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Publication Activity among Academic Librarians

A study of the publication output of librarians at ten large university libraries was undertaken in order to suggest norms of productivity for the profession. Publications lists were obtained for the sample libraries along with biographical data for publishing librarians. Relationships between productivity and age, professional maturity, educational background, and position held were investigated. Favorable publication outlets also were examined, and measures were taken of both individual and staff productivity. The data thus obtained are related to administrative policies concerning evaluative criteria for librarians, tenure eligibility periods, and apportionment of staff time.

During the present period of economic retrenchment in higher education, the operations of academic libraries and the contributions of librarians to the educational enterprise are being scrutinized carefully by parent institutions. Acquisitions and personnel budgets are declining, and librarians are likely to be measured against higher standards of performance now than they were in the expansive decade of the sixties. It is particularly important, therefore, that clear and reasonable criteria are available for the evaluation of librarians in all the areas of accomplishment traditionally regarded as indexes of academic excellence. Research and publication activity is certainly one of the most important of such indexes. It is the purpose of this paper to provide some norms of publishing productivity for librarians. The approach is purely quantitative; no attempt is made to address the question of qualitative standards.

The publishing output of a sample of university librarians is surveyed over a five-year period. Relationships between productivity and age, professional maturity, educational background, and position held are examined. Particular attention is given to the contribution of young professionals who, at institutions where faculty status has been secured, are now likely to face more stringent tenure criteria than have their older colleagues in the past. Estimates of the proportion of actively publishing librarians in the total population also are obtained, and an effort is made to categorize librarians’ publications.

Methodology

The original intention of the study was to survey the publication output of librarians at the very largest academic libraries on the assumption that such in-
stitutions would have high evaluative criteria for teaching faculty and that these criteria might influence the standards set for librarians. Librarians at such schools presumably also have the most bountiful research resources at their disposal and work daily in an atmosphere in which publication is highly valued as an indicator of worth. Their research output might, therefore, be used as a norm against which to measure others in the profession.

Lists of publications of librarians at as many of the fifteen largest members of the Association of Research Libraries as possible were gathered from published sources. University bibliographies of faculty publications and library directors’ annual reports listing staff publications were consulted. In one case, a list was compiled from an in-house publication which announces librarians’ research and professional accomplishments as a regular feature. Letters requesting unpublished lists of publications were sent to directors of libraries for which published lists were unavailable. The response to these requests, with a few notable exceptions, was poor. Many libraries apparently do not maintain composite publication lists for the staff as a whole, but simply record individual accomplishments in personnel folders.

The sample was, consequently, expanded to include slightly smaller ARL libraries for which published data were available. The final group consists of ten public and private academic research libraries. Librarians at four of these have faculty status. At one institution they have had academic status since 1972. The period surveyed for most librarians was the five years beginning with the academic year 1969-70 (or the calendar year 1970, if calendar years were the unit of record) and ending with the academic year 1973-74, or the calendar year 1974. No attempt was made to gather data for later years on the assumption that the lag time for compiling of publication lists by sample institutions would be likely to be one to two years. For one institution, data were gathered which covered the first three years of the survey period, and data for the remaining two years were subsequently found to be unavailable. For this library, data for the two earlier years are included instead.

Organization charts also were obtained wherever possible to establish the publishing librarian’s position in the administrative hierarchy. Those who have the title director or its equivalent, assistant or associate director, or division head were classed as administrators.

A second category consisted of department heads and branch librarians, and a third was made up of subject or technical specialists. Included in this group were specialized bibliographers, collection curators, personnel officers, audiovisual specialists, automation personnel, and other technical experts. Almost all the bibliographers so classed have a higher degree in their field of specialization. In a few isolated cases, however, librarians holding no such degree but working as bibliographers in fields traditionally acknowledged as specialists’ fields (such as Latin American studies) also were designated as subject specialists.

The last category comprises the large group of librarians who may be described as generalists working in supervised positions. These include, for example, reference librarians, acquisitions librarians, catalogers, and branch library assistants.

Once the publication lists were obtained, biographical information on publishing librarians was gathered. The Biographical Directory of Librarians in the United States and Canada was consulted and supplemented with other relevant biographical sources. Where
biographical data could not be found by indirect means, librarians were sent a short questionnaire asking them to provide their year of birth, the first year worked as a professional librarian, their earned degrees, and positions held (indicating supervisory responsibility) during the survey period. The response to these questionnaires was gratifying. Biographical information is incomplete for only about 5 percent of the sample population.

FINDINGS

With this information in hand, various tabulations were made. For each publication the following were noted: (1) the age of the librarian in the year of publication; (2) the number of years the author had been in the profession at that time; (3) the higher degrees earned by the author; (4) the position held by the author at the time of publication. Distributions in all of these categories are presented in the tables which follow. Data from several studies of the characteristics of academic librarians are used in order to compare the distributions of publishing librarians with the distributions of librarians in the profession as a whole.

Schiller has compiled information on age, years in the profession, and degrees held by academic librarians which are presented for comparison purposes in Tables 1 and 2. Data on years in the profession also are taken from Massman, from an unpublished salary study by Chapin, and from a salary survey sponsored by the Council on Library Resources and compiled by Cameron and Heim. The latter two studies are perhaps the most reliable yardsticks since they are obtained for universities more comparable in size and type to the sample universities. Cameron and Heim distributions also are presented in Table 2 for positions held by academic librarians.

Age of the Librarian

Using Schiller’s distribution as a measure, it can be seen that age is not a strong determinant of publication productivity (see Table 1). Young librarians between the ages of twenty-five and twenty-nine do seem to publish in lower proportion to their numbers (i.e., they produce 7 percent of the contributions at sample universities, while it is likely that they make up something like 12 percent of the staffs of these libraries). The most productive librarians appear to be between the ages of forty and forty-four, and output does not drop off with increasing age.

Librarians at the sample universities who would be sure to be in the tenure eligibility range at institutions where librarians have faculty status (i.e., those between the ages of twenty-five and twenty-nine) are somewhat less likely, then, to have publications to their credit than are their older colleagues. Since so many individuals enter the profession late in life, librarians without tenure are likely to be in all but the oldest age groups. Productivity in the tenure eligibility years is more easily examined by considering years of professional experience in relation to publication.

Professional Maturity

Professional maturity is, in fact, a more potent predictor of publication output than age (see Table 2). Estimates of academic librarians having five or fewer years of experience show that a large number of professionals fall in these categories. At Massman’s survey schools, 45.5 percent of the library staffs have five or fewer years of experience. Chapin shows that at least 30 percent are in this group, Schiller finds at least 32.3 percent, and Cameron and Heim place at least 35 percent in this category. It is quite striking that only 18 percent of all publications in the pres-
TABLE 1

AGE AND DEGREES HELD BY AUTHORS OF EACH PUBLICATION AT SAMPLE UNIVERSITY LIBRARIES

<table>
<thead>
<tr>
<th>Age (Percentage Distribution)</th>
<th>Total Sample</th>
<th>Schiller Distribution†</th>
<th>Massman Distribution</th>
<th>Cameron and Heim Distribution</th>
<th>Chapin Distribution</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percentage</td>
<td>Age Not Known</td>
<td>Subject Masters</td>
<td>Highest Degree</td>
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<td></td>
<td>of Publications</td>
<td>Distribution</td>
<td>Ph.D. as</td>
<td>Masters</td>
<td>Degree</td>
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<tr>
<td>25-29</td>
<td>1,106</td>
<td>12.2</td>
<td>13.8</td>
<td>11.3</td>
<td>11.3</td>
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<tr>
<td>30-34</td>
<td>7</td>
<td>12.6</td>
<td>12.6</td>
<td>12.6</td>
<td>12.6</td>
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<td>35-39</td>
<td>11</td>
<td>11.3</td>
<td>13.8</td>
<td>13.8</td>
<td>11.8</td>
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<tr>
<td>40-44</td>
<td>18</td>
<td>18.1</td>
<td>11.3</td>
<td>11.3</td>
<td>13.8</td>
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<tr>
<td>45-49</td>
<td>14</td>
<td>14.3</td>
<td>13.8</td>
<td>13.8</td>
<td>11.8</td>
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<tr>
<td>50-54</td>
<td>9</td>
<td>9.1</td>
<td>11.3</td>
<td>11.3</td>
<td>13.8</td>
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<tr>
<td>55-59</td>
<td>8</td>
<td>8.6</td>
<td>13.8</td>
<td>13.8</td>
<td>11.8</td>
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<tr>
<td>60-64</td>
<td>3</td>
<td>3.6</td>
<td>12.6</td>
<td>12.6</td>
<td>13.8</td>
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<tr>
<td>65 or Over</td>
<td>4</td>
<td>27.2</td>
<td>22.2</td>
<td>22.2</td>
<td>22.2</td>
</tr>
<tr>
<td>Age Not Known</td>
<td>7</td>
<td>7.3</td>
<td>7.3</td>
<td>7.3</td>
<td>7.3</td>
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<tr>
<td>Subject Masters</td>
<td>13</td>
<td>12.2</td>
<td>13.8</td>
<td>13.8</td>
<td>13.8</td>
</tr>
<tr>
<td>Highest Degree</td>
<td>43</td>
<td>43.0</td>
<td>43.0</td>
<td>43.0</td>
<td>43.0</td>
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<tr>
<td>Other Higher Degrees</td>
<td>29</td>
<td>29.0</td>
<td>29.0</td>
<td>29.0</td>
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<tr>
<td>No Library Degree</td>
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<td>Not Known</td>
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<td>3.0</td>
<td>3.0</td>
<td>3.0</td>
<td>3.0</td>
</tr>
</tbody>
</table>

* Percentages in distributions in this and other tables may not add exactly to 100 due to rounding.

TABLE 2

YEARS OF PROFESSIONAL EXPERIENCE AND POSITION HELD BY AUTHORS OF EACH PUBLICATION IN SAMPLE UNIVERSITY LIBRARIES

<table>
<thead>
<tr>
<th>Years of Professional Experience (Percentage Distribution)</th>
<th>Total Sample</th>
<th>Massman Distribution*</th>
<th>Schiller Distribution†</th>
<th>Cameron and Heim Distribution</th>
<th>Chapin Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Five or Fewer</td>
<td>18</td>
<td>45.5</td>
<td>&gt;32.3†</td>
<td>&gt;35‡</td>
<td>&gt;30‡</td>
</tr>
<tr>
<td>6-10</td>
<td>17</td>
<td>23.9</td>
<td>10.6</td>
<td>7</td>
<td></td>
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<tr>
<td>11-15</td>
<td>16</td>
<td>13.3</td>
<td>7</td>
<td>7</td>
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<tr>
<td>16-20</td>
<td>20</td>
<td>10.6</td>
<td>7</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>21-25</td>
<td>14</td>
<td>7.3</td>
<td>7</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>25 or More</td>
<td>5</td>
<td>5.0</td>
<td>7</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Not Known</td>
<td>13</td>
<td>13.3</td>
<td>10.6</td>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>

† Schiller, Characteristics of Professional Personnel, p.17. This figure is for librarians with “under 5 years of experience.” The total number in Schiller’s sample for those with five or fewer years of experience would be greater than shown here.
‡ Donald F. Cameron and Peggy Heim, Librarians in Higher Education: Their Compensation Structures for the Academic Year 1972-73 (Washington, D.C.: Council on Library Resources, 1974), p.6. This figure is for “other professionals” (i.e., other than library directors, associate and assistant directors, curator-specialists, and department or branch heads) with less than five years of experience. The total number in Cameron and Heim’s sample with five or fewer years of experience, regardless of position, would be greater than shown here.
§ Richard E. Chapin, Unpublished salary study of Big Ten University Libraries, 1974-75, Table 9.1. This figure is also for “other professionals” with less than five years of experience. “Other professionals” are defined almost as in Cameron and Heim. The total number in Big Ten libraries with five or fewer years of experience regardless of position will be greater than the number shown here.
¶ This figure is for “other professionals” with less than five years of experience. If librarians in their fifth year had been included, this number would be larger.
ent survey were produced by librarians with five or fewer years of experience. At universities with faculty status for librarians, these less productive staff members would be in the tenure evaluation years.

Also interesting is the high rate of productivity of librarians with sixteen or more years of experience. Those with sixteen to twenty years of experience produce 20 percent of all publications even though, using Massman's distribution as an indicator, they make up only about 11 percent of the staffs of these libraries. Those with twenty-one or more years of service are likely to be only 7 percent of the sample, and yet they account for 24 percent of the publications.

Position Held

In relating publication to place in the administrative hierarchy, it was found that administrators, branch and department heads, and subject and technical specialists produce the majority of the contributions and publish disproportionately in relation to their numbers (see Table 2). Administrators, using Cameron and Heim's figures as a measure, are likely to be only 7 percent of the population, and yet they generate 13 percent of the survey output. Branch and departmental librarians are likely to be 28 percent of the population, but they produce 43 percent of the published work. Subject and technical specialists contribute 29 percent of the survey output, although they may constitute only 14 percent of the staffs of the sample libraries.

Supervised librarians with no subject specialty, by contrast, publish far less than their colleagues and not at all in proportion to their large numbers. Fifty-two percent of the Cameron and Heim population falls into this category. In the present survey only 15 percent of the publishing is done by this group of librarians. A far smaller proportion of the total output is contributed by the supervised generalists who would be in the tenure evaluation years at institutions where librarians have faculty status. Those with five or fewer years of experience contributed only 3 percent of the books and articles published, while, according to Cameron and Heim, they are likely to make up at least 35 percent of the sample library staffs. It would appear, then, that there exists a high correlation between administrative responsibility and subject or technical specialization and publication output among librarians at large university libraries.

Higher Degrees

The relationship between subject expertise and publication also is underlined by the large numbers of authors who hold higher degrees in addition to or instead of the master's degree in library science (see Table 1). Almost 60 percent of all articles published are by authors who have a subject master's degree, a Ph.D., or another higher degree. As might be expected, those with a Ph.D. degree publish heavily in relation to their numbers. They are, using Schiller's figures as a yardstick, likely to make up 3.6 percent of the survey population; but they are responsible for 25 percent of the published output. Those who hold no library degree publish in proportion to their numbers and produce a significant fraction of the published work attributed to librarians.

Publication by Type

A breakdown of librarians' publications by type is presented in Table 3. The aim of this analysis was to determine what are the most popular outlets for academic librarians' publications and to see whether librarians tend to publish most frequently in vehicles with a national audience. In the purely
quantitative measure of publication productivity, contributions with national impact are likely to be given greater weight than those in more localized publications. It is also true, perhaps, that publication in national media is considered a measure of quality since there is greater competition to publish in such journals and they are likely to have more stringent criteria for acceptance of contributions.

In tabulating librarians' publications over the five-year period, only those designed to reach audiences beyond the campus community were included. Thus, certain traditional forms of librarians' writing were ignored: for example, guides to the collection, bibliographies of non-unique items in the collection, guides to the use of bibliographic tools, and articles in staff bulletins.

Local library journals were considered to include journals of state or regional library associations and bulletins of local chapters of national library associations. Bulletins of specialized chapters of national organizations, such as the Bulletin of the Map and Geography Section of the Special Libraries Association, a frequent outlet for librarians in this study, were classed as national library journals.

Several university libraries publish their own journals, and some of these have high national reputations. Such established journals were distinguished from staff bulletins and are in a separate group designated "university library journals." National subject journals were considered to be journals in fields other than library science which have a national audience. Archivists' journals were included here as well as exclusively bibliographic journals such as the Papers of the Bibliographic Society of America. Since it might be argued that these two types of journals should be

<table>
<thead>
<tr>
<th>Type of Publication</th>
<th>Monographs</th>
<th>Occasional Library Publications</th>
<th>Unpublished University Library Journals</th>
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<td>Articles in:</td>
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<tr>
<td>University Journals</td>
<td>2</td>
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<td>Books</td>
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<td>National Journals</td>
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<td>Total for all</td>
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<td>Total for all journals</td>
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<td>Publications for total sample which are book reviews</td>
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considered to be library journals, it should be noted that the number of contributions to such journals in the sample is quite small in proportion to the total. Local or regional subject journals included periodicals published, for example, by state historical or genealogical associations and the magazines of ethnic interest organizations. Popular journals were defined as general interest magazines and newspapers.

Books included both those edited and those authored and were not confined to those produced by large trade or university press publishers. The designation "articles in books" was applied to contributions to conference proceedings and to introductions, articles, and chapters in monographs. Monographs published by libraries for distribution beyond the local community were classed as "library publications." Such work published by other university departments was described by the term "occasional papers series."

A separate category was also established for articles appearing in university journals, which may or may not have broad impact. The last group is comprised of those publications falling into none of the other categories, such as Pathfinders, and of articles in journals not readily classified.

As can be seen from Table 3, an analysis of publications by type points again to the correlation between subject specialization and research productivity. Thirty-seven percent of articles by sample university staff members are found to appear in national and local library journals as compared to 26 percent which appear in journals outside the field of library science.

Of the 37 percent in library journals, however, 21 percent are book reviews. The overwhelming majority of these are the short notes in Library Journal, and most are probably reviews of books on subjects other than library science. If book reviews are discounted, it is evident that the librarians surveyed publish at least as frequently in journals outside the field of library science as they do in journals in the field.

It seems unlikely that librarians without advanced training in a subject field could succeed in contributing regularly to subject journals. Librarians do appear to publish mainly in media which have national impact, except for the reasonably large percentage of articles published in local or regional subject journals. It may be that local or regional library journals tend to be outlets more for public librarians than for academic librarians.

Staff Productivity in Sample University Libraries

Data are presented in Table 4 which are aimed at demonstrating the magnitude of staff and individual productivity. A relatively small percentage of the staff of each university library publishes in any given year. The range is from an average percentage of 3.6 percent to 11.4 percent, with the average for all staffs at 7.2 percent. During the five-year period surveyed, the average number of publications per publishing librarian ranges from 1.5 to 12.1, with the average for the whole sample 4.2. Discounting book reviews, the average ranges from 1.4 to 6.0, with the average number for the entire sample 3.3. That the average is artificially inflated by a small number of anomalously prolific library staff members is indicated by the smaller number found for the median number of publications per staff member in the survey period. This ranges from a high of 3 at University I to a low of 1 publication in five years at four schools. Again, the medians drop when book reviews are excluded, reaching a high of 2.5 at University E and falling to 1 at six schools.

The median productivity for the to-
TABLE 4
OUTPUT OF PUBLISHING LIBRARIANS IN SAMPLE UNIVERSITY LIBRARIES

<table>
<thead>
<tr>
<th>University</th>
<th>Number of Publications</th>
<th>Number of Publishing Librarians</th>
<th>Median No. of Publications During 5-yr. Period*</th>
<th>Number Used to Calculate Median†</th>
<th>Avg. No. of Publications During 5-yr. Period‡</th>
<th>Avg. % Staff Publishing in Any Given Yr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>University A</td>
<td>21</td>
<td>14</td>
<td>1.0</td>
<td>11</td>
<td>1.5</td>
<td>5.4</td>
</tr>
<tr>
<td>University B</td>
<td>136</td>
<td>39</td>
<td>2.0 (1.0)</td>
<td>29</td>
<td>3.0 (2.3)</td>
<td>8.4</td>
</tr>
<tr>
<td>University C</td>
<td>164</td>
<td>49</td>
<td>2.0 (2.0)</td>
<td>36</td>
<td>3.4 (2.3)</td>
<td>11.4</td>
</tr>
<tr>
<td>University D</td>
<td>78</td>
<td>17</td>
<td>1.5</td>
<td>11</td>
<td>5.5 (5.0)</td>
<td>3.6</td>
</tr>
<tr>
<td>University E</td>
<td>71</td>
<td>26</td>
<td>2.5</td>
<td>14</td>
<td>3.4 (2.3)</td>
<td>9.0</td>
</tr>
<tr>
<td>University F</td>
<td>44</td>
<td>19</td>
<td>1.0</td>
<td>12</td>
<td>2.2 (2.1)</td>
<td>5.2</td>
</tr>
<tr>
<td>University G</td>
<td>89</td>
<td>52</td>
<td>1.0</td>
<td>32</td>
<td>2.1</td>
<td>6.8</td>
</tr>
<tr>
<td>University H</td>
<td>256</td>
<td>26</td>
<td>2.0 (1.0)</td>
<td>19</td>
<td>12.1 (6.0)</td>
<td>8.8</td>
</tr>
<tr>
<td>University I</td>
<td>182</td>
<td>37</td>
<td>3.0 (2.0)</td>
<td>23</td>
<td>5.6 (4.7)</td>
<td>8.0</td>
</tr>
<tr>
<td>University J</td>
<td>65</td>
<td>13</td>
<td>1.0</td>
<td>9</td>
<td>3.4 (1.4)</td>
<td>4.6</td>
</tr>
<tr>
<td>Total Sample</td>
<td>1,106</td>
<td>292</td>
<td>2.0 (1.0)</td>
<td>196</td>
<td>4.2 (3.3)</td>
<td>7.2</td>
</tr>
</tbody>
</table>

* The number shown in parentheses is the median number of publications per publishing librarian during the five-year period excluding book reviews.
† Only those librarians known to have been at the institution during the full survey period were included in the calculation of the medians and averages.
‡ The number shown in parentheses is the average number of publications per publishing librarian during the five-year period excluding book reviews.

total survey population is two publications in five years; when book reviews are excluded, it is one. It should be emphasized that these median and average numbers of publications are only for the publishing librarians. For all librarians these would be drastically smaller.

DISCUSSION

The findings of the present study suggest that some university librarians may have difficulty meeting standards of academic excellence which include publication activity. The compilation of comparative productivity figures for teaching faculty at the sample universities was too large an undertaking for this study. A recent report of survey findings for similar institutions, however, shows that 79 percent of faculty members had published at least one article in the two years surveyed; 28 percent of these had published five or more during the same period.8

These drastic differences, both in numbers of staff publishing and in individual productivity between faculty and librarians, indicate that librarians with faculty status are likely to suffer where promotion and tenure decisions concern-
One means of making it possible for young professionals to meet publication tenure criteria would be, perhaps, to lengthen tenure eligibility periods. Librarians might, for example, begin work without financial penalty in non-tenure-track positions and, after two or three years, be placed on the tenure track. Thus postponing the tenure decision would prevent the handicapping of librarians by their necessary apprenticeship years and would enable them to amass the professional or subject expertise required to pursue research.

Perhaps a more workable arrangement for some university libraries would be to designate research as an assigned responsibility of staff members. It is possible that the most productive librarians in this study—administrators, branch librarians, and department heads—have gained their positions of responsibility because they are more competent and more motivated than other professionals. It may also be that their high productivity is due, in part, to the autonomy such librarians have traditionally enjoyed in university libraries. Since they can control their work schedules, they can allot time to research that librarians in large departments and under direct supervision cannot.

A recent report from Ohio State University provides an example of how university library work schedules can be organized to facilitate research involvement by all staff members. A few years ago Ohio State University Libraries began allowing librarians who wished to do research to apply for Assigned Research Duty, thus freeing them for a specified time from other tasks in order to pursue a proposed project. Application procedures have now been abandoned, and librarians’ jobs are instead defined to include a regular 20 percent time allotment for research and professional development. A system such as this would have particular benefit for the librarians described in this study as supervised generalists, who were found to have the lowest publication productivity at the sample universities.

References

1. Anita R. Schiller, Characteristics of Professional Personnel in College and University Libraries (Urbana, Ill.: University of Illinois, Library Research Center, 1968), p.17, 21, and 34. Schiller’s sample included one out of five of all those employed in academic libraries in 1966–67, regardless of whether or not they were holders of a master’s degree in library science; 46.4 percent were university librarians.

2. Virgil F. Massman, Faculty Status for Librarians (Metuchen, N.J.: Scarecrow, 1972), p.116. Massman’s sample consisted of librarians employed in 1969 at nineteen state colleges and universities in Michigan, Minnesota, and Wisconsin. Institutions had an enrollment of 2,000 to 20,000 and were engaged mainly in undergraduate education.


4. Donald F. Cameron and Peggy Heim, Librarians in Higher Education: Their Compensation Structures for the Academic Year 1972–73 (Washington, D.C.: Council on Library Resources, 1974), p.6. The figures cited for the purpose of this study are those for AAUP Committee Z Survey Category I universities (i.e., “universities offering the doctor’s degree that conferred in the most recent three years an annual average of fifteen or more earned doctorates covering a minimum of three nonrelated disciplines,” p.4).


6. Schiller, Characteristics, p.23. In Schiller’s sample nearly half of the academic librarians did not receive their first library degree until they were thirty or more years old.

7. Schiller’s 32.3 percent includes all professionals having less than five years of experience. Including those in their fifth year, as we do here, would increase the percentage. Percentages of “other professionals” with less than five years of experience are found by Chapin and by Cameron and Heim. In-
cluding those in their fifth year as well as those holding administrative, middle management, and subject specialist positions would make the percentage of all professionals with five or fewer years of experience larger than is shown here.

8. Oliver Fulton and Martin Trow, “Research Activity in American Higher Education,” *Sociology of Education* 47:29-73 (Jan. 1974), p.36. These figures are for institutions rated Quality I in the 1969 Carnegie Commission on Higher Education National Survey of Higher Education whose results are reported by Fulton and Trow. Nine of the institutions in the present study are included in this group. Two are rated as Quality II institutions by Fulton and Trow. For Quality II institutions, the percentage of faculty who had published at least one article in the two-year survey period is 72 percent; 20 percent of these had published five or more. In Quality I institutions, 64 percent of faculty members close in age to the least productive group of librarians (i.e., those between the ages of twenty-six and thirty) had published at least one article in the past two years and 13 percent of these had published five or more (p.53). In the nontenured ranks at Quality I universities, 47 percent of the instructors and 80 percent of the assistant professors had published one or more articles during the two-year survey period; 6 percent of the former and 20 percent of the latter had published five or more articles during the same period (p.49).

EGILL A. HALLDORSSON and MARJORIE E. MURFIN

The Performance of Professionals and Nonprofessionals in the Reference Interview

Twenty-five sets of “indirect” and “faulty information” questions were asked at two university library reference centers, one staffed by nonprofessionals and the other by professionals. The purpose was to determine relative success of professional and nonprofessional reference staff in (1) probing beyond “indirect” questions and (2) detecting and correcting faulty information. Also considered were frequency and success of nonprofessional referrals on unanswered questions.

COMMUNICATION PROBLEMS in traditional reference service seldom have been explored scientifically. There is little doubt in the profession, however, that such problems often result in failure to be of help to patrons and thus create an obstacle to the improvement of reference service.

A difference of opinion exists on the extent and seriousness of communication problems. Some do not accord these problems serious consideration. On the other hand, there is some evidence to indicate that reference personnel may not be aware of the true extent of communication problems due to lack of feedback.1 If this is true, it is possible that these problems may be more prevalent and more serious than has heretofore been supposed.

In the Rose Bowl game of 1929 stupefied fans watched “Wrong Way Rie-gals” run sixty-three yards toward the wrong goal line. The well-intentioned reference librarian who fails to determine the patron’s information need before proceeding confidently in the wrong direction is equally unfortunate.

One of the greatest difficulties in determining the patron’s actual information need comes when that need is hidden under an “indirect” or “faulty information” question. For this reason these types of questions have been chosen as the subject for this study. One observational study in an academic library reports that 25 percent of all questions were “indirect” in some respect and 73 percent of these “indirect” questions were successfully resolved.2 Cole reports the occurrence of questions which do not represent the actual needs of patrons in academic libraries to be 21 percent.3 On the basis of these studies we might expect that 20 percent to 25 percent of questions asked in an academic library might not represent patrons’ actual information needs.

Granted that such questions do occur to a greater or lesser extent, it must be asked how they are dealt with by reference personnel and with what success. Regrettably, studies of traditional reference service have concentrated on ref-
Reference failure originating in the search process and have, for the most part, ignored failure due to communication problems. The exception is a study by Dorman Smith where an “indirect” question was asked in twenty Boston area libraries. Smith’s report indicates that communication in the reference interview is an aspect of service seriously in need of improvement. If reference service failure due to communication problems is to be reduced, it is essential that we know more about how these types of questions affect reference service.

Success in resolving “indirect” and “faulty information” questions also may be influenced by type of personnel used. This has a broader significance in that the use of nonprofessional personnel in reference service is an issue which, when resolved, may well determine the future role of the reference librarian. Thus any data on differential performance of professionals and non-professionals should be a useful addition to the literature.

Some documentation on use of non-professionals in reference service exists in the literature, but the most significant study of differential ability remains that of Bunge. To the authors’ knowledge, no similar study has yet been done comparing the performance of these two groups in the reference interview.

Some of those involved in the controversy over use of nonprofessionals discount or give little thought to the communication process. Others on both sides base their advocacy of certain points of view on unproven hypotheses as to the relative abilities of professionals and nonprofessionals in the reference interview. Thus it is important to investigate these abilities.

Generally, those for or against non-professional reference service divide on the following points in regard to communication problems:

1. Should communication problems be the responsibility of the reference librarian?
2. Should they be considered of equal importance to search problems?
3. Do they occur frequently enough to have a detrimental effect on service?
4. Is the expenditure of time and effort involved in solving these problems justified?
5. Can detection and solution of such problems be done more successfully by professionals?
6. Do nonprofessionals frequently fail to make referrals when they are unsuccessful in determining patron needs?

Those holding one point of view tend to answer “yes” to the above questions. Partially for this reason, they advocate all-professional reference service or service where questions are “fielded” by professionals. This point of view is expressed by Wheeler and Goldhor as follows:

The idea that inquiries should be presented to inexperienced persons and fed upward to those qualified to help is a disservice and inconvenience to readers, partly because the inexperienced do not know where the question should lead.

The opposite viewpoint usually answers some or all of the above questions in the negative and often favors the new concept of the information center where questions are fielded by nonprofessionals who then refer difficult questions to subject specialists who are on call. This viewpoint is expressed by Jestes and Laird who advocate use of technical assistants.

Professional librarians, although still immediately available to any patron, would be freed from many interruptions and better able to concentrate on collection development...
Balay and Andrew also say,

It seems likely that paraprofessional assistants could handle these inquiries [information-direction], and could direct other, presumably more difficult, questions to reference librarians.8

The specific problems with which this study will be concerned are as follows:

1. What is the relative success rate of professionals and nonprofessionals in resolving “indirect” and “faulty information” questions? What are the reasons for any differences found? What are the implications of this for reference staffing? How can performance of reference staff members be improved in dealing with these questions?

2. How successfully do nonprofessionals make appropriate referrals when they fail to determine patrons’ information needs? What are the causes of referral failure and how can such situations, if they exist, be improved?

METHOD

Two medium-sized midwestern university libraries were selected, both having a centralized reference service. One of these libraries had an information center staffed by nonprofessionals who had access to subject specialists for consultation. The other was staffed at all times by an all-professional reference staff. Seven investigators of both sexes and different ages were used.

Twenty-five different reference interviews were prepared, each consisting of an “indirect” question followed by a “faulty information” question. These questions were taken from the actual reference experience of the second author. “Faulty information” questions were in areas of the social sciences and humanities. Each prepared “set” of two questions was asked of a nonprofessional at the information center library and of a professional at the second library.

The procedure was as follows:

All investigators were instructed to begin each interview by appearing moderately confused and making such comments as “I’m new here,” “I don’t really know what I’m doing,” etc. It was felt that these behavioral clues and comments were sufficient to alert reference staff members to the possibility of “indirect” questions.

“Indirect” questions were defined as those where the patrons hide their specific information need and, instead, ask for (1) books on a general subject or (2) a type of source which they think would contain the specific information they seek. Examples of these are (1) “Where are your philosophy books?” (patron wants quote by Aristotle) and (2) “Do you have an index to philosophy?” (patron wants life-styles as related to architecture).

A judgment of success was made if at any time during a five-minute period the reference staff member probed further by asking for more specific information about what the patron wanted. Failure was judged if the reference staff member accepted the “indirect” question as representing the patron’s real needs and did not ask further questions about more specific information needs before attempting to terminate the interview or before five minutes had passed.

Directly following this, the investigator then proceeded to ask one of two types of “faulty information” questions of the same staff member. These types of questions were defined as those where the patron presents a specific information need directly but instead gives (1) a misspelling or (2) general faulty information. Examples are (1) Massaponti for Maupassant and (2) the poem “Agnes Eve” by Shelley (“Eve of St. Agnes” by Keats).

Since these questions were considered more difficult, no time limit was set. In
order to increase motivation, investigators commented that finding the information was important to them and resisted mildly the first attempt to terminate the interview if it occurred before fifteen minutes by continuing to stand near the librarian and/or by asking further questions.

A judgment of success was made if the reference staff member detected the faulty information and obtained correct information or showed the patron where correct information could be found before termination of the interview. Failure was judged if the reference staff member terminated the interview without having done this. An exception was made when a reference staff member terminated an interview but continued working on the question and later returned with correct information before the "patron" left the library.

These "faulty information" questions were designed so that in order to obtain correct information each reference staff member had to exercise some or all of the following abilities, skills, and techniques:

1. Detection of possible faulty information
2. Questioning to obtain further key information
3. Asking for written material for purposes of clarification
4. Selecting appropriate reference sources to obtain correct information
5. Using personal knowledge to detect and correct faulty information
6. Referring appropriately when necessary

Interviews were recorded in progress by an unobtrusive investigator nearby and also afterward by the investigator asking the question.

**General Results**

The results of this study show that the professional librarians in this sample were clearly superior to the nonprofessionals in achieving successful solutions on "faulty information" questions in the reference interview. Table 1 illustrates this.

Professionals personally arrived at the correct solution in the reference interview on 52 percent of questions, while nonprofessionals did so on 20 percent. These results are, to some extent, in line with those of Bunge who found that the speed and efficiency of professionals was slightly but significantly greater than that of nonprofessionals. He found no significant difference, however, in percent of questions answered correctly by the two groups, while this study shows that professionals were more than twice as successful as nonprofessionals in obtaining correct information. These differences may be due partially to the following:

1. Obtaining corrected information

---

**TABLE 1**

<table>
<thead>
<tr>
<th>Type of Reference Interview</th>
<th>Total Number of Questions</th>
<th>Nonprofessionals</th>
<th>Professionals</th>
<th>Difference with Nonprofessionals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Number Correct Solutions</td>
<td>Percent Correct Solutions</td>
<td>Number Correct Solutions</td>
</tr>
<tr>
<td>Success in personally obtaining correct information in reference interview (without referral or consultation)</td>
<td>25</td>
<td>5</td>
<td>20</td>
<td>13</td>
</tr>
<tr>
<td>Success with referral or consultation</td>
<td>25</td>
<td>7</td>
<td>28</td>
<td>15</td>
</tr>
</tbody>
</table>
in “faulty information” questions actually may be more difficult than finding answers to moderately difficult factual questions. This could be because the outcome appeared to depend to a much greater extent on personal subject knowledge and to a much lesser extent on skill in use of reference materials.

2. The questions used in this study may have been harder, and greater differences between groups may emerge as questions become harder.

3. Perhaps public library questions, as used by Bunge, are less related to reference sources taught in library school than are academic library questions.

4. Attitude, orientation, role conception, and motivational differences between groups may have been equalized in the controlled test situation where each group was being observed and was attempting to perform at top level. If there are such motivational differences, they would show up more clearly when participants did not know they were being observed.

5. The matching of professionals with nonprofessionals of equal education and experience would tend to erase differences in the typical situation where nonprofessionals tend to have less education and experience. There is some evidence in this study that the performance of nonprofessionals was less consistent, with one performing at a level equal to any professional and another at a level consistently lower than any professional.

6. There may be a greater difference between the performance of the groups in the academic library than in the public library.

“INDIRECT” QUESTIONS

“Broad Subject” Questions

The “broad subject” question is defined as one where the patron hides a specific information need and asks, instead, where the books in a broad subject area are located. On 75 percent of these questions nonprofessionals probed further, while on 91 percent of questions professionals did so. This type of question, as expected, proved to be the

<table>
<thead>
<tr>
<th>Type of Question</th>
<th>Example of Question</th>
<th>Total Number of Questions</th>
<th>Nonprofessionals</th>
<th>Professionals</th>
<th>Difference with Nonprofessionals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Number of Questions Solved</td>
<td>Percent of Questions Solved</td>
<td>Number of Questions Solved</td>
</tr>
<tr>
<td>Indirect Questions</td>
<td>“Broad Subject”</td>
<td>11</td>
<td>8</td>
<td>73</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Example: “Where are your literature books?”</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>“Wrong Type of Source”</td>
<td>10</td>
<td>5</td>
<td>50</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Example: “Where are your almanacs to history?”</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faulty Information Questions</td>
<td>Misspelling</td>
<td>12</td>
<td>3</td>
<td>25</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Example: Southy for Southey</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>General faulty information</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Example: Poem “Agnes Eve” by Shelley</td>
<td>13</td>
<td>2</td>
<td>16</td>
<td>5</td>
</tr>
</tbody>
</table>
easiest for both groups of reference staff members to handle.

Performances of professionals and nonprofessionals were similar on this type of question. Examination of the verbatim interviews, however, indicates that the lower success of the nonprofessionals appeared to be due primarily to a concept of their basic role as "teaching about how to use reference materials." Thus they were eager to explain use of catalogs, indexes, and reference books without probing further.

"Wrong Type of Source" Questions

The "wrong type of source" question is defined as that in which the patron hides a specific information need and, instead, asks for a type source such as an "index to philosophy" which he or she assumes (often incorrectly) will contain the specific information sought. On 50 percent of these questions nonprofessionals probed further, while on 90 percent professionals did so.

Examination of verbatim interview records also reflected this difference. When faced with a question such as "Do you have any almanacs to literature?" the professional tended to reply immediately and almost routinely, "What type of thing do you want to look up?" while the nonprofessional tended to respond by taking the patron to the catalog to look under the heading "literature—almanacs."

While the form of this question is also generally recognizable, it is considerably more difficult to detect as concealing a hidden information need. This may be because it represents, on the surface, an effective approach to finding information and does not spotlight the patron's obvious lack of library knowledge as does the "broad subject" question. Hidden information needs behind this type of question may have been undetected because of unawareness, perhaps due to lack of feedback, of the extent to which patrons make inappropriate source choices (one study showed 64 percent of such sources could be considered inappropriate).11

However, in some cases nonprofessionals appeared to be aware of possible poor source choices but did not probe further. This may have been because they felt there was not sufficient justification for further questioning, that they lacked authority, or that the patron might resent it. They also may have felt that it would not yield anything useful or that it was not their responsibility. Also, by letting such questions pass, one avoids at the same time the difficult interview which is often likely with patrons who make poor source choices, the need to come up with a better source, and possible failure and the resultant need to refer.

"Faulty Information" Questions

On "faulty information" questions (misspelling and general faulty information) about half of the nonprofessionals' failure (as opposed to 15 percent of professionals' failure) occurred in the first step of the process where they failed to question the patron's information and thus did not detect faulty information. This lack of expectation of faulty information on the part of nonprofessionals could be due to lack of orientation, lack of personal knowledge of the subject matter of the question, and lack of feedback from previous experience. Differences between the two groups may have been due to the fact that most library schools encourage responsibility for resolving communication problem questions and provide some orientation and training in handling them.

Familiarity with the subject matter of the questions was judged by staff members' comments during the interview. The professionals' greater personal knowledge of the subject matter of
the questions (43 percent for professionals and 24 for nonprofessionals), perhaps arising from a higher educational level, aided them in recognizing faulty information. Greater experience on the part of the professional librarians also may have been a factor, but there appeared to be some new professionals and some nonprofessionals with a number of years of experience.

The second area of failure came in the next part of the process where, in a number of cases, reference staff members’ comments revealed that faulty information was recognized but no attempt was made to obtain correct information. This was the case with nonprofessionals on 25 percent of questions and with professionals on 35 percent. Reasons for nonprofessionals' failure to make an attempt to obtain correct information may have been that they did not feel that it was their responsibility or that they wanted to avoid possible failure or the need for referral.

Another reason for nonprofessional reluctance may have been uncertainty about what sources to use for verification. This is supported by the fact that on misspelling questions which were primarily dependent on use of reference sources for solution, nonprofessionals attempted 33 percent. Professionals, on the other hand, appearing more confident in use of reference sources, attempted 83 percent.

However, on "general faulty information" questions which were primarily dependent upon interviewing rather than use of reference sources for solution, both groups were equally reluctant to attempt the interview. In these cases, when no personal knowledge was present, the success rate of both groups dropped to zero. Professionals frequently showed awareness that something was wrong but were singularly reluctant to interview, asking only a few perfunctory questions. Clues were given by the "patron" but were not followed up. This reluctance to attempt the difficult interview on questions where reference sources could not easily be consulted was a major source of professional failure.

In addition to previous reasons, nonprofessionals may have been reluctant because they felt a lack of authority to probe further. Both groups may have felt the patron would resent their probing further. They also may have been motivated by a desire to avoid the difficult interview by not being clear on the nature of the problem and therefore not knowing what to ask and by the feeling that further interviewing would not reveal anything significant.

In addition to these reasons, professionals appeared to be reluctant due to lack of time (they often worked alone), though there were some cases where the difficult interview was not attempted even though no other patrons were in sight. The strongest possibility, however, appeared to be that, probably due to constraints of the pressure of business in general, professionals had developed the habit or policy of pursuing questions only up to a certain point—that point at which they could turn to a reference source for solution—and stopping short when the only recourse was a difficult interview where prospects of success seemed low. These results are in line with those of Dorman Smith.12

When attempts to obtain correct information were made (by using personal knowledge or by consultation of sources), they were successful 20 percent of the time for nonprofessionals and 83 percent of the time for professionals. Failure on the part of the nonprofessionals appeared to be due primarily to failure to select the right source for verification. Professionals more frequently selected the right source but failed, due to pressure of
business, to take sufficient time to examine it carefully.

One professional librarian twice selected the correct reference source but overlooked answers directly under her eyes, due to being in too great a hurry. In another case, she obtained the key information from the patron but did not take sufficient time to examine it. Here again, the greater ability of professionals to select the correct source could be due to library school training and possibly to greater experience. Lack of time to interview and to consult sources appeared to be another major cause of professional failure.

**Personal Subject Knowledge**

An additional reason for nonprofessional failure to perform as well as professionals appeared to be lesser personal knowledge of the subject matter of the question, which handicapped them in recognizing faulty information and in knowing where and how to correct it.

The professionals were superior in amount of personal subject knowledge, demonstrating familiarity with the subject matter of 45 percent of questions, while nonprofessionals demonstrated familiarity with 24 percent. This lesser knowledge of the subject matter of questions on the part of nonprofessionals may be due, in part, to lesser education and perhaps to lesser experience.

There is clear indication that knowledge of reference sources alone, while shown here to be important, was not sufficient for adequate performance on these types of questions. The professional librarians in this study appeared to have superior knowledge of reference materials; but on those questions where they had no personal subject knowledge, they achieved a success rate of only 31 percent. On the other hand, nonprofessionals who appeared to have less knowledge of reference materials had a success score of 80 percent on questions where they had personal knowledge. Personal knowledge also appeared to determine failure in the case of nonprofessionals who failed on 100 percent of questions where they had no personal knowledge. Professionals, however, were successful on 31 percent of questions where they had no personal knowledge, due perhaps to greater knowledge of reference sources.

The way in which personal knowledge aided both groups of staff members was as follows:

1. Misinformation was often detected immediately, saving the verification process.
2. It helped suggest possible solutions, as when the librarian identified Massaponti as Maupassant, being aware that the latter was well known, widely read, and likely to be asked for.
3. If verification was still needed, it helped to selecting the best sources. On a question concerning the Masada, for example, the librarian knew it was famous enough to be verified in the encyclopedia under "Jews—History."
4. It saved the librarian from proceeding on a false course. For example, because of personal knowledge, the librarian was not misled when told Tini Kling was a game.

These findings suggest that lack of personal knowledge is a great handicap when dealing with "faulty information" questions.

**The Consultation and Referral Process**

A significant reason for differential performance was nonprofessional failure to utilize referral and consultation to the fullest. The concept of the information center, staffed by nonprofessionals, but backed up by professional reference librarians who are available for consultation, is partially based on the premise that the less experienced personnel will refer whenever they fail
to find the answer to a question.

This study demonstrated that, in the case of "faulty information" questions, this premise is questionable. Out of twenty-one questions which nonprofessionals failed to answer, only six were referred—five to professional librarians and one by consultation with another nonprofessional. Thus the nonprofessionals referred or consulted on only 28 percent of those questions they were unable to answer. Of those referrals or consultations, two, or 33 percent, were successfully resolved.

On the six questions referred or consulted on, the following problems occurred:
1. The subject specialist was busy.
2. The subject specialist was not there.
3. The patron was referred to the wrong subject specialist.
4. The nonprofessional called the professional on the phone, but even though the professional knew the answer, due to a failure in communication, the patron did not get the information.
5. The nonprofessional repeated the patron's misleading information to the professional, who accepted it at face value and failed to reconduct the interview.
6. The nonprofessional distorted the information slightly in transmission.

On eight unreferred cases, the nonprofessionals apparently did not refer because they did not detect the faulty information. On another three, they detected the faulty information but did not appear to know how to verify it. On another four, where lacking information rather than misinformation was the problem, they apparently did not refer because they did not realize that by using more in-depth interview techniques they could have obtained the key information.

Basically, it appeared that they failed to refer because (1) they did not detect the faulty information, or (2) they believed they had done all that could be done and that the professional librarian could not add anything to the answer. This is reinforced by the comment of one nonprofessional as she terminated the interview, "I'm sorry, there is just no approach to this problem."

They also may have failed to refer because they considered the question unimportant, because they did not wish to disturb the professional librarian, or because they felt too many referrals might reflect on their capability. It also appeared that the nonprofessional seldom referred unless the professional librarian was in the vicinity. In both cases where nonprofessionals made successful referrals or consultations, the individual referred to was in the immediate vicinity.

Professional referrals (two referrals and one consultation) were more successful (67 percent) than those of nonprofessionals (33 percent). The professional librarians, however, did not consult with each other as much as might have been expected. In three cases, the librarian was on duty alone (and in the others, the faulty information was not detected). The success score of both groups undoubtedly would have been greatly increased by more frequent consultation.

The failure of the referral and consultation process in the information center setting suggests that if communication problem questions are considered important, re-evaluation should be made of the information center concept. It also suggests the possibility that similar types and numbers of referral failures may occur on straightforward questions.

**Conclusions**

In assessing the results of this study it is important to remember that it was not designed to evaluate the potential of reference personnel without library
degrees. Instead, it was designed to compare the performances of the two groups under ordinary day-to-day conditions, “as it is,” rather than “as it could be” at its best.

The results of this study in regard to “indirect” questions indicate that professionals performed adequately on both types of “indirect” questions (91 percent and 90 percent). Nonprofessionals performed adequately on “broad subject” questions (73 percent) but failed to perform adequately on “wrong type of source” questions (50 percent).

In regard to “faulty information” questions (misspelling and general faulty information), nonprofessionals did not perform adequately (28 percent success with referral or consultation). The success of professional librarians (67 percent with referral or consultation), while perhaps adequate, also is below what we would hope for in provision of top quality service.

In addition to lack of orientation, the lower performance of nonprofessionals appeared to be primarily due to lesser personal knowledge of the subject matter of the questions (perhaps, in turn, due to lesser education and/or experience) and lesser knowledge of reference materials. Professional failures appeared to be due, on the other hand, to reluctance to attempt the question which depended primarily on the difficult interview for solution and to lack of time to conduct proper interviews and examine reference sources to obtain correct information.

Thus one effective program, in terms of successful resolution of communication problem questions, would be that where interviewing is done by professional reference librarians who then refer easier questions to nonprofessional assistants. Assuming that departmental policy encouraged responsibility for communication problem questions and that professionals were properly motivated and trained to deal with these questions, this type of arrangement might result in increased time for interviewing and locating correct information.

If this way is not utilized, other ways of improving service on communication problem questions suggested by this study are as follows:

1. Orientation and training in handling communication problem questions should be given, including training in techniques for gaining information in the reference interview.
2. Personnel should be encouraged to develop a sense of responsibility and concern for communication problem questions and should take pride in their successful solution.
3. In-service education should be provided and encouraged, aimed at increasing subject knowledge and knowledge of reference sources.
4. Selection of nonprofessional personnel for reference should be made both on the basis of high educational level and library science courses.

In regard to referral and consultation, this study suggests the following:

1. Professional personnel should be available in the immediate area at times that reference service is provided.
2. Referral and answering of questions by phone should be avoided. In cases where this is necessary the nonprofessional should not transmit the patron’s information but should allow the professional to reconduct the interview over the phone.
3. The person to whom the question is referred should reconduct the interview, though taking pains to be brief and tactful.
4. A policy should be established to
refer all questions for which answers cannot be found or for which no approach to the problem can be discovered.

5. Personnel should avoid judging the boundaries of others' knowledge by their own boundaries. Thus, instead of concluding "There is just no approach to this problem," the conclusion should be "I can think of no approach to this problem, but it is possible someone else could."

6. Frequent referrals should be encouraged and rewarded as resulting from high standards and concern with good service. The attitude should be discouraged that referrals are an annoyance and reflect lack of competency and failure.

References

Conflict and Ambiguity in the Role of the Academic Library Director

For the academic library director there is a multitude of expectations derived from diverse and often conflicting individuals and groups with whom this individual is concerned. Utilizing the framework of role theory, this study describes and analyzes the role of the library director. Influencing factors are viewed in terms of the director's perceptions, with particular attention to the presence of conflict and ambiguity. Directors' perceptions regarding sources of role definition, relations with immediate superiors, and perceptions of role-related expectations within the academic community are discussed.

Of particular concern to our profession in recent years has been the role of the academic library director. Many knowledgeable observers and experienced practitioners have addressed the long unresolved problems of a changing professional identity.

In "The University Library in Violent Transition," Ralph E. Ellsworth complained that "we don't know what a librarian is, what he's supposed to do, or how to educate him." He then went on to present an awesome list of the roles the academic library administrator is expected to fill: "a fund-raisier, a campus politician, a learned man and a reader of books, an expert on electronics, and an expert in the science of management," not to mention "the small problem of keeping out of jail because the technology of photo-reproduction has gotten ahead of the copyright laws."

Truly then, the library director stands at the vortex of a whole multitude of roles. These myriad roles carry varied and often contradictory requirements. Thus the academic library director is caught in the middle, among conflicting groups, persons, and factions.

McAnally and Downs examined at length the changing role of directors of university libraries, and their discussion of the sources of pressure, "the president's office, the library staff, faculty and students," based on the actual experiences of practicing library administrators, is most insightful. Yet their concluding suggestions—"better planning, improved budgeting techniques, and the introduction of new organizational patterns,"—seem to go astray. Certainly timely and of practical value, these proposals digress from the more basic problem of role definition. They may suggest good solutions; but they are still incomplete because no management techniques, no matter how sophisticated, will ever satisfactorily encompass the role of the academic library administrator.

Picking up on this, Roger Horn sarcastically dismisses McAnally and Downs' "traditionally reasonable conclusions," equating their list of desirable qualities with the completeness of a god. Horn himself approaches this problem of the uncertain role of an academic library administrator more di-

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directly. "Much, if not most of the trouble academic library managers suffer is related to their weak grasp of what they are or should be trying to be." The real problem, as Horn sees it, is lack of role definition. And the answer, according to Horn's logic, is the delineation of his personal idea of academic library management. Roger Horn will provide the necessary role definition, and all will be well in academia.

Alas, the complexity of this problem does not lend itself to such an easy or final solution. There is, of course, no single "idea" of academic library management. Rather the role of the academic library director is made up of a multitude of "ideas." Each of the sources of pressure (the president, staff, faculty, students, etc.) has its own "idea" of library management, making the library administrator a "fully-, even over-stretched individual, trying hard to combine personal, university, administrative and professional roles." The complexity of this problem calls for further investigation and study. We cannot look for answers until we have studied the problem seriously.

Utilizing the framework of role theory, this paper examines the pressures that occur in academic library administration. The underlying premise of this study is that the common and distant goal—to make understandable the role of the library director—requires a systematic and conceptual approach. Toward this end, the work of Kahn and his associates (Organizational Behavior Program of the University of Michigan's Survey Research Center) has served as a model.

The work of the individual library administrator is seen as an array of roles which that person plays in the particular organization to which he or she belongs. The conceptual language used for the description and analysis comes from Kahn's work in industrial organizations. Associated with each office is a set of activities which are defined as potential behaviors. These activities constitute the role to be performed, at least approximately, by any person who occupies that office. Each office in an organization is related to certain others. These others are role senders. Role expectations for a certain office and its occupant exist in the minds of these role senders, thereby representing standards in terms of which they evaluate his or her performance.

It is hoped that this borrowing from the social sciences will allow us to move beyond the accumulation of miscellaneous data, external facts, and individual opinion.

METHODOLOGY

In order to inquire as thoroughly and specifically as possible into the library director's perceptions regarding sources of role definition, relations with an immediate superior as a key role sender, and perceptions of role-related expectations within the academic community, interviews were conducted with twenty academic library directors. This group is not intended to be representative for the purpose of quantifiable analyses, but rather as a means of exploring expectations, attitudes, relationships, and sources of conflict. The twenty libraries were selected from a standard college directory. Institutions included in the survey were chosen according to a total enrollment ranging from 2,000 to 21,000. The twenty libraries selected represent four states (three New England states and New York) and include six public and fourteen private institutions.

An interview schedule was used to elicit and stimulate relevant information from the participating library directors. Individual visits were arranged with each director, and the questions were interpreted orally by the interviewer. The questions were, in the main,
open-ended and frequently accompanied by probes to encourage exploration of new and promising lines of discussion.

**EXTERNAL INFLUENCES**

The library director’s position is one for which many significant role senders are located in a different system (outside the college or university) or in another unit within the same organization (within the school but outside the library). Two dimensions were initially distinguished: the amount of time the library director spends in contact with people outside the library (including administrators, faculty, and students) and the perceived importance of such contacts to the librarian’s effective performance of his or her work.

In responding to a question on the frequency of work-related contacts beyond the library, 15 percent of the directors answered “nearly all the time”; 60 percent answered “rather often”; 20 percent “sometimes”; and 5 percent “rarely.”

Asked to rate the extent to which their performance depended on the behavior of people outside the library and with whom they were required to interact, 30 percent answered “to a very great extent”; 45 percent “to a considerable extent”; 15 percent “to some extent”; and 10 percent “very little.”

The library director is thus faced with a sizable body of role senders whose demands are hard to predict and hard to control. These demands will be generated by the dynamics of other departments or organizations and will shift with the vicissitudes of those groups. Moreover, the demands are likely to be untempered by an adequate understanding of what these shifts will mean for the library director.

Support for the view that the directors are exposed to chronic conflict may be found from their estimates of the frequency with which their jobs placed them “in the middle” between two groups of people. In their estimates, 10 percent stated they experienced role conflict “nearly all the time”; 60 percent “rather often”; 25 percent “sometimes”; and 5 percent “rarely.” This feeling of being “in the middle” seemed to increase with the amount of time the directors spend in relations with persons outside the library.

**DEMANDS AND RESOURCES**

What are the groups which convey to the library director the sense of being caught in the middle? Among the twenty library directors interviewed, sixteen reported that they most often feel caught between the demands of various user groups (faculty and students) seeking extended services and the fiscal requirements imposed by the school’s administration. The major difficulty mentioned was the library director’s lack of control over demands and resources originating outside the library. In order to perform efficiently, the library director must reach and maintain a balance between the demands made and resources available to meet those demands. Because the library directors must deal with people outside their usual base of power, their control is reduced.

Problems and conflicts magnified by the current fiscal crisis dominated the interviews: “The budget affects everything... Almost all our problems center around finances.” Because of the current fiscal crisis, the library directors are not always completely successful in their efforts to win what they consider ample support for the library.

Although the library directors recognize that such failures are not entirely their fault, most do feel the responsibility and know that others, in some part, place the responsibility on them: “Now you can just throw up your hands and say, ‘It’s all the legislature’s fault.’ But you know you can only do that once.”
ADMINISTRATIVE INSTABILITY

A particularly upsetting aspect of this problem seems to be the reported instability of the school administration, both in the person holding the office and in the particular office to which the library director reports.

One library director interviewed reports to a vice-chancellor of academic affairs. Since he became the library director in 1967, there have been six different men in this position—six different bosses to adjust to in nine years. Another library director reports to the dean of the graduate school. In six years he has gone full cycle, having started with the dean of the graduate school, then for a while reporting to the president (but he was too busy), then to the dean of the faculty (also too inaccessible), and now back to the dean of the graduate school (a different incumbent than before). This library director referred to these developments as a "revolving, I mean evolving" situation. Perhaps his initial thought, before the correction, best describes this not uncommon circumstance.

In its report Governance of Higher Education, the Carnegie Commission of Higher Education noted this problem. The commission warned about administrative instability, with focus on the position of president: "The actual tenure of presidents is about six years, half of what it once was." This present examination of the second level of authority indicates that this administrative mobility continues to be a sometimes critical problem. To the obvious and felt detriment of library-administration relations, the actual tenure of academic vice-presidents and deans of academic affairs seems to be shrinking.

Basic to this situation of instability is a change in the way library directors distribute their time. Each shift in administrative personnel affects the library director, creating new demands on his or her time. Many of the directors interviewed felt that a disproportionate amount of their time must be devoted to educating the administration, to articulating and interpreting library matters to their newly installed superiors. "With each new provost I have to rebuild my power base. I depend on his backing particularly for fiscal matters. So the first step is in winning him over." Although they would like to be involved in other "now neglected" activities such as collection development, the current instability, coupled with fiscal difficulties of higher education, keeps their attention focused outside the library, focused on "developing a working relationship with the administration."

EXTERNAL FOCUS

Most library directors felt that the person to whom they are immediately responsible was very important in determining the library's budget. They also felt that because this person is outside the library—that is, outside the library director's direct authority—much of their influence must be through informal channels. The library directors reported that they relied heavily on the trust and working friendship of their immediate superiors: "When I need personnel, I rely on his help." The library director depends on this person for aid in obtaining proper financial backing. Thus, this instability of the school's administration is particularly disruptive for the library. This area of informal personal relations is seriously limited by the frequent changes in administrative personnel.

Another factor contributing to this outward focus is the current proliferation of the committee system, from search committees (directly related to administrative instability) to every variety of campus-wide committee, each with an important mission related to the school's goals and each calling for the time and energy of the library director.
In these nonlibrary campus activities, while there is little consistency or homogeneity of type, there is certainly volume. Most of the library directors interviewed acknowledged the importance of their role as ambassador for the library and likewise participated in a variety of campus activities. Library committees (100 percent) and curriculum committees (80 percent) provided a common core, while the more peripheral activities showed far less consistency, including personnel committee, quality of student life committee, educational policies committee, various ad hoc committees, etc.

While very much pleased that they are included (having fought to get on in the first place), many library directors now view these ever-increasing demands on their time as a "mixed blessing." Some feel that they are walking a thin line between the external demands of their positions and the in-house needs of their personnel. For while the library staff is usually "sympathetic" to the librarian's out-of-house and off-campus responsibilities, they also "feel the need to have the director around." Time here seems to be at stake, with everyone demanding a piece of the director.

Unionization

Another factor which has modified the role of the academic library director is the introduction of collective bargaining (65 percent of the campuses visited were unionized). Many library directors reported experiencing the negative effects of union-management conflict. Some library directors feel that they have been "shunted aside as adversaries" in the process of collective bargaining. Technically these library directors feel they had to officially voice the administration's point of view. They are considered management, while their staff and the faculty are labor.

As management they are expected to play a particular kind of role. But several library directors admitted that privately their loyalties remain with the faculty and staff. Because of these changes in their role the library directors are denied the opportunity to fight for benefits for "their people." Before, a large part of the director's job was looking after the staff, but now the director no longer has the "satisfaction" of improving the situation for the staff. Collective bargaining has changed the director's role, creating a "them and us" attitude.

The directors expressed concern that their in-house power is decreasing rapidly, making effective leadership more difficult. Traditionally, if one individual librarian or group of librarians had a grievance, it would be discussed with the director. The director would either resolve the problem or make a request to an immediate superior. With collective bargaining this is no longer the case. Increasingly, staff who have grievances communicate directly with the grievance committee which then communicates with the board of trustees or the president. Thus the library director who formerly had control over some areas now finds staff negotiating directly with higher officials.

A small number of library directors reported being ineligible for faculty committees. Considered part of the administration rather than the faculty, they were kept from serving on committees whose membership was elected from the faculty. The three librarians who reported these conditions felt strongly that this hindered them in their jobs: "Communication is very difficult and chaotic in a way. Sometimes we find out about new programs after the fact." One librarian reported that for the first time his recommendations regarding promotion of a member of the library staff had been "overruled" by the faculty personnel committee, greatly diminishing his influence with his staff.
Related to this issue of unionization is the conflict situation that accompanies the achievement of faculty status by the professional library staff. Expectations start to change, putting the library director again in the middle. The directors must defend librarians as equal to the faculty at the same time that they try to encourage the staff to be "something more than the traditional librarian." At the same time the library directors are expected to defend the librarian's parity with the faculty, they are excluded from participation in establishing criteria for evaluation.

**Personal Dimension**

There is a reported power realignment taking place in the governance of academic libraries, which has placed some library directors in a conflict situation. The library director depends on good relations with the administration to insure adequate support for the library yet must also deal effectively with the staff on a day-to-day basis. Faced with a loss of formal power, many library directors report depending much more on the personal dimension. To retain their influence, they rely on their personal authority and good "in-house public relations."

In those libraries where the directors felt they had succeeded in developing a close working relationship with their immediate superiors, the library directors also reported feeling that they had a reasonable amount of influence on fiscal decisions. In sharp contrast to this, those librarians who did not feel that they worked closely with the administration seemed much more fatalistic in the area of financial control.

Representative of this small minority, one librarian reported communicating with his dean "infrequently": "Every now and again I make an appointment with him to tell him how things are going, out of courtesy." This librarian did not express much confidence and trust in the dean's concern and cooperation. He also felt that his own input regarding fiscal decisions was "fairly minimal": "The administration accepts an annual expenditure as good and necessary. I always ask for more than I need because they always cut it. The budget is really an administrative thing ... we are told how much money we will have."

Another point of difference between these two types was the degree of tension reported. Academic library directors, facing constant demands from outside the library, reported experiencing this conflict with varying degrees of tension. Some seem well chosen and well equipped to handle the conflicts they face. Others seem much more vulnerable.

One variable, of course, is experience—the development of techniques for coping through years of experience with similar conflicts. But, in addition, the interviews conducted for this study suggest that one of the qualities required to cope effectively with stresses of the library director's role is self-confidence.

Librarians with strong professional identities, independent of their particular position, seem much less vulnerable to stress, much less prone to withdrawal and associated feelings of futility. They generally are satisfied with their performance, do not look to others to know what is expected of them, and possess a sense of effectiveness as active agents. They have frequent communication outside the library, and, although they report experiencing stress regularly, they do not report being upset by this conflict.

The most important sources of motivation for role performance are self-generated. These individuals have a conception of their offices and a set of attributes and beliefs about what they could and should not do while in this position. They seem to have strong occupational self-identities and to be moti-
vated to behave in ways that affirm and enhance the valued attributes of that identity.

Again in contrast, this study found a small minority of library directors who reported feeling insecure and uncertain, who were unsure as to where they stood, and expressed feelings of isolation. These librarians expressed doubts about how others evaluate them and about how satisfied others are with their performance: “No one pays any attention to what I am doing . . . no formal evaluation . . . makes me feel uneasy . . . I’d be much more comfortable if I got some response.” Their communications outside the library are limited, and their sense of effectiveness is curtailed seriously. These librarians expressed dissatisfaction with their professional training and discomfort with the current lack of formal evaluative procedures.

Thus the stresses of these problems do not appear to be equally damaging to all who experience them. Some library directors respond to these conflicts in an aggressive, dynamic manner. They devote a great deal of time and attention to developing effective interpersonal bonds with their superiors and with their staffs. These library directors report a sense of satisfaction and effectiveness in their work. A small minority withdraw from problematic situations. Their psychological and behavioral withdrawal is reflected in a weakening of affective interpersonal bonds and an accompanying sense of powerlessness. For these, communication is infrequent, tension is high.

Of course, the problem inherent in this type of avoidance response is that low or infrequent communication risks neglect and is, therefore, likely to prove self-defeating. As one library director put it, “libraries are no one’s bread-and-butter issue.” In today’s financial crisis, when the administration “has so many other problems that it is a relief for them not to hear from the library,” the library director who loses visibility and who allows other matters to monopolize the attention of the top administrators also risks losing the power to assure adequate resources.

All twenty library directors interviewed reported being active professionally. Most often mentioned was “participation in professional organizations” (95 percent), followed by writing and consulting, with research lagging far behind. Twenty percent of the directors are members of the board of trustees of their local public library, and 10 percent teach courses at nearby library schools.

Most of the library directors emphasized their personal initiative—“I do these things of my own accord, through my concept of a professional”—and played down any college or university pressures: “If you asked them they would say yes, but in practice if I went home and did nothing my position would not be jeopardized.” Yet it was clear throughout the interviews that these were all serious career people who were motivated by more than “what you have to do to stay.” The majority of the library directors covered in this study knew what they should do to get ahead and they were doing it. No one needed to remind them.

**Summary**

This study suggests that influence in colleges and universities on the library is not a zero-sum variable. That is, because one group has more influence, it has not followed that another group has less. There was a reported general tendency to believe that the power of most of the significant groups (students, faculty, administration, staff, and boards of trustees) had risen. For these twenty library directors there is apparently a sense that most offices or groups actually had increased in absolute influence. All reported active library committees, con-
sisting of faculty, students, and in some cases members of the boards of trustees. Most reported some move in the direction of more staff participation.

But much of the urgency of the late 1960s has subsided. The influence of such groups now tends to be strictly advisory. Students are more quiet and faculty members seem tired of campus controversy. Most importantly, financial stringency has almost forced the administration to play a more central role. In this study, then, the person perceived by our respondents as being the most important to their jobs is their immediate superior and is perhaps the single person whose decisions carry most weight in finances. Sharing directly in the power assigned to the president, this individual often acts as the “inside president” with respect to library matters.

Lacking any structured or formalized power over this superior, the library directors have a reduced ability to guarantee that the performance of this individual will be as they need and wish. So in compensation for this lack of formal authority, the library directors rely heavily on the affective bonds of trust, respect, and liking which they can generate. But due to an increased instability of administration, these bonds are unusually hard to create and maintain. The difficulties of library directors in such a situation are intensified. The deleterious effects of this instability seem most severe in fiscal matters.

In “The Library Administrator as Negotiator: Exit the ‘Boss,’” Kenneth R. Shaffer points out that “the day of the managerialocrat or figurehead content to delegate both his responsibility and problems to others is over . . . and any administrator who expects to hold on to his job very long must be acutely conscious every moment of his working day of the ambivalent attitudes toward his authority on the part of his staff, his superiors, and outsiders.”

It is hoped that this study may facilitate a better understanding of the nature and actual role of the academic library director, thus assisting in providing more effective library administration and better education for administration. It is hoped, too, that it will provide a base and indicate a direction for the more substantial studies that this problem demands.

REFERENCES

Visits to thirty-one outstanding community college libraries from July 1975 through March 1976 produced a composite picture of the library quite different from earlier decades of the twentieth century. In the mid-1970s it was called a learning resources center as often as it was called a library. It housed a unified collection of print and nonprint materials. It was in a new building, and the books were classified by the Library of Congress classification system. Two features were particularly noteworthy: modern physical facilities and an enthusiastic library faculty that provided dedicated service to students and faculty.

In the formative years of the community college, from the establishment of Joliet Junior College in 1901 to the end of World War II, the high school library usually provided service to junior college students. Collections were small and book-oriented. The librarian was usually also the high school librarian or had previously held that position.

In the period from 1945 to 1960 the library began to change, reflecting the changes taking place in two-year college education. The junior college was now a part of higher education rather than an extension of secondary education. The library collections slowly increased, additional professional persons were employed, and a few new libraries were built.

In the 1960s tremendous changes took place as the comprehensive community college emerged. The library oriented to print was replaced by a learning resources center. The 1960 standards recommending a minimum collection of 20,000 volumes were adopted, although less than half of the libraries contained this minimum. Librarians received faculty status, and many new buildings were completed. Library and media technical assistant programs were initiated.

A grant from the Council on Library Resources provided the funds, and a sabbatical leave from Southern Illinois University at Carbondale provided the time for this author to visit thirty-one outstanding community college libraries in 1975 and 1976. The following description of the community college library in the mid-1970s has been drawn from the data gathered on those visits.

A Matter of Semantics

The names used for libraries, audiovisual centers, and the personnel serving students and faculty members in these units are many and varied. Before noting and describing some of these names, a few terms need to be defined. The terms “unified center” or “integrated center” signify that books and audiovisual materials are treated in a similar manner and are housed under one administrative umbrella usually in the
same building. The word “distribution” is sometimes used for “circulation.” The term “production” is used to signify the designing and making of instructional materials for use in the classroom, in a self-instruction laboratory, or in the library. Production units may include either some or all of the following: graphics, photography, audio reproduction, and television production.

The term “library” is still in use in spite of the 1972 “Guidelines for Two-Year College Learning Resources Programs.” However, other names are also used. Many colleges use the term “learning resources center.” Variations on this include division of learning resources and learning center. In an attempt to convey to their clientele the concept of a unified center with both print and audiovisual materials, a few libraries combine these two terms; and there are library learning resources centers and a library/media center. The term “instructional resources” is used by the three St. Louis district community colleges. Another variation is the educational resources library center, one of the terms used by Fullerton College and by Mt. San Antonio College.

When the audiovisual area is part of a unified center, it is most often simply called the AV center, AV circulation desk, AV laboratory, AV department, or AV services. Sometimes these areas are for production of audiovisual materials only, and sometimes they include production and distribution of audiovisual materials.

Several colleges employ the term “media” in the name used to designate audiovisual services: department of media services, media center, media services, instructional media center, media resources center, or just media. This really is a misnomer as the term “media” should be used when referring to all types and formats of materials (including books), rather than just to audiovisual materials. Other terms used for audiovisual services are: instructional development suite, instructional materials services, multi-media resource center, materials utilization and production, and self-instruction. The list seems endless.

Even though a library may be designated by a specific name in the library handbook or college catalog, the term adopted is not always consistently used on the campus. The directional maps found at entrances usually say library instead of learning resources center. The name may be LRC in one place, yet another sign may say library and the sign on the door will say library hours. As one person interviewed said to me, this experimentation signifies that the community college library is in a state of transition as it seeks to identify new roles, utilize new materials, and explore new methods of learning. He speculated that once the new hat fit better, the center would again be called simply a library.

As the library is designated by many names, so is the person in charge, whether it be of a unified center or a library center or an audiovisual center. The terms “librarian” or “chief librarian” seem to be disappearing. In the unified centers the titles “dean,” “associate dean,” and “assistant dean” are the most popular. The terms “director” and “chairman” also are used frequently. Many terms are used for heads of audiovisual units: AV coordinator, associate dean, assistant dean of instruction, director of media, media services librarian, supervisor of audiovisual services, head of instructional media, and many more.

**Facilities**

The majority of the community college libraries visited are new buildings or parts of new buildings, reflecting the great increase in new community college libraries over the last decade. In her series, Joleen Bock reported 121 commu-
Community college libraries under construction from 1965-71, another 42 during 1971-72, and 55 during 1972-73. Only two of the libraries visited are in older buildings. Fullerton College is in a separate remodeled building. The remodeling was very successful, and it was one of the busiest libraries visited. Nassau Community College Library is housed in the former control tower of an air base plus an annex, although a new building is in the construction stage.

All of the remaining libraries are in new buildings. A couple of these are built to serve only for a temporary period, however. The Burlington County College building is in the shape of a hexagon; the library building at Chabot College is round. When a library is part of a building, one of the major problems facing it is security control. Although many libraries have only one or two public entrances to monitor, the library center at Brookdale Community College has so many exits and entrances they were difficult to count.

The libraries in separate buildings seem to have less problems with security control since most of them have but one entrance. However, Mt. San Antonio College library with its subject division arrangement also has many entrances to control. Almost half of the libraries use some type of electronic security system either at the entrance to the library or in one instance at the entrance to the book stacks. Tattle-Tape is the most popular, with Checkpoint, Book Mark, and Checkmate following in order of frequency.

Some of the innovative or unusual interior arrangements are: kiosks used to display paperback books, bean bags used for television viewing chairs, the use of many artistic exhibits in those libraries with exhibit space, sunken browsing areas, open and monumental staircases (sometimes a waste of space), inner courtyards and clerestories for libraries within another building to provide light, and the use of attractive signs to add color.

Organization

The administrative organization of community college libraries continues the trend toward unified centers noted by Moore and Westphal which house, service, and circulate both print and audiovisual materials. The most common pattern of organization is one in which all materials and services are administered by one director. Audiovisual software (motion pictures, filmstrips, slide/cassette kits, phonodiscs, tape recordings, etc.) is circulated in much the same way as books are. The audiovisual materials are circulated from the main circulation desk or from an adjacent circulation desk, or more likely (in at least half of the colleges) they are circulated from an audiovisual area in a separate part of the building or on a separate floor. Audiovisual materials are selected, cataloged, and circulated in the same way as the books. It is the content that is important, not the format.

In a few of the unified centers, production, but not the distribution of audiovisual materials for specific courses, is done through a separate audiovisual department. Once the materials are produced in these centers, they may be kept by the instructor, circulated by the library, or housed in a self-instruction laboratory connected to a particular department, such as math, auto mechanics, or reading.

At the audiovisual center of Mercer County Community College, one person is assigned the duty of checking on copyright problems and writing for permission to copy both print and audiovisual materials. Only four libraries have separate library and audiovisual units each under a different director. Three of these house both the library and audiovisual units in the same building, however. Usually there is close co-
The Community College Library

The operation between the two units; in two cases the library catalogs the audiovisual materials for the separate units. In the other two cases the audiovisual materials are not cataloged. These audiovisual centers serve mainly as central self-instruction centers for course-related materials, and there is little selection of materials for general viewing or listening or for enrichment purposes.

Related to the matter of administrative organization is the organization of books and audiovisual materials on the shelves. Although the findings of this study indicate that all materials are now usually administered by one director, it does not follow that all materials are organized on the shelves in an integrated manner. Only two of the libraries visited (College of DuPage and Burlington County College) interfile all materials on the shelves. Both of them exclude 16-mm films.

At Burlington County many of the course-related audiovisual materials are in the subject self-instruction laboratories; but other records, tapes, and slide sets are on the library shelves. At DuPage, special boxes and containers are used to hold the audiovisual materials, and one shelf per section of book stacks is sacrificed to shelve all the materials upright. In more than two-thirds of the libraries the books are in open stacks and the audiovisual materials are in closed stacks either behind the circulation desk in the library itself or behind the circulation desk in the audiovisual center. In a few libraries both the books and audiovisual materials are on open shelves, but they are not intershelved.

Many of the community college libraries now are beginning to take advantage of cooperative arrangements with other libraries. A few examples will suffice. Fullerton College belongs to Libraries of Orange County Network (LOCNET), Orange Coast and Golden West belong to the Southern California Community College TV Consortium, and Nassau is a member of the Long Island Library Resources Council. DuPage, Harper, Moraine Valley, and Waubonsee belong to the Northern Illinois Learning Resources Cooperative.

Selection

In the arena of technical services, patterns similar to four-year colleges and universities are evident. Choice is the favorite book selection tool. Other selection aids include Library Journal, Booklist, New York Times Book Review, Newsweek, the Weekly Record and Publishers Weekly, British Book News, AAAS Science Books and Films, and Directions. For the selection of vocational-technical materials, librarians rely heavily on the faculty members in those subject areas. A good monthly selection guide covering both print and audiovisual materials in this field is urgently needed by community college librarians.

During the fall semester of 1974, five students participated in a book selection project for a class in the selection of materials for a community college media program taught at Southern Illinois University at Carbondale. Each student was asked to check standard book selection tools such as Choice, Booklist, Library Journal, Publishers Weekly, New York Times Book Review, the Monthly Catalog of U.S. Government Publications, Vertical File Index, and Previews for a three-month period in 1972-73 and select those materials most suitable for a particular community college library. In the class assignment the students were asked to stay within a book budget of $3,000 for the three-month period. From one list of 305 titles chosen by one student, 200 titles were selected and checked in the card catalogs of seventeen of the community college libraries visited. Although a detailed analysis of the data collected by checking this list will have to await a further study, the number of titles owned by
any one library ranged from 20 (10 percent) to 122 (61 percent).

The low percentage of titles held by the libraries surveyed may be due to (1) budgetary restrictions, (2) unsuitability of selection aids used for the community college libraries, and (3) inexperience of the student making the selection and lack of firsthand knowledge of the individual library. The area of materials selection for the community college library is one that merits further study, especially in view of Hostrop’s study at the College of the Desert. He found that during the 1965-66 school year, 79.2 percent of the book collection never left the library. Although his study did not take into account books used in the library, it deserves careful attention by all community college librarians.

CATALOGING AND CLASSIFICATION

Twenty-three of the community college libraries visited classify their books by the Library of Congress classification scheme reflecting the trend noted both by Elizabeth Matthews and Catherine Johnson. Three of these libraries have just finished reclassification from the Dewey Decimal Classification scheme.

Interestingly, these same three libraries still keep their fiction either alphabetically by author or they use the letter “F” for fiction instead of adopting LC’s class numbers PZ3 and PZ4. Other libraries using LC do not like PZ3 and PZ4, an opinion shared by many librarians and students of classification. These libraries have simply eliminated its use or are in the process of doing so and place fiction with literature where many agree it belongs.

The pattern is not as clear-cut for the classification of audiovisual materials, mainly because in the majority of cases these materials are still on closed shelves and browsing by subject is not possible. Browsing on open shelves necessitates classification, and most of those libraries which shelve audiovisual materials in open stacks do use a classification system.

The three St. Louis community college libraries classify audiovisual materials by Dewey, but the classified collection is small and there are many uncataloged items arranged by course numbers on the shelves of the self-instruction laboratories. Mercer County classifies its tapes and records by Dewey and its books by LC. Fullerton classifies its phonodiscs by LC since they are on open shelves, but video materials are classified by format and accession number since they are on closed shelves.

The most popular method for classifying audiovisual materials, which is in use by almost half of the libraries visited, is by department or course number, format, and accession number. Sometimes the format is abbreviated; sometimes it is written out.

Two libraries employ Ohio College Library Center (OCLC) on-line computer terminals for their cataloging. The three libraries in the St. Louis district have a book catalog, a system ideally suited to a multicampus district system. The divided catalog is the most popular, with some libraries favoring the three-way split of author, title, and subject and some libraries favoring the two-way split of author and title in one alphabet and subject in another alphabet. At Mt. San Antonio, where the collection is divided into subject areas, the author catalog is in the main hall and the subject catalogs are in each division.

More than two-thirds of the libraries file cards for their audiovisual materials in the central catalog no matter how or where the audiovisual materials are shelved. If the audiovisual materials are on a different floor, a duplicate catalog of these materials usually is made for that area. In a few instances audiovisual materials are listed only in the audiovisual center, sometimes in catalog form, sometimes simply as a mimeo-
graphed list or a computer printout. Color banding of cards for audiovisual materials seems to be disappearing. Three libraries have recently quit using color codes for these materials, although the color bands have not been removed from cards already in the catalog.

STUDENT SERVICES

Community college libraries are working earnestly to make their libraries useful to students. Many libraries have produced their own orientation programs using a variety of techniques, with a slide/tape program being the most popular. Fullerton has a videotape tour, DuPage a film called A Place to Learn, DuPage, Staten Island, and Cerritos have audio-cassette tours. Moraine Valley has a walking tour using station numbers. Some libraries have produced short cassettes or filmstrips on the use of the card catalog or the Readers' Guide to Periodical Literature.

Library handbooks are another way to orient students to the library, and only four libraries did not have them. Many community college libraries also are offering credit courses for students. These courses range from one to three units of credit, and some are self-instruction courses. DuPage has a student media workshop where students can produce audiovisual materials for use in class presentations. The DeAnza College Learning Center has four courses for students, including one on "Enjoying American Magazines."

Some special services available to students in the community college libraries include the following: homemade indexes such as the special index to 600 dissertations on literature at Fullerton and the American Indian tribes index and women in culture index at Meramec, special collections such as the women's collection and the Afro-American collection at Forest Park, the Quaker collection at Burlington County, the color slide catalogs of individual slides at Bergen and Moraine Valley, the art print collections at Mercer County and North Florida, and a feedback bulletin board and term paper clinic at Golden West.

FACULTY SERVICES

Since one of the best ways to get the students to use the library is to get the faculty to use it first and make it an integral part of course instruction, several libraries are making serious attempts to reach faculty members. Three colleges offer courses for faculty members. At Cerritos the course is entitled "Media and Materials for Instruction." It is taught by the coordinator of the instructional media services and includes the following units: motion picture projectors, slide and overhead projectors and cassette recorders, transparencies and video equipment, and opaque and filmstrip projectors.

Two libraries have a staff or faculty development or production room where an instructional designer or audiovisual specialist is available to help faculty members create materials for classroom use or for use in a self-instruction center. At Mt. San Jacinto, teaching faculty members are given summer employment to work on the development of filmstrips for use in instruction. The faculty members receive a credit byline for their work, but the college sells the filmstrips and collects the royalties.

An instructional designer—a specialist who assists faculty members in defining course objectives and creating instructional materials to meet these objectives—is available in several libraries. Two libraries in New Jersey have innovative systems of instructional development.

At Brookdale the faculty of media specialists is divided into two groups. One group works with students mainly in the traditional reference function; the other group works full-time with faculty members assisting them in developing courses and the related instruc-
tional materials. In addition, two professionals in the instructional development department supervise the production of the materials and evaluate them.

At Bergen the seven media utilization advisors divide their work between students (spending ten hours at the reference desk) and the faculty (assisting them in developing instructional materials during the remainder of their time). In each case, library faculty are assigned to faculty members in specific departments or divisions in the college.

These designers may also be called materials production consultants, instructional media specialists, or instructional development specialists. Almost all community colleges provide production facilities, but in about half of the colleges the only professional to give assistance in the designing of materials is the director of the production center, a person who usually is overburdened with administrative duties.

CONCLUSION

In conclusion, and based on the data collected from the thirty-one libraries visited and presented here, the following picture of a typical community college library with an outstanding program in the mid-1970s emerges.

It will be called either a library or a learning resources center and will house a unified collection of print and audiovisual materials, with the production of audiovisual materials being handled in a separate area of the center. The director will have the title of associate or assistant dean.

The library will be in a new building, and it will have an electronic security system. The books will be in open stacks, the audiovisual materials in closed stacks. Choice will be used heavily for the selection of materials. Books will be classified by the Library of Congress classification scheme, with PZ3 and PZ4 eliminated. Audiovisual materials will be arranged by format and accession number. The catalog will be divided into two or three parts. Audiovisual materials will be listed in the central catalog, but color codes will not be used.

The library will offer orientation and instruction to students and will distribute a library handbook. Production facilities for the creation of instructional materials will be provided, and some professional help in instructional design will be available.

Two features are particularly noteworthy: the modern physical facilities and the enthusiasm of the library faculty and their dedication of service to both students and faculty.

REFERENCES


2. For a fuller description of the background for this study and a list of the institutions visited, see Doris Cruger Dale, "Questions of Concern: Library Services to Community College Students," *Journal of Academic Librarianship* 3:81-84 (May 1977).

3. Interview with Roger Schnell, Acting Dean of Instructional Resources, Florissant Valley Community College, St. Louis, Missouri, on September 3, 1975.


8. Elizabeth Woodfin Matthews, “Characteristics and Academic Preparation of Directors of Library-Learning Resources Centers in Selected Community Colleges” (Ph.D. diss., Southern Illinois Univ., Carbondale, 1972), p.129. LC is used by 56.4 percent of the libraries in this study, and Dewey used by 42.9 percent.


10. For a more detailed account of services to students, see Dale, “Questions of Concern” p.81–84.

11. A Place to Learn (Glen Ellyn, Ill.: College of DuPage, Learning Resources Center, 1973).


13. For a good description of an instructional design system, see Jerrold E. Kemp, Instructional Design: A Plan for Unit and Course Development (Belmont, Calif.: Lear Siegler/Fearon Publishers, 1971).
Dual Pricing of Periodicals

The pervasiveness and nature of dual pricing of periodicals (different subscription price structures for institutions and individuals) is explored, employing a stratified sample of 180 American titles for a span of ten years (1966-75). Initiated at least as early as the mid-1950s, approximately 15 percent of all titles sampled now stipulate two subscription rates. The extent of such a phenomenon on periodical budgets is magnified by the fact that the disparity between the two subscription rates is increasing, and the mean annual institutional rate is rising at a significantly faster rate than the mean price assessed to individual subscribers.

Causal conversation about dual pricing of periodicals has been in existence for several years. It cannot, however, be said that the talk has in any way been substantive in nature regarding the subject. Still there has been at least an awareness that publishers of periodicals quite frequently charge a higher rate for institutional subscribers than for individual subscribers. There also has been the expressed uneasiness regarding the trend toward higher institutional rates which only seemed to fuel the effect of inflation on the cost of library materials. But as with other facts of life there seemed to be the typical resignation to the increased costs via this double pricing scheme. At the time of this investigation (early 1976) the literature was void of material pertaining to dual pricing. Only recently has a paper appeared which confronts the problem of pricing discrimination against libraries: Herbert S. White’s “Publishers, Libraries, and Costs of Journal Subscriptions in Times of Funding Retrenchment.”

The purpose of this investigation has been to explore the nature of the phenomenon of dual pricing of periodicals. As an initial study of the subject, the investigator has been interested primarily in determining the present situation. Since so little information was known beforehand, no hypotheses were tested. Various questions, however, were raised, such as:

1. What percentage of American periodicals had a double subscription price structure (i.e., one subscription rate for individuals and another for institutions, particularly libraries)?
2. What was the earliest incidence of dual pricing?
3. Is there evidence of a growing disparity between the two rates?

These questions provided the framework for this investigation.

Methodology

A study of the cost of American periodicals and serial services appears annually in Library Journal. This survey of periodical costs is divided into twenty-four subject categories and one composite index. The categories used are: Agriculture; Business and Economics; Chemistry and Physics; Children’s Periodicals; Education; Engineering; Fine
and Applied Arts; General Interest Periodicals; History; Home Economics; Industrial Arts; Journalism and Communications; Labor and Industrial Relations; Law; Library Science; Literature and Language; Mathematics, Botany, Geology, and General Science; Medicine; Philosophy and Religion; Physical Education and Recreation; Political Science; Psychology; Sociology and Anthropology; and Zoology. The rubric for the composite index is: U.S. Periodicals. The annual survey, however, cites only a single average price per category; a distinction in subscription rates is not made. In 1975, 3,075 periodical titles were included in the survey.

Since it was not possible for the present investigator to conduct a survey similar in scope to that conducted annually by LJ, the following alternative approach was devised. The universe of titles chosen were those indexed in the ten well-known H. W. Wilson Company indexes: Applied Science & Technology Index; Art Index; Biological & Agricultural Index; Business Periodicals Index; Education Index; Humanities Index; Index to Legal Periodicals; Library Literature; Readers' Guide to Periodical Literature; and Social Science Index. The subject distinctions of the ten indexes served as the subject parameters for this investigation. No further division into smaller subject groupings was attempted. A sample of 200 American titles, twenty from each of the above named indexes, was randomly selected.

To provide as much comparability as possible with the LJ studies, the definition criteria used there were accepted for this study as well. Each title first had to meet the definition of a periodical as formally established by the American National Standards Institute. ANS1's statement defines a periodical as "a publication which constitutes one issue in a continuous series under the same title, published more than twice a year over an indefinite period, individual issues in the series being numbered consecutively or each issue being dated. Newspapers are excluded." Serial services also were excluded from this study. The periodical was to be published in the United States, and, quite obviously, it had to be priced.

It was further determined to conduct this survey for a ten-year span from 1966 to 1975. It was assumed that the initiation of dual pricing in periodicals was a comparatively recent phenomenon and that a span of ten years would quite adequately cover the period prior to, and including, the present situation. It likewise was assumed that such a span of coverage would have been sufficient to reveal any strong trends, particularly because of the higher rates of inflation experienced during the past several years. Newer periodicals not in existence for the full decade were retained in the sample. On the other hand, various titles not having a continuous publication history during the past decade were not retained as part of the sample. Whenever a title appeared in the sample more than once (having been drawn from different source indexes), the decision as to which would be retained was made by random selection. A new title then was selected to replace the deleted duplicate.

Subscription prices by necessity were derived from the source. Peculiarities in the bibliographical-acquisition tools available to librarians did not permit the extraction of subscription rates with any degree of confidence. Subscription information in such well-known sources as Ulrich's International Periodicals Directory and the Standard Periodical Directory were invariably not current. No other single source provided accurate annual subscription prices or any clues to the existence of dual price structures. Thus annual volumes of the periodicals had to be examined. Subscription rates were taken from an issue late in the year or volume but not from the last is-
sue. It was assumed in this regard that a price (particularly a price change) listed in the last issue was more an indication of the rate for the new year than a true reflection of the rate for the year almost past.

For a number of reasons which made it difficult to derive subscription rates to legal periodicals, even from the source, this group was eliminated from the study. As a result, a net total of 180 periodicals from nine of the ten Wilson indexes comprised the sample used for this study.

**RESULTS**

The percentage of periodicals having a dual price structure rose from a mere 4 percent in 1966 to a rather substantial and deceptively influential 15 percent ten years later (see Table 1). The rates of increase rose most sharply during the late 1960s (from 1968 to 1970), again between 1971 and 1972, and once more from 1973 to 1974, revealing a step-wise pattern.

Applied science, biological-agricultural, and education periodicals were free of the dual price phenomenon in the early years of the survey; and the former two, along with library periodicals, remained less than 15 percent by 1975. The subject category of periodicals which manifested the strongest characteristic of double pricing was social science. Seven of the twenty periodicals sampled in that index category stipulated a double price structure. Conversely, the periodicals sampled from Readers’ Guide remained free of any double price structure throughout the time span of the survey.

Periodicals published no more than four times a year are the most frequently double priced type of publication. On the other hand, weekly and bi-weekly publications are the least affected by such a pricing policy. The results of a chi square test on this distribution of number of issues per year/volume was significant at the 99 percent confidence level. The frequency distribution obtained for periodicals with two subscription rates was significantly different from what would have been expected solely by chance (see Table 2).

Quite surprisingly, especially in a time of such high inflation, it likewise was discovered that eight periodicals (4.5 percent) experienced no price change whatsoever during the past decade. Spread throughout five of the nine indexes, the eight periodicals were: the New England Quarterly and the Texas Quarterly from the Humanities Index; American Imago and the Clearing House from Readers’ Guide; the American Federationist and the International Monetary Fund Staff Papers covered by the Business Periodicals Index; the Oberlin College Allen Memorial Art Museum Bulletin from the Art Index; and Food Engineering covered by the Applied Science & Technology Index.

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<th>Date</th>
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<td>7</td>
<td>4.22</td>
</tr>
<tr>
<td>1967</td>
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TABLE 2

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<td>20</td>
<td>56</td>
<td>18</td>
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</table>

Chi square = 12.347
Critical value (3 degrees of freedom, 0.01 level of confidence) = 11.341
One of these—the International Monetary Fund Staff Papers—even had dual subscription rates.

An assumption was stated above under “Methodology” that the initiation of dual pricing of periodicals was a very recent phenomenon. The investigation has, however, proved this to be false. More than 4 percent of the sample in 1966 already were stipulating different subscription rates for individuals and libraries. A check of those seven items revealed that dual subscription pricing began at least as early as the mid-1950s. In 1956 the Philosophical Review (a quarterly), for example, began charging $6.00 for library subscriptions and $3.00 for individual subscriptions. The Business History Review (another quarterly) apparently had a dual structure in effect as early as 1955 but did not enumerate the specifics in its masthead until 1957. The remaining five periodicals initiated their dual subscription structures in 1961, 1963, 1965, and 1966 respectively.

A third area of interest in this investigation pertained to the possible effect dual pricing was having on periodical subscription rates and, in turn, on library periodical budgets. The answer given depends as much on the perspective taken as it does on the size and nature of individual libraries.

The effect on the annual mean subscription price for the entire sample (N=180) is very slight. When averaged in among all price rates, the difference is seen as only a few cents more per title per year (see Figure 1). However, when the periodicals having a dual price structure (N=27) are considered as a group separated from the larger sample, the annual price increase from 1968 to 1975 shows a very marked difference, significant at the 95 percent level of confidence as measured by the Mann-Whitney test (see Figure 2). The mean incremental difference in 1975 among these journals was almost seven dollars per title. The institutional subscription rates are rising at a significantly faster pace than are the rates for individuals and, consequently, can have a very marked impact on periodical budgets.

**DISCUSSION**

The evidence presented thus far in this paper indicates that (1) the dual price phenomenon has been in existence far longer than was initially assumed and that (2) the number (percentage) of periodicals using such a rate structure is increasing. While the percentage of periodicals currently operating on a two-tier price structure (15 percent) is still comparatively small so as not to effect a marked change in the mean annual subscription prices (cf., Figure 1), evidence derived from the investigation reveals that (1) periodicals included in the Social Science Index are most frequently affected by the double pricing scheme and that (2) periodicals in education and applied science and technology show the greatest disparity between the two subscription rates.

These results could have marked effects on libraries with numerous subscriptions to periodicals in these subject areas, and the more so the larger the number of subscriptions. The degree of sampling variability, however, indicates that the number of dually priced periodicals (15 percent) could actually range between 9.8 and 20.2 percent 95 percent of the time. Consequently, the ability to assert the true strength of the inevitable trend toward more double pricing by publishers is considerably lessened but by no means negated.

The data seem to indicate that given the general state of the economy, more than a two-tier subscription rate is creating the rising spiral in periodical costs to libraries. Yet when the small portion of periodicals having two subscription rates is viewed as a unit, a different, more troubling, picture is obtained. There is definite evidence, as confirmed...
Mean annual subscription rates for all periodicals

Fig. 1

Mean annual subscription rates for double-priced periodicals

Fig. 2
by a Mann-Whitney test on the data, of a growing disparity between the two subscription rates. The institutional rate is increasing at a higher average annual increment than is the average annual rate for individual subscriptions.

In other words, little by little though it may be now, libraries are being forced to bear the heavier share of cost increases. Thus as more periodicals shift to a two-tier subscription structure in the future, libraries will begin to experience even more obvious cost rises for periodical subscriptions. Inflation, then, will not be the only obvious culprit.

The characteristics of subscription rates are strange indeed, and they are surely complicated by the further complexities of dual pricing. For the most part the pattern is clear: a basic subscription rate (usually individual, or no stipulated distinction between any type subscriber) with—if any distinction is made by type of subscriber—a higher rate for libraries or institutions. But this is sometimes reversed or inverted where, for example, a “special rate to university libraries, faculty members, and students” amounted to a 50 percent reduction from a “general” subscription price. Or as was sometimes the case with art and architecture periodicals, the basic price was set for a wide range of individuals and institutions within the field; whereas a different price—sometimes higher, sometimes lower—was assessed to all those “outside the field.” In another case, the institutional rate began in 1966 lower than the individual rate, yet by 1975 it had become the greater of the two.

Why publishers have established double price structures has until recently remained largely a matter of conjecture. One long-suspected reason pertained to the combined issue of public-service photocopying and loss of individual issue sales. One publication board was even bold enough to put this in print as a reason for a forthcoming price increase to subscribers. Landscape Architecture in 1969 announced that “institutional subscribers (libraries, universities, research centers) will now have a separate rate, made necessary by the xerographic revolution. The widespread use of facsimile reproduction in libraries, universities, etc. has reduced our single-copy sales to students, teachers, researchers, etc. Many other publications already charge an institutional rate, as we now must to cover this aspect of technological change.”

Whether this rationale held for the majority of other such publications is not known, although it would seem to bear considerable influence. Although dual pricing was in effect long before the recent Williams and Wilkins suit against the National Library of Medicine, it appeared to be at least one way for a publisher to recoup its conjectured losses from lack of sales.

Two seemingly contradictory results were reported in a recently completed study on the interaction between the publishers of scholarly and research journals in the United States and the libraries which form their primary customer base. One: “The statistics of this study indicate that the publisher’s decision to charge libraries more than individuals is based on economic . . . considerations.” Two: Neither the general growth of interlibrary loan nor photocopying per se has adversely affected library periodical budgets. Still, in the final analysis, publishers argue “that librarians are singled out to shoulder increased prices because, despite their poverty, they are still the most affluent group of subscribers available.”

It is difficult to determine the precise nature of the editorial board-publisher-printer relationships to any periodical; but in the case of the twenty-seven periodicals from this sample having a double price structure, the following can be said about them. Fifteen are either
under the editorial sponsorship of a university (school, department, bureau, etc.) or are actually published by a university press. Twelve are sponsored or printed by independent—non-university—associations or presses. One of the latter happened to be from the Williams and Wilkins Company.

These results are likewise revealing in that universities and university presses are more predominant, although not by much, than the independent associations and presses. This immediately sheds a different light on the previous arguments regarding a rationale for dual pricing. Since university presses typically operate on a much tighter budget than do many non-university publishers, the question now becomes: Is the rationale for dual pricing solely an economic one? The limits to this study do not allow for an answer to that question.

About as many periodicals increased the number of issues published per year as cut back on the number of issues released. One title, Polymer Engineering and Science, not only advanced publication during the decade from four to twelve issues per year (volume) but switched to a two-tier subscription rate as well. In hindsight it is recognized that the number of issues published per year may well be only a very gross computation for a check on the effect of inflation. A more accurate picture would be obtained from a tally of the number of pages per volume. This, however, would be a tedious task indeed.

It is not possible to draw from this investigation any learned clues to explain why eight periodicals weathered the past decade without raising subscription rates. It can only be speculated that many, if indeed not all, receive heavy subsidization. If that be the case, more power to them and let the subscribers rejoice.

References

3. Example: “For those who are, by title, architects, engineers, architectural employees (specification writers, designers, draftsmen, estimators), planners or landscape architects, and to those in architectural education (students, faculty and schools), and to libraries, building construction trade associations, and building product manufacturers and their employees: basic rate - . . .”
ARL Statistics—Handle With Care

The 1975–76 issue of ARL Statistics presents conclusions concerning academic library collection growth. The procedures of drawing these inferences exhibit conceptual and computational deficiencies which impair their validity and usefulness.

James T. Gerould began collecting and issuing statistics of college and university libraries in 1920 when he was librarian of the University of Minnesota, and continued this activity after moving to Princeton University.1 The "Princeton Statistics," as they came to be known, were issued by that university until the Association of Research Libraries (ARL) undertook their compilation and distribution in 1961; they have appeared yearly as "ARL Statistics" since that date. During this long period there have been many changes and increases in the number of libraries described, in the data included, and in the format of presentation. The first compilations issued were of one or two mimeographed pages—the last (1975-76) a forty-six-page booklet.2 Data on twenty-seven colleges and universities were contained in the first issue for 1919-20; ninety-four academic libraries and eleven non-academic research libraries are covered in the 1975-76 edition. Six categories of data were reported for 1919-20; twenty-one categories appear in the 1975-76 compilation.

Throughout the years the statistics have been based upon voluntary submissions, by the individual libraries, of answers to specific questions in the light of rules and definitions, tight or loose, provided by the compilers. There has been little or no policing of these submissions to insure compliance with the rules and conformity with the definitions and instructions; it is easy to understand why. Libraries generally have felt free to make their own interpretations and change them when they have felt it advisable to do so. It is evident that all libraries do not interpret the rules in the same way and that individual libraries have made major changes in their own methods of gathering and reporting over the years, resulting in otherwise inexplicable discontinuities in their data. The categories themselves are not always mutually exclusive or constant throughout a time series.

Suffice it to say that the overall reliability of the statistics is not impressive, and, more lamentably, their deficiencies are unnecessarily dramatized by the spurious precision with which they are expressed. To show a given library's volume holdings to seven significant figures is, under the circumstances, ludicrous.

Lastly, while the statistics, as published, do include a large number of notes, qualifications, explanations, and exceptions to the data presented in numerical form, these tend to be complete-

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ly disregarded in subsequent handling of the data in drawing interinstitutional comparisons and inferential conclusions. It is not the purpose here to document or belabor these deficiencies; Oboler has listed a large number of them. Although his remarks refer specifically to statistics at one time published by the U.S. Office of Education, his criticisms are, for the most part, applicable to ARL statistics also.

ARL Statistics are used in the production of other statistical compilations and widely used by librarians in making interinstitutional comparisons, largely in budget arguments. The deficiencies of ARL Statistics are generally, if dimly, realized by most librarians; the user tends to rely upon them as the drunk is said to rely on the streetlamp—for support rather than for illumination. The safety with which inferences may be drawn from these figures is greatest when single libraries are studied over a short period of time; much smaller when different libraries are compared or when the characteristics of the entire population are summarized, over lengthy time periods, or predictions about them made.

**INTERPRETATION OF STATISTICS**

It is in this latter area—that of inferring trends and changes in academic library behavior by use of the statistics—that ARL has expanded its activities recently. Median values calculated for the various categories of statistical information appeared in the 1962-63 statistics and have appeared yearly since then. Rank order tables for many of the categories appeared first in the 1961-62 statistics, disappeared for a short period, and reappeared to stay in the 1965-66 compilation, presumably to aid librarians in preparing budget arguments. During these years special tables and analyses have been included from time to time.

The 1975-76 statistics include a new table (p.16-17) in which percentage changes in median values over the last eight years are displayed; in the introduction a series of statements are made, describing trends in academic libraries, based for the most part on these changes in median values. These statements cannot be accepted as they stand—they are misleading at best, erroneous at worst. The calculations on which the statements are based exhibit errors both conceptual and computational.

The analysis to follow is based upon a single statement in the introduction to the 1975-76 statistics; the methodological criticisms made will apply, in some measure, to all those statements in the introduction which summarize statistical findings. This particular statement has been selected for analysis for several reasons: it has been identified as an especially important finding by the compilers, it is the statement which seems most likely to be widely cited and quoted by virtue of its high emotive content in these days of academic library austerity, and it treats of a category of data whose importance as a gauge of library health is indisputable.

Inflation affected all library operations, but monograph purchases clearly suffered the most. The median number of monographs added last year was 10.3% less than the previous year, and was the lowest in the eight years reported. The median number of volumes added in 1976 was 64,800, a dramatic contrast to the 89,800 added in 1969.

The category “number of monographs added” is not used in ARL Statistics. The categories related most closely are “Volumes Added, Gross” and “Volumes Added, Net,” and both of these clearly include not only monographs but also bound volumes of serials, a significant component of the aggregate figure. Furthermore, the figure of −10.3 percent refers to the change in
median values for "Volumes Added, Net" between 1974-75 and 1975-76.

Here we have the first instance of drawing inferences from data which cannot possibly support them. "Volumes Added, Gross" represents the number of volumes acquired or cataloged during a given period and hence reflects, more or less closely, the financial situation during that period. But "Volumes Added, Net" is this gross value reduced by the number of volumes withdrawn as lost, missing, mutilated, donated, etc., during that period. Assiduity in operations which result in withdrawals hardly can be considered an inevitable correlate or result of financial stringency. "Volumes Added, Gross" is obviously the pertinent datum.

Comparing median values for "Volumes Added, Gross," as was done for "Volumes Added, Net," results in a minuscule increase of 0.16 percent compared to the "dramatic" drop of 10.3 percent. But, however reasonable the comparison of medians, it is not reasonable to compare medians in a time series when the composition of the distribution has changed. The median for 1974-75 is the median value of a distribution of eighty-eight libraries. During 1975-76 six new libraries were added to ARL. There are no longer any Harvards or Yales to add; new members of ARL are, for the most part, smaller libraries just recently, and barely, grown to research library dimensions. Hence their inclusion in computing the median value for 1975-76 automatically depresses this datum. If the comparison is made between median values for "Volumes Added, Gross" for the eighty-eight institutions for which data are available for both years, deleting the values for the six added libraries, the median value for "Volumes Added, Gross" is 80,479, not 78,085, a percentage rise from the previous year of 3.2 percent. Modest—but a rise, not a decline.

But is the median a very good basis for comparison in situations of this kind? It must be emphasized that the median is a measure of central tendency which is not concerned primarily with the absolute magnitude of the variable but only with its relative magnitude. The median value in any distribution is simply that value above which half of the members of the distribution find themselves and below which the other half are located. Its absolute size, except to fix its ranking, is of no moment; hence to compare absolute median values for the same distribution from year to year is deceptive and pointless. Changes in the median, moreover, tell next to nothing about the changes in the other values of the distribution. The usefulness, therefore, of adding median values, even when properly done, is quite limited and the practice of comparing them hazardous.

Are there better analytic procedures available? If the effects of recent financial "cut-backs" in academic library acquisitions are being investigated, it seems appropriate to measure gross changes for ARL libraries as a whole. If the "Volumes Added, Gross" totals for the years 1974-75 and 1975-76 (helpfully provided by ARL) are adjusted to represent the same libraries by deleting values for the six libraries added in 1975-76, it is seen that a slight increase has occurred. In the aggregate, the eighty-eight ARL academic libraries show gross additions of 7,875,033 volumes in 1975-76. These same libraries added 7,753,746 volumes in 1974-75. The increase of 1975-76 over 1974-75 is 1.6 percent. The same result is obtained, of course, by using the arithmetic mean instead of the totals, in this case 89,489 (1975-76) and 88,111 (1974-75).

The use of the arithmetic mean—the sum of n values divided by n—as an indication of the central value of a distribution can be questioned here. Conditioned as we are to the use of the arithmetic mean as a measure of central
tendency in any distribution, we frequently forget that its use is proper only when the distribution is itself "normal," that is, when it resembles the familiar bell curve, with values more or less symmetrically distributed and median and arithmetic mean very close together or coincident. But the distribution of values for "Volumes Added, Gross" is not normal, but "lognormal." This type of distribution is highly skewed; it has the interesting property that the logarithms of the values, not the values themselves, are distributed normally; hence its name. The geometric mean, defined as the nth root of the product of n values, is the appropriate measure of central tendency in lognormal distributions, and in this case the geometric mean for 1975-76 is 79,322 volumes, up 2.4 percent from the corresponding value of 77,473 volumes for 1974-75.

Still another measure suggests itself. This simple, but far from contemptible, device, familiar to all who listen to stock-market reports on the radio, is that of comparing "advances" and "declines." On this basis, forty-seven academic ARL libraries added more volumes (gross) in 1975-76 than they did in 1974-75, and forty-one added fewer.

Conclusions

It thus appears that ARL academic libraries did not add fewer volumes in 1975-76 than they did in 1974-75, however one computes it. Indeed, all calculations indicate a slight increase in volumes added but an increase not so large as to be obviously significant, given the possible errors in the individual library values. Statistical inference always involves risk; it is essential, therefore, that any inferences be made with much care and some humility. It is clear that ARL's dramatic statement on additions to ARL library collections, quoted earlier, is not supported by the data. It is contended here that a statement such as:

Additions to ARL library collections remained at a generally static level in 1975-76, with forty-seven libraries adding more volumes and forty-one libraries adding fewer volumes than they did in the previous year.

conveys not only more information but more accurate information. This is not, of course, to say that 1975-76 was a good year in terms of collection growth. But it was not the catastrophic year, at least for collection growth, that the ARL statement reports.

It probably is not reasonable to expect any spectacular improvement in the quality of ARL statistics themselves, given the limited power ARL has to enforce any rules and guidelines it promulgates, the major internal procedural changes individual libraries might have to make in order to conform to them, and the basic fact that any such rules would of necessity call for a fair measure of variable interpretation.

It is reasonable, however, to expect that ARL publish its statistics in such a form as to be consonant with their intrinsic accuracy, avoiding the semblance of great precision where little, in fact, exists. And it is reasonable to expect ARL to hold back from the issuance of statistical analyses of its data and conclusions drawn therefrom unless it is willing to make a serious attempt to develop an adequate analytical machinery.

Compilation and publication of simple and uncritical rank-orders, ratios of medians, etc., provide little beyond increased opportunity for oversimplification and error. If ARL wants to improve the quality and usefulness of its statistical publication, it must investigate other methods of gathering, analyzing, and publishing its data. That these data are in machine-readable form should facilitate such experimentation.
REFERENCES


Letters

Inventory "By Computer"

Editor's Note: We include below an exchange of letters between Gordon E. Randall, Research Division Librarian, Thomas J. Watson Research Center, International Business Machines Corporation, Yorktown Heights, New York; and Catherine V. von Schon, English Bibliographer, State University of New York at Stony Brook, and author of the article, "Inventory 'By Computer,'" which appeared in our March 1977 issue (p.147–52)

Dear Ms. von Schon:

I appreciated, as would any author, being cited in your article "Inventory 'by Computer','" but I am sorry I did not make it clear in my article that our triennial inventories since 1962 have been "punched card" inventories. Because I was writing a general article for industrial librarians on inventories rather than specifically describing how we conducted our inventory, you may not have realized that we, too, used the "punched card" approach.

In your article you doubted that our "laborious procedure" would work for a large university library. Our library is one-tenth the size of Stony Brook. We were able with the team method to inventory the books on the shelves in 4½ days. Using these procedures, we could have inventoried the books on your shelves in 45 working days using only three teams at a time. It might have taken a trifle longer because I would assume you have a smaller portion of your 300,000 volumes out on loan than we do. Our loans run about 20 percent of our collection at any one time.—Very truly yours, Gordon E. Randall.

Dear Mr. Randall:

Thank you for your letter. It is indeed gratifying to find my article being read with so much interest by knowledgeable colleagues.

I, too, am sorry that I failed to spot the hints in your article about computer-generated punchcards. I see that you started from the same point we did—generating new punchcards for each stack book and matching them to the books in the stacks.

My reference to "laborious procedure," however, was intended to apply to a step which you inserted and we skipped: placing the stack books on trucks and trucking them to the inventory team. You give a figure of 2,500 books processed per day per team, which means four team/days for 10,000 books or twelve team/days for 30,000 books; divided by three teams, four days for the project.

Stony Brook, which I would not call a large university library, has 850,000 books, according to the American Library Directory. At 2,500 books per day, it would take 340 team/days or 15½ team/months to complete the project; with three teams, a little over five months.

The University of Michigan, a fairly typical large library, has 3,900,000 books. There it would require 1,560 team/days, 71 team/months, or with three teams 23⅓ months, or two years.

I still believe that the administrators of most large university libraries would hesitate to tie up nine staff members in an inventory project of such length. Operations permissible on the basis of an investment of days become prohibitive when an investment of years is involved.—Sincerely, Catherine V. von Schon.

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Quasi-Departmental Libraries

To the Editor:

Genaway and Stanford in “Quasi-Departmental Libraries” (C&RL, May 1977) fail to mention, I think, the greatest attraction of the departmental reading room (as they are called on the University of British Columbia campus). That attraction is having one's own materials gathered and around one. The current materials used in many subjects if not scattered in the classification are scattered among less used and older materials in the stacks. This, after all, is what led to undergraduate collections. The departmental reading room is simply the same service for upperclassmen/women and graduates.

At the University of British Columbia a new relationship has evolved between the departmental reading room and the library system. Materials acquired by the reading room (and the library's acquisitions system may be used) are processed in the library's cataloguing divisions and, most importantly, listed in the library's central catalogue. Quarters, furniture, and staff on site remain the responsibility of the department. The basic collections were developed from nonlibrary sources. Current acquisitions are a mixture of gifts and materials purchased with nonlibrary and library funds. The experience of cataloguing the over thirty collections in reading rooms supports the finding of Genaway and Stanford that about a quarter of the material is unique to the system, and much of the rest duplicates heavily used material. Having these collections centrally listed has certainly been worth the cataloguing effort expended. To be acceptable to the reading room, however, centralized cataloguing must be prompt.—J. McRee Elrod, Head of the Catalogue Divisions, The Library, University of British Columbia, Vancouver.

Library Technology Reports has published an update of its July/September, 1975 report on automated circulation control systems. The new report by William Scholz describes and evaluates the following systems:

LIBS 100 (CL Systems Inc.) / SCION (Systems Control, Inc.) (ULISYS Universal Library Systems, Ltd.) Gaylord's Circulation Control System 3M's Inventory Control System.

The 92 page report is contained in the May, 1977 issue of LTR now available to non-subscribers as a single issue for $40.

Library Technology Reports
American Library Association
50 East Huron Street
Chicago, Illinois 60611
Recent Publications


Magrill, Rose Mary, and Rinehart, Constance, comps. *Library Technical Services*, reviewed by Martha Willett. 429

*Advances in Librarianship*, volume 7, reviewed by Fred Blum. 429

Grogan, Denis. *Science and Technology*, reviewed by Irma Y. Johnson. 431

*Hebrew Printing and Bibliography*, reviewed by Miroslav Krek. 431

Marchant, Maurice P. *Participative Management in Academic Libraries*, reviewed by Eldred Smith. 432

Robinson, Thomas. *The Teacher*, reviewed by Benedict LaBue. 434

Schuster, Marie. *The Library-Centered Approach to Learning*, reviewed by Benedict LaBue. 434

*Eighteenth-Century English Books*, reviewed by William E. Conway. 434

Kemper, Robert E., and Ostrander, Richard E. *Directorship by Objectives*, reviewed by Martha J. Bailey. 435

*Writing Objectives for Bibliographic Instruction in Academic Libraries*, reviewed by Janet L. Ashley. 436


Orr, J. M. *Libraries as Communication Systems*, reviewed by Budd L. Gambee. 439

Murphy, Marcy, and Johns, Claude J., Jr. *Handbook of Library Regulations*, reviewed by B. Donald Grose. 440

*The Librarian and Reference Service*, reviewed by James F. Parks, Jr. 442

Gerulaitis, Leonardus Vytautas. *Printing and Publishing in Fifteenth-Century Venice*, reviewed by Miroslav Krek. 442

Davinson, Donald. *Theses and Dissertations as Information Sources*, reviewed by Calvin J. Boyer. 444

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Other Publications of Interest to Academic Libraries. 449

BOOK REVIEWS


This slender volume covers the historical development of management theory and discusses, under the following headings, each of the functions which are carried out in the management of organizations: planning, organizing, staffing, directing, and controlling the operation. Treatment is simple, concise, and well organized although clearly not exhaustive. According to the authors, the book proposes to present the principles of management in a conceptual
framework, thus providing a useful tool for both practitioners and students.

Indeed, the book should appeal to students and to librarians without an extensive management background. It is also useful as a handbook for administrators since specific information can be located very quickly. It is intended that the book is to be used in conjunction with case studies, in-box simulations, and other exercises which would expand the learning process.

Owing to the format of the book, only the most basic ideas and theories of each of the important contributors to the development of management science have been noted. All important developments have been included, however, and the bibliographies which accompany each chapter are thorough in their coverage and of very high quality. Further reading along these suggested lines would provide an excellent basic education in management theory.

The authors make some sweeping generalizations with few facts to bolster them. As an example, they state on page 44, “The higher a person is on the administrative scale, the less aware he is of the inadequate opportunities given for staff participation.” This seems to assume that persons higher on the administrative scale never went through the lower ranks or if they did that they do not remember the conditions under which they worked. No studies are cited, nor are data presented to substantiate the allegation.

On page 161 the authors state that it is easy to justify line-item budgets since “it can be found that the allocated funds were spent in the areas for which they were budgeted.” A number of library managers of my acquaintance would dispute that statement.

On pages 56 and 57 the authors assert that staff officers are prone to assume line authority over supervisors (through the exercise of their specialized knowledge) to the extent that their presence and action should be regarded as “dangerous.” Again, no research is cited for this biased interpretation of staff function, and the solid contribution such persons can make in view of their specialized knowledge and skills is not discussed.

The book is also marred by very careless editing. Early chapters in particular suffer from incorrect words (“schools” for skills on page 19; “conscientiously or unconscientiously” for consciously or unconsciously on page 107; “of” for “or”; “it” for “if”; in several locations, “probably” for “probable”; etc.). In addition, there are poorly written phrases and sentences that often make deciphering the authors’ meaning somewhat difficult. For example, “Perhaps a better example might be if a library decides to re-plan its service points with the result that a branch library is closed down” [sic] p.40; or “Distinguish big from little problems, to avoid getting caught in a situation that is rapid-fire and not effective” [sic] p.45.

There are also errors in attribution. On page 18, Frank and Lillian Gilbreth are identified as early members of the Scientific Management School who “expanded the concepts of motion study and fatigue” and who also authored Cheaper by the Dozen. In fact, the book was written by their children, Frank B. Gilbreth, Jr., and Ernestine Gilbreth Carey. The typographical errors, factual errors, and awkward sentences are
irritating and could have been easily repaired by a good editor.

But I do not mean to be overly critical. In spite of its defects, the book is clear and easy to understand. It provides a general frame of reference which is applicable to any type of library. In expanding on the principles presented, the authors draw on examples from recent academic library management literature as well as that of public and school libraries. The book does not duplicate other library management publications such as Lowell's *Management of Libraries*, Rogers and Weber's *University Library Administration*, or Hamburg's *Library Planning and Decision Making Systems*. It is a practical and useful guide to the world of library management.—Dale B. Canelas, Assistant Director for Public Services, Stanford University Libraries.


Anyone needing quick, easy access to the major literature of current, general interest on technical services will find this new bibliography useful. The serious researcher will still need to use *Library Literature*, but the person wanting to become familiar with a topic probably will find sufficient entries in this book without struggling through excess material. The authors promise a supplement, which will be necessary if the book is to remain topical.

Most of the 1,274 entries have dates within the past ten years. Those with earlier dates are bibliographies and reviews of a year or are concerned with general principles and topics of historical interest, such as the emergence of approval plans, or do not date readily (e.g., repair and preservation of materials). Foreign material is not included, but selected ERIC documents are. Each entry is briefly annotated, and bibliographies in the material are mentioned with pages or number of references listed.

The book is divided into seven broad subject headings with each heading subdivided into several smaller areas and arranged in chronological order. The topics included are organization of technical services and management and administration of the acquisition, organization, maintenance, and circulation of materials, serials, and special materials. There is a name index and a separate subject index.

Most technical services librarians and teachers of technical services courses will want a copy. Others without access to *Library Literature* or without the time to use it adequately also will find this book helpful.—Martha Willett, Technical Services Librarian, Indiana State University, Evansville.


Volume 7 of *Advances in Librarianship* reflects the changing world of librarianship. Five of the contributions deal with the continuing traditional concerns of librarianship, such as classification (Ingetraut Dahlberg's...
“Major Developments in Classification”), library development and history (Simeon B. Aje’s “National Libraries in Developing Countries” and W. A. Munford’s “The American Library Association and the Library Association”), and the use and role of libraries (D. Zweizig and B. Dervin’s “Public Library Use, Users, Uses” and Gordon Stevenson’s “Popular Culture and the Public Library”).

The three other contributions reflect the more recent concerns of information science (F. W. Lancaster’s “Vocabulary Control in Information Retrieval Systems,” Anne Wilkin’s “Personal Roles and Barriers in Information Transfer,” and Robert N. Broadus’ “The Application of Citation Analyses to Library Collection Building”).

As usual, Advances in Librarianship presents well-documented, state-of-the-art studies on a small number of specific topics—some broad, some narrow.

In general, the articles which deal with the traditional topics provide wide-ranging surveys. The contribution on classification, for example, presents a brief history of classification, comparisons of six universal systems in use today, and a review of recent developments.

Similarly, Aje’s survey and Munford’s historical review contain broad, although by no means exhaustive, reviews of their topics. Aje discusses twenty-six national or quasi-national libraries in alphabetical order, from Belize to Uganda. Half of the libraries are in Africa, with the other half almost equally divided among Asia, Central and South America, and the Middle East. The information, based on questionnaires, is somewhat uneven but still useful.

Munford presents an overview of the origins, history, development, organization, and contributions of ALA and the Library Association. American readers may be surprised to note the role of American librarians in the founding of the Library Association. It was in large part the success of the 1876 Philadelphia conference which led E. B. Nicholson “to suggest the first British conference which eventually took place in London in October 1877. This one was certainly international in its scope, but it owed much to the fifteen Americans present, twelve of whom had been at Philadelph. . . . Some of the most significant contributions to the London conference were in fact made by Poole and by Justin Winsor” (p.151-52).

The articles dealing with such aspects of information as vocabulary control, barriers to information transfer, and citation analyses are narrower in scope. Thus, Broadus’ article is concerned with a very specific question: “Whether the hundreds of published citation studies can help in dealing with [the problem of selection of appropriate titles for any given library from the universe of over 200 million books published since Gutenberg]—whether, in large libraries particularly such analyses hold the promise of improving the odds that materials chosen will mesh with users’ needs and demands” (p.301-2).

Broadus finds some evidence that “there do seem to be parallels between use of materials as indicated by citation patterns and as shown by studies of requests in libraries, especially in relation to the needs of people engaged in research” (p.319). Nevertheless, as Broadus himself states, “most citation studies measure use by sophisticated scholars, and would not be expected to correlate strongly with undergraduate and popular demands. . . . The library profession is not close to discovering any truly valid measure for predicting requests in a given library” (p.315).

In his contribution on information retrieval, Lancaster postulates “the continued growth of machine-readable data bases and the continued expansion of on-line systems to make these files widely accessible” (p.33). He then predicts the resulting problem of noncompatibility of the various controlled vocabularies will lead to reconciliation of vocabularies by human analysis, by machine conversion, or by the use of a switching language (“intermediate lexicon”).

Volume 7 of Advances in Librarianship maintains the qualitative level of its predecessors. While some of the topics have been dealt with in earlier volumes and others are treated here for the first time, there is no duplication. Indeed, taken as a whole, the series provides a useful, albeit far from comprehensive, encyclopedia of articles on basic topics of the profession, ranging from

It may be convenient to categorize all books of this sort as "guides to the literature." However, the present author aptly distinguishes between two types. The "reference book" type strives for comprehensiveness in its listing and annotations; Malinowsky's Science and Engineering Reference Sources and Jenkins' Science Reference Sources are familiar examples. The "textbook type," on the other hand, emphasizes the function which each type of publication performs in the overall pattern of information transfer; and illustrative examples are then incorporated in the text. The Grogan volume is a "textbook" type intended for students; Parker and Turley's Information Sources in Science and Technology is another but in its case is designed for the working scientist or engineer.

While the second edition was enlarged about 10 percent over the first, this third edition is some 35 percent larger than its predecessor. Whole new chapters have been added on "Computerized Data Bases" and "Microforms." Three chapters have each been expanded by 50 percent: "The Literature," "Periodicals," and "Books in the Field." In nearly all instances, growth is not due to added examples; many of these are carried over from the preceding edition, though there is a good salting of later dates as well. Enlargement derives from discussion of additional aspects of scientific information and dissemination (oral communication, user studies, cost implications to libraries, prospect for alternative modes of publication, etc.).

A particular excellence is the care with which Grogan tries to develop the reader's capacity to make distinctions. Students are repeatedly cautioned not to be misled by titles (e.g., "Encyclopedia of . . .") and reminded that needed forms of literature are often buried in other forms (e.g., bibliographies published in journals). It is quite important to read the whole book, since items relevant to a given factor occur in unexpected chapters.

Of caveats and shortcomings there are few. The British origin influences the approach of certain sections, such as that of patenting procedures. Discussion of computerized data bases reflects the relative absence at the time of writing of on-line services familiar to U.S. readers. The chapter on "Indexing and Abstracting Services" is perhaps the least satisfactory; some of the information on the Bibliography of Agriculture and the defunct Pandex is out of date, and differentiation between printed and machine-readable formats is occasionally blurred.

The index intentionally excludes any mention of individual titles, since they are said to be "examples" only. Nonetheless, the reader will often wish to look up the treatment of a known example and to find it embedded in a section on similar works. Finally, there is scanty documentation for the scores of supporting and illuminating statements and for the well-chosen quotations and other included intelligence. The author considers "excess of bibliographic scrupul is out of place in a textbook for students." Perhaps he underestimates how intriguing his references are, or the number of "keen" readers who might wish to pursue them.

Writing in an eminently readable style, Grogan provides the reader with the full flavor and feel of the literature and of the scope and variety of the "information problem." Not only students will find illumination, but experienced librarians, scientists, and engineers will benefit from reading this book.—Irma Y. Johnson, Science Librarian, Massachusetts Institute of Technology.

Hebrew Printing and Bibliography. Studies by Joshua Bloch and Others, Reprinted from the Publications of the New York

The expanded title gives—in a nutshell—all the important facts of this publication. All of the reprinted articles and works have some bearing on the Jewish Division, by authorship, subject matter, or source, the majority having been reprinted from the New York Public Library Bulletin.


Other authors represented are Isaiah Sonne with his article on the nonconverted Jews behind the expurgation of Hebrew books, Abraham Berger with his account of the Jewish Division and its work, and Aron Freimann with the "Gazetteer of Hebrew Printing," now very much in need of revision. The omissions and outdated information are most felt in this latter item. Not only must the list of places which used Hebrew printing be expanded (it is hardly conceivable that Jewish communities in, let us say, a city of the size and importance of Marseilles have not utilised Hebrew type, even up to 1946 when the gazetteer was first revised and published separately), but also the information furnished can stand correction, sometimes with little effort. Thus, a brief examination of the editions of Bernhard von Breydenbach Peregrinationes in Terram Sanctam proves that the earliest date of a Speyer edition to contain a Hebrew alphabet is not November 24, 1502, but rather July 29, 1490. Similarly, examination of early cognate materials often leads to unsuspected Hebrew printing. Thus in Spey's Epistola Pauli ad Galatas (Heidelberg: Mylius, 1583) one finds Rabbinic type used on title page and passim, which documents the usage of Hebrew type in Heidelberg four years before the Biblia Sacra Hebraice, Graece, et Latine of 1587, which in the author's own words was "probably non-existent." Other statements, such as "probably contains Hebrew type as in later editions," are in need of attention. It should not be too difficult with the aid of the readily available short title catalog films to clear up questionable entries for this period.

Mention should also be made of the reproduction in this work of the exhibition catalog, "The People and the Book," on Jewish life in America, the illustrations of which are poorly reproduced, and Joshua Bloch's classification schedule peculiar to the New York Public Library which may be of interest to the user.

In general, the work is valuable because it brings together in one volume materials of interest to the bibliographer and other interested individuals who may not have easy access to it otherwise. It is a fitting memorial to the library and its staff, especially Joshua Bloch, who headed the Jewish Division for more than a quarter of a century.—Miroslav Krek, Brandeis University Library.


Maurice P. Marchant identifies two specific objectives for this book. First, it attempts to "test the application of participative management theory to academic libraries." Second, it is "a pioneer work in the construction of a mathematical model of an academic library [which] can be used for future decision-making and planning."

With regard to Professor Marchant's first objective, one may legitimately turn to chapters 6-10, which Edward Holley's foreword describes as "the heart of the book." In two of these chapters (those dealing with planning and circulation) Professor Marchant concludes that no relationship can be found between management style and effectiveness in either activity. His analysis of staff satisfaction concludes that it is "a function of many things," including...
management style—“provided the relations are really causal.” With regard to uniformity of evaluation, he notes that “support was found for the hypothesis that participative management helps to unify staff appraisal of the library, but the evidence is weak.” In the extended analysis of “library evaluation,” a relationship is found—particularly in the perception of library staff—between library effectiveness and staff satisfaction (e.g., participation). After eighty-one pages of analysis and explanation, all based upon data collected by questionnaires from librarians, faculty, and library administrators at twenty-two universities, one is inclined to wonder as to just what has been proved.

To a reader such as myself, who is unversed in mathematical analysis and model building, the analytical model that is developed in the book seems certainly complex and possibly impressive. When evaluated against the author’s findings, however, one wonders again. Do we really need control variables, profiles of organizational characteristics, systems scales, intervals, causal interference rationale, and correlation and regression analysis to tell us that staff morale is important for an effective and productive academic library or that the involvement of librarians in the professional decisions that are made within such a library is going to produce better decisions? If these principles aren’t evident from our experience, they are exceedingly well presented in at least a score of contemporary management texts which are readily available in any academic library.

The problem of applying such concepts within a practical library situation is not the need to establish their validity, but the high degree of skill that is required to utilize them most effectively within an extremely complex environment. Quite frankly, Participative Management in Academic Libraries is little help here. Indeed, the view of the academic library that underlies this book is oversimplified and grossly distorted. There are the “good guys” (the oppressed staff) and the “bad guys” (the administrators). If the former can be freed from their bonds and the latter enlightened, the

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**Recent Publications** / 433

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library will generate trust, confidence, and high productivity and disagreements will be "openly and candidly discussed without rancor." Such a vision is consonant with analysis that confuses delegation—a basic hierarchical mechanism—with group decision making and professional collegiality with participatory management. It is also consonant with a vocabulary filled with "inputs," "outputs," "throughputs," and "feedback," as well as one which utilizes the designation "professional librarian."

Participative Management in Academic Libraries has a strong messianic tone, as though its author had accepted the mission of leading us out of darkness and into light. Alas, its result is to add to the darkness by muddling and distorting the situation it attempts to analyze and explain.—Eldred Smith, Director of Libraries, University of Minnesota.


While both of these books espouse the concept of the library-college, they are significantly different in coverage. The Robinson book is the first of a series to be published twice annually by the Library College Associates, so after a very brief discussion of the library-college concept and its jargon it concentrates on the "teacher." "Teacher" in this case is defined broadly and encompasses both classroom teachers at all levels and librarians at all levels. The Schuster book on the other hand tries to cover the whole library-college concept and its application especially at the elementary and junior high level.

The Teacher, while philosophically dedicated to the importance of the library in any educational system, admits that the library cannot on its own initiative forcibly penetrate and invade the teacher's planned procedures. This is a fact of life to which any librarian who has tried can attest.

Without the support and cooperation of the classroom teacher, any program of library-college, library instruction, or bibliographic instruction will achieve only marginal successes. While libraries or librarians cannot forcibly penetrate the classroom, many have taken leadership roles and have implemented successful programs both in and out of the classroom.

Unfortunately, this book does not discuss any strategies or tactics for libraries to follow if they want to help implement the library-college concept. A full half of the book discusses ways of carrying out the concept, but it begins with several classroom teachers already convinced of the worth of the idea. For librarians with access to receptive teaching departments this section does contain many useful methods of incorporating the library into the classroom, but for the librarian struggling with a recalcitrant teaching faculty it is of little use.

The Schuster book comes very close to the genre of inspirational writing. The biggest flaw of the book is its failure to recognize the multiplicity of ways the library-college concept can be carried out. It presents independent study as the modus operandi. We are told that learners respond differently to different forms of media and that all forms of media should be made available to the learners. What we are not told in this book—but research is showing—is that not every learner can cope with independent study. Studies of PSI (Personal Systems of Instruction) have shown that some students want and need a very rigid, highly structured method of instruction. This book would have been of more use had it gone beyond just one teaching method.—Benedict La Bue, Reference/Bibliographer, University of Colorado, Boulder.


As a participant in the conference recorded in these Proceedings, I am delighted to have this record of the ten papers there
presented, plus the addition of one highly relevant paper. The program, splendidly conceived by Donald G. Eddy of Cornell with the advice of Robert Barry, Jr., and Herman W. Liebert and brilliantly executed by the speakers, leaves no doubt in the mind of any reader that eighteenth-century English books as viewed by "librarians and booksellers, bibliographers and collectors" — and editors — offer many opportunities for study and interpretation, as well as many challenges. It makes equally clear that in the world of books there is close interdependence between all interested parties.

A listing of the speakers and their topics would carry this review far beyond its allotted compass, but the names of William B. Todd, John W. Joliffe, William J. Cameron, G. Thomas Tanselle, Donald G. Eddy, Patricia Hernlund, Keith I. D. Madsen, Donald F. Bond, Robert Barry, Jr., William P. Barlow, Jr., and Alexandra Mason are a guarantee that the important matters under consideration were considered by those well qualified to deal with them. In this distillation of the knowledge, advice, and experiences of several experts anyone at all interested in the books of this period will find much of value.

In a little more than four pages, Herman Liebert has caught the essence of the conference, summarizing in his usual perceptive and witty style all aspects of the proceedings. His final remarks are a call to dedication on the part of all who are concerned with the literature of the eighteenth century: "We must . . . carry on our constant tasks of finding, identifying, buying and selling, collecting and preserving eighteenth-century books and manuscripts. . . . We are, in fact, all serving one of the highest aims there is: we are working together to preserve and understand one section of man's cultural heritage." For those concerned with this work, and for those who would comprehend its importance, these papers are recommended highly.—William E. Conway, W. A. Clark Memorial Library, University of California, Los Angeles.

Kemper, Robert E., and Ostrander, Richard E. Directorship by Objectives. Challenge to Change: Library Applications of New Concepts, no. 2. Littleton, Colo.: Libraries Unlimited, 1977. 80p. $8.00 U.S. and Canada, $10.00 elsewhere. LC 76-56238. ISBN 0-87287-138-X. Several books on library management have been published in recent years. Most were designed to be used in administration courses by students who have had little or no work experience. This book was written for the person who has been away from graduate school for about five years and is just beginning to realize what he or she needs to know about management.

Although the book is not limited to specific types of libraries, it was designed for larger organizations (i.e., libraries with at least fifty FTE employees; 400,000 titles; and $750,000-plus budgets). It was prepared for the upward-mobile manager, the person who has a planned approach to a directorship.

The book is divided into six chapters. Chapter 1 defines the upward-mobile library manager, defines managing, and discusses the managing process and the challenge of the managerial environment. Chapter 2 presents superior-subordinate concepts, upward-mobile definitions, authority concepts, and views on management theories. Chapter 3 explores the personal environment of the upward-mobile library manager, covering career change, power, achievement, and affiliation concepts. It includes recommended starting points and psychological guidelines. Chapter 4 presents the director's point of view as perceived by the library manager, giving a "breadwinner" explanation of the directorship. It includes alternatives for decision and elements of decision making. Chapter 5 develops the subordinate's point of view through the concept of expectation. Chapter 6, concerning the concept of adaptiveness, gives guidelines for applying directorship by objects and the benefits and challenges of directorship by objectives. There is a bibliography of books selected from the business management literature.

In view of the current interest in participative management, the "breadwinner" concept of the director is an interesting one. No matter how or where decisions are made in the organization, to those who receive services or contribute funds to the library,
the director is the person who is responsible legally for all official activities of the library.

Other writers have stated that affirmative action and unionization reduce the director's power. However, the director still controls the situation through his or her powers to influence decisions on hiring, firing, promoting, assigning raises, and granting permission to engage in professional activities.

The chief feature of the book is its humor. Although it includes amusing titles and illustrations, the humor is in the text. But the humor has a wry twist, such as (p. 70) "Try to change those situations which you can change and adapt cheerfully to those you cannot change."—Martha J. Bailey, Physics Library, Purdue University, West Lafayette, Indiana.


This conference, initiated by the ACRL Bibliographic Instruction Task Force, examined the use of behavioral objectives in academic libraries. The task force and the other groups that sponsored the conference (the Wisconsin Library Association, the Wisconsin Association of Academic Libraries, the ALA Instruction in the Use of Libraries Committee, and the Midwest Federation of Library Associations) hoped thus to provide both a theoretical background and basic practical advice on how to write objectives for bibliographic instruction.

The first two speakers, Johanna Herrick and Carla Stoffle, presented the theoretical rationale. In their lectures they gave reasons why librarians should use behavioral objectives, defined objectives in general educational terms, and related their use to bibliographic instruction.

The rest of the conference consisted of workshops for small groups to practice using objectives in various types of bibliographic instruction: printed bibliographies, slide/tape presentations, lectures with transparencies, library exercises, and separate courses. These workshops were led by Hannelore Rader, Katherine Schlichting, James Kennedy, Cecily Little, and Sharon Lossing.

The problem of translating workshops—based largely on discussion and "hands-on" experience—into print is met by providing summaries of each workshop. Despite this difficulty, there is a great deal of useful information that can be gleaned from this part of the proceedings. The summaries contain many concrete ideas, practical suggestions, and examples of how libraries are using objectives.

It seems appropriate that academic librarians should turn to the field of education for strategies to improve their teaching techniques. The proceedings of this conference, though flawed by a lack of editing necessary for quick publication, make available some of the important concepts brought out in the lectures and workshops.

Definitions and examples are abundant throughout, and there are written objectives for each segment of the conference. This is interesting because it provides an excellent illustration of how objectives are used in an actual situation. The topic is timely, the participants are some of the foremost leaders in the area of bibliographic instruction, and the information should be useful to anyone involved in library instruction.—Janet L. Ashley, Assistant Librarian, James M. Milne Library, State University of New York, College at Oneonta.


Robert Goldberg's book was undertaken as partial requirement for the Ph.D. degree in librarianship at Rutgers. Although it carries a 1976 copyright, the book seems much older and could have been written at least three years earlier.

The volume is comprised of the typical six parts of a dissertation. Goldberg's writing ability, however, is far superior to that of the typical doctoral candidate. The bibli-
ography is relatively brief and, as will be pointed out later, does not contain some important works in the areas of systems theory and librarianship. The author is "concerned with the problem of providing a program development model for librarians . . . . Pragmatic considerations are introduced, in the main, only as needed to serve the theoretical construct."

The first task for the reader is to get through Ralph Blasingame's foreword (the foreword is only one page shorter than chapter one and has two more footnotes). I was not sure whether Blasingame was trying to convince the reader, the dissertation committee, the author, or himself that the book was "the first coherent planning approach to individualized library program development" and was worthy of doctoral study.

Goldberg involves himself in an intellectual exercise and philosophical discussion of systems and planning theory as well as model development. His writing indicates he is up to the task. After indicating that there are seven criteria used as a guide in developing a planning model, he proceeds to an evaluation of existing models as used in the development of his own PIES model. Goldberg discusses PPB, CIPP, MBO, and other relevant works.

Knowledgeable library planners will note that Goldberg seems to have an aversion to "business-oriented" planning developments. Goldberg not only missed some of the best planning literature written in other fields, but also in librarianship. William McGrath's 1973 work concerning the Cornell Library planning experience was not utilized and was certainly apropos. One is left with the impression that Goldberg read only non-business material (Cornell used the American Management Association model). It is interesting to note that his criticism of business jargon did not keep him from using micro and macro concepts that are very much a part of economic planning models.

Goldberg develops for the reader his PIES (Planning, Implementation, Evalu-

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15 Southwest Park, Westwood, Massachusetts 02090
tion, System) model. His best contribution is found in his explanation of the EFDR chain (Evaluation, Feedback, Decision, Recycling). Although this, too, is already in library planning literature, it has never been explained better. Goldberg’s result is very similar to a 1965 framework for planning and control systems. Of course, that was done by a “business” person.

Few librarians will question the value that intellectual methodology offers library decision makers in selecting among alternative models for library planning. All that Goldberg develops is correct. It has to be, for it is well documented in the literature. The result is a reinvention of the wheel. Admittedly, it is nicely reinvented. What bothers me most about the book is that it runs the risk of being used as a reason not to plan. That is, potential planners might question the value of planning if it took a whole volume just to describe a model. Planners might become so involved with the intellectual process that they end up not able to do any planning.

The fact is, there are many planning models being used by library planners. This was true when Goldberg began his research. I would have much preferred it if Goldberg had spent his time and energies describing how planning was being done successfully. Planning was alive and well in Nebraska, Washington, Tulsa, New York, and other places. Librarians could have benefitted from a study of these successful models, and most importantly, librarians could have benefitted from Goldberg’s pen being put to this activity.

Library management is moving forward in new ways which will affect far more than program development. Every activity is already being affected. Not only are programs being planned, so are projects. It is not a matter of choosing a “closed” or “open” model, but a matter of getting started with any model. Borrowing from an English proverb—goose, gander, and gosling are three sounds, but one thing.—Robert E. Kemper, Director of Libraries, Northern Arizona University, Flagstaff.


Granted leave from the University of Queensland in 1957-58, Harrison Bryan undertook a six-month visit to university libraries in Great Britain, preparing a thesis recording his views of English academic librarianship. Unfortunately for the profession, eight years were to pass before the Libraries Board of South Australia published his report, entitled A Critical Survey of University Libraries and Librarianship in Great Britain.

Eighteen years later in 1975, Harrison Bryan, now university librarian of the University of Sydney, again had a study leave to survey English university libraries. Happily, only one year was to pass before the report of his new survey, the volume under review, was published. It is an excellent report.

In his introduction Bryan warns of the problems of covering adequately the sixty-one libraries he visited in a six-month period. He terms himself a “taster of libraries,” albeit one who has supplemented his brief visits with further reading and study.

There are two particular features to this volume which give it a very special value. First, as “a new look,” the volume uses the previous report from 1957-58 as a base against which comparisons are made of English academic library development. It was a period of major growth for all academic libraries, reaching its peak with the Parry Report of 1967, giving official support to the need for increasing financial support to university libraries, but coming back rudely to earth less than a decade later with the 1976 report of the Atkinson committee (reviewed in the July 1977 issue of C&RL) with its concept of the self-renewing library. Bryan anticipates the conclusions of this committee in his discussions of collections and buildings.

Second, throughout the volume Bryan compares the state of English academic libraries with the condition of those in his homeland. Bryan’s pride at Australian achievements is evidenced throughout. But for the non-English non-Australian reader this volume has a double value as it intro-
duces one to the libraries of two different, yet related, nations.

There is a short introductory chapter on the development of higher education in Great Britain. The volume then is divided into two principal parts. The first features individual chapters on such topics as finances, collections, buildings, staff, technical services, reader services, automation, and relations outside the university. Bryan has prepared a number of tables to summarize some of this data, including several comparisons with Australian institutions.

The second part discusses in several chapters individual libraries, according to basic type—Oxford, Scottish greystone, London, civic universities (divided among "the big four," "the lesser five," and "the second generation"), Wales, the "new foundations" (primarily those schools established since the time of Bryan's earlier visit), and the "translations" (universities which were formerly colleges of advanced technology or similar institutions). Although this section may have a particular reference value, the reader unfamiliar with the territory will find it less rewarding as the many libraries, each too briefly discussed, lose their individual identities. Maps and photographs would have proved a major asset.

Although the volume is less than 200 pages in length, the author has assembled in it a wealth of information, and it is thus a valuable resource for all academic librarians wishing an introduction to English and Australian academic librarianship.—Richard D. Johnson, State University of New York, College at Oneonta.


This collection of interesting, well-written essays on library science is organized according to a pattern suggested by "general systems theory," which, the author feels, makes it possible to construct a philosophy of libraries and librarianship. Orr's discovery of this theory has offered him "the opportunity of organizing many random ventures from previous work."

Thus seventeen essays are grouped under such headings as "The Nature of the Store," "Feedback from the Memory," and "The Effect of the System."

In the first chapter, "Systems Theory," he explains the seven laws of general systems theory and then postulates a definition of a library based on these laws. Again in the "Résumé" at the end of the book, the postulated definition, which the author feels the intervening chapters have supported, is rephrased as follows:

A library is a communicatory tool created by man to complement his own deficient memory. It is a store for his graphically produced records no matter what their format. Its relationship with man is cyclic; it feeds his mind with information, much of which is reprocessed and returned to the library. The library system therefore exhibits growth. Its real effect on society is probabilistic, but over a length of time it undoubtedly helps it to change. In the long term, it is a complementary system to other communicatory tools of man, but in the short term it is competitive with other communication media.

Despite this somewhat forbidding theoretical framework, the reader need not fear that it is necessary to be a systems analyst or a philosopher to benefit from this book. The chapters cover such familiar subjects as the history of the book; the history of libraries; the growth of recorded information; problems of preservation, access, and classification; and the effects on the public of reading, pornography, and libraries themselves.

Most chapters conform to a pattern providing a brief explanation of how the topic fits into general systems theory, a historical survey of the subject, and contemporary examples, where relevant, chosen mainly from British sources but including some others, particularly American. Citations in the notes are all to well-known texts mostly familiar to library science collections. Headings can be somewhat misleading. The section called "The Nature of the Store" might be expected to discuss principally books,
periodicals, microforms, and computer tapes. However, it consists instead of four essays, each on a different nonbook material: printed ephemera, manuscript archives, and audiovisuals. The fourth, entitled "Non-Print Items," turns out to be concerned with the decorative aspects of libraries which are informative, such as murals, busts of writers, spheres, and globes!

This book is an outgrowth of a thesis submitted to the University of Strathclyde, Glasgow, Scotland, by the author who is director of the School of Librarianship at Robert Gordon's Institute of Technology, Aberdeen. Orr stresses that this compilation of his thoughts, lectures, and writings is a "contribution," implying informal preliminary studies. The usefulness of this book in American library schools would be mainly as supplementary reading for general courses such as those dealing with the library in society or the library's role in communications.—Budd L. Gambee, School of Library Science, University of North Carolina, Chapel Hill.


Without rules and regulations librarians would be as shaky as Tevye's fiddler on the roof, yet these are things of necessity. Necessity also might send one in search of a concise guide to general library rules and regulations, a handbook something akin to Asa Knowles' Handbook of College and University Administration. If the search leads to Murphy and Johns' Handbook of Library Regulations, there will be a degree of disappointment.

This book asserts to be an updated and edited version of the authors' article on library regulations in the new Encyclopedia of Library and Information Science. Except for a comparison section, a two-page appendix on library laws and legislation, and the deletion of the school libraries section, the book is basically a repeat of the original article. The new material does not add significantly to the information contained in the original article because the comparison section (Chapter two) merely makes several trivial observations (e.g., "There can be little doubt, after reviewing these data, that research and probably most academic libraries provide many more hours of access each week than does any other sector"), and the appendix on library laws and legislation is much too brief to be useful. As to the deleted section on school libraries, it should have been deleted because it represented practices of only nineteen school libraries, scarcely a useful sample.

Both the book and the encyclopedia article are based on a questionnaire that the authors sent to 429 public, research, state, school, and special libraries in the United States and Canada. From the 349 responses to the questionnaire, the authors compiled data on library regulations as they relate to users, circulation, resources, interlibrary loan, reprography, and administration. The results are arranged by chapters according to the type of library with the statistical information being preceded, by way of introduction, with a definition of the type of library, its objectives, history, users, and trends. This elementary introductory material is specious, at best, and out of place in a book directed to the professional librarian.

The authors state in their introduction that they believe it would be helpful to have more information available about library regulations. This reviewer agrees, but he could not find it is this book because it really doesn't provide much useful information. For example, on page 1 the authors ask the following question, "Do most libraries have regulations which typically limit the acquisition of certain subjects?" Attempt to answer this question as it relates to public libraries, and what does one find in the book under review? Of the more than 12,000 public libraries in the United States the authors' data reveal that 102 public libraries do not limit acquisitions, 16 do, and 11 of these exclude law, medicine, and professional literature. The usefulness of this type of information is highly questionable and so would be the purchase of this book by any librarian with access to the original encyclopedia article.—B. Donald Grose, Director of Library Services, Indiana University-Purdue University at Fort Wayne.
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This is the author's second compilation of articles relating to reference. The first, Reference Services, contained selections from the professional literature from 1930 to 1960. The present volume carries articles from the mid-1960s to the mid-1970s.

There is a tendency to consider such collections the sole property of library school students, but this may be unfair; and the practicing librarian will do well to consider the miscellany of reference librarianship to be found between these covers.

The articles, written by persons familiar to readers of major library journals, are grouped into three broad parts centering generally around (1) definitions, (2) directions, and (3) desiderata of reference. In his introduction, the compiler states his aim to collect "the best writings on reference service" during the given time period. Certainly, he has produced a representative collection including thirty-three articles on a wide range of contemporary concerns from the fundamental to the esoteric, the theoretical to the practical, the central to the peripheral.

To this reader one of the better selections perhaps best reflecting the spirit of the volume is Elvin E. Strowd's "Reader's Services—One and All," in which the author refers to all librarians as essentially "reference" librarians, since the product of our efforts is the enlightened reader. But other articles will appeal to the particular interests of practicing or prospective librarians. For example, there is automation in Jesse Shera's "Automation and the Reference Librarian" or interpersonal relationships in Helen M. Gothbery's "Communication Patterns in Library Reference and Information Service" or policy-making in Mary Jo Lynch's "Academic Library Reference Policy Statement."

The one omission of this and other collections of this type which would have been useful is an introductory abstract with a biographical sketch of the author. A simple subject index also would have been useful since many of the articles touch on subjects hidden in their general titles. There is, however, a list of contributors and an author-title index as well as an extensive bibliography of related articles from the same time period. Although lacking subject divisions, this reading list should prove valuable.—James F. Parks, Jr., Head Librarian, Millsaps-Wilson Library, Millsaps College, Jackson, Mississippi.


Behind the humanistic title of this work lies a sociological study which explores the degree to which humanism penetrated the social fabric of the time. The study goes beyond the incunable period in time and beyond the confines of the Venetian Republic to prove the premise that publishing in Venice was fairly free from government interference on one hand and private patronage on the other so that the books published represent the true taste of the audience which is the middle class society.

Employing Venetian archives as extracted by Rinaldo Fulin and published in the Archivio veneto, the author analyzes the economic and technological background, monopoly, and censorship practices, both civil and ecclesiastical. Of special interest to him are the various kinds of privileges granted by the government of Venice from the latter part of the fifteenth century through 1517 when all previously granted privileges were abrogated and remedial legislation was enacted. The decrees issued are examined and systematized, setting forth the legal thinking on the subject of privileges at that time.

A chapter of considerable length is devoted to content analysis of the works printed in Venice and—for comparison—another which sorts the contents of books printed in Florence, Bologna, and Nuremberg. These two chapters contain tables and statistics on the basis of which the author reflects on the interests of the audience attracted by these early published works and
Auguste Edouart's Silhouettes of Eminent Americans, 1839-1844
Andrew Oliver

NATIONAL PORTRAIT GALLERY

The silhouettes and biographical sketches in this volume feature prominent men and women involved in every facet of nineteenth-century American life. Profiles of presidents, members of the Supreme Court, state governors, and distinguished doctors, lawyers, businessmen, and authors are among those included. For all those interested in the actual appearances of nineteenth-century Americans — historians, researchers, genealogists, and others — the silhouettes presented here will be indispensable. Art historians and antique collectors will especially value the fine details of clothing, furniture, and background. The 348 silhouettes illustrated here exemplify the art of silhouetting at its best, and they provide a unique history of the period. 8\(\frac{3}{4}\) x 11\(\frac{1}{2}\). xvi, 553 pp., illus., app., index.

Notes on Woman Printers in Colonial America and the United States, 1639-1975
Compiled by Marjorie Dana Barlow

This record of 228 women printers from colonial days to the present offers an unusually interesting perspective on the history of American labor and printing. Though it makes no pretense to being complete, the survey gives an accurate representation of women's role in the printing trade in each era of American life. Much of the information has heretofore never been published. An edition limited to 600 copies printed by The Press of A. Colish. 89 pp., index.

Joyce's Notes and Early Drafts for Ulysses
Selections from the Buffalo Collection
Edited by Phillip F. Herring

Essential for those interested in Joyce's creative process, this volume contains the most important selections from the James Joyce Collection of the Lockwood Memorial Library of the State University of New York at Buffalo, including two of Joyce's notebooks and early drafts of two of Ulysses' most memorable chapters, "Cyclops" and "Circe." 260 pp. (approx.), biblio., index.

The Marionettes
By William Faulkner
Edited, with an Introduction, by Noel Polk

Written, hand-lettered, hand-bound, and illustrated by William Faulkner in the fall of 1920, The Marionettes is among the longest and most ambitious works of Faulkner's early career. A work as much of visual art as dramatic, The Marionettes has the tightness and concentration of the French Symbolist poets, while the nine full-page illustrations clearly show the “decadent” influence of Aubrey Beardsley. This edition features the facsimile of the Virginia copy, a critical Introduction, and a collation of the four copies known to exist.
concludes that the supply and demand situation as it existed required only a very small percentage of humanistic writings in manuscript to be made available through publishing.

The statistical part of the book is based mainly on the British Museum Catalogue of Books Printed in the Fifteenth Century. While, admittedly, this covers a large cross-section of incunables, greater accuracy could have been achieved if some of the many national catalogs published since were used as well.

The bibliography is extensive, yet one misses standard works which may have been of help, such as the diaries of Marino Sanuto, who as senator of the Venetian Republic faithfully recorded anything he found of interest from 1496 to 1533. Somewhat later, but a good source for the study of the book trade and the mobility of books, is Schwetschke's Codex nundinarius which categorizes the books for sale at the Frankfurt fairs by language, content, and place of publication. Other helpful works for this purpose are the published insurance and shipping inventory lists.

The book is full of interesting facts and insights which will delight the reader such as those pertaining to joint publishing and the distinction between the printer and the entrepreneur publisher. The reader will find the book challenging as to the method and procedure used as well as to its conclusions.—Miroslav Krek, Brandeis University Library.


Donald Davinson's opening statement—"Academic theses provide a fascinating field of study for the librarian"—in the introduction whets the appetite of the reader, while the remainder of the work leaves the reader intellectually malnourished. The thin volume of eighty-eight pages itself seems undernourished. Chapter 1 begins on page 11; a postscript of three pages includes a page of five lines in presenting an unannotated list of thesis guides; and the work ends with five pages of indexes (author and title and subject) with more than one of the five pages left blank.

Substantively, the reader will find little that is new or that has not been better presented elsewhere. For example, "The Bibliographic Control of Theses" (Chapter 3) is a superficial sampling of bibliographic sources without critical comment, while Reynolds' Guide to Theses and Dissertations (Gale, 1975) seeks to present an exhaustive, international annotated bibliography of such sources.

Davinson's intent to convey to the reader an international understanding of dissertations as information sources is seldom attained; the reader often is left with a hodgepodge of disjointed information. After a careful reexamination of Chapter 2, "The Nature and Purposes of Theses," the reader will be hard pressed to recall much information which in any vital way might affect the ability of the dissertation to serve as an information vehicle.

Few academic librarians need be reminded that this nation's current annual output of dissertations surpasses 30,000 titles, a number which dwarfs this nation's annual output of commercially published, scholarly monographic titles. Given these and other nations' outpourings of scholarly information contained in dissertations, the importance of the dissertation as an information source is self-evident. There is no dearth of questions concerning the dissertation that need answers—for example, do the perceptions of librarians concerning dissertations differ from those of dissertation authors? Would inclusion of dissertations in book review columns affect library acquisition programs? Does the acquisition of dissertations by libraries in microformat adversely affect subsequent use?

Recent inquiries into the role and use of dissertations by the Universities of Michigan and Texas attest to the continuing concern of others outside libraries for greater insights into the dissertation as an information vehicle. Unfortunately for interested readers, Davinson's book adds little or no insight. The dissertation as a topic deserves better treatment than accorded by this title.

—Calvin J. Boyer, The University of Mississippi.
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Further information on ordering documents and current postage charges may be obtained from a recent issue of Resources in Education.

Southeastern Library Network (SOLINET)

The computer and telecommunications services of the Southeastern Library Network (SOLINET) are specified in this introduction to the network. Since members of SOLINET may participate in the services of the Ohio College Library Center (OCLC), a description of these services is included. Membership requirements, fees and dues, and charges to SOLINET members for basic and optional services are enumerated. The report also contains a listing of the 140 academic, public, state, and special library members of SOLINET.


In recent decades, new pressures have been placed on library management, including inflation, the proliferation of published materials, diversification in the demand for library services, and changing library staff expectations. Management approaches to these fundamental issues can be grouped into such general categories as (1) management of human resources, (2) administrative systems and procedures, (3) research and development, and (4) organizational change. A definition is provided for each management category, possible applications are suggested, and an annotated bibliography is provided for each category.


Indexing and abstracting services in the social sciences are growing as primary sources. Results are that users become overwhelmed with the number of secondary services they use. Therefore, planning, coverage, and overlap are examined in this research report, with emphasis on reexamining secondary services and redefining users and users' needs. Overlap and coverage of secondary sources dealing with criminology and public administration are examined. Results show that adequate but insufficient services are provided. Recommendations of this study are that the decision must be made whether broad or narrow coverage is to occur. It suggests that an identification be made of the material and user evaluation of services.

Relationship Between Hard/Soft, Pure/Applied, and Life/Nonlife Disciplines and Subject Book Use in a University Library. By William E. McGrath. Univ. of Southwestern Louisiana. 1975. 52p. ED 132 982. MF—$0.83; HC—$3.50.

This paper hypothesizes (1) the softer the subject or (2) the purer the subject or (3) the more a subject can be characterized as life-oriented, the greater the number of books that will be charged. Interaction and higher order (polynomial) combinations between the three characteristics also are hypothesized. A scale value for each characteristic of sixty academic subjects is determined by a survey of faculty at the University of Southwestern Louisiana. Correlation and multiple regression are employed to assess the proportion of variance accounted for. Hypothesis 1 is weakly supported; hypothesis 2 is modestly supported, providing other variables are not held constant. Hypothesis 3 is not supported under any conditions tested nor are any of the hypothesized interactions or higher orders.


This three-phase library program was presented to some 200 students enrolled in sections of an English composition course taught at the State University of New York College at Brockport. Offered each fall and spring semester
since the spring of 1975, the library program has been incorporated into a nine-module, self-guided course, taught by graduate assistants in the college's English department. The program consists of (1) a self-guided, tape-recorded library tour, (2) a slide-sound presentation describing selected library facilities and materials, and (3) a brief workbook exercise requiring the use of biographical dictionaries, encyclopedias, and other reference sources. Evaluation data were obtained by means of questionnaires, a pretest, and posttest. To assist those interested in developing similar programs, copies of the tests, questionnaires, instructions to the course instructor, and workbook are appended.


This study was an investigation of salary differentials among State University of New York librarians representing university centers, state colleges, agricultural and technical colleges, and special and medical schools. Of institutions with active membership in the State University of New York Librarians' Association (SUNYLA), 337 librarians in 1973 and 421 in 1974 responded to mailed questionnaires; those not responding were contacted by telephone. They supplied information on salary, rank—assistant, associate, or full librarian—sex, education, and years of professional experience. Statistical analyses showed significant differences between salaries of men and women, all else being equal. The average earnings of women were lower than those of men and mean income level of all respondents. Men were found to move through the ranks faster than women; however, no pattern of salary distribution was detected between men and women within each rank. Rank was found to be the strongest predictor of salary, other significant predictors being years of professional experience and sex. Additional variables noted to consider in further analyses of sex differentials in salary are length of time within a rank, administrative function, age, and mobility for job advancement. Detailed data analyses are included. Appended are results of a multivariate analysis by type of institution.


This report describes the On-Line ERIC Project conducted jointly by the National Library of Australia and IBM Australia Ltd. between March and May 1976. The project involved a telecommunications network, with video terminals and printers linking the National Library, the Royal Melbourne Institute of Technology Central Library, and Macquarie University Library to an IBM computer in Canberra. Citations from two and a half years of the ERIC data base were available through the Storage and Information Retrieval System (STAIRS) software package for on-line searching for three hours per day for three days each week for three months. Users from various backgrounds responded favorably to the system's interactive searching capability as revealed in the survey results. Retrieval costs in manual, batch, and on-line processing mode were compared. An instructional package of how to use STAIRS is included in the appendix.

**A Management Review and Analysis of the University of Massachusetts at Amherst Libraries, Amherst, Massachusetts.** By Gordon Fretwell and others. Massachusetts Univ., Amherst. 1976. 98p. ED 134 194. MF—$0.83; HC—$4.67.

In response to the institutional change, a Management Review and Analysis Program (MRAP) was conducted at the University of Massachusetts at Amherst Library during 1974–1975. The first two chapters of the report describe the library, its institutional setting, missions, and goals. The other nine chapters discuss issues, problems, and recommendations in planning, policy formulation, budget, management information systems, organization, leadership and supervision, staff development, personnel, and general management. The report does not call for major changes but suggests improvements of the existing operations and administrative structure. Major recommendations pertain to goal formulation, systematic planning, consistent application of personnel policy, efficient leadership, and internal communication.


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Holmes Bobst Library and Study Center of New York University to collect specific data for resource planning after 2½ years of operation. A questionnaire given to a sample of students and faculty in each school provided data on library usage (how much and for what purpose), user satisfaction with resources, staff, services and hours, and suggestions for improvement. The results showed that the students were generally neutral in regard to the library. Faculty were less than neutral but offered few suggestions for improvement. The study does indicate that students share common needs, concerns, and attitudes, regardless of origin. The text of the report is supported by tables.


Researchers are constantly in need of statistical data to measure behavior, test theories, and quantify information. Since the U.S. Government produces a variety of data on all aspects of our society, a self-guided exercise to teach the use of two major government statistical sources, the "Monthly Catalog of U.S. Government Publications" and the "American Statistics Index," was developed at the Colorado State University Libraries. Information relating to the use of the sources as well as tasks to be performed by the student as part of the learning process are included in the materials. The complete training exercise to be distributed following a general orientation and tour is appended.


Compiled for library staff who serve Spanish-speaking persons, this resource guide lists bibliographies and materials published from 1950–75 reflecting the character, history, and psychology of Spanish-speaking groups. It also provides information on services, institutions, and resources in the New York metropolitan area. The major sections of the guide concern (1) serving the Spanish-speaking people; (2) a sampling of resources and services, i.e., museums, television, libraries, guides, multimedia resources, organizations and services, theater, films, and bookstores; (3) Spanish courses; (4) model training guide to library use in Spanish and English; (5) basic Spanish phrases for library use; (6) Spanish translation of the Dewey Decimal Classification System; and (7) 269 titles of selected bibliographies, bibliographies of bibliographies, and Hispanic heritage publications in Spanish and English. Some annotations are provided.

OTHER PUBLICATIONS OF INTEREST TO ACADEMIC LIBRARIANS


An annotated bibliography to art reference books in the Eisenhower Library's Art Reference Room.


Helps black Americans trace their ancestry by showing them ways to interview and how to organize and document their findings. A directory of research sources is given.


A quarterly directory which will provide "up-to-date information on a broad category of publishing houses which are not listed in traditional sources."


Serves as a supplement to Trade Names Dictionary.

Declassified Documents: Retrospective Collection. Part One: Catalog of Abstracts. Part

The complete Declassified Documents Reference System, including both the 1975 and 1976 Annual Collections and the Retrospective Collection, is available for $2,765.00. The Declassified Documents: Retrospective Collection, comprising two volumes of abstracts, a combined cumulative subject index, and "approximately 1,000 microfiche containing The full text of the documents" costs $1,845.00.


Ethnic Studies Bibliography. Pittsburgh, Pa.: University Center for International Studies, Univ. of Pittsburgh, in conjunction with the Pennsylvania Ethnic Heritage Studies Center, 1975– . v.1–

A yearly bibliography providing citations from 120 social and ethnic studies journals to articles in the field of ethnic studies literature.


"Chronicles selected events in the history of black people in America from slavery to the present time, and examines certain key factors which impeded or enhanced their struggle to acquire an education."


Goals and Objectives of the University Library. Long Beach, Calif.: California State Univ., Long Beach, 1977. 91p. Discusses the library's goals and objectives as well as the mission, goals, and objectives of each department within the library.


Index to Mormonism in Periodical Literature. Salt Lake City, Utah: Historical Department,
Recent Publications / 451

The Church of Jesus Christ of Latter-day Saints, 1976. $3.00. (Available from: Historical Department-Public Services, 50 E. North Temple St., East Wing, Salt Lake City, UT 84150.)


Contains more than 2,000 articles covering the human mind, its ills, and their treatment and describes known research, theory, and practice.


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Provides citations to works written by and about American authors between 1850 and 1940, “in more than 2,000 volumes of magazines, as well as in more than 600 volumes of literary history, criticism, and bibliography. Full names and dates of more than 600 authors are arranged in one alphabetical sequence.” A photographic copy of the catalog cards from the five-year project (1938–42) of the Historical Records Survey program which have been housed since 1948 at the University of Pennsylvania.


Annotated bibliography with 2,504 entries for sources of information on the drama of the period and on individual dramatists.


Describes publications providing information about educational media programs. Only English language publications currently in print have been included.


Designed as a resource for those concerned with the influence of sound on behavior.

National Catalog of Films in Special Education. Compiled by the staff of the New York State Education Department, Area Learning Resource Center, and the National Center on Educational Media and Materials for the Handicapped. Columbus, Ohio: National Center on Educational Media and Materials for the Handicapped, 1977. 65p. $3.00.

An annotated bibliography of 700 films about teaching handicapped learners.

Publisher Source Directory. 3d ed. Columbus, Ohio: National Center on Educational Media and Materials for the Handicapped, 1977. 136p. $4.00. (Available from Ohio State University Press, Publication Sales Division, 2070 Neil Ave., Columbus, OH 43210.)

Provides an alphabetical listing of where to buy or rent instructional materials and includes "more than 1,600 publishers and producers in the United States, Canada, and Europe."


Discusses the procedures adopted and the resulting system in automating the acquisitions, cataloging, and circulation functions of the Cantonal and University Library in Switzerland.


Devoted to newspaper columnists, this work covers the history of early columnists and syndicators and includes the names and addresses of several hundred present-day columnists.


Provides detailed information concerning special libraries and information centers in the U.S.

Young, Margaret Labash; Young, Harold Chester; and Kruzans, Anthony T., eds. New Special Libraries. Detroit: Gale, 1977. Issue no.1, June 1977. $60.00 for four issues. LC 76-48854. ISBN 0-8103-0281-0.

Serves as a supplement to the Directory of Special Libraries and Information Centers. It will be issued four times during the interim between editions of the basic work.

Editor's Note: The American Library Association recently has published as volume 39 in the ACRL Publications in Librarianship series the thirteen articles from this journal's centennial series in 1976. The volume also features the journal's six cover illustrations from 1976, including W. L. Williamson's notes on them, and contains an index to the individual contributions, prepared by Eldon W. Tamblyn. A citation for this new volume follows:

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TEXTILE PROCESSING AND FINISHING AIDS—RECENT ADVANCES by J.W. Palmer: The textile industry is perhaps the largest industrial consumer of specialty chemicals. New finishing techniques have been developed, so this book describes over 200 recent processes and provides several hundred formulations for all phases of textile processing. ISBN 0-8155-0673-2; $39

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The Librarian and the Patient

Eleanor Phinney, editor

This is the first comprehensive work on the planning of library services to patients in all health care institutions. The Librarian and the Patient integrates and expands the principles and standards that have been adopted to make the patients' library useful in medical and rehabilitative care. It concerns itself with many types and sizes of institutional settings and with patients receiving temporary or permanent care. Institutions for the mentally retarded and physically handicapped as well as those for the ill and injured are included. Information throughout the text is presented not as fixed procedures but as a basis on which each institution and its library may plan or develop services to fit its own situation and needs. Because of this emphasis upon principles, public libraries and state agencies as well as personnel responsible for patients' libraries will identify important extensions of their own functions.

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"By consulting the innumerable articles devoted to every particular question not only beginners or students, but also qualified experts will learn much . . . ."

—Jean Piaget