Almost from the time that Melvil Dewey opened the doors of his pioneering library school at Columbia University, discussions about the characteristics and qualifications expected of students have been part of library literature. Decisions made at that time about the nature of library education and the type of students who should be admitted have influenced professional education ever since.

Dewey's success in establishing formal training as the appropriate means of producing new librarians was in part due to his realization that the field was growing at too fast a pace to rely on informal apprenticeship training. He saw a need for people who could organize and operate the new public libraries that were opening and who could change the role of existing libraries just as Dewey himself changed the role of the Columbia University Library. The public was willing to pay for the provision of library service in many communities provided the price was not too high. Library educators, or would-be educators, had to find a pool of applicants who would meet the standards of education and attitude required for library work and who would be willing to accept lower pay than that available in commerce or other professions.

Fortunately for librarianship, this demand occurred at the same time that university education was becoming available to women, thus producing a group of well-educated graduates many of whom wanted work but few of whom were dedicated to the idea of making money. By
insisting that a broad liberal arts background was beneficial to librarians and by stressing the services provided by libraries, Dewey succeeded in making library work attractive to many of these graduates.

Even though Dewey envisioned his library training school as offering practical training in library work, he insisted from the beginning that admission requirements be stringent. Of the 267 students who had matriculated by 1898, a total of 160 had been to college. In 1902, a college degree became a requirement for admission. Entrance examinations that covered history, literature, and general knowledge were also required of applicants. It is unlikely that these standards could have been maintained if Dewey and other early library leaders had not encouraged educated women to enter the schools. Even though a college degree was not established as a universal criterion for library schools until many years later, the early emphasis on a liberal arts background continued. It is remarkable that Dewey would have considered a bachelor's degree as a prerequisite to professional training at a time when the more traditional professions did not require one.

From this beginning, librarianship quickly became one of the first professions in which women outnumbered men. By 1910, 78 percent of library workers in the United States were women. Library school students were also predominantly female in both the United States and Canada, although library administrators usually were male. Many of these administrators did not have formal training for librarianship, and the arguments that defended this arrangement occupied considerable time at library conferences.

Administrators' lack of library training was an occasional embarrassment. At the Portland conference in 1905, the president of the American Library Association introduced a discussion of library education v. practical experience by referring to "some of us who are a little sensitive sometime because we have not had any library school training." Mary Wright Plummer reassured him by saying that

\[\text{Poole's and Winsors are not and never will be wholly produced by library schools....Such eminent examples are born librarians. The born librarians will not need a school to teach him....But there will never be many of him and there will be thousands of library employees.}\]

While no mention is made in these statements about the gender of the "great librarians" as compared with the library school graduates, the examples used are all men in the one group and predominantly women in the other. Thus, very early in the development of library education, the profession decided that this education was intended to
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train employees who would serve in the lower ranks; no formal training was needed for the leaders. This concession placed library education upon a footing far different from that of education for other professions such as medicine and law in which it was expected from the first that even natural geniuses in the field should go through formal training.

A factor which no doubt influenced the effort to appoint men as chief administrators of libraries, generally and of public libraries in particular, is that for the first two decades of the century, women, no matter how well trained, had no vote with which to influence political decisions. Being in charge of an important public institution under the control of elected officials while at the same time being disenfranchised must have been an added strain to those women who achieved administrative positions.

The predominance of women as students during the developing years of library schools no doubt played an important part in determining the expectations of their role in the profession. The service orientation extolled by Dewey and other early library leaders fitted well with nineteenth-century ideas of women's natural role in society. In addition to a good academic background and a willingness to do repetitive, painstaking work, library school students were expected to be willing to dedicate themselves to the ideal of service. Their personal qualities and sense of dedication were among the competencies expected of them upon enrolling in library school. During the course of their training, they were indoctrinated with the "spirit of librarianship" which was felt to be an integral part of what they brought to their profession.

Several recent studies of women in librarianship have discussed the importance of the predominance of women as a factor in determining the status of the profession. Dee Garrison writes that the "feminization of public librarianship did much to shape and stunt the development of an important American cultural institution." In response to this argument, Suzanne Hildenbrand suggests that the marginality of public libraries might account for the large numbers of women in library work. She goes on to suggest that:

Many women would find themselves in work so bureaucratized that it would stifle them....Public libraries, along with other large bureaucracies came to reward conformity and passivity disproportionately.

Whatever the dynamics of cause and effect, it seems clear that the interrelationship of several factors set a pattern for library education. Recruiting well-educated people who would accept low pay in return for the satisfaction of providing service made it natural to draw on the available women in the labor pool. In order to fit into the prevailing
social pattern, these women yielded administrative duties to the few men in the profession. Because of the preference given to untrained male administrators, the library schools did not need to train them but concentrated on the more practical aspects of library work and drew their clientele from the ranks of educated library workers. This in turn led to a practice-based education that was found wanting when social and technological changes led to a need for innovation and experimentation.

The decision to concentrate on practical training led to an early emphasis on library experience as a prerequisite for entrance to the course. Unlike many other professional schools that trained applicants for entry into the field, library schools often demanded that candidates have prior experience. They selected students whose expectations about the nature of library work were formed by the institutions in which they worked rather than by their education. It seems inevitable that a profession recruited in such a way would be conservative in its views of what libraries could and should do and the ways in which they might be operated.

The library schools easily accepted the role of following the profession rather than leading it. This attitude was summed up in 1909 in this way:

> The chief functions of the library schools should be to keep informed of developments in the field and to be highly specialized bureaus of cooperation in disseminating approved library methods."

Once more a pattern was set because of a combination of interlocking decisions—a pattern that was sometimes later regretted by library educators. When we look at the students who attend library schools today, we can see that they are similar in many ways to the students of the past. The question now is whether these are the students who will best serve the profession as it moves into the twenty-first century.

In discussing today's library and information science students, I will concentrate on students enrolled in master's programs at accredited library schools. The entire range of students enrolled in undergraduate courses through doctoral programs is too diverse a group to discuss in one paper.

**What Are Students Like Now?**

Some of the characteristics of library students a century ago appear unchanged today. Chief among these is the predominance of women in the degree programs. Data collected by the Association for Library and
Students

Information Science Education (ALISE) for the 1983/84 academic year indicate that 80.4 percent of the students in the master's-degree programs were women. Since these percentages are similar to those of other years, it seems unlikely that the female/male ratio in the profession is likely to change much in the next twenty years.

The overwhelming majority (90.7 percent) of master's students are white; other ethnic groups are a minority with 4.2 percent black, 2.5 percent Asian Pacific, and 2 percent Hispanic. Efforts to recruit minority library school students have been discussed for twenty years, but these efforts appear to have met with little success. None of the minority groups are represented in percentages equal to their representation in the general population.

In terms of age, as the figures in table 1 show, it appears that many students do not move directly from undergraduate work into library school. Only 37 percent of the male students are under thirty, while 44 percent are between thirty and forty years of age. Women tend to be somewhat younger, with 43 percent of the students under thirty and 32 percent between thirty and forty. Relatively few students are over forty years of age.

Several reasons for a delay in entering the profession have been suggested. One, which is often attributed to women, is a break in a career in order to spend some time raising children. Another reason would be a change in career plans. Since the pattern of delay is similar in men and women, with women in fact tending to be younger than the men, it appears that career-related delays are more important than family-related ones. The phenomenon of the library school student who is pursuing the degree in order to reenter the work force after some time spent as a full-time housewife seems to be declining. Because the age of marriage is rising and because fewer married women now allow motherhood to interrupt either their education or their careers, it is unlikely that this group of reentry people will constitute a significant part of the student population in years to come.

Undergraduate Background

For the past three years ALISE has not compiled information on the undergraduate majors of master's students. The data in table 2 are the most recent available and cover the fall term of 1979. There are few surprises in the table. Almost half of the students of both sexes majored in the humanities. Less than 10 percent held a science degree, despite efforts by the schools to recruit such students. Somewhat more men than
<table>
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<tr>
<th>Age</th>
<th>20-24</th>
<th>25-29</th>
<th>30-34</th>
<th>35-39</th>
<th>40-44</th>
<th>45-49</th>
<th>50+</th>
<th>N.A.</th>
<th>Total</th>
</tr>
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<tr>
<td>Male</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>n = 1120</td>
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<td>314</td>
<td>336</td>
<td>157</td>
<td>67</td>
<td>34</td>
<td>22</td>
<td>89</td>
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<td></td>
<td>(Percentage)</td>
<td>(9)</td>
<td>(28)</td>
<td>(30)</td>
<td>(14)</td>
<td>(6)</td>
<td>(3)</td>
<td>(2)</td>
<td>(8)</td>
</tr>
<tr>
<td>Female</td>
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<td></td>
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<td></td>
<td></td>
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<td>582</td>
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<td>224</td>
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</tr>
<tr>
<td></td>
<td>(Percentage)</td>
<td>(16)</td>
<td>(27)</td>
<td>(19)</td>
<td>(13)</td>
<td>(8)</td>
<td>(5)</td>
<td>(4)</td>
<td>(8)</td>
</tr>
</tbody>
</table>

**TABLE 1**

**MASTER'S STUDENTS IN ALISE MEMBER SCHOOLS BY AGE AND SEX (FALL 1983)**
Students

women majored in the social sciences, and the excess of women fall into the “Other Professional” category which probably consists mainly of degrees in education. It appears, therefore, that despite efforts to recruit students outside of the traditional humanistic fields, few are being attracted.

TABLE 2
MASTER’S STUDENTS IN ALISE MEMBER SCHOOLS
BY UNDERGRADUATE MAJOR (FALL 1979)

<table>
<thead>
<tr>
<th>Undergraduate Major</th>
<th>Male (n = 1227)</th>
<th>Female (n = 5091)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Number</td>
</tr>
<tr>
<td></td>
<td>(Percentage)</td>
<td>(Percentage)</td>
</tr>
<tr>
<td>Science</td>
<td>123 (10)</td>
<td>305 (6)</td>
</tr>
<tr>
<td>Social Science</td>
<td>380 (31)</td>
<td>1120 (22)</td>
</tr>
<tr>
<td>Humanities</td>
<td>528 (43)</td>
<td>2291 (45)</td>
</tr>
<tr>
<td>Library Science</td>
<td>49 (4)</td>
<td>305 (6)</td>
</tr>
<tr>
<td>Interdisciplinary</td>
<td>37 (3)</td>
<td>154 (3)</td>
</tr>
<tr>
<td>Other Professional</td>
<td>110 (9)</td>
<td>916 (18)</td>
</tr>
<tr>
<td>Total</td>
<td>1227 (100)</td>
<td>5091 (100)</td>
</tr>
</tbody>
</table>

Work Experience in Libraries

Most library school students appear to begin their program of studies after having some experience working in a library. Of the student sample in the Conant report, 70 percent had such experience. Although only one ALISE member school requires library experience as a prerequisite for entering the master’s program, many schools encourage such experience. Other schools consider library work experience a desirable factor in considering applicants.

Personality of Library School Students

An interest in the personality of the typical librarian has been apparent in the literature for many years, and systematic studies of personality have been made for almost half a century. Although most of these studies have focused on practicing librarians rather than on students, many of these studies attempt to reveal the underlying personality traits that lead people to choose a particular profession.
Before examining the results of various studies, it is important to note the weaknesses of some of them. A recent article by John Agada\textsuperscript{13} points out that many of the older studies used outdated instruments that have been discarded by psychologists or that were designed to study psychopathology and that may not be appropriate for measuring a normal population. Many of them rely on the discovery of ill-defined traits such as "masculinity" and "femininity," and many of the instruments are very subjective. Agada suggests that studies that concentrate on the interrelationship between people and their jobs are needed rather than studies that view the personality as a static construct leading to a particular job choice.

In an article on the relationship between personality and professionalism, Laurent-G. Denis and Florence Mackesy\textsuperscript{14} summarize the findings of a number of personality studies. The findings vary widely even for those subjects where the subjects were library school students. In 1957, Douglass\textsuperscript{15} found that library school students were orderly, conscientious, conservative, introspective, strong in social interests, and weak in economic and political interests. A 1981 study\textsuperscript{16} found students to be outgoing, emotionally stable, venturesome, imaginative, experimenting, self-assured, and tense. It is difficult to draw a profile of a typical student based on such global, subjectively defined adjectives. Several of the studies attempt to differentiate the personalities of male library students from those of their female counterparts, but the sample sizes are often small thus putting the results in doubt.

Samuel Rothstein has suggested that despite questions about the methodology of various studies, it is reasonable to believe that library school students do constitute a distinctive group in terms of personality. He discussed data from a 1969 study\textsuperscript{17} that showed that library school students were less conscientious, submissive, deferential, orderly, and responsive than had been thought but were more imaginative, creative, intelligent, independent, suspicious, critical, and anxious than had been believed.\textsuperscript{18} He suggested that the data helped to explain some of the reasons why library school students criticize library education.

The conclusions drawn from the studies of library school students vary widely. Both researchers and the commentators on research display biases that lead them to interpret the findings in widely differing ways. Pauline Wilson has summarized many of the findings on the personalities of librarians and has subjected them to careful scrutiny. She sums up some of the characteristics in this way:

The librarian places a high value on self-respect, freedom..., inner harmony, and wisdom.... The librarian is well-adjusted, is optimistic,
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and has a positive attitude toward life.... The librarian is responsible
and conscientious, practical and persistent... self-controlled and
orderly... tolerant and non-authoritarian. 19

If we can assume that library school students also have these traits, it
would appear that library education has good material with which to
work.

Recruiting Students

As library schools have expanded and changed, the target groups
that have been recruited have also changed. Almost since the beginning
of library education, there has been an effort to recruit more men into
the profession. During the decades after World War II, there was some
hope that the ratio of males to females in the profession would alter
dramatically. 20 As years go by, however, the fluctuations in sex ratio
appear minor. The overall proportions remain virtually the same as
they have been for more than fifty years.

Another target group during the last twenty years has been minority
students. When federal funding became available to increase minority
recruitment, there was hope that many more blacks and Hispanics
would become librarians. 21 As the 1983 statistics previously quoted
reveal, this effort appears to have failed, and few funds are now available
for minority recruitment.

The paucity of funding for students also makes the recruitment of
economically disadvantaged students difficult. Statistics on the back-
grounds of students are not available, but it would appear that most of
them come from middle-class and professional families. As Nancy Van
House shows in her report on the economic value of a library degree, the
monetary rewards for investing money in an MLS over and above that
needed for an undergraduate degree is not economically warranted. 22
This makes it appear unlikely that students with severely limited finan-
cial resources will consider library school a sensible option.

Other particular groups which have warranted the attention of
recruitment offices have been students with undergraduate back-
grounds in science, mathematics, and engineering. This effort also does
not seem to have changed the composition of library school students.
Although the increasing emphasis on technology in the library school
would seem to make these schools more attractive to science and tech-
nology students, it has not happened. As long as undergraduates with
scientific or technical majors believe that they can find better jobs in
other fields, they are unlikely to be attracted to librarianship.
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The search for outgoing, assertive, and dedicated students has also been a continuing one. Library educators have hoped that they could alter the stereotype of the profession by attracting more dynamic students to the field. There is little hope of discovering whether or not this is happening since personality tests can compare people only with their contemporaries. It is possible that library school students could be more conservative than the general population in 1980 as well as in 1950 but 1980 students might still be more liberal than their 1950 counterparts. Library schools sometimes use personal interviews as a screening process in order to select candidates who appear to have desirable characteristics. How effective this screen is remains a moot question.

The declining number of applicants for library school in recent years has affected the type of recruitment done. Two groups which have been wooed in the last few years are the part-time students and the off-campus practitioner. Courses scheduled in the evening or on weekends encourage the enrollment of part-time students, while the growth of off-campus programs has brought master’s courses to practitioners at a distance from a library school.

Another result of the shortage of applicants has been increased flexibility in altering the normal admission requirements. With the traditional reliance on grade point average and Graduate Record Examination (GRE) scores being described as the best predictors of student success (although accounting for “less than 20 percent of the likelihood of successful performance in graduate study”), schools have been moved to place less weight on these indicators. Even a careful analysis of the effect of scores on each subset of the GRE concluded that “less quantifiable factors (e.g., letters of reference, interviews, samples of expository writing, and expression of professional goals) must be included in the admissions process.”

Reactions to flexibility in library school admission standards has varied from deploring the trend to suggesting that it might bring in students who would “breathe new life into the profession.” For years library schools have been trying to encourage new life in the profession, but it remains to be seen whether making admission standards more flexible will have this effect.

Future Outlook and Needs

Making predictions is a dangerous pastime as is abundantly clear in reading past predictions about the future of library and information science education. While it is not possible to predict the future more
than five or ten years ahead, it may be possible to make some reasonable short-range forecasts.

One suggestion for the future of library education that was vigorously put forth at the 1985 ALISE conference was that an undergraduate preparation in general information studies should be a prerequisite for a master's program. This suggestion goes against the traditional notion that in the words of Jesse Shera, "a general, or liberal, education [is] an essential preliminary to the professional training of the librarian." Many library schools have discouraged previous library education, although cognate areas such as computer science are viewed as desirable. Because of the widely varied undergraduate backgrounds from which library school students come, it is difficult to envision specific undergraduate courses being set as prerequisite by many schools. Few schools could afford to limit the available pool of applicants.

There have been some attempts to set prerequisite undergraduate courses. In 1984 the University of Toronto instituted a requirement for a statistics course as a prerequisite for the MLS program. Because many accepted applicants did not have this preparation, a noncredit course in statistics has been given at the library school. It is hoped that this course will become less necessary as more students will take statistics as part of a variety of undergraduate majors. Basic statistics is slowly becoming an accepted component of many humanities programs as well as those in science and social science. It is likely, however, to be eight to ten years before a knowledge of statistics can be assumed from the majority of undergraduates.

The predominance of women in the master's programs in library and information science indicates that changes in women's aspirations will affect trends strongly. As a wider variety of career choices become available to women, library schools will have to compete with many other programs to attract first-rate students. As a new generation of women—most of whom are committed to a lifelong career—enter the labor force, the group of housewives taking up a new career will decline. To attract midlife career changes from other fields, library and information science will probably have to offer greater financial rewards than it does now. Unless the financial rewards become greater, library science may find that its attraction is mainly to students with lower career aspirations—those who chose librarianship instead of secretarial work rather than librarianship instead of law or management studies. Attracting those with lower career aspirations would probably benefit undergraduate programs more than the graduate programs.

The traditional competencies of interpersonal skills, administrative ability, and intellectual ability continue to be desired in library
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school applicants, and other competencies have been added to these. A knowledge of computers has become an important qualification for information work, even though specific delineation of the skills required is hard to find. Bernard Franckowiak has suggested the levels needed by students entering a program:

- familiarity with computer/data processing telecommunications terminology, hardware and software, including strengths and weaknesses, and how the various pieces of technology relate to each other;
- the ability to use standard office automation systems including word processing, text editing and formatting, and to operate printers, terminals, disk drives, and other pieces of equipment;
- acquaintance with the construction of individual databases using database management systems;
- knowledge of one or two computer programming languages, not in order to become a programmer but in order to understand how the program functions and the part it plays in applying technology to processing the information.

These knowledge requirements might have seemed excessive a few years ago, but it appears likely that more and more applicants will have used computers at least for word processing and data manipulation during their undergraduate education. The knowledge of computer programming languages may be more limited, since many of the packages used in high schools and universities require only a minimal knowledge of programming languages. As computer skills become more common in the general educated population, more applicants to the library schools will be prepared for the intensive training needed for modern information processing.

Another kind of competency which has been recommended is the possession of a specialization in a subject area. The encouragement of applicants with a subject master's degree particularly for work in academic libraries has been discussed in recent articles. Many library schools do encourage students with a subject master's or a Ph.D. degree, but holders of these degrees usually come from fields in which jobs are hard to find—particularly the humanities. Specialists in the humanities are not needed by academic libraries nearly so much as are specialists in science or technology. Another way in which library schools encourage specialization is by developing joint programs with other departments in the university.

There are two areas in which library and information science educators should continue to work for change. They might profitably ignore the personality of the applicants to library school programs. The major reason for the great debate during the early years of library
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education about whether librarians are born or made is that administrative skills were not considered something that could be taught. Now after many years in management education it is apparent that administration is a teachable subject. Students with administrative skills do not need to be recruited for library education if they can be taught administration. More recently, psychologists have demonstrated that interpersonal skills also can be taught. Students who are naturally gregarious and assertive do not need to be recruited, either. Techniques of dealing with library users and colleagues in a gracious and effective manner can be taught. Even shy people who prefer solitary to social activities for the most part can learn quite well how to handle a reference query or personnel training. Both as part of the basic curriculum and as continuing education, management and psychological techniques will no doubt become a more important part of library education.

My second suggestion grows out of the rate of change in library education. Recent technological changes that are reflected in library and information science curricula and student placements suggest that library schools will be evolving rapidly over the next fifteen years. One way of ensuring that students leave the library schools with a flexible attitude is to try to attract more recruits directly from undergraduate school or other careers rather than from library workers. Naturally applicants with library experience should not be rejected but library educators could make it clear that a graduate education deals in theory and concepts and that courses are designed to broaden students' perspectives beyond the operations of a library to the essentials of information transfer in society. Any background knowledge and experience that a student brings to library education is likely to be valuable, but library experience is not superior to other kinds of work experience.

There is no shortage of suggestions on the type of student that should be recruited. In fact after reading a wide variety of articles on the subject, I could generalize to say that what we want is a personable male member of a disadvantaged minority group with a master's degree in physics, an in-depth knowledge of computers, and a burning ambition to administer a service organization while at the same time contributing to the research literature. What we have as a typical student is a personable, middle-class, white female with an undergraduate degree in English, a curiosity about computers and a muted ambition to operate as part of a service organization, while at the same time leading a reasonably happy personal life. Well, that's not bad. Despite the lack of large financial rewards and the unflattering stereotype, library schools have managed to attract a group of intelligent, dedicated, and lively students.
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who are able to work well both within libraries and outside of them. Library and information science educators need to define the objectives and strengthen the curricula in ways that will ensure that students receive the most appropriate education.

References

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