LIBRARIES IN NORTH CAROLINA PUBLIC SENIOR COLLEGES AND UNIVERSITIES: PRESENT STATUS AND FUTURE NEEDS
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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, expansion and proliferation of academic programs; the phenomenal increase in the number of books and periodicals being published; 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 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, along with library usage, financial support, the impact of technology, and the need for cooperation among libraries, are discussed in this report.¹

I. HOLDINGS

There are two basic types of college and university libraries: the "college library," used primarily by the undergraduate student, and the "university library," 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 a library’s holdings 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.

The number of volumes held by most public college and university libraries in North Carolina is markedly deficient. 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 enrollment increases, additional volumes are necessary in the ratio of 10,000 volumes for each additional 200 students.²

On the basis of these minimum quantitative standards (see Table I) 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 higher quantitative standards for university libraries are applied to the four campuses of the University of North Carolina and to the four regional universities, the library holdings in only two of these approach the standard — the University of North Carolina at Chapel Hill and the University of North Carolina at Greensboro.

### TABLE 1

HOLDINGS OF NORTH CAROLINA PUBLIC COLLEGE AND UNIVERSITY LIBRARIES COMPARED WITH ACRL STANDARDS AND DEFICIENCIES

<table>
<thead>
<tr>
<th>Institution</th>
<th>Fall 1967 FTE Enrollment*</th>
<th>No. of Vols. June 30, 1968</th>
<th>ACRL Standard</th>
<th>Deficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of N. C.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N. C. State U.</td>
<td>9,294</td>
<td>426,304</td>
<td>480,000**</td>
<td>53,700</td>
</tr>
<tr>
<td>UNC-Chapel Hill</td>
<td>14,74</td>
<td>1,541,315</td>
<td>750,000**</td>
<td>—</td>
</tr>
<tr>
<td>UNC-Charlotte</td>
<td>1,721</td>
<td>92,524</td>
<td>107,500**</td>
<td>15,000</td>
</tr>
<tr>
<td>UNC-Greensboro</td>
<td>4,673</td>
<td>375,488</td>
<td>250,000**</td>
<td>—</td>
</tr>
</tbody>
</table>

**5-Year Institutions**

<table>
<thead>
<tr>
<th>Institution</th>
<th>FTE Enrollment*</th>
<th>No. of Vols.</th>
<th>ACRL Standard</th>
<th>Deficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appalachian</td>
<td>4,624</td>
<td>161,624</td>
<td>250,000</td>
<td>88,400</td>
</tr>
<tr>
<td>East Carolina</td>
<td>8,914</td>
<td>328,552</td>
<td>465,000</td>
<td>136,500</td>
</tr>
<tr>
<td>N. C. A and T</td>
<td>3,715</td>
<td>261,944</td>
<td>200,000</td>
<td>—</td>
</tr>
<tr>
<td>N. C. College</td>
<td>2,934</td>
<td>171,754</td>
<td>160,000</td>
<td>—</td>
</tr>
<tr>
<td>Western Carolina</td>
<td>3,746</td>
<td>83,263</td>
<td>207,500</td>
<td>124,000</td>
</tr>
</tbody>
</table>

**4-Year Colleges**

<table>
<thead>
<tr>
<th>Institution</th>
<th>FTE Enrollment*</th>
<th>No. of Vols.</th>
<th>ACRL Standard</th>
<th>Deficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asheville-Biltmore</td>
<td>571</td>
<td>52,171</td>
<td>50,000</td>
<td>—</td>
</tr>
<tr>
<td>Elizabeth City</td>
<td>934</td>
<td>59,105</td>
<td>67,500</td>
<td>8,400</td>
</tr>
<tr>
<td>Fayetteville</td>
<td>1,143</td>
<td>63,140</td>
<td>77,500</td>
<td>14,400</td>
</tr>
<tr>
<td>Pembroke</td>
<td>1,484</td>
<td>43,435</td>
<td>95,000</td>
<td>51,600</td>
</tr>
<tr>
<td>Wilmington</td>
<td>1,179</td>
<td>45,061</td>
<td>80,000</td>
<td>34,900</td>
</tr>
<tr>
<td>Winston-Salem</td>
<td>1,266</td>
<td>73,279</td>
<td>82,500</td>
<td>9,200</td>
</tr>
</tbody>
</table>

* 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.
FIGURE 1
NUMBER OF BOUND VOLUMES PER FULL-TIME EQUIVALENT STUDENT IN NORTH CAROLINA PUBLIC AND PRIVATE SENIOR COLLEGES AND UNIVERSITIES, 1967

Duke Univ. 137
Davidson C. 120
Salem College 117
Wake Forest U. 99
UNC-Chapel Hill 84
Bennett College 79
Warren Wilson 76
Asheville-Biltmore 77
Greensboro C. 76
Queens College 76
{UNC-Greensboro}
{Barber Scotia} 76
Guilford C. 71
Livingstone C. 70
Catawba College 66
Meredith C. 64
N.C. Sch. of Arts 61
{Elizabeth City}
{N.C. College} 60
John C. Smith 58
{High Point}
{Winston-Salem} 53
Belmont Abbey 52
{Eayetteville}
{Fletcher}
{N.C.Wesleyan}
{St. Andrews}
{Harris Hill} 48
Sacred Heart 47
{N.C. A&T} 46
{Blinn College}
{Lenoir Rhyne} 45
UNC-Charlotte 44
N.C. State Univ. 43
Atlantic Christian 37
{Shaw Univ.}
{St. Augustine's} 33
East Carolina 34
Appalachian 32
Wilmington 31
Pembroke 29
Methodist 28
Campbell 23
Western Carolina 19
The North Carolina public college and university libraries do not compare favorably with those of the private institutions in the state in the number of volumes per full-time equivalent student (see Figure 1). It should be a matter of high priority to eliminate deficiencies in library collections at all institutions as rapidly as possible. Wherever appropriate, librarians, working cooperatively with their faculties, should utilize standard lists prepared by outstanding specialists in choosing titles to strengthen their holdings qualitatively.

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, 11th 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.

The library deficiencies at North Carolina State University, however, are alarming in view of its extensive graduate programs. Altogether 35 doctoral and 54 master's degree programs are now offered at North Carolina State in agriculture and engineering, in the biological and physical sciences, and in several of the social sciences. As of June 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; it was over 50,000 volumes short of meeting the standards even for a four-year college of its size. It is clear that library resources at North Carolina State University, with the possible exception of periodicals and microreproductions (see below), have not kept pace with the academic and research growth of the institution.

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 magazines and scholarly journals being published today; university libraries should be receiving a considerably larger number geared to their individual programs and needs. In terms of current subscriptions to periodicals, only the University of North Carolina at Chapel Hill and North Carolina State are equipped to support a full range of university study research, while only the libraries at the University of North Carolina at Greensboro and East Carolina are in this respect sufficient to support masters' level work. The other four public institutions which offer the master's degree (Appalachian, North Carolina Agricultural and Technical, North Carolina College at Durham, and Western Carolina) 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 required in searching for original copies, needed resources, such as rare books, large sets, documentary series, journal and newspaper files; frequently are available in no other medium. Some of the North Carolina Libraries are making considerable use of microforms, as is shown by the following data on microform holdings: the University of North Carolina at Chapel Hill, 280,441; North Carolina State, 254,039; East Carolina 155,071; and the University of North Carolina at Charlotte, 48,981. Microreproduction holdings at the other public institutions are considerably less.

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 are depository libraries, and as such 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 librarians is one professional librarian to each 300 students; no specific standard has yet been adopted by American college and university librarians. Table II shows the ratios of professional staff to full-size equivalent students in 15 public senior college and university libraries in North Carolina as of June 30, 1968.

Only five institutions — the University of North Carolina at Chapel Hill, the University of North Carolina at Charlotte, Asheville-Biltmore, North Carolina College at Durham, and Wilmington — meet the suggested 300 to 1 ratio. The ratios at four libraries — Appalachian, the University of North Carolina at Greensboro, Elizabeth City and Winston-Salem — are marginal; the remaining six libraries are seriously understaffed.

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 assistants, though as a rule student help cannot be expected to perform as effectively as do competent full-time workers. While only Fayetteville State College fails to meet the minimum of three professional librarians, seven institutions (Appalachian, East Carolina, Elizabeth City, North Carolina College, Pembroke, Wilm-
### Table II

**Ratio of Professional Library Staff to Full-Time Equivalent Enrollment in North Carolina Public Senior Colleges and Universities, Fall 1967**

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

* Full-time equivalent.

North (and Winston-Salem) are deficient in the ratio of clerical assistants to professional librarians. Two libraries are inadequate both in professional and clerical staff — East Carolina and Pembroke State. 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 increased demands for services which will be required between now and 1975. A cursory examination of the recommended acquisitions, for example, will indicate that there is a pressing need for additional personnel.

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 professional staff.
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 badly-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 enrollment; 25-30 square feet of 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 125 square feet of office or work space for each full-time member.

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

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

* Full-time equivalent.
** In square feet.
*** Minimum suggested by the Southern Association of Colleges and Schools.
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 commuting students, and the nature of the instructional program. As Table III indicates, seating facilities in only six of the libraries meet the minimum standard according to fall 1968 enrollment projections. Three of the six are in rapidly growing institutions, and percentages will probably fall below the standard within the next few years unless additions are made to their facilities in the meantime.

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 book space. Based on present holdings, the space available 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, and North Carolina College are currently inadequate. 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.

The third type of library space required is staff offices and work rooms. Space for staff seems to be more generously provided than for books and readers in a majority of the North Carolina libraries studied; 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. The situation will be drastically different, however, at many of the institutions if they are adequately staffed to handle the job demanded of them between now and 1975.

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 eight have buildings 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 enrollment projections 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.

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, recorded circulation is indicative of the extent to which the resources of a library are being utilized.

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 15 libraries in this study show emphasis on home circulation as con-
trasted with reserve book reading during 1967-68. On a per capita basis, however, cir-
culation 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 emphasized, have considerably higher averages. In six of the libraries, average circulation was less than 30 books per student, and in 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 and publication of information on new acquisitions, extending hours during which the library is open, longer lending periods, open shelving of books, and expert staff assistance to students and faculty. Student membership on library committees may stimulate communication of library news and services, 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 in 1967-68 reveal that the University of North Carolina at Chapel Hill and North Carolina State are, not surprisingly, the principal resource libraries in the public system. The 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 adequate library support 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; library expenditures 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 reveals that library budgets at North Carolina State, the University of North Carolina at Chapel Hill, Elizabeth City, and North Carolina Agricultural and Technical were below the recommended standard of 5 per cent. The relatively high percentages at some of the newer institutions, such as the University of North Carolina at Charlotte and Asheville-Biltmore, are due to a concentration on rapid library acquisitions during the initial period of development as senior institutions.

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, and North Carolina College at Durham. In general, a low ratio of salary to book expenditures is an indication either of understaffing or of low salary standards.

Another frequently applied measure of the adequacy of financial support is the library expenditure per student. The expenditure for library support (books, staff, etc.) per full-time equivalent student for 1967-68 ranged from a low of $62 at Western Carolina and Winston-Salem State to highs of $201 at the University of North Carolina at Charlotte and $267 at Asheville-Biltmore. 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.

Library financing can hardly be considered without reference to inflation. Book and periodical prices over the past 10 years shown an average annual increase of nearly 10 per cent. 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 per cent 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 — 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, encouraged and their experience shared with educators and librarians in the state, facilitating their potential 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 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 library be assisted 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, 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.

In February 1969 a proposal to the Council on Library Resources for a grant to support a feasibility study of a state research depository library in North Carolina was submitted by a joint sponsoring committee composed of representatives of the North Carolina State Library, North Carolina Library Association, North Carolina Board of Education, and the North Carolina Board of Higher Education.

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 increased9 to: $1,200,000 at UNC-Chapel Hill, $1,090,00 at NCSU, $640,000 at UNC-Greensboro and UNC-Charlotte, $490,000 at East Carolina, $540,000 at Western Carolina, $450,000 at Appalachian, $360,000 at North Carolina College, and $200,000 at NCA&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 (see Table IV). 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;

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 IV for details by institution);

9) that the state's senior four-year college libraries be supported to the end that each four-year institution plan to subscribe to no fewer than 1,000 current, well-selected periodicals annually by 1975 (see Table IV);

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 or books alone 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 one professional librarian for every 300 full-time equivalent students;

15) that library seating be brought up to a minimum of 25 percent of 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.

1. This study is adapted from Planning for Higher Education in North Carolina. Special Report 2-68 (Nov. 1968). Raleigh, North Carolina, Board of Higher Education. Made with the assistance of Robert B. Downs, Dean of Library Administration, University of Illinois, consultant to the Board of Higher Education.

2. 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. The Clapp-Jordan formula has seven variables, expressed in terms of volumes, as follows: to a basic undergraduate library collection of 50,750 volumes, add 100 volumes for each full-time equivalent faculty member, 12 volumes for each FTE student, 5 volumes for each field of undergraduate concentration or "major subject" field, 3,950 volumes for each field of master's concentration or equivalent, and 24,500 volumes for each field of doctoral concentration or equivalent.

3. The library of the North Carolina School of the Arts is excluded from the remarks in this report because of the special purpose of that institution.


5. See Table IV.

6. 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.


9. For the fiscal year ending June 30, 1968, the budgets of the public senior institutions for these purposes were as follows: UNC-CH, $810,000; NSCU, $313,000; UNC-G, $128,000; UNC-C, $185,000; East Carolina, $336,900; Western Carolina, $91,000; Appalachian, $139,000; North Carolina College, $73,000; NCA&T, $84,000; Asheville-Biltmore, $72,000; Elizabeth City, $27,000; Fayetteville, $47,000; Pembroke, $50,000; Wilmington, $59,000; and Winston-Salem, $48,000.

WHAT A MODERN LIBRARY CAN DO (Continued)

been heartening. A good example is Charlotte and Mecklenburg County, where there has been a valiant and continuing effort to provide modern library services. Another is my own little county of Dare, with the highest per capita local expenditures for libraries of any county in the state. In many other counties and cities, however, local governing bodies have been very reluctant to provide even minimum financing for public libraries. Thus, some counties and communities are approaching the maximum extent of their ability to provide library funds, while many others have so far made only token efforts toward this end.

The basic objective for all of us, as I see it, is to make modern library services accessible to all citizens of North Carolina. The success of these efforts will depend to a large degree on whether an appreciable segment of the informed and interested population in each city and county becomes sufficiently familiarized with, and concerned about, the inadequate status of our libraries in today’s changing society. And in the final analysis it is largely up to the public librarians, library trustees, and the small hard core of library-oriented citizens to spread the facts, generate the interest, and lead the fight for modern library services in their home towns.