				
1 Very high	30%	28%	20%	40%
2	27	30	32	27
3	25	24	27	27
4	9	11	10	3
5 Very low	33	3	5	0
No response	6	4	6	3
	100%	100%	100%	100%

Appendix Table 12a

Ratings On Provision Of Branch Libraries, by University

	A	B	C	D	E	F	G	H
(Bases)	(98)	(92)	(91)	(84)	(82)	(78)	(75)	(54)
Quality								
1 Very high	24%	45%	46%	38%	19%	25%	32%	4%
2	36	32	24	19	16	15	16	19
3	21	14	8	14	21	14	22	22
4	4	3	2	10	11	14	8	18
5 Very low	9	1	7	6	15	18	7	19
No response	6	5	13	13	18	14	15	18
	100%	100%	100%	100%	100%	100%	100%	100%
Importance								
1 Very high	37%	51%	42%	38%	31%	40%	27%	24%
2	25	18	19	25	17	21	21	20
3	11	15	12	11	22	10	15	22
4	10	3	9	2	7	5	12	4
5 Very low	13	4	6	12	10	14	12	13
No response	4	9	12	12	13	10	13	17
	100%	100%	100%	100%	100%	100%	100%	100%

Appendix 12b

Ratings On Provision of Branch Libraries, by Subject Field

	Natural Sciences	Physical Sciences	Human-ities	Professional Humanities	Law	Medicine
(Bases)	(105)	(133)	(190)	(111)	(10)	(96)
Quality						
1 Very high	41%	45%	18%	31%	30%	24%
2	27	26	16	22	50	23
3	21	10	19	19	0	17
4	2	4	14	8	0	10
5 Very low	4	3	14	12	10	11
No response	5	12	19	8	10	15
	100%	100%	100%	100%	100%	100%
Importance						
1 Very high	51%	44%	27%	38%	40%	31%
2	19	33	12	23	20	20
3	16	10	15	16	10	16
4	10	1	8	5	0	8
5 Very low	1	2	20	11	20	14
No response	3	10	18	7	10	11
	100%	100%	100%	100%	100%	100%

Appendix Table 12c

Ratings on Provision of Branch Libraries, by Academic Rank

(Bases)	Full Professor (231)	Associate Professor (160)	Assistant Professor (203)	Instructor (37)
Quality				
1 Very high	32%	31%	29%	27%
2	21	23	26	19
3	17	17	17	24
4	6	9	10	8
5 Very low	9	11	9	8
No response	15	9	9	14
	100%	100%	100%	100%
Importance				
1 Very high	35%	38%	39%	43%
2	18	27	19	19
3	13	13	17	14
4	10	4	5	5
5 Very low	11	11	10	8
No response	13	7	10	11
	100%	100%	100%	100%

Appendix Table 13a

Ratings on Overall Ranking of University Library, by University

(Bases)	A (98)	B (92)	C (91)	D (84)	E (82)	F (78)	G (75)	H (54)
Quality								
1 Very high	10%	55%	63%	32%	13%	26%	33%	6%
2	52	34	24	47	29	44	47	33
3	32	4	2	13	37	19	12	50
4	2	0	1	0	10	4	1	6
5 Very low	0	0	0	2	1	0	3	0
No response	4	7	10	6	10	7	4	5
	100%	100%	100%	100%	100%	100%	100%	100%
Importance								
1 Very high	44%	65%	59%	49%	46%	44%	47%	43%
2	38	15	23	35	32	43	40	31
3	10	6	6	6	10	8	8	11
4	3	2	3	2	2	1	0	4
5 Very low	0	1	0	0	1	0	1	2
No response	5	11	9	8	9	4	4	9
	100%	100%	100%	100%	100%	100%	100%	100%

Appendix Table 13b

Ratings on Overall Ranking of University Library, by Subject Field

	Natural Sciences	Physical Sciences	Human-ities	Professional Humanities	Law	Medicine
(Bases)	(105)	(133)	(190)	(111)	(10)	(96)
Quality						
1 Very high	40%	35%	28%	32%	20%	25%
2	37	40	33	37	70	48
3	16	15	24	22	10	19
4	0	1	5	5	0	0
5 Very low	1	0	1	0	0	2
No response	6	9	9	4	0	6
	100%	100%	100%	100%	100%	100%
Importance						
1 Very high	54%	38%	52%	58%	70%	47%
2	33	43	27	24	10	36
3	7	7	7	12	10	7
4	0	3	4	3	0	0
5 Very low	0	0	1	1	0	1
No response	6	9	9	2	10	9
	100%	100%	100%	100%	100%	100%

Appendix Table 13c

Ratings On Overall Ranking of University Library, by Academic Rank

	Full Professor	Associate Professor	Assistant Professor	Instructor
(Bases)	(231)	(160)	(203)	(37)
Quality				
1 Very high	33%	33%	30%	30%
2	44	40	32	33
3	14	19	27	27
4	1	1	5	5
5 Very low	1	1	1	0
No response	7	6	5	5
	100%	100%	100%	100%
Importance				
1 Very high	47%	52%	50%	65%
2	38	31	28	27
3	5	9	10	3
4	2	2	3	0
5 Very low	0	1	1	0
No response	8	5	8	5
	100%	100%	100%	100%

Appendix Tables 14 a and b through 20a and b show responses to question 20 on the questionnaire sent to professional staff members in each university library. Staff members were asked to evaluate the ease (or difficulty) of working with several groups with which they might have contact in the library. Answers are shown by sex, by age, and by university.

Appendix Table 14a

Relations with Work Group, by Sex and Age

(Bases)	Male (143)	Female (294)	Under 40 (231)	Over 40 (209)
Easy to work with	75%	80%	81%	76%
Varies	19	16	15	18
Difficult	1	1	1	1
No contact	3	*	1	1
No response	2	3	2	4
	100%	100%	100%	100%

Appendix Table 14b

Relations with Work Group, by University

(Bases)	A (29)	B (134)	C (83)	D (60)	E (31)	F (32)	G (39)	H (34)
Easy to work with	77%	78%	74%	77%	78%	85%	84%	79%
Varies	20	15	20	23	13	15	8	21
Difficult	0	2	0	0	6	0	0	0
No contact	0	2	0	0	3	0	5	0
No response	3	3	6	0	0	0	3	0
	100%	100%	100%	100%	100%	100%	100%	100%

(* Less than 0.5 percent.)

Appendix Table 15a

Relations with Immediate Superior, by Sex and Age

(Bases)	Male (143)	Female (294)	Under 40 (231)	Over 40 (209)
Easy to work with	64%	72%	68%	71%
Varies	29	20	26	20
Difficult	5	6	5	6
No contact	0	1	*	*
No response	2	1	1	3
	100%	100%	100%	100%

Appendix Table 15b

Relations with Immediate Superior, by University

(Bases)	A (29)	B (134)	C (83)	D (60)	E (31)	F (32)	G (39)	H (34)
Easy to work with	70%	73%	68%	65%	78%	70%	71%	56%
Varies	27	17	24	32	22	24	18	29
Difficult	3	6	6	3	0	6	8	12
No contact	0	1	0	0	0	0	0	3
No response	0	3	2	0	0	0	3	0
	100%	100%	100%	100%	100%	100%	100%	100%

Appendix Table 16a

Relations with Top Administrators, by Sex and Age

(Bases)	Male (143)	Female (294)	Under 40 (231)	Over 40 (209)
Easy to work with	44%	30%	26%	45%
Varies	33	24	25	29
Difficult	4	6	6	5
No contact	19	39	42	21
No response	0	1	1	*
	100%	100%	100%	100%

(* Less than 0.5 percent.)

Appendix Table 16b

Relations with Top Administrators, by University

(Bases)	A (29)	B (134)	C (83)	D (60)	E (31)	F (32)	G (39)	H (34)
Easy to work with	47%	27%	34%	33%	44%	40%	45%	29%
Varies	33	15	37	35	34	18	21	44
Difficult	0	3	5	3	6	12	13	12
No contact	20	54	23	28	16	30	21	15
No response	0	1	1	1	0	0	0	0
	100%	100%	100%	100%	100%	100%	100%	100%

Appendix Table 17a

Relations with Other Employees, by Sex and Age

(Bases)	Male (143)	Female (294)	Under 40 (231)	Over 40 (209)
Easy to work with	49%	44%	46%	47%
Varies	48	49	49	48
Difficult	1	1	*	1
No contact	2	5	4	3
No response	0	1	1	1
	100%	100%	100%	100%

Appendix Table 17b

Relations with Other Employees, by University

(Bases)	A (29)	B (134)	C (83)	D (60)	E (31)	F (32)	G (39)	H (34)
Easy to work with	40%	48%	42%	43%	50%	52%	58%	41%
Varies	53	43	51	52	50	48	40	56
Difficult	0	1	2	0	0	0	0	0
No contact	7	6	4	3	0	0	2	3
No response	0	2	1	2	0	0	0	0
	100%	100%	100%	100%	100%	100%	100%	100%

(* Less than 0.5 percent.)

Appendix Table 18a

Relations with Undergraduates, by Sex and Age

(Bases)	Male (143)	Female (294)	Under 40 (231)	Over 40 (209)
Easy to work with	53%	45%	47%	49%
Varies	22	13	18	13
Difficult	0	1	*	1
No contact	24	38	32	34
No response	1	3	3	3
	100%	100%	100%	100%

Appendix Table 18b

Relations with Undergraduates, by University

(Bases)	A (29)	B (134)	C (83)	D (60)	E (31)	F (32)	G (39)	H (34)
Easy to work with	57%	48%	44%	43%	50%	73%	37%	44%
Varies	13	17	13	5	28	15	11	29
Difficult	0	0	2	0	0	3	0	0
No contact	30	30	38	50	22	9	50	27
No response	0	5	3	2	0	0	2	0
	100%	100%	100%	100%	100%	100%	100%	100%

Appendix Table 19a

Relations with Junior Faculty, by Sex and Age

(Bases)	Male (143)	Female (294)	Under 40 (231)	Over 40 (209)
Easy to work with	41%	32%	31%	39%
Varies	33	25	29	26
Difficult	3	3	2	3
No contact	23	38	37	30
No response	0	2	1	2
	100%	100%	100%	100%

(* Less than 0.5 percent.)

Appendix Table 19b

Relations with Junior Faculty, by University

(Bases)	A (29)	B (134)	C (83)	D (60)	E (31)	F (32)	G (39)	H (34)
Easy to work with	33%	34%	37%	30%	34%	46%	26%	41%
Varies	27	27	31	17	38	30	26	32
Difficult	7	2	1	3	6	6	0	0
No contact	33	34	31	50	22	15	45	27
No response	0	3	0	0	0	3	3	0
	100%	100%	100%	100%	100%	100%	100%	100%

Appendix Table 20a

Relations with Senior Faculty, by Sex and Age

(Bases)	Male (143)	Female (294)	Under 40 (231)	Over 40 (209)
Easy to work with	49%	37%	33%	50%
Varies	30	24	29	22
Difficult	0	*	0	1
No contact	21	37	37	25
No response	0	2	1	3
	100%	100%	100%	100%

Appendix Table 20b

Relations with Senior Faculty, by University

(Bases)	A (29)	B (134)	C (83)	D (60)	E (31)	F (32)	G (39)	H (34)
Easy to work with	40%	37%	42%	38%	44%	52%	37%	50%
Varies	30	27	31	15	34	27	18	24
Difficult	0	0	0	0	0	3	0	0
No contact	30	33	27	47	22	15	42	26
No response	0	3	0	0	0	3	3	0
	100%	100%	100%	100%	100%	100%	100%	100%

(* Less than 0.5 percent.)

RUTGERS UNIVERSITY *The State University of New Jersey*

GRADUATE SCHOOL OF LIBRARY SERVICE
Bureau of Information Sciences Research
189 College Avenue
New Brunswick, New Jersey 08903
Tel. 247-1766 Ext. 6969

May 5, 1970

Dear Colleague:

Several members of the faculty of the Rutgers Graduate School of Library Service are currently engaged in a national study analyzing various trends affecting manpower requirements for research libraries. As part of the study, we think it essential to consider certain information concerning potential users of academic research libraries. Your name was randomly selected from a list of university faculty and we are requesting your assistance in completing the attached questionnaire. We are interested in determining the general types of current research and teaching, and how members of the faculty view and use library resources.

Please note that your anonymity is assured; you will not be individually identified in any analysis or report and only members of the research group will see the completed questionnaires. We are not interested in identifying the responses of any particular individual. A number is used on the questionnaire as a substitute for name, principally to identify non-respondents for follow-up purposes. We would appreciate your returning the completed questionnaire no later than May 22, 1970, in the postage-paid envelope provided.

I hope you will take a few minutes at this time to complete the questionnaire. Your cooperation is greatly appreciated and will be a valuable contribution to the study.

Sincerely yours,

Edw. Angus

Edward L. Angus
Principal Investigator

ea:js
att.

SURVEY OF ACADEMIC RESEARCH LIBRARY USERS

1. Please provide the following personal information:

   Your Department:_____ Academic Rank:_____

   Highest earned degree and year awarded:

   Years of service at present university:

2. What do you consider your main area(s) of current professional research interest?

3. Is the main university library or one of its branches the principal source of information necessary to support your teaching and/or research? ___Yes ___No. If yes, do you normally use the main library( ) or a branch (specify_____). If no, where are the materials you use located?

4. What other information sources, other than your personal library or self-generated data, do you use to supply information necessary to your teaching and/or research (e.g., special libraries, abstracting services, bibliographies, indices, etc. Please provide specific references.)

5. If material you desire is not currently available in the university library collection, indicate what you would consider a reasonable period of time in which the material could be borrowed from another source and made available to you:

   ___less than 24 hours
   ___24-48 hours
   ___ 2-4 days
   ___5-7 days
   ___8-14 days
   ___over 14 days

6. In terms of physical location (distance), is the university library or a branch containing materials relevant to your teaching and/or research (check one): ___very accessible, ___accessible, ___moderately accessible, ___moderately inaccessible, ___nearly inaccessible.

7. (A) What methods do you use to maintain current awareness in your field or speciality (e.g., periodic browsing, abstracts, index services, bibliographies, etc.)

   (B) Do you think you are presently able to maintain the level of awareness of new information in your speciality that you desire? ___Yes ___No.

   (C) Would you expect the library to assist you in maintaining current awareness? ___Yes ___No.

   (D) What services might the library provide which would be useful in maintaining awareness (e.g., circulating copies of journals, tables of content pages, publishers catalogues, etc.)

8. Thinking ahead to the early 1980's, do you foresee any significantly new forms of information collection and/or distribution in your subject field or area of research interest? ___Yes ___No. If yes, please briefly describe these developments:

9. What programs or policies would you like to see the library and university administrations adopt with respect to strengthening the library's services, collections and/or personnel either in terms of your own personal requirements or the university's academic programs?

(continued)

10. Please evaluate the following services, resources, and facilities of the university library system. Circle the overall quality of the items listed in terms of (A) your research and teaching requirements on the chart to the left and (B) the relative importance of each item to those requirements on the chart to the right. The score is: 1-very high; 2-high; 3-medium or acceptable; 4-low; and 5-very low.

A. Quality (Teaching/Research)		B. Importance to you
	Resources:	
1 2 3 4 5	1. Book collection	1 2 3 4 5
1 2 3 4 5	2. Periodical collection	1 2 3 4 5
1 2 3 4 5	3. Reference materials (bibliographies, yearbooks, etc.)	1 2 3 4 5
1 2 3 4 5	4. Other resources (pamphlets, maps, microforms, etc.)	1 2 3 4 5
	Services:	
1 2 3 4 5	5. Technical services of library (procurement of materials, accuracy of cataloging, etc.)	1 2 3 4 5
1 2 3 4 5	6. Reference services of library	1 2 3 4 5
1 2 3 4 5	7. Lending services of library	1 2 3 4 5
1 2 3 4 5	8. Adequacy of professional library staff	1 2 3 4 5
1 2 3 4 5	9. Adequacy of professional services to users	1 2 3 4 5
	Facilities:	
1 2 3 4 5	10. Acquisition of materials in your speciality	1 2 3 4 5
1 2 3 4 5	11. Physical facilities of library (stack access, carrels, seating space, etc.)	1 2 3 4 5
1 2 3 4 5	12. Provision of branch libraries with subject or area speciality collections.	1 2 3 4 5
1 2 3 4 5	Please indicate here your overall ranking of the quality and importance of university library system.	1 2 3 4 5

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GRADUATE SCHOOL OF LIBRARY SERVICE
Bureau of Information Sciences Research
189 College Avenue
New Brunswick, New Jersey 08903
Tel. 247-1766 Ext. 6969

May 5, 1970

Dear Colleague:

Several members of the faculty of the Rutgers Graduate School of Library Service are currently engaged in a national study analyzing manpower requirements for research libraries. As one part of the study, we are seeking data about those professional librarians presently employed in research libraries. Your library system is one of the ten selected for the study. Your name was selected from a list of the library's professional staff and we are requesting your assistance in completing the attached questionnaire. Please note that your anonymity is assured; you will not be individually identified in either our analyses or report and only members of the research team will see the completed questionnaire. We are not interested in identifying the responses of any particular individual. A number is used on the questionnaire as a substitute for name, principally to identify non-respondents for follow-up purposes.

I would appreciate your returning the completed questionnaire in the postage-paid envelope provided no later than May 22, 1970. I hope you will take a few minutes right now to complete the questionnaire. Your cooperation is greatly appreciated and will be a very valuable contribution to the study.

Sincerely,

Edw. Angus

Edward L. Angus
Principal Investigator

ea:js
att.

Rutgers - The State University
Graduate School of Library Service
Bureau of Library and Information Science Research

Library Professional Personnel Survey

1. Name of Department or Work Unit:

2. Position Title:

3. Please briefly describe your major job activities:

4. How many people are under your direct supervision?

	Full-time	Part-time
Student Assistants	_____	_____
Clerical and Technical	_____	_____
Professional (M.L.S. degree only)	_____	_____
Professional (graduate degree with or without M.L.S.)	_____	_____

5. To whom do you report? (Please give position title only.)

6. Is your major activity associated primarily with any of the following:

	No	Yes	
A particular foreign language or group of languages?	___	___	Which Language(s): _____
A particular geographical area (i.e., Latin America, Southeast Asia)?	___	___	What Area: _____
A particular subject field?	___	___	What field: _____
Another professional specialization (i.e., archives, AV, personnel, systems analysis, etc.)?	___	___	What Specialization: _____

7. Do you regard yourself professionally as a librarian or some other specialist? (Please check only one.)

   Librarian ___. Professional Specialist (specify)_____.

8. Does your library position have academic rank or status? ___Yes ___No. Is it equivalent to that held by a member of the teaching staff of the University in terms of:

   A. Equivalent Salary Scale? ___Yes ___No

   B. Academic rank? ___Yes ___No

   c. Benefits & Privileges? ___Yes ___No

9. Do you teach any courses given for academic credit? ___Yes ___No. If Yes,

Title of Course	Department and Institution

10. To provide a profile of your educational background, please complete the table below. (Please use a separate line for each earned degree held. If you have a certificate or diploma, please specify and use equivalent category.)

Earned Degree	College, University or other institution	Location (State)	Year Degree Conferred	Major
___ Bachelor's				
___ Master's				
___ Doctor's				

___ None of the above.

11.. Are you presently enrolled for credit toward a degree? ___Yes ___No.
If yes, which degree: ___ Master's; ___Doctor's
In what field? _____.

- EXPERIENCE -

12. How many years of professional library experience do you have?
____years. ____less than one year.

13. How many years of professional library experience have you had in your present institution? ____years. ____less than one year.

14. How many years have you been working in your present position?
____years. ____less than one year.

15. Do you have any experience or training in an occupation other than that of a professional librarian? ___Yes ___No. If yes, in what occupational field(s):

If yes, what relevance, if any, does this other experience have to your present or any past library position?

16. Please list all other libraries in which you have held full-time professional positions and the length of service for each.

Library _____ Length of Service _____

17. The following statements concern your opinions about your present position. Be assured that your responses will be held in confidence and you will not be identified in any way with the opinions you express. Please circle the number of the response that best indicates how you feel about the question. If you wish to comment further on any specific question please circle your response and comment in the provided space.

Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree		Comments
1	2	3	4	5	My talents, experience and background are fully utilized with only minor exceptions.	
1	2	3	4	5	In order to advance to a better paying, more responsible position I will have to move to another library or non-library job.	
1	2	3	4	5	I find myself doing many clerical tasks that could be handled effectively by someone less qualified than I.	
1	2	3	4	5	Much of my work seems unimportant to me.	
1	2	3	4	5	I am given full responsibility for all aspects of my job.	
1	2	3	4	5	My library career has been about what I expected it to be.	
1	2	3	4	5	My superiors give me jobs that should be handled by persons with skills other than those that I possess.	
1	2	3	4	5	My expectations were very high when I entered the field.	
1	2	3	4	5	My opinion is asked for and generally respected in matters that directly affect my department.	
1	2	3	4	5	My formal library education did a very good job in preparing me for library work.	
1	2	3	4	5	I have a great deal of latitude in deciding what I will do in my job.	
1	2	3	4	5	My opinion is asked for and generally respected in matters that concern the broad operations of the library.	
1	2	3	4	5	If I am going to get ahead here, I will have to move more into administrative work.	
1	2	3	4	5	My chances for advancement in this library system are pretty good.	
1	2	3	4	5	I am generally satisfied with the kind of work I am presently doing.	

The following questions ask about conditions in your library as you see them. Please check the one response that best describes the situation in your library system.

18. To what extent do upper-level administrators have confidence and trust in lower-level personnel?

___a great deal of confidence and trust
___quite a bit of confidence and trust
___some confidence and trust
___very little confidence and trust

19. To what extent do you feel free to discuss important matters concerning your job with your immediate superior?

___I can be entirely free and candid in speaking with my superior.
___I may be conscious of what I can say, but generally I feel that I can speak my mind.
___I do not feel very free; I feel that I must be guarded in what I say.
___I do not feel free at all to discuss important matters with my superior.

20. Please evaluate how easy it is for you to work with the following groups of people. If you have no contact with a group, circle the appropriate number and go to the next group. (By "easy to work with" we mean that, generally speaking, they make reasonable demands on your time and talents.)

	Easy to Work With	Varies	Difficult to Work With	No Contact
People in my work group	1	2	3	4
My immediate supervisor	1	2	3	4
The top library administrators	1	2	3	4
Other people who work for the library	1	2	3	4
Undergraduate students	1	2	3	4
Junior Faculty	1	2	3	4
Senior Faculty	1	2	3	4
Other user groups (specify): _____	1	2	3	4
_____	1	2	3	4

21. There is considerable discussion today about the direction in which academic libraries are heading and the kinds of people that will be necessary to staff these libraries in the next ten years. What do you think will be the situation by 1980 in academic libraries? Circle the response that best indicates your thinking.

	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree	Comments
Much of the major cataloging work will be done by national or regional cataloging centers.	1	2	3	4	5	
Libraries will hire a larger percentage of staff in non-professional classifications.	1	2	3	4	5	
A subject Master's and an M.L.S. will be the minimum requirement for academic library professional personnel.	1	2	3	4	5	
Sophisticated electronically oriented information retrieval systems will become more widely used in libraries.	1	2	3	4	5	
There will be few, if any, radical changes in academic libraries in the next ten years.	1	2	3	4	5	

Please list any other major developments you see in the coming decade:

22. Please check the appropriate classifications indicating your sex and age.

___Male

___Female

___under 30
___30-39
___40-49
___50-59
___60 and over

Any additional comments you wish to make will be appreciated. (You may use the other side of the page.)