

DOCUMENT RESUME

ED 029 659

LI 001 447

Libraries in North Carolina Public Senior Colleges and Universities: Present Status and Future Needs.

North Carolina State Board of Higher Education, Raleigh.

Report No-RR-1-69

Pub Date Jan 69

Note-53p.

EDRS Price MF-\$0.25 HC-\$2.75

Descriptors-\*College Libraries, Financial Support, Library Collections, Library Cooperation, Library Facilities, \*Library Planning, Library Standards, \*Library Surveys, Personnel, Technological Advancement, \*University Libraries, Use Studies

Identifiers-\*North Carolina

This report is based on a study of 15 public senior college and university libraries in North Carolina as of June 30, 1968, conducted by Robert B. Downs. The libraries in most of the colleges and universities suffer from deficiencies in holdings, shortages in qualified personnel, and inadequate space. These problems result from increases in numbers of students and faculty, expansion of academic programs, increase in the number of books and periodicals published, high deterioration rates of existing holdings, and inadequate financial support. The Board of Higher Education recommends that: (1) the book, periodical, and binding budgets be increased at all public senior institutions depending upon needs; (2) institutions reach specified goals for minimum numbers of volumes by 1975; (3) institutions not designated as depositories for Federal Government publications become depositories; (4) the ratio of clerical staff to librarians be raised to two to one; (5) the ratio of librarians to students be raised to one librarian for every 300 students; (6) library seating accommodate 25% of student enrollment; (7) administration, faculty, and library staff explore ways of cooperating to improve services; (8) a study be initiated to determine the feasibility of a central research library facility for the state (Author/CC)

ED029659

41 JUL 1969

**LIBRARIES IN NORTH CAROLINA PUBLIC  
SENIOR COLLEGES AND UNIVERSITIES:  
PRESENT STATUS AND FUTURE NEEDS**



**RESEARCH REPORT 1-69 (JANUARY 1969)  
NORTH CAROLINA BOARD OF HIGHER EDUCATION  
RALEIGH, NORTH CAROLINA**

1307 GLENWOOD AVENUE  
P. O. BOX 10887  
RALEIGH, NORTH CAROLINA 27605

MEMBERS:

WATTS HILL, JR., *Chairman*  
Durham, 1971 (Member-at-Large)  
LINDSAY C. WARREN, JR., *Vice-Chairman*  
Goldsboro, 1973 (Member-at-Large)  
MRS. HARRY P. HORTON, *Secretary*  
Pittsboro, 1973 (Member-at-Large)  
GORDON H. GREENWOOD  
Black Mountain, 1969 (Member-at-Large)  
W. C. HARRIS, JR.  
Raleigh, 1969 (Trustee, University of  
North Carolina)  
ADDISON HEWLETT, JR.  
Wilmington, 1969 (Trustee, Wilmington  
College)  
J. P. HUSKINS  
Statesville, 1971 (Member-at-Large)  
J. PAUL LUCAS  
Charlotte, 1971 (Member-at-Large)  
ISAAC H. MILLER, JR.  
Greensboro, 1973 (Member-at-Large)  
HUBERT M. POTEAT, JR., M.D.  
Smithfield, 1969 (Member-at-Large)  
JOHN A. PRITCHETT  
Windsor, 1969 (Vice Chairman, State  
Board of Education)  
WILLIAM B. RANKIN  
Lincolnton, 1969 (Trustee, Appalachian  
State University)  
EMIL ROSENTHAL  
Goldsboro, 1969 (Trustee, Fayetteville  
State College)  
CLARENCE C. WATKINS  
Reidsville, 1969 (Trustee, North  
Carolina College at Durham)  
MRS. GEORGE D. WILSON  
Fayetteville, 1969 (Trustee, University of  
North Carolina)

ADMINISTRATIVE STAFF:

CAMERON P. WEST  
*Director of Higher Education*  
JOHN F. COREY  
*Assistant Director*  
JOHN P. KENNEDY, JR.  
*Assistant Director*  
LINDA F. BALFOUR  
*Statistical Analyst*  
ALLEN J. BARWICK  
*Coordinator of Institutional Research*  
STAN C. BROADWAY  
*Administrator, State Education  
Assistance Authority*  
HUGH S. BUCHANAN  
*Budget Officer*  
HILDA A. HIGHFILL  
*Research Associate*  
EUN SUL LEE  
*Director, Statistical Services*  
ALLEN W. RODEHEFFER  
*Coordinator, Community Service and  
Continuing Education Programs*

**U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE  
OFFICE OF EDUCATION**

**THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE  
PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS  
STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION  
POSITION OR POLICY.**

**LIBRARIES IN NORTH CAROLINA PUBLIC SENIOR  
COLLEGES AND UNIVERSITIES: PRESENT  
STATUS AND FUTURE NEEDS**

**JANUARY 1969**

**NORTH CAROLINA BOARD OF HIGHER EDUCATION**

## SUMMARY HIGHLIGHTS

The libraries in most of the colleges and universities in North Carolina suffer from severe deficiencies in holdings, shortages in qualified personnel, and inadequate space. The problems faced by the libraries result in large part from recent increases in numbers of undergraduates, graduate students, and faculty, from the expansion and proliferation of academic programs, the phenomenal increase in the number of books and periodicals published in recent years, the high deterioration rates of existing holdings, and generally inadequate financial support. College and university administrators and governing boards are aware of library deficiencies and are struggling to remedy them. The General Assembly has also recognized the problems, as illustrated by recent appropriations for some new library buildings. The problems remain severe, however, and they cannot be resolved without a great deal more attention and support.

The Board of Higher Education recommends that as immediate objectives, the annual book, periodical, and binding budgets be significantly increased at all public senior institutions depending upon the particular needs. This recommendation should have top priority in meeting library requirements.

A ratio between student enrollment and overall library support should be established and used to guide both the General Assembly and the institutions in planning their library budgets; a per capita amount of not less than \$100 is recommended.

Further analysis of book and salary expense ratios in individual library budgets should be made to determine whether one or the other category is disproportionately high or low, and remedial action taken where necessary.

The stature of the library of the University of North Carolina at Chapel Hill should be maintained and improved and support sufficient to increase its holdings to a minimum of 2,350,000 volumes by 1975 should be provided.

At North Carolina State University, the other major public institution offering a broad range of doctoral programs, immediate steps should be taken to strengthen the library in all aspects, and to bring its holdings up to a minimum of 1,150,000 volumes by 1975.

The libraries of the other two campuses of the University of North Carolina, at Greensboro and Charlotte, should attain holdings of at least 800,000 volumes and 500,000 volumes respectively by 1975.

The four regional universities and North Carolina College, institutions offering programs through the master's degree, should develop library collections in excess of 400,000 volumes as soon as possible, with larger collections as the demands of enrollment and the complexity of academic offerings indicate.

The state's senior four-year college libraries should be supported to the end that each has a collection of not less than 130,000 volumes by 1975.

Each four-year institution should plan to subscribe to no fewer than 1,000 current, well-selected periodicals annually by 1975, and institutions offering graduate work should adhere to the Clapp-Jordan formula for periodical subscriptions.

Institutions not presently designated as depositories for Federal Government publications should make application to be added to the official list.

Each public senior institution should constantly evaluate its library holdings; and in building a collection suited to its academic programs the library staff should work cooperatively with faculty members, using standard lists prepared by specialists, to improve the quality of its holdings.

The ratio of clerical to professional staff should be increased in a number of libraries in order to free librarians for professional duties; the recommended ratio is two clerical staff members for each professional librarian.

The ratio of professional librarians to enrollment should be raised to the recommended ratio of one professional librarian to every 300 students.\*

Library seating should be brought up to a minimum of 25 percent of student enrollment in all public colleges and universities as soon as possible. Steps should be taken immediately in the libraries on some campuses, and in the near future on others, to relieve shortages in book storage space.

The administration, faculty, and library staff of each public senior institution cooperatively should undertake a study to determine the extent to which library resources are being utilized and to seek additional ways of stimulating their use. Each public college and university should explore the possibility of closer cooperation with other libraries.

A study should be initiated as soon as possible to determine the feasibility of a central research library facility to serve the entire state. Its purpose would be the centralized and economical storage of little-used materials and the circulation of materials on demand by means of rapid delivery service from the central facility. The study should involve all interested groups, representatives of both public and private institutions, and such professional organizations as the North Carolina Library Association.

---

\*Full-time equivalent.



## PREFACE

The North Carolina Board of Higher Education has sought to discharge its duty "to plan and promote the development of a sound, vigorous, progressive and coordinated system of higher education" through the publication of data on a broad range of topics. Numerous phases of higher education have received attention in separate publications of the Board on a variety of topics including Negro colleges, faculty compensation, residence status of students, nursing education, college enrollments, and others. This study is the first by the Board on the status and projected needs of libraries in the public senior institutions of North Carolina.

This report is based on a study of 15 public senior college and university libraries in North Carolina as of June 30, 1968, conducted by Robert B. Downs, Dean of Library Administration, University of Illinois, Urbana, Illinois, a consultant to the Board of Higher Education. Many of the statistical summaries from the Downs' study are included in this report but, because of space limitations, did not appear in the chapter on libraries in Planning for Higher Education in North Carolina, published by the Board in November 1968.

A brief description of a cooperative library research depository, along with suggestions for implementation of such a facility, appears as an appendix in this report. In February the joint proposal was presented to the Council on Library Resources from the four sponsoring organizations for a grant to study the feasibility of a state research depository library in North Carolina. The joint sponsors include the North Carolina State Library, the North Carolina Library Association, the North Carolina Board of Education, and the North Carolina Board of Higher Education.

We hope that this report will be useful to all concerned with improving higher education, particularly to administrators and librarians.

We would like to acknowledge the valuable assistance and cooperation received from other librarians, especially to Dr. Downs and Dr. Jerrold Orne, University Librarian, the University of North Carolina at Chapel Hill, and to faculty, and administrators in providing the data summarized here.

Cameron P. West  
Director of Higher Education

## CONTENTS

SUMMARY HIGHLIGHTS	ii
PREFACE	iv
LIST OF TABLES	v
LIST OF FIGURES	vii
I. HOLDINGS	1
II. PERSONNEL	11
III. PHYSICAL FACILITIES	16
IV. USE OF LIBRARIES	21
V. FINANCIAL SUPPORT	24
VI. IMPACT OF TECHNOLOGY	28
VII. COOPERATION AMONG LIBRARIES	29
VIII. RECOMMENDATIONS	32
APPENDIX	37



LIST OF TABLES

Table		Page
I	Quantitative Formula for Academic Library Collections by Verner W. Clapp and Robert T. Jordan	3
II	Holdings of North Carolina Public Senior College and University Libraries Compared With Association of College and Research Libraries' Standards and Deficiencies, 1968	4
III	Number of Degree Programs Offered in North Carolina Public Senior Colleges and Universities, 1967-68	7
IV	Full-Time Equivalent Graduate Enrollment Fall 1967 and Projected Full-Time Equivalent Graduate Enrollment Fall 1975 for North Carolina Public Senior Colleges and Universities	7
V	Periodical and Serial Subscriptions in North Carolina Public Senior College and University Libraries, June 30, 1968	9
VI	Microform Holdings in North Carolina Public Senior College and University Libraries, June 30, 1968	11
VII	Ratio of Professional Library Staff to Full-Time Equivalent Enrollment in North Carolina Public Senior Colleges and Universities, Fall 1967	13
VIII	Ratio of Full-Time Equivalent Clerical to Professional Staff and Hours of Student Assistance in North Carolina Public Senior College and University Libraries, 1967-68	14
IX	Available Reader Space and Deficiencies in North Carolina Public College and University Libraries, Fall 1968	16
X	Volumes Held and Maximum Capacity for Books in North Carolina Public College and University Libraries, June 30, 1968	18
XI	Full-Time Equivalent Library Staff and Work Space Per Staff Member in North Carolina Public Senior Colleges and Universities, 1967-68	19
XII	Age and Condition of Library Buildings in North Carolina Public Senior Colleges and Universities, June 30, 1968	20
XIII	Library Circulation in North Carolina Public Senior College and University Libraries, 1967-68	22

XIV	Interlibrary Loans in North Carolina Public Senior College and University Libraries, 1967-68	23
XV	Total Expenditure and Percent for Library in North Carolina Public Senior Colleges and Universities, 1967-68	25
XVI	Library Expenditures for Salaries Compared to Books, General Expense, and Total Expenditures in North Carolina Public Senior Colleges and Universities, 1967-68	26
XVII	Per Capita Expenditures for North Carolina Public Senior College and University Libraries, 1967-68	27
XVIII	Library Holdings and Recommended Acquisitions by June 30, 1975 for North Carolina Public Senior College and University Libraries	33

LIST OF FIGURES

Figure		Page
1	Number of Bound Volumes Per Full-Time Equivalent Student in North Carolina Public and Private Senior Colleges and Universities, 1968	6

The libraries in most of the colleges and universities in North Carolina suffer from severe deficiencies in holdings, shortages in qualified personnel, and inadequate space. The problems faced by the libraries result in large part from recent increases in numbers of undergraduates, graduate students, and faculty, from the expansion and proliferation of academic programs, the phenomenal increase in the number of books and periodicals published in recent years, the high deterioration rates of existing holdings, and generally inadequate financial support. College and university administrators and governing boards are aware of library deficiencies and are struggling to remedy them. The General Assembly has also recognized the problems, as illustrated by recent appropriations for some new library buildings. The problems remain severe, however, and they cannot be resolved without a great deal more attention and support.

The major criteria for judging the adequacy of a library are its holdings, its personnel and its physical facilities. These subjects, along with library usage, financial support, the impact of technology, and the need for cooperation among libraries, are discussed in this report.

## I. HOLDINGS

There are two basic types of libraries on college and university campuses: the "college library" which is used primarily by the undergraduate student, and the "university library" which is designed to serve the needs of the developing scholar and the specialist and to support advanced instructional programs and research. Although both types of libraries in North Carolina

have serious deficiencies, the situation is more critical in university libraries than in college libraries.

The three basic components of the holdings of a college or university library are books, periodicals, and government publications. The Association of College and Research Libraries suggests that for every book needed by a freshman or sophomore, two are needed by a junior or senior, three for honors programs, and four at the graduate level. A widely utilized formula for determining library needs indicates that in every area of concentration a master's degree candidate requires more than nine times as many volumes to draw upon as an undergraduate, and a doctoral candidate more than eight times as many volumes as a master's candidate as shown in Table I.

The number of volumes held by most public college and university libraries in North Carolina is markedly deficient, as Table II makes clear. The Association of College and Research Libraries concludes that no library can be expected to give effective support to the instructional program of a college with 600 or fewer undergraduate students without at least 50,000 carefully chosen volumes, and that as student enrollment increases, additional volumes are necessary in the ratio of 10,000 volumes for each additional 200 students. On the basis of these minimum quantitative standards, only five of North Carolina's public senior institutions met the requirements for college undergraduate libraries in the 1967-68 academic year: the University of North Carolina at Chapel Hill, the University of North Carolina at Greensboro, North Carolina Agricultural and Technical State University, North Carolina College, and Asheville-Biltmore College. When the higher quantitative standards for university libraries are applied to the four

TABLE I  
 QUANTITATIVE FORMULA FOR ACADEMIC LIBRARY COLLECTIONS  
 BY VERNER W. CLAPP AND ROBERT T. JORDAN\*

	Books		Periodicals		Docu- ments	Total Volumes
	Titles	Volumes	Titles	Volumes	Volumes	
To a basic collection, viz.:						
1. Undergraduate Library	35,000	42,000	250	3,750	5,000	50,750
Add for each of the following as indicated:						
2. Faculty member (full-time equivalent)	50	60	1	15	25	100
3. Student (graduate or undergraduate in full- time equivalents)		10		1	1	12
4. Undergraduate in honors or independent study programs	10	12				12
5. Field of undergraduate concentration--"major" subject field	200	240	3	45	50	335
6. Field of graduate con- centration--Master's work or equivalent	2,000	2,400	10	150	500	3,050
7. Field of graduate con- centration--Doctoral work or equivalent	15,000	18,000	100	1,500	5,000	24,500

\*See Verner W. Clapp and Robert T. Jordan, "Quantitative Criteria for Adequacy of Academic Library Collections," College and Research Libraries, September 1965, pp. 371-80.

TABLE II

HOLDINGS OF NORTH CAROLINA PUBLIC SENIOR COLLEGE AND UNIVERSITY LIBRARIES  
 COMPARED WITH ASSOCIATION OF COLLEGE AND RESEARCH LIBRARIES'  
 STANDARDS AND DEFICIENCIES, 1968

Institution	Fall 1967 FTE Enrollment*	No. of Vols. June 30, 1968	ACRL Standard	Deficiency
<u>University of N.C.</u>				
N.C. State U.	9,294	426,304	480,000**	53,700
UNC-Chapel Hill	14,743	1,541,315	750,000**	-
UNC-Charlotte	1,721	92,524	107,500**	15,000
UNC-Greensboro	4,673	375,488	250,000**	-
<u>5-Year Institutions</u>				
Appalachian	4,624	161,624	250,000	88,400
East Carolina	8,914	328,552	465,000	136,500
N.C. A and T	3,715	261,944	200,000	-
N. C. College	2,934	171,754	160,000	-
Western Carolina	3,746	83,263	207,500	124,000
<u>4-Year Colleges</u>				
Asheville-Biltmore	571	52,171	50,000	-
Elizabeth City	934	59,105	67,500	8,400
Fayetteville	1,143	63,140	77,500	14,400
Pembroke	1,484	43,435	95,000	51,600
Wilmington	1,179	45,061	80,000	34,900
Winston-Salem	1,266	73,279	82,500	9,200

\* The demands made on libraries, especially at the graduate level, may be more accurately reflected by a headcount of students than by "full-time equivalent" enrollment.

\*\* Association of College and Research Libraries standards are not comparable for universities and are intended for four-year institutions with no or limited master's programs.



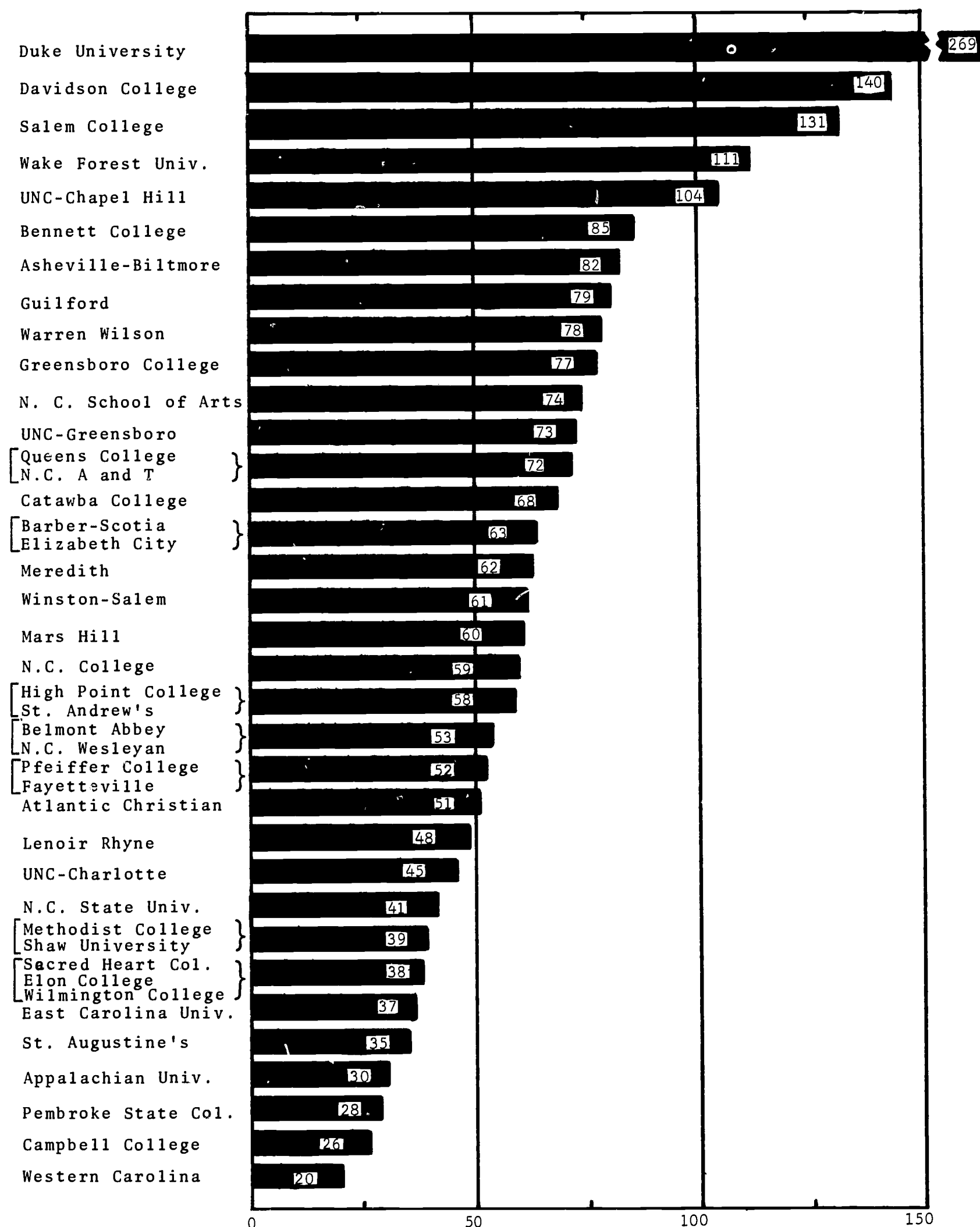
campuses of the University of North Carolina and to the four regional universities, the library holdings in only two of these eight institutions approach the standard--the University of North Carolina at Chapel Hill and the University of North Carolina at Greensboro.

Nor do the North Carolina public college and university libraries compare favorably with those of the private institutions in the state in the number of volumes per full-time equivalent student (see Figure 1).

In the face of the number of programs being offered and projected and the increasing enrollments at the graduate level which promise to develop (see Tables III and IV), it should be a matter of high priority to eliminate deficiencies in library collections at all of the institutions as rapidly as possible. Wherever appropriate, the librarians of the colleges and universities, working cooperatively with the faculties of their institutions, should utilize standard lists prepared by outstanding specialists in choosing titles to strengthen their holdings qualitatively.

Two libraries deserve special comment, i.e., those at UNC at Chapel Hill and N. C. State University. First, the University of North Carolina at Chapel Hill has one of the major libraries in the nation. Its holdings as of June 30, 1968, ranked third among university libraries in the South, 12th among public institutions generally, and 23rd among all university libraries in the country. A conservative estimate places the value of its holdings in excess of \$20 million. A statewide asset, it stands alone among the libraries of public institutions in the state and is excelled in North Carolina only by the library at Duke University. Yet, according to a recent unpublished paper by the Associate University Librarian at the University of North Carolina at Chapel Hill, while the University of North Carolina Library ranked 23rd in size

Figure 1. Number of Bound Volumes Per Full-Time Equivalent Student in North Carolina Public and Private Senior Colleges and Universities, 1968



NOTE: Does not include J.C. Smith University and Livingstone College

TABLE III

NUMBER OF DEGREE PROGRAMS OFFERED IN NORTH CAROLINA PUBLIC SENIOR  
COLLEGES AND UNIVERSITIES, 1967-68

Institution	Bachelor's	First Professional	Master's	Doctor's
N.C. State University	52	13	54	35
UNC-Chapel Hill	59	3	90	62
UNC-Charlotte	18	-	-	-
UNC-Greensboro	53	-	34	10
Appalachian	28	-	27	-
East Carolina	35	-	28	-
N. C. A and T	37	-	8	-
North Carolina College	33	1	21	-
Western Carolina	<u>37</u>	<u>1</u>	<u>16</u>	<u>-</u>
Sub-Total	352	18	278	107
Four-Year Colleges	<u>95</u>	—	—	—
Total	447	18	278	167

TABLE IV

FULL-TIME EQUIVALENT GRADUATE  
ENROLLMENT FALL 1967 AND PROJECTED FULL-TIME EQUIVALENT  
GRADUATE ENROLLMENT, FALL 1975 FOR NORTH CAROLINA  
PUBLIC SENIOR COLLEGES AND UNIVERSITIES

Institution	FTE Graduate Enrollment, Fall 1967	Projected FTE Graduate Enrollment, Fall 1975
N.C. State University	1,190	2,291
UNC-Chapel Hill	4,231	6,941
UNC-Charlotte	-	316
UNC-Greensboro	523	1,268
Appalachian	299	621
East Carolina	350	1,175
N. C. A and T	81	105
North Carolina College	215	364
Western Carolina	<u>120</u>	<u>197</u>
	7,009	13,278

among leading university libraries, it has begun to lose ground in terms of current input,\* in the form of expenditure for library materials.

The second library in the state system deserving special comment is at North Carolina State University. Library deficiencies at North Carolina State University are alarming in view of its extensive graduate programs--35 doctoral and 54 master's degree programs in agriculture and engineering, in the biological and physical sciences, and in several of the social sciences. As of June 30, 1968, however, the North Carolina State University library was deficient by 903,746 volumes based upon a university standard that takes into account size and complexity of programs; and as Table II shows, it was over 50,000 volumes short of meeting the standards even for a four-year college with comparable enrollment.

Library resources at North Carolina State University, with the possible exception of periodicals and microreproductions, have not kept pace with the academic and research growth of the institution. In comparison with other major university libraries, the NCSU library is inadequate in the number of volumes, in size of staff, in book budget, and in physical facilities. Substantial increases in financial support are urgently needed if the library is to support properly the institution's wide-ranging educational programs in which some 4,000 graduate students are expected to enroll by 1975-76.

In addition to books, periodical literature is of basic importance in virtually all fields of education, and the need to build up full sets of back issues and to develop and improve current serial collections is generally recognized. A college library should maintain a minimum collection of 1,000 periodicals to provide adequate representation of the tens of thousands of

---

\*Clifton Brock, A Comparative Quantitative Analysis of the Adequacy of the University of North Carolina Library. November 1968, unpublished.

TABLE V

PERIODICAL AND SERIAL SUBSCRIPTIONS IN NORTH CAROLINA PUBLIC  
SENIOR COLLEGE AND UNIVERSITY LIBRARIES, 1967-68

Institutions	Periodical Subscriptions	Other Serials	Total
N.C. State U.	5,840	9,800	15,640
UNC-Chapel Hill	5,649	11,747	17,396
UNC-Charlotte	1,717	866	2,583
UNC-Greensboro	2,347	1,572	3,919
Appalachian	1,027	220	1,247
East Carolina	2,044	940	2,984
N.C. A&T	1,032	76	1,108
N.C. College	1,227	1,395	2,622
Western Carolina	904	338	1,242
Asheville-Biltmore	803	586	1,389
Elizabeth City	448	62	510
Fayetteville State	362	42	404
Pembroke	327	17	344
Wilmington	505	181	686
Winston-Salem	394	31	425

magazines and scholarly journals being published today, while university libraries should be receiving a considerably larger number geared to their individual programs and needs.

Table V shows that in terms of current subscriptions to periodicals reported by North Carolina's public colleges and universities, only the University of North Carolina at Chapel Hill and North Carolina State University are equipped to support a full range of university study and research. Only the libraries at the University of North Carolina at Greensboro and East Carolina University receive a sufficient number of periodicals to support master's level work. The other four public institutions which offer the master's degree (Appalachian State University, North Carolina Agricultural and Technical

State University, North Carolina College at Durham, and Western Carolina University) have periodical holdings inadequate to support master's level work. Libraries at Elizabeth City, Fayetteville, Pembroke, Wilmington, and Winston-Salem also receive a low number of current periodicals.

Another type of material, microreproductions, is of increasing importance in university and research libraries. Microreproductions come in various forms--microfilm, microcard, microprint, and microfiche--all of which require the use of reading machines. The chief use of microreproductions is for research-type materials, otherwise unavailable, needed by faculty members and graduate students. In nearly all cases, originals are easier to use and preferable to microcopies. The United States Office of Education, in publishing library statistics, reports microforms separately and not as volumes.

Newly-established libraries, and particularly those in institutions which are rapidly developing into universities, can through these devices make rare and out-of-print materials available without the long delay which would otherwise be required in searching for original copies. Needed resources, such as rare books, large sets, documentary series, journal files, and newspaper files, frequently are available in no other medium. Some of the North Carolina college and university libraries are making considerable use of microforms, as shown in Table VI.

Government publications make up the third basic component of holdings in an adequate college or university library. At present all public senior institutions in the state except Elizabeth City, Fayetteville, North Carolina College, and Winston-Salem State College are depository libraries, and as such

TABLE VI  
 MICROFORM HOLDINGS IN NORTH CAROLINA PUBLIC SENIOR COLLEGE  
 AND UNIVERSITY LIBRARIES, JUNE 30, 1968

Institutions	Microform Holdings
N.C. State U.	254,039
UNC-Chapel Hill	280,441
UNC-Charlotte	48,981
UNC-Greensboro	7,893
Appalachian	1,942
East Carolina	155,071
N.C.A and T	18,800
N.C. College	9,569
Western Carolina	21,349
Asheville-Biltmore	1,666
Elizabeth City	362
Fayetteville	1,185
Pembroke	692
Wilmington	1,894
Winston-Salem	-

receive major publications of the Federal Government on a selective basis.

Only the University of North Carolina at Chapel Hill has adequate collections of state and local government publications.

## II. PERSONNEL

A second major criterion in judging the strength of a library is the quality and size of its staff. Without a competent staff, a library will offer inferior services. Salaries are the largest single item in the budgets of leading college and university libraries.



The adequacy of professional staff is reflected by the ratio of full-time equivalent students to the number of professional staff members. The ratio accepted by Canadian academic librarians is one professional librarian to each 300 students; no specific standard has yet been adopted by American college and university librarians.

Table VII shows the ratios of professional staff to full-time equivalent students in 15 public senior institutions in North Carolina. As the table makes clear, only five institutions--the University of North Carolina at Chapel Hill, the University of North Carolina at Charlotte, Asheville-Biltmore College, North Carolina College at Durham, and Wilmington College--meet the suggested 300 to 1 ratio of students to professional library staff members. The ratios at the libraries of four institutions--Appalachian State University, the University of North Carolina at Greensboro, Elizabeth City State College, and Winston-Salem State College--are marginal; the libraries at the remaining six institutions are seriously understaffed.

With regard to the size of an institution's professional library staff, the standards\* of the Association of College and Research Libraries state that

the size of the staff will vary with the size of the institution, but three professional librarians constitute the minimum number required for effective service, i.e., the chief librarian and the staff members responsible for readers services and technical processes...in addition to the professional librarians, the library should have an adequate non-professional staff.

There should normally be two clerical workers for each professional librarian, or the equivalent in student assistance, though as a rule student help cannot be expected to perform as effectively as do competent full-time workers.

---

\*"Standards for College Libraries," College and Research Libraries, July 1959, p. 275.

TABLE VII

RATIO OF PROFESSIONAL LIBRARY STAFF TO FULL-TIME EQUIVALENT  
ENROLLMENT IN NORTH CAROLINA PUBLIC SENIOR  
COLLEGES AND UNIVERSITIES, FALL 1967

Institution	Fall 1967 FTE Enrollment	Number of FTE Professional Library Staff	Number of Students Per Professional
<u>University of N.C.</u>			
N.C. State U.	9,294	18	516
UNC-Chapel Hill	14,743	66	223
UNC-Charlotte	1,721	9	191
UNC-Greensboro	4,673	14	334
<u>5-Year Institutions</u>			
Appalachian	4,624	15	308
East Carolina	8,914	24	371
N.C. A and T	3,715	8	464
N.C. College	2,934	14	210
Western Carolina	3,746	7	535
<u>4-Year Colleges</u>			
Asheville-Biltmore	571	3	190
Elizabeth City	934	3	311
Fayetteville	1,143	2	572
Pembroke	1,484	4	371
Wilmington	1,179	5	236
Winston-Salem	<u>1,266</u>	<u>4</u>	<u>317</u>
TOTAL	60,941	196	311

\* Full-time equivalent.

In North Carolina, as Table VIII reveals, only Fayetteville State College fails to meet the minimum of three professional librarians. Most institutions, however, are deficient in the ratio of clerical assistance to professional librarians.

In all libraries present staff, professional and clerical, cannot be expected to cope with the additional numbers of books which will be added and the additional demands for services which will be required between now and 1975. A cursory examination of the annual acquisitions needed (Table XVIII), for example, will indicate that there is a corollary need for additional personnel.

TABLE VIII

RATIO OF FULL-TIME EQUIVALENT CLERICAL TO PROFESSIONAL STAFF AND HOURS OF STUDENT ASSISTANCE IN NORTH CAROLINA PUBLIC SENIOR COLLEGE AND UNIVERSITY LIBRARIES, 1967-68

	Clerical Staff (FTE)	Professional Staff (FTE)	Ratio of Clerical to Professional*	Hours of Student Help
N.C. State University	45.5	18	2.5	31,279
UNC-Chapel Hill	94	66	1.4	82,400
UNC-Charlotte	13	9.25	1.4	14,723
UNC-Greensboro	17	14	1.2	27,524
Appalachian	7	15	.47	48,819
East Carolina	21	24	.87	48,981
N.C. A and T	14	8	1.75	2,350
North Carolina College	11	14	.79	17,315
Western Carolina	12	7	1.71	7,881
Asheville-Biltmore	7	3	2.3	12,556
Elizabeth City	2	3	.66	9,720
Fayetteville	7.6	1.9	4.0	7,504
Pembroke	3.5	4	.88	15,780
Wilmington	4	5	.80	NOT REPORTED
Winston-Salem	5	4	1.25	13,350

\*This column, while not computed in the Robert B. Downs report, is based on the first two columns exclusive of the full-time equivalent of student assistance in last column.

The need for library personnel is especially critical at North Carolina State University. A number of off-campus factors underscore the need there for substantial increases in library service, and hence in staff. With the industrial growth that is anticipated in North Carolina by 1976, it has been estimated that at least 2,600 firms (about one-fourth of the total in the state) will be calling upon the resources of the Technical Information Center of the North Carolina State University library. This number may be even greater as the overall level of technology in industrial operations rises and industrial research efforts are expanded, as industry becomes increasingly aware of the existence and value of information services available at North Carolina State University, and as improvements in information transfer technology make faster, more effective service possible. Industrial extension services at North Carolina State University will, in all likelihood, also be expanded substantially, accentuating the need for additional financial support to permit expansion of the library staff.

While part-time assistance is of definite value, in a number of the colleges and smaller universities it appears that too much reliance is being placed on hourly-paid student assistants, instead of developing a strong, permanent clerical and professional staff. A sufficient number of clerical and other non-professional staff members should be added at such institutions to perform the routine tasks, in order to free the members of the professional staff for service to students and faculty and for the performance of other tasks requiring the attention of specialists.

TABLE IX  
AVAILABLE READER SPACE AND DEFICIENCIES  
IN NORTH CAROLINA PUBLIC COLLEGE AND UNIVERSITY LIBRARIES, FALL 1968

Institution	Projected FTE* Enrollment Fall 1968	Reader Space **		Percent Deficiency
		Needed***	Available	
<u>University of N.C.</u>				
N.C. State U.	9,178	2,294	900	61%
UNC-Chapel Hill	15,665	3,916	4,615	-
UNC-Greensboro	4,925	1,231	987	20
UNC-Charlotte	1,875	468	512	-
<u>5-Year Institutions</u>				
Appalachian	5,000	1,250	1,000	20
East Carolina	9,325	2,331	983	58
N.C. A and T	3,868	967	688	29
N.C. College	2,993	748	534	29
Western Carolina	4,100	1,025	437	57
<u>4-Year Colleges</u>				
Asheville-Biltmore	700	175	246	-
Elizabeth City	950	237	300	-
Fayetteville	1,200	300	264	12
Pembroke	1,500	375	291	22
Wilmington	1,140	285	600	-
Winston-Salem	1,250	312	342	-

\* Full-time equivalent.

\*\* In square feet.

\*\*\* Minimum suggested by the Southern Association of Colleges and Schools.

### III. PHYSICAL FACILITIES

The third essential of a strong college or university library is proper space and equipment. Regardless of how excellent the book collection may be or how efficiently the library is run, a poorly-planned, crowded, badly-heated or ventilated building is a severe handicap to everyone who attempts to use it, reader and librarian alike.

Library space needs are of three kinds: accommodations for readers, book storage, and work rooms and offices for library staff. The major requirements, of course, are for reader and book space. There are generally accepted standards in these areas: seating should be provided for not less than 25 percent\* of the current student enrollment; 25-30 square feet of

\*Minimum set by Southern Association of Colleges and Schools. The American Library Association recommends that seating space be provided for 33 percent of the students, while some library building consultants recommend seating space for as much as 40 percent of the enrollment.

floor space should be allowed for each reader; stack or other shelving space should be equivalent to one square foot for every 10 volumes (allowing room for expansion to 15 volumes per square foot); and there should be an average of 125 square feet of office or work space for each full-time staff member, according to the Association of Colleges and Research Libraries standards.

The reader space which should be provided in a library will be affected by such factors as enrollment growth, the availability of efficient study space elsewhere on the campus including space in dormitories, the existence of departmental libraries, the number of students who commute to the campus, and the nature of the instructional program. As Table IX indicates, seating facilities in only six of the public college and university libraries meet the minimum standard according to fall 1968 enrollment projections. Three of the six are in rapidly growing institutions, and their percentages will thus probably fall below the standard within the next few years unless additions are made to their facilities in the meantime.

It should be noted that at Appalachian State University, even with a new library building occupied in September 1968, the improvement will be only temporary. The seating capacity available still falls below the 25 percent minimum when measured against the expected fall 1968 enrollment.

The library expansion planned for North Carolina State University will provide seating for about 2,400 students. On the basis of a 25 percent minimum, this is adequate for an enrollment of only 9,600 and will be inadequate in terms of minimum standards when the building is completed.

Similar deficiencies exist in several of the libraries in stack space for books. Table X shows that, based on present holdings, the space available



TABLE X  
 VOLUMES HELD AND MAXIMUM CAPACITY FOR BOOKS  
 IN NORTH CAROLINA PUBLIC COLLEGE AND UNIVERSITY LIBRARIES, JUNE 30, 1968

Institution	Volumes Held June 30, 1968	Square Feet for Books	Maximum Capacity
N.C. State University	426,304	34,605	519,075
UNC-Chapel Hill	1,541,315	103,835	1,723,764
UNC-Charlotte	92,524	15,000	225,000
UNC-Greensboro	375,488	25,000	375,000
Appalachian	161,624	46,414	232,070
East Carolina	328,552	15,237	228,555
N. C. A and T	261,944	48,495	727,425
North Carolina College	171,754	10,811	162,165
Western Carolina	83,263	13,271	199,065
Asheville-Biltmore	52,171	25,373	380,595
Elizabeth City	59,105	11,900	178,500
Fayetteville	63,140	5,806	87,090
Pembroke	43,435	8,595	128,925
Wilmington	45,061	18,200	273,000
Winston-Salem	73,279	3,767	56,505

for books, and the maximum shelving capacity at 15 volumes per square foot, the libraries at the University of North Carolina at Greensboro, East Carolina, North Carolina College, and Winston-Salem State are currently inadequate. At the present rates of growth of the particular institutions, the libraries at the University of North Carolina at Chapel Hill and at North Carolina State University will require more space for books within one to three years. At the recommended acquisition rates (see Table XVIII), additional book space will be required at nine institutions in two or three years.

Unless higher priority is placed on expanding library facilities, library space will become increasingly critical at a majority of the public colleges and universities in North Carolina. Three institutions which now



have a critical need for more book and reader space have indicated plans to request funds for library expansion between now and 1975--the University of North Carolina at Greensboro, East Carolina University, and North Carolina College. Funding for these needs should be expedited.

The third type of library space required is work rooms and offices for library staff. Space for staff seems to be more generously provided than for books and readers in a majority of the North Carolina libraries, though conditions may change in the future as staffs grow; it should be added, however, that staff space is more difficult to add later than bookstacks and reading rooms. While the North Carolina College and Winston-Salem State College libraries are marginal in the work space for library staff, no institution is at present seriously deficient (Table XI). The situation will be drastically different, however, at many of the institutions when they are adequately staffed to handle the job which will be demanded of them between now and 1975.

TABLE XI

FULL-TIME EQUIVALENT LIBRARY STAFF AND WORK SPACE PER STAFF  
MEMBER IN NORTH CAROLINA PUBLIC SENIOR COLLEGES  
AND UNIVERSITIES, 1967-68

Institution	FTE Library Staff	Total Sq. Ft. Staff Space	Av. No. Sq. Ft. Per Staff Member
N.C. State University	63.5	11,119	126
UNC-Chapel Hill	160	20,000	125
UNC-Charlotte	22	4,372	199
UNC-Greensboro	31	8,200	265
Appalachian	22	7,595	345
East Carolina	45	7,527	167
N. C. A and T	22	5,413	246
North Carolina College	25	2,589	103
Western Carolina	19	4,348	229
Asheville-Biltmore	10	2,373	237
Elizabeth City	5	1,400	280
Fayetteville	9.5	1,713	169
Pembroke	7.5	1,295	172
Wilmington	9	7,000	777
Winston-Salem	9	1,008	112

By post-World War II standards, most library buildings erected before 1940 are obsolete or obsolescent, unless extensively remodeled, modern lighting and air-conditioning installed, etc. The ages of the college and university library buildings of North Carolina are therefore significant (Table XII).

In general the condition of college library buildings in North Carolina is good. Every public institution has had a new central library building or a major addition since 1950, and at eight of them buildings have been erected since 1960. In a number of buildings, however, inadequate room was provided for growing student bodies and faculties and for expanding book collections. More careful attention to projections of enrollment may aid in forestalling such difficulties in the future. Every effort should be made to insure that adequate funds are available to construct buildings of sufficient size.

TABLE XII

AGE AND CONDITION OF LIBRARY BUILDINGS IN NORTH CAROLINA PUBLIC SENIOR COLLEGES AND UNIVERSITIES, JUNE 30, 1968

Institution	Date of Bldg. Erection	Additions or Remodeling	Condition
N.C. State University	1954		Good
UNC-Chapel Hill	1929	1952	Good
UNC-Charlotte	1963		Good
UNC-Greensboro	1950		Good
Appalachian	1968		Excellent
East Carolina	1954	1965,1968	Good
N. C. A and T	1954		Good
North Carolina College	1952		Good
Western Carolina	1953	1967	Excellent
Asheville-Biltmore	1965		Good
Elizabeth City	1966		Excellent
Fayetteville	1968		Excellent
Pembroke	1967		Excellent
Wilmington	1968		Excellent
Winston-Salem	1967		Excellent

#### IV. USE OF LIBRARIES

Statistics on the use of libraries are generally suspect because they usually do not fully report all of the types of library usage. The use of open-shelf collections, for example, is largely unrecorded, and the use of photocopying services in lieu of the borrowing of books further distorts the statistics. Nevertheless, even though data are admittedly incomplete, recorded circulation is indicative of the extent to which students and faculty are utilizing the resources of a library.

Book circulation in college and university libraries is of two types, home and reserve. If home circulation exceeds reserve circulation, it is generally indicative of independent study and reading by students beyond rigid class requirements.

All of the libraries in North Carolina public senior institutions showed emphasis on home circulation as contrasted with reserve book reading during the academic year 1967-68 (Table XIII). On a per capita basis, however, circulation in nearly all the libraries appears low. There are no generally accepted norms for student use, because such variable factors are involved as the hours libraries are open, whether the collections are on open or closed shelves, the size and character of the collections, the teaching methods prevailing, the rate of library growth, and the size and organization of the library staff. A minimum annual per capita circulation of 50 books, however, is considered a rough indication of a library's effectiveness. Some college and university libraries, where library use is encouraged and emphasized, have considerably higher averages. In six of the public senior institutions in North Carolina in the 1967-68 academic year, the average circulation was less than 30 books per student, and in

TABLE XIII

LIBRARY CIRCULATION IN NORTH CAROLINA PUBLIC SENIOR COLLEGE  
AND UNIVERSITY LIBRARIES, 1967-68

Institution	Home Circulation	Reserve Circulation	Total	Per Capita Circulation
N.C. State University	158,856	69,301	228,157	21
UNC-Chapel Hill	747,069	88,238	835,307	54
UNC-Charlotte	28,163	8,215	36,378	18
UNC-Greensboro	189,363	25,536	214,899	40
Appalachian	170,989	27,813	198,802	36
East Carolina	165,738	54,733	220,471	22
N. C. A and T	122,161	21,581	143,742	38
North Carolina College	137,372	30,931	168,303	55
Western Carolina	70,780	Not Reported	70,780	D.N.A.*
Asheville-Biltmore	28,627	1,356	29,983	43
Elizabeth City	14,455	7,032	21,487	22
Fayetteville	39,158	15,050	54,208	47
Pembroke	33,819	10,657	44,476	29
Wilmington	23,785	2,403	26,188	22
Winston-Salem	41,073	14,975	56,048	42

\*Data not applicable.

only six was the average above 40. The University of North Carolina at Chapel Hill and North Carolina College at Durham were the only institutions where the standard of 50 was exceeded.

Library use may be encouraged and increased in a number of ways, such as through the maintenance of close liaison between the faculty and library staff, effective instruction in the use of the library with particular attention to the orientation of new students, a constant supply of new books in the library and publication of information on the new books, extending the hours the library is open, longer lending periods, providing open shelving of books, and giving expert staff assistance to students and faculty.

Student membership on library committees serves to stimulate communication of library news and services in a variety of ways, as does the regular dissemination of library news through newsletters, the campus newspaper, bulletin boards, and student organizations.

Interlibrary loans are a useful index of the strength of a library and of the extent of faculty and graduate student research. A record of items borrowed through interlibrary loans is often a valuable guide in determining the areas of a library most in need of strengthening. The statistics on the number of items borrowed and loaned by the 15 North Carolina college and university libraries in 1967-68 (Table XIV) reveal that the University of North Carolina at Chapel Hill and North Carolina State University are, not surprisingly, the principal resource libraries in the public system. The

TABLE XIV

INTERLIBRARY LOANS IN NORTH CAROLINA PUBLIC SENIOR COLLEGE  
AND UNIVERSITY LIBRARIES, 1967-68

Institution	No. Items Borrowed	No. Items Loaned
N.C. State University	1,390	6,501
UNC-Chapel Hill	3,833	8,927
UNC-Charlotte	695	61
UNC-Greensboro	655	559
Appalachian	240	24
East Carolina	406	53
N. C. A and T	41	74
North Carolina College	150	114
Western Carolina	435	4
Asheville-Biltmore	59	2
Elizabeth City	35	0
Fayetteville	Not Reported	
Pembroke	32	4
Wilmington	102	0
Winston-Salem	57	6
Totals	8,130	16,329

overall use of interlibrary loans as a supplementary resource demonstrates the interdependence of educational and research libraries throughout the country. It is important that North Carolina's research libraries continue to build for strength in order to provide maximum support for students, scholars, scientists, and research workers over the state.

#### V. FINANCIAL SUPPORT

Determination of the adequacy of support of a library requires an analysis of the local situation, but there are certain general criteria which can be useful in determining the adequacy of support, as well as in indicating the library's status in the institution: the proportion of the institution's total budget which goes to the library; the expenditures for the library as compared with expenditures by institutions of comparable size and type; and the size of the library holdings, its staff and facilities, as compared with the size of the student body, the number of faculty members, and the type of academic programs offered. A significant question in determining adequacy of support is whether the library is old and well established or new and struggling to build up basic materials.

The Association of College and Research Libraries states that good library service "will normally require a minimum of 5 percent of the total educational and general budget." The percentage should be higher "if the library's holdings are seriously deficient, if there is rapid expansion in student population or course offerings," or if the institution has a wide range of graduate programs. Analysis of expenditures in 1967-68 (Table XV) reveals that library budgets at North Carolina State University, the University of North Carolina at Chapel Hill, Elizabeth City State College, and North Carolina Agricultural and Technical State University were below



the recommended standard of 5 percent. The relatively high percentages at some of the newer institutions, such as the University of North Carolina at Charlotte and Asheville-Biltmore College, are due to a concentration on rapid library acquisitions during the initial period of development as senior institutions.

TABLE XV

TOTAL EXPENDITURES AND PERCENT FOR LIBRARY IN NORTH CAROLINA  
PUBLIC SENIOR COLLEGES AND UNIVERSITIES, 1967-68

Institution	Total Library Expenditures	Total Institu- tional Expenditures (Educational and General)	Percent For Library
N.C. State University	\$ 758,524	\$ 44,800,258	1.69
UNC-Chapel Hill	2,024,842	60,000,000	3.33
UNC-Charlotte	345,440	2,486,302	14.00
UNC-Greensboro	377,073	6,773,637	5.56
Appalachian	370,424	5,058,148	7.32
East Carolina	676,369	9,489,960	7.02
N. C. A and T	240,628	4,987,013	4.90
North Carolina College	246,157	3,871,835	6.36
Western Carolina	233,951	3,500,292	6.68
Asheville-Biltmore	152,655	593,050	25.70
Elizabeth City	66,677	1,951,903	3.40
Fayetteville	101,555	1,353,121	7.51
Pembroke	97,169	1,713,642	6.00
Wilmington	121,947	1,280,888	9.50
Winston-Salem	78,300	1,340,252	6.21

One of the standards of the Association of College and Research Libraries states that "while the allocation of library funds for specific purposes will depend on the needs of the individual institution, experience shows that a good college library usually spends twice as much (or more) for salaries as it does for books." The only libraries which meet or come close to meeting this standard are those at the University of North Carolina at Greensboro,



Appalachian State University, and North Carolina College at Durham (Table XV). In general, a low ratio of salary to book expenditures is an indication either of understaffing or of low salary standards.

Figures are published annually on beginning salaries for professional librarians. As reported in the Library Journal for June 15, 1968, the average (mean) salary for all 1967 library school graduates was \$7,305; for graduates with previous experience, the average was \$8,400 and without experience about \$7,000. For the 13 North Carolina college and university libraries reporting as of June 30, 1968, the beginning annual salary paid to a library school graduate (fifth-year degree, without experience) ranged from \$6,300 to \$7,800. No figures on beginning salaries were reported for Elizabeth City and Pembroke. Thus in all cases reporting, except Asheville-Biltmore, East Carolina, and Winston-Salem, beginning salaries were competitive in terms of national

TABLE XVI

LIBRARY EXPENDITURES FOR SALARIES COMPARED TO BOOKS,  
GENERAL EXPENSE, AND TOTAL LIBRARY EXPENDITURES IN NORTH  
CAROLINA PUBLIC SENIOR COLLEGES AND UNIVERSITIES, 1967-68

Institution	Salaries and Wages	Books, Peri- odicals, Bind- ing, and Other Materials	General Expense	Total Expenditures
UNC-Chapel Hill	\$1,126,851	\$809,630	\$88,361	\$2,024,842
UNC-Charlotte	143,314	184,902	17,224	345,440
UNC-Greensboro	227,499	128,498	12,625	372,147
N.C. State University	411,678	318,239	28,607	758,524
Appalachian	213,200	139,300	17,924	370,424
East Carolina	320,383	336,365	19,621	676,369
N. C. A and T	137,912	93,977	8,739	240,628
North Carolina College	164,806	75,319	6,032	246,157
Western Carolina	125,025	91,419	17,509	233,951
Asheville-Biltmore	66,398	73,474	12,783	152,655
Elizabeth City	36,400	26,969	3,308	66,677
Fayetteville	51,705	46,964	2,886	101,555
Pembroke	41,684	50,128	5,357	97,168
Wilmington	59,550	58,630	3,767	121,947
Winston-Salem	28,795	48,380	1,125	78,300

norms. Whether the same is true of salaries of experienced librarians and those with greater responsibilities would require further data and analysis.

Another frequently applied measure of the adequacy of financial support is the amount of the library expenditure per student. The expenditure for library support (books, staff, etc.) per full-time equivalent student for 1967-68 among public senior colleges and universities in North Carolina ranged from a low of \$62 at Western Carolina University and Winston-Salem State College to highs of \$201 at the University of North Carolina at Charlotte and \$267 at Asheville-Biltmore College (Table XVII). While there are no exact standards for per capita support, an annual expenditure of less than \$100 per student is generally held to be inadequate. Eleven North Carolina public institutions fall below this mark. A minimum of \$100 per capita for continuing support should be provided annually.

TABLE XVII

PER CAPITA EXPENDITURES FOR NORTH CAROLINA PUBLIC SENIOR  
COLLEGE AND UNIVERSITY LIBRARIES, 1967-68

Institution	Enrollment (FTE)	Total Library Expenditures	Per Capita Expenditures
N.C. State University	9,294	\$ 758,524	\$ 82
UNC-Chapel Hill	14,743	2,024,842	137
UNC-Charlotte	1,721	345,440	201
UNC-Greensboro	4,673	377,073	81
Appalachian	4,624	370,424	80
East Carolina	8,914	676,369	76
N. C. A and T	3,715	240,628	65
North Carolina College	2,934	246,157	84
Western Carolina	3,746	233,951	62
Asheville-Biltmore	571	152,655	267
Elizabeth City	934	66,677	71
Fayetteville	1,143	101,555	89
Pembroke	1,484	97,169	65
Wilmington	1,179	121,947	103
Winston-Salem	1,266	78,300	62

Library financing can hardly be considered without reference to inflation. Book and periodical prices over the past ten years show an average annual increase of nearly ten percent. In a number of important types of publications the range is even higher. The price index for periodicals in chemistry and physics, for example, went from 100 to 222.6 in the decade, while that for periodicals in mathematics, botany, geology, and general science went from 100 to 219.3. Specific illustrations of the increasing cost of periodicals are Chemical Abstracts, which jumped from \$80 annually in 1958 to \$1,050 annually in 1968 and which is to be further increased to \$1,550 in 1969, and Biological Abstracts, which went from \$80 in 1958 to \$640 in 1968. It must be assumed that further price increases will occur.

Because of rising prices and the increased volume of publishing, it is conservative to estimate that an increase of from 15 to 20 percent annually in book and periodical funds is necessary to enable a good academic library to maintain a given level of acquisitions. Comparable price increases, of course, are occurring in other elements of library budgets, such as salaries, wages, bookbinding, and equipment, and appropriations for college and university libraries must be augmented to take these increases into account.

The potential uses of the computer and of other automated devices, such as television shelf scanners, which are already developed for libraries but which have not yet been adopted in North Carolina, are also items to be considered in future financial evaluations.

## VI. IMPACT OF TECHNOLOGY

Considerable impatience has been expressed by scholars and scientists about the seeming reluctance of professional librarians to accept computer-

centered literature-searching systems as a means of bringing the "information explosion" under control. The traditional library system, viewed by one unfamiliar with the complexities of the problem, appears antiquated and cumbersome. The capability of the computer for storing and retrieving information has led many to believe that automated equipment for libraries is already operational rather than merely a future possibility.

A more realistic appraisal comes from the Educational Facilities Laboratories,\* established by the Ford Foundation, which concludes that

for the next 20 years or more, the great bulk of publication will be in conventional print form, with a gradual increase in the production of microform texts. Retrospective conversion of texts to machine readable form is not expected to any great degree for a very long time in the future. Therefore, the bulk of a scholar's negotiations in a library will be with books even 30 years from now.

Immediately feasible, however, is the application of certain types of automation and mechanization to some technical procedures pertaining to acquisitions, bookkeeping, serial records, and circulation. Experimentation with such procedures now in progress at the University of North Carolina at Chapel Hill and elsewhere in North Carolina should be continued and encouraged, pointing the way to their possible use by other libraries. Because of the expense involved, however, and the lack of practical need in the smaller institutions, the full use of these procedures will probably be confined for the next few years to the largest universities.

## VII. COOPERATION AMONG LIBRARIES

It is obvious from the foregoing that the State of North Carolina faces problems of great dimension in making the libraries of its public

---

\*The Impact of Technology on the Library Building, 1967.

senior institutions of higher education adequate to the needs. Unless we are to settle for mediocrity, the financial implications are staggering. It is not necessary, however, that each college or university library be helped on its way independently of the others. The doctrine and practice of self-sufficiency can be supplanted by extensive interinstitutional development and sharing of library resources. The advantages of combining resources are obvious, particularly now that rapid methods of reproduction and transmittal of materials and information are available.

Cooperation is not, of course, a panacea for all library or educational problems. It is not a substitute for adequate state support. A reasonable degree of duplication must exist among libraries. Every library necessarily procures for its own basic collections much-used reference works, general interest periodicals, books needed for undergraduate courses, and other books in frequent demand, without regard to their availability elsewhere. The most favorable opportunities for joint effort among libraries are in specialized subjects and materials for which there is little demand.

The centralization of highly-specialized collections, rather than their dispersal over the state, is a promising possibility. A statewide depository collection, separate from any existing library but working with and shared by all institutions, might well be established close to the state's major library resources. In addition, bibliographic services could be provided in the form of a revision and expansion of the North Carolina Union Catalog, through telewriter connections among the libraries, and through rapid delivery service from the central facility and from campus to campus. Under this plan the entire library research facilities of the state would eventually be united to serve all students, scholars, and general researchers.

With such a research depository library, libraries in the state, public and private, could place in one central location their volumes no longer in active use, which would then remain available as a part of the state's library resources. Each participating institution might be a member of an organization incorporated for this purpose which would undertake to function cooperatively for the mutual benefit of all. Such a central library facility would be expected to develop a long-range program leading to full participation in any comparable national program in the future. Combined with the depository would be a far-reaching communication system, transportation and copying facilities, and an appropriately designed staff. There are, with slight variations, comparable organizations of library resources in various places. Up to this time, however, there is no single state which has precisely the suggested pattern.

This type of library would extend the availability of informational resources acquired within the state to the entire population of the state. It should make it possible to establish clear limits of growth in the size of libraries in specific types of institutions and should reduce duplication of physical facilities and content to reasonable proportions. Without such a facility the irresistible flood of informational resources will likely surpass, in the long run, the potential of any state to provide the required financial support for library resources and services. A joint proposal for a study grant on a State Research Depository Library has been submitted to the Council on Library Resources, Inc. The statement of this proposal is appended to this report.



## VIII. RECOMMENDATIONS

In view of the creation of regional universities and a fourth campus of the University of North Carolina, the rapid growth of undergraduate enrollment, the projected doubling of graduate enrollment during the next eight years, the inadequacy of the public college and university library resources, and the resulting need for additional financial support, the Board of Higher Education recommends:

1) that as immediate objectives the annual book, periodical, and binding budgets be increased to: \$1,200,000 at UNC-Chapel Hill, \$1,090,000 at NCSU, \$640,000 at UNC-Greensboro, \$640,000 at UNC-Charlotte, \$490,000 at East Carolina, \$540,000 at Western Carolina, \$450,000 at Appalachian State, \$360,000 at North Carolina College, and \$200,000 at N. C. A & T. At the four-year colleges the annual book, periodical, and binding budgets should be increased in amounts ranging from \$120,000 to \$150,000 depending upon the needs of the particular institution (Table XVIII). This recommendation should have top priority in meeting library needs;

2) that a ratio between student enrollment and overall library support be established and used to guide both the General Assembly and the institutions in planning their library budgets. A per capita amount of not less than \$100 is recommended. Financial support to each public college and university library should not be allowed to fall below that level, or 5 percent of the total general educational budget of the institution, whichever sum is greater;

3) that further analysis of book and salary expense ratios in individual library budgets be made to determine whether one or the other category is disproportionately high or low, and remedial action taken where necessary;



TABLE XVIII  
LIBRARY HOLDINGS AND RECOMMENDED ACQUISITIONS BY JUNE 30,  
1975 FOR NORTH CAROLINA PUBLIC SENIOR COLLEGE AND  
UNIVERSITY LIBRARIES

Institution	Actual Acquisitions 1967-1968	Actual Holdings June 30, 1968	Estimated Acquisitions 1968-1969	Recommended Holdings by June 30, 1975	Recommended Annual Acquisitions 1969-1975	Total Cost of Acquisitions 1969-1975 (@ \$10 Per Vol.)
<u>University of N. C.</u>						
N.C. State U.	26,662	426,304	72,000	1,150,000	109,000	\$6,540,000
UNC-Chapel Hill	91,200	1,541,315	86,000	2,350,000	120,000	7,200,000
UNC-Charlotte	18,012	92,524	23,000	500,000	64,000	3,840,000
UNC-Greensboro	32,001	375,488	40,000	800,000	64,000	3,840,000
<u>5-Year Institutions</u>						
Appalachian	16,964	161,624	20,000	450,000	45,000	2,700,000
East Carolina	23,424	328,552	25,000	650,000	49,000	2,940,000
N. C. A. and T.	16,855	271,944	20,000	400,000	20,000	1,200,000
N. C. College	7,202	171,754	10,000	400,000	36,000	2,160,000
Western Carolina	13,763	83,263	20,000	425,000	54,000	3,240,000
<u>4-Year Colleges</u>						
Asheville-Biltmore	9,119	52,171	10,000	132,000	12,000	720,000
Elizabeth City	4,000	59,105	10,000	139,000	12,000	720,000
Fayetteville	2,077	63,140	10,000	143,000	12,000	720,000
Pembroke	3,381	43,435	10,000	141,000	15,000	900,000
Wilmington	8,331	45,061	10,000	139,000	14,000	840,000
Winston-Salem	6,825	73,279	10,000	153,000	12,000	720,000
TOTAL	279,816	3,778,959	375,500	7,972,000	638,000	\$38,280,000

4) that inflationary costs be regularly taken into account in the preparation of library budgets;

5) that the stature of the library of the University of North Carolina at Chapel Hill be maintained and improved and that support sufficient to increase its holdings to a minimum of 2,350,000 volumes by 1975 be provided;

6) that at the other major public institution offering a broad range of doctoral programs, North Carolina State University, immediate steps be taken to strengthen the library in all aspects, and to bring its holdings up to a minimum of 1,150,000 volumes by 1975;

7) that the libraries of the other two campuses of the University of North Carolina, at Greensboro and Charlotte, attain holdings of at least 800,000 volumes and 500,000 volumes respectively by 1975;

8) that the four regional universities and North Carolina College, institutions offering programs through the master's degree, develop library collections in excess of 400,000 volumes as soon as possible, with larger collections as the demands of enrollment and the complexity of academic offerings indicate (see Table XVIII for details by institution);

9) that the state's senior four-year college libraries be supported to the end that each has a collection of not less than 130,000 volumes by 1975 (see Table XVIII);

10) that, if sufficient support is provided in accordance with Recommendation 1 above, each four-year institution plan to subscribe to no fewer than 1,000 current, well-selected periodicals annually by 1975, and that institutions offering graduate work adhere to the Clapp-Jordan formula for periodical subscriptions;

11) that institutions not presently designated as depositories for Federal Government publications make application to be added to the official list;

12) that each public senior institution, recognizing that numbers of books only do not make an adequate library, constantly evaluate its library holdings; and that, in building a collection suited to its academic programs, the library staff work cooperatively with faculty members, using standard lists prepared by specialists, to improve the quality of its holdings;

13) that the ratio of clerical to professional staff be increased in a number of libraries in order to free librarians for professional duties; the recommended ratio is two clerical staff members for each professional librarian;

14) that the ratio of professional librarians to enrollment be raised to the recommended ratio of one professional librarian to every 300 FTE students;

15) that library seating be brought up to a minimum of 25 percent of student enrollment in all public colleges and universities as soon as possible;

16) that steps be taken immediately in the libraries on some campuses, and in the near future in others, to relieve shortages in book storage space;

17) that the administration, faculty, and library staff of each public senior institution cooperatively undertake a study to determine the extent to which library resources are being utilized and to seek additional ways of stimulating their use;

18) that while building strong basic library collections appropriate to its institutional purpose, each public college and university explore the possibility of closer cooperation with other libraries; and

19) that a study be initiated as soon as possible to determine the feasibility of a central research library facility to serve the entire state. Its purpose would be the centralized and economical storage of little-used materials for the benefit of students, scholars, and general researchers and the circulation of materials on demand by means of rapid delivery service from the central facility. The study should involve all interested groups, including librarians, college and university administrators, faculty members, and representatives of both public and private institutions and of such professional organizations as the North Carolina Library Association.

## APPENDIX

Proposal to the Council on Library Resources, Inc. For a Grant  
to Support a Feasibility Study of a State Research  
Depository Library in North Carolina

A Joint Proposal of the North Carolina State Library,  
the North Carolina Library Association, the North  
Carolina Board of Education, and the North Carolina  
Board of Higher Education

Each state has the responsibility for building sound libraries of appropriate size and quality for its state-supported educational institutions, within such standards as may be recognized. Failure to accept this responsibility can lead only to mediocrity and eventual rejection by accrediting agencies. To achieve even the basic minimum for all the expanding state educational institutions today will require a very considerable investment; maintenance at standard levels must also be considered. It is in this area that planning for cooperation offers the greatest promise.

In its Special Report 2-68 (November 1968), the North Carolina Board of Higher Education recommended as follows:

that a study be initiated as soon as possible to determine the feasibility of a central research library facility to serve the entire state. Its purpose would be the centralized and economical storage of little-used materials for the benefit of students, scholars, and general researchers and the circulation of materials on demand by means of rapid delivery service from the central facility. The study should involve all interested groups, including librarians, college and university administrators, faculty members, and representatives of both public and private institutions and of such professional organizations as the North Carolina Library Association.

This proposal seeks support for a study leading to the development of a detailed and serviceable program for implementing that recommendation.

Such a study would center around a plan for a newly conceived library facility in the United States. As such, the study should have utility beyond its usefulness to its immediate sponsors as a pilot study for an innovation which might become a model for other states to follow. It is the conviction of the proposers that such a facility would make a unique contribution to library service in North Carolina, providing as it would an auxiliary library service at minimum cost to all participants. The proposed facility would be a state research depository library, to which any library within the state, public or private, might send those volumes in its collections which are no longer in active use but at least one copy of which should remain as a constant unit within the state's library resources. Each institution participating in this manner would be a member of an organization incorporated for this purpose under the laws of North Carolina, which would undertake to function cooperatively for the mutual benefit of all in its work. The library would be designed primarily as a state-supported resource and should develop a long-range program leading to full participation in any cooperative national program in the future.

Combined with the depository would be a far-reaching communication system, transportation and copying facilities, and an appropriately designed staff. The specific methods of operation and by-laws under which cooperation would be assured could be developed in large measure before establishment and modified by experience over a period of time. There are comparable organizations of library resources in various places with slight variations. Up to this time, however, there is no single state in the United States which has precisely this kind of a functioning library.



The proposed library would serve to extend the availability of informational resources acquired within the state to the entire population of the state on a regular and permanent basis. The existence of such a library should make it possible to establish clear limits of library size for specific types of institutions and should reduce unnecessary duplication of physical facilities and content to attainable proportions. It seems evident that without such planning and without such an organism, the irresistible flood of information resources will outrun the potential financial support of North Carolina, if not of every state in the union.

A preliminary outline of points to be considered in the study might include the following:

#### I. Organization and Administration

1. The establishment of a corporate body, authorized and funded by the state, as a supplementary research tool for all the information-serving agencies of the state.

A. Governed by a Council, perhaps composed of a specified number of principal librarians of participating institutions, concerned academic or civic leaders, and responsible state educational officers.

B. Funded by state appropriations, by foundation or federal grants, by member organizations, or possibly by service fees.

C. Designed to facilitate cooperative use by any resident of our state, whether academic or public, professional or layman, either on-site or at a distance.

#### II. Physical Facility

1. The construction of a facility, preferably located in the Research Triangle area, as close as possible to the two primary resource libraries in the state, those at UNC-Chapel Hill and Duke University. The status of the facility as a separate institution, not a creature of any one institution, physically or otherwise, should be clearly established.

2. The design of the facility: to provide for very large volume of library materials, using cubic rather than linear storage, to obtain maximum economy of space use. Multitier bookstack, serial number access in three established size ranges, with total inventory control, should be assumed.



To provide for suitable on-site use by a small number of independent researchers at any one time,

To provide for the central bibliographic tool, the expanded North Carolina Union Catalog, and all access records for additions to the store.

To provide for a communications center suitable for its planned functions.

To provide for a photocopying service suitably equipped to assure swift availability of materials best provided by this means, and

To provide appropriate working space for staff in the service of these functions.

### III. Functions

Consideration should be given to the following possible sources:

1. Central bibliographic service. Using the North Carolina Union Catalog as its primary tool, the facility should provide immediate information concerning any library resource within the state, its location, availability, etc.
2. Service, upon demand, as a switching center between all types of libraries and users, academic and public, special or government.
3. Service as a central and permanent repository of the last and best copy of any book or library materials remaining within the state and to assure the continuing availability of each such unit wherever and whenever needed.
4. Facilitating the recognition of duplicative little-used resources and planning for their reduction to record copy format,
5. Assistance in planning for specific strength areas and to provide information and/or access to them through cooperative agreement.
6. Service as a focal point within North Carolina for the oncoming national network of informational resources, and participation in planning for such national cooperation.
7. Assistance to government, academic, and public officials in long-range planning for maximum resource availability,

### IV. Participation

Consideration should be given to the participation of the following:

1. Academic libraries, of both public and private institutions;

2. Public libraries;
3. Special libraries, including private industry as well as government, and
4. Private, personal libraries, when proposed for membership and in the public interest.

#### V. Staffing

1. Provision of the basic staff by state funding on a stable base.
2. Provision for additional and variable staffing, by foundation or federal or other grants, in support of related services or research programs, as required.
3. Provision of service personnel by use of staff on assignment from other agencies to serve specific and accepted functions.

#### VI. Funding

Possibilities of funding include

1. appropriations from the State of North Carolina;
2. grants, short or long-term, gifts or loans, as approved by duly appointed governing body;
3. recovered membership or other fees, as determined by duly appointed governing body; and
4. regularly-assigned funds as part of a national or regional network system.

In order to make the proposed study, the following budget is suggested:

#### BUDGET

1. Consultant Service for 3 library experts (academic, public and private libraries) at \$2,000.00 each	\$ 6,000.00
2. Travel funds for consultants 5 trips to North Carolina each at \$200.00	3,000.00
3. Meeting expenses for consultants and Advisory Committee	1,000.00
4. Preparation of the study report, publication and distribution	3,500.00
5. Copying, clerical expense, telephone and telegraph, incidental expenses.	1,500.00
	\$15,000.00

The North Carolina State Library proposes to fund up to \$5,000.00 out of Title III funds presently available.

The request to the Council on Library Resources, Inc., is thus for \$10,000.

The North Carolina Board of Higher Education would serve as fiscal agent for the study at no cost to the project. Dr. Richard H. Leach, a consultant to the Board, would serve as primary investigator, advised by an advisory committee representing the sponsoring agencies and other concerned groups and agencies in the state and the library profession. The study would be initiated upon receipt of funding, and a report and recommendations will be available for consideration by the General Assembly of North Carolina in 1971. The effective period for the grant would thus be Spring 1969 to December 1, 1970.

The purpose of the North Carolina Board of Higher Education “shall be . . . to plan and promote the development of a sound, vigorous, progressive, and coordinated system of higher education in the State of North Carolina.”