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Are Students Really Entering Careers in Librarianship? An Analysis of Career Patterns after Graduation from LIS Schools

TERRY L. WEECH and ALISON SCOTT
Graduate School of Library and Information Science, University of Illinois at Urbana-Champaign
501 E. Daniel Street
Champaign, IL. 61820 UNITED STATES

Abstract:

        Schools of Library and Information Science (LIS) have often promoted alternative careers as a marketing tool and some students enroll in LIS schools specifically to explore alternative careers. The literature on LIS career patterns continues to suggest that those non-traditional careers are desirable and viable alternatives. Yet the survey research based literature indicates that very few LIS graduates report finding employment outside traditional libraries in the U.S. and Canada. This paper reviews the challenges of obtaining more accurate information on the career patterns of LIS graduates and discusses the international implications for analyzing career patterns for LIS school graduates.

Introduction:

        There has been much written about career patterns of graduates of Library and Information Science (LIS) programs. In recent years there has been considerable promotion of non-traditional or alternative careers for graduates of schools of library and information studies (LIS). This has sometimes been referred to as the "deinstitutionalization" of LIS education. This paper will review the literature on the subject of LIS career patterns, focusing on the United States and Canada, as well as several countries with recognised programs in library and information science education that have applicable literature on the topic of

alternative careers. This literature review is not considered exhaustive. In the case of the United States and Canada, the focus will be on graduates from American Library Association (ALA) accredited master's degree programs. Special attention will be paid to data relating to employment in non-traditional, alternative careers to the traditional professional library position or jobs with library vendors that directly serve libraries. A special effort is made to determine the extent to which survey data supports the anecdotal reports of increasing interest and opportunities for LIS graduates to find alternative careers with the LIS degrees.

There have been numerous attempts to define alternative careers to the traditional LIS professional position. One of the more extensive attempts was done by Horton (1994, p. 8). He attempts to list various areas where alternative careers for librarians might be found, but he avoids, as do most authors, defining what the category of "alternative careers" represents. He does provide some examples, noting that "Database Design" and "Management Analyst" ads appearing in the Washington, DC sources provide job descriptions that are not inconsistent with the skills of a Cataloger or Reference Librarian in a library. He, and most other authors, consider employment with library vendors and suppliers, such as book jobbers and database and equipment vendors not to be alternative careers, but rather library-service positions. We follow that tradition of definition in this paper.

Literature Review:

The literature on career patterns for graduates of library schools can be grouped into two broad categories: 1) anecdotal accounts of individuals or groups of librarians who have pursued certain patterns, and 2) surveys of specific LIS populations to determine placement and career paths taken.

Anecdotal Accounts:

There are many anecdotal accounts of career patterns in LIS. Most share stories of the author's experience with alternative jobs or they compile reports from others on non-traditional career patterns of people who have LIS degrees. But some articles combine both anecdotal and survey information. In a 1991 review article in *Advances in Librarianship*, Michael Koenig provides largely anecdotal data; however, he also reviews survey information to lend credence to his assertion that there is much interest in careers outside of the traditional library setting (Koenig, 1991). His listings of works that offer potential target areas of employment for those holding degrees in library sciences is extensive. With the number of works available listing potential alternative careers, Koenig states that the list of options easily reaches a "substantial three-figure number. (1991, p. 3)" Koenig proceeds to discuss potential alternative careers, including: information brokering, marketing, publishing, consulting, information counselor, data administration, system analyst and system designer, and chief information officer. Transferable LIS skills are discussed, that include: knowledge of information sources, information and data organization abilities, and interpersonal skills and need elicitation. In closing, Koenig discusses the implications for library education, in regards to building transferable skills.

In the article *Alternative Librarianship: Voices from the Field*, Robertson provides brief information on several librarians working in alternative careers (1998). A former college librarian who has gone into communications consulting and earns in excess of

$100,000 a year, a library services consultant, a fundraiser for charities and non-profit institutions, a corporate records manager and Internet security specialist, a book dealer, and a storyteller and seniors activities specialist are all featured in this work. Reasons expressed for securing positions in alternative careers include higher salaries, market demand forcing exploration outside of librarianship, and the opportunity to learn something new. As is often found in literature on alternative careers, Robertson discusses the difficulty with defining this concept and offers the following definition: "any librarian in an information-based job not traditionally recognized as standard or "normal" could be considered a practitioner of alternative librarianship. (1998, p. 26)"

Library Journal has published supporting articles to its annual publication of results of the annual survey of the placement of graduates from ALA accredited programs. Some of the supporting articles contain anecdotal information about alternative careers, and often include survey results as supporting data. One such article was written by Williams and is entitled "*You Can Take Your MLS Out of the Library*. (November 15, 1994)" In this article, the "alternative" careers of several individuals who hold a master's degree from an ALA accredited program, but work outside of a library setting are discussed, as are nontraditional career opportunities, reasons librarians stray outside of the library walls, transferable skills, the difficulties with defining an alternative career, and tips for success. Some nontraditional careers that are listed include information brokers, association managers, indexers and abstracters, marketing consultants, and storytellers. Reasons suggested for individuals seeking alternative careers relate to both personal circumstances, such as starting a family, and professional circumstances, such as losing a job and needing to find new employment. Transferable skills include information needs assessment ability, problem-solving abilities, and a public service mentality. A list of "Classics for Career Changers" is also provided and includes some works reviewed for this study that have also been recommended by others as essential reading for those wishing to secure nontraditional employment, including New Options for Librarians (Sellen & Dimity, 1984), What Else Can You Do with a Library Degree (Sellen, 1980) and Opening New Doors: Alternative Careers for Librarians (Mount, 1993).

Review of catalog records from WorldCat, as well as articles on the topic of alternative careers revealed the following books (some that are listed above) that are devoted in part or whole to the topic of alternative careers:

Carvell, L. P. (2005). Career Opportunities in Library and Information Science. New York: Ferguson. ISBN: 0816052441.
McCook, K. & Myers, M. (1997). *Opportunities in Library and Information Science Careers*. Lincolnwood, Ill.: VGM Career Horizons. ISBN: 0844246700.
Sellen, B. (ed.). (1997). *What Else You Can Do With a Library Degree: Career Options for the 90s and Beyond*. New York: Neal-Schuman Publishers. ISBN: 1555702643.
Mount, E. (ed.). (1993). *Opening New Doors: Alternative Careers for Librarians*. Washington, D.C.: Special Libraries Association. ISBN: 0871114089.
Mount, E. (ed.). (1987): *Alternative Careers in SciTech Information Service*. New York: Haworth Press. ISBN: 0866566945.
Garoogian, R. & Garoogian, A. (1985). *Careers in Other Fields for Librarians: Successful Strategies for Finding the Job*. Chicago: American Library Association. ISBN: 0838904319.
Goodman, L. H. (1982). *Alternative Careers for Teachers, Librarians, and Counselors*. New York: Monarch Press. ISBN: 0671448196.
Sellen, B. C. (ed.). (1980): *What Else You Can Do With a Library Degree*. New York: Neal-

Schuman Publishers. ISBN: 0915794403.

It is evident from the publication dates of these books that there has been a long-standing interest in alternative careers for librarians. It appears that with technological changes and changes in LIS curricula that the number of alternative career opportunities for individuals with LIS degrees will continue to expand. Indeed, the listings of potential career options have tended to expand and change over the years, and the editor of one of the earlier books on alternative careers, Sellen, recognized the need for updated information and has provided a more current book in 1997 on this topic which she first dealt with in 1980.

Survey Accounts:

There are three broad categories of survey literature; 1) reviews of the survey literature; 2) comprehensive surveys of regional or national placements of LIS graduates for publication in a central source, such as the U.S. and Canadian survey that is published annually in the _Library Journal_; and 3) individual surveys of specific cohorts or recent graduates from specific programs which provide an in-depth analysis of the career patterns.

Survey Reviews:

Hardesty reviews surveys, articles, and job postings to try to ascertain the historical and current job trend markets for academic and research librarians (2002). In his review he cites previous _LJ_ surveys and notes that between the years of 1991-1999, known placements of library school graduates accounted for only half or less of the total graduates in any given year. During the same time period (1991-1999), while the number of job placements in college and university libraries tended to remain steady, placements in other types of libraries declined. However, there was a rise in job placements falling in the ill-defined "other category" through the 1990s, and vendors and governmental libraries are specifically offered as placements falling in this category of employment (2002, p. 85). Of particular interest is a reference to the 1988 _Library Journal_ article by John Berry entitled "_The Shortage of Librarians is Back_" that reportedly indicates that library schools are not training individuals sufficiently for traditional roles in libraries and are focusing more on the "glamorous specializations in information science and technology and ignoring public library specializations (2002, p. 80)."

In the same article, Hardesty reviews results of previous ALISE surveys to show historical trends in library school enrollment; however, these surveys admittedly do not provide information regarding job placement. Hardesty states that both _LJ_ surveys and ALISE surveys provide insufficient information regarding information sciences placements in the private sector since not all accredited library schools report for these surveys (see discussion of _LJ_ surveys below). The information gleaned from the _LJ_ 1999 survey indicates that a little over 6% of respondents held jobs in the information sciences sector, but many of these positions would not be considered "alternative careers" depending on the setting where individuals are employed; for example, a webmaster within a library setting would not be considered an alternative career (2002, p. 90).

Koenig, whose article was also discussed under "Anecdotal Accounts," also reviews some pertinent survey information (1991). In his discussion of the trends towards LIS graduates accepting positions in nontraditional careers, he sites the data from Learmont

(1981) that had been gleaned from analyzing two decades worth of *LJ* placement surveys, starting in the 1960s. Learmont's data revealed a steady rise in library school graduates taking nontraditional positions during the 20-year time period. Koenig proposed a possible correlation between the increasing prevalence of information in electronic formats and the rise in nontraditional job placement. The positive correlation between perceived quality of a library school and higher placement in nontraditional jobs is also revealed in the discussion of Learmont's findings (1991, p. 2). In addition, Koenig discusses the difficulty in adequately determining placement statistics on non-traditional career placement. Difficulties in obtaining adequate data include the failure to clearly define what constitutes a "nontraditional career" for LIS graduates, as well as a history of inadequate statistical data gathering. Based on the Learmont findings, as well as the findings of Roderer (1983) who performed a library supply and demand study, the placement data would indicate that 4-5% of LIS graduates go into nontraditional careers and an estimated 9% of library career changers go into work outside of library settings. Based on this data, Koenig suggests that there are probably 6-10% of librarians working in nontraditional settings. Although this suggested percentage is low, the interest in nontraditional careers is great, and results of several studies (Slater, 1984; Sergean, 1977; and Sergean, McKay, and Corkill, 1976) that indicate a high rate of job disaffection among librarians are offered as one potential reason for the rising interest in alternative careers. Koenig goes on to discuss some possible nontraditional careers and transferable job skills, as well as listing numerous publications on the topic of alternative careers (see anecdotal accounts).

The Placement Surveys in *Library Journal*:

A review of the long-standing *Library Journal* (*LJ*) placement survey, which usually appears in the October 15th issues of *Library Journal*, suggests that in most years nearly 98% or more of the graduates responding to the survey find jobs in libraries or with library vendors. In 2003, the most recent year available as this paper is being written, 98.6 % of the respondents reported being employed by libraries or library vendors (Maatta, S., 2004). In 2002, 2001, and 2000 it was 98% (Maatta, S., 2003; Terrell, T., 2002; Terrell, T., 2001). In 1999 it was 97% of all those graduates responding reported being employed in libraries or by library vendors (Gregory, V. L. & Wohlmuth, S. R., 2000). While there are significant problems with being able to generalize from the *Library Journal* survey data, it is the best data we have available. The *LJ* surveys certainly suggest that in the U.S. and Canada, the percent of graduates from ALA Accredited LIS programs that find employment in non-traditional or alternative careers is less than 3 percent of the total graduates responding to the survey.

But as indicated above, there are significant difficulties with obtaining accurate and generalizable data on career placements in general and alternative placements in particular in the *Library Journal* survey. The fundamental problem with *Library Journal* placement data is that in almost every year reviewed (1999-2003 surveys), no more than 30% (and often less) of the total number of U.S. and Canadian graduates participate in the placement survey. An initial review of the *LJ* data would suggest a better response rate than this, with the articles indicating that 38% of the LIS graduates in 2003 responded and 52% in 2001 responded. But a closer examination of the survey details indicates that these response rates reflect the responses from those schools that submitted data on their graduates, and in most years fewer than 80% of the schools with ALA Accredited master's degree programs responded. In 2002, only 56% of the schools (32 out of 56) submitted data on their graduates. Using data on the

number of graduates from ALA Accredited programs available from the Association for Library and Information Science (ALISE) annual Statistical Report, the 51% rate for 2002 graduates from the 32 schools that submitted responses represented 1486 returns from 2902 graduates. But the ALISE statistics for 2002 graduates indicated that 4923 individuals received ALA accredited degrees in 2002 (ALISE, 2003). The *Library Journal* survey data thus represents approximately 30% of all graduates for that period, making the results of little use as a basis for generalizing to the population of all graduates.

LJ distinguishes between library positions, vendor positions, and "other." In 2004, they reported that the "other" category included a wide range of jobs, from business analysis positions to digital initiatives. Specific positions outside libraries were reported as being involved with e-commerce, data mining, and data asset management, community outreach, grant-writing, fundraising, and international relations. Survey respondents working in these areas reported that prior experience in areas outside of libraries, such as business and computer science, was helpful in their finding these alternative jobs.

The graduates responding to the recent *LJ* survey who reported having "alternative jobs" to library positions reported salaries that were approximately 18% higher than the overall average salary of all library placements, suggesting that jobs outside libraries do pay more. The higher salaries obtained by this group might be a result of their prior experience, but specific data on this was not provided in the *Library Journal* report. Many of the students who obtained non-traditional employment had worked in related fields to their alternative career placement before getting their LIS degree.

Surveys of specific cohorts in the U.S. and Canada:

Jacobsen surveyed UCLA's 1988 class of LIS graduates to determine how careers had progressed among this group over their 15 years following graduate school and highlighted the careers of 6 of the participants (2004). Two distinct groups emerged from this survey, the "loyalists" who stayed long-term within their institution, and the "changers" who had multiple jobs throughout their career. Initial job placement tended to influence future career settings, with individuals tending to remain within the same type of environment; however, roles tended to evolve and change over time. Over 80% of the respondents worked in library settings, but it is unclear how many of those working outside of libraries would qualify as having alternative careers. As found in other surveys, those salaries were highest among those employed in the private sector, but salary was not mentioned as a negative by any respondents and overall this group of respondents appeared happy within the field.

Cronin, Stiffler, and Day use information gleaned from multiple sources, including surveys, interviews, and analysis of job advertisements to assess the emerging market for information professionals working outside of the library setting and suggest changes within LIS curricula to better align the educational offerings with existing trends (1993). They note that there were changes in LIS curricula that occurred during the 1980s to the early 1990s that reflected the need to provide students with training that will allow them to enter the "emergent market" for information professionals. The analysis of job postings did indeed indicate that there were job opportunities for those with LIS degrees outside of the traditional realm, but the majority of the job postings were for those with experience in certain areas and did not encourage entry-level applicants. The interviews of individuals who were considered to be working or hiring in the nontraditional library realm supported the assumption that the

market for nontraditional employment is expanding. However, the interviews, as well as surveys of LIS graduates, indicated that subject expertise and business savvy are considered crucial to entering nontraditional employment areas and the LIS degree may not provide adequate training in these realms. The mail survey of 1985 and 1988 LIS graduates from Indiana University to determine individuals working in nontraditional settings had an extremely low response rate, with only 18% of surveys being returned, and little discussion of the survey findings were offered; however, it was indicated that few graduates of the program were working in nontraditional areas.

Some of the surveys are clearly non-scientific studies (non-scientific in so far that they were not based on a random sample or a total population and thus the findings cannot be generalized to a larger population), but they might be considered interesting case studies that may serve as the basis of more scientific research in the future. One such survey was that of Betty-Carol Sellen (1980). She surveyed 246 people who were known to have careers outside traditional LIS. She did obtain a 65% response rate, but she acknowledges that since she did not base her survey population on a random or scientifically designed sample, her results cannot be the basis for generalization to career patterns of LIS graduates as a whole.

Her survey resulted in a listing of alternative careers, and suggestions for alternative careers in LIS are available in the book edited by Betty-Carol Sellen: What Else You Can Do With a Library Degree. From her survey, it was found that the most common type of self-employed work was that of Consultant (15), Information Broker (9) and Indexer (7). Of those not self-employed, the largest group worked for publishers (21), government (11), and bookstores (7). Vendors and Universities followed with six of the respondents working for each of these groups. There were a wide variety of employers with five or fewer respondents represented, including associations, information management, and non-profit organizations. Only two respondents indicated they worked for a computer services employer, and only one as a systems designer (p. xxv).

In 1981 and 1982 Betty Sellen sent a longer survey and reported on the results in 1984 and 1985 articles (Sellen & Vaughn, 1984); (Sellen &Vaughn, 1985). This survey, as the earlier one, attempted to answer multiple questions surrounding alternative careers for librarians, including the number of individuals employed in alternative careers, the characteristics of nontraditionally employed librarians, such as backgrounds and basic demographic information, salaries, and specific job duties and employment settings. It is interesting to note that the survey administrator found it difficult to elicit specific information regarding what individuals in alternative work places actually did and at what type of workplace they were employed. A forced-choice format was provided to determine workplace, while a fill-in-the-blank format was utilized to obtain job titles, and a multiple-choice question with multiple answers allowed was utilized to attempt to determine primary areas of work. Numerous job titles were obtained from the surveys, as were numerous employment settings. Of those surveyed who had held jobs in a library, the most frequently cited reasons for switching to an alternative career included "'salary dissatisfaction,' 'location change,' and 'better job opportunity.'(Sellen & Vaughn, 1985, p. 109)"

Out of 447 respondents from Sellen's 1981 and 1982 survey, ten percent were self-employed and owned their own businesses and ten percent were free-lance workers. The remaining 80% were employed either by the government or the private sector. The income of these three groups were reported in ranges, with the full-time free-lance respondents earning an annual median income in the range of $15,000 to $19,000, while those who owned their

own business or were employed full-time earned median annual incomes in the range of $20,000-$24,999 (Sellen & Vaughn, 1985, p. 108). This compares to the median reported income by all 1983 graduates as reported in the *Library Journal* placement survey of $16,994, which suggests that those who were free-lance were doing about as well as all graduates and those who were employed in alternative careers or had their own business did better than the average of all graduates as reported by the *Library Journal* (*LJ*, Oct 1, 1984).

Surveys of Graduates outside the U.S. and Canada:

Although we did not attempt an exhaustive literature review in non-English language literature, we did find some interesting reviews and survey reports in English from outside of the United States and Canada. Marcella and Baxter provide one of the more complete literature reviews on the topic of alternative careers for LIS graduates (1998). A chronological analysis of their citations indicates a nearly equal distribution of literature from the 1980s and the 1990s, with eleven cited sources in each decade (see appendix 1 for a listing of these citations). They noted that Cronin in 1983 suggested that library educators had a choice of educating information professionals for the "institutionally defined" job market or they could direct their focus on the "mushrooming information periphery." But it is interesting to note that 22 years after Cronin characterized the information periphery as "mushrooming" we still do not have evidence in the U.S. and Canada that this periphery has provided much in the way of substantial job placement for LIS graduates (based on *LJ* Surveys).

In addition to providing a significant literature review on the topic of alternative careers for LIS, Marcella and Baxter also discussed results from a 1997 survey carried out on LIS graduates of Robert Gordon University, located in Aberdeen, Scotland. This survey had a 45% response rate. Analysis of employment information was performed and respondents' jobs were categorized into various employment sectors, including: research, information technology, information service/support, financial analysis/policy analysis, librarianship, etc. 29.4% of the jobs held by survey respondents were categorized in the research sector, 19.6% in information technology, 15.7% in information service/support, 9.8% in financial analysis/policy analysis, 3.9% in librarianship, and the remaining jobs scattered throughout various sectors. This employment pattern suggests a vastly different pattern than that found among graduates from the U. S. and Canada; however, descriptions of job duties falling in certain sectors suggest that some of these jobs would not be categorized as "alternative" based on the definition of alternative careers being utilized for this paper.

Pors reports on library school education in Denmark and provides statistical data on the Danish job market and students' employment preferences and placements (1990). It is interesting to note that the library school curriculum in Denmark was changed in 1985 to broaden the educational focus from a strict library focus (public or research and special libraries), to encompass the broader focus area of information work in addition to the library focus. It is reported that the librarian unemployment rate was high during the mid-1980s (15%-20%) with the public sector nearly reaching a saturation point for librarians. A survey of library school graduates from 1977-1988 revealed that more students tended to become employed outside of the public sector over the years. There was obvious growth in employment in the "private/other" category as compared to the public library and research and special library categories. In addition, student preferences tended to change during this period, with an increasing interest in untraditional employment. Between the years of 1988

and 1989 alone, there was a significant increase in interest for untraditional employment. Because the "private/other" category is vague, it is uncertain if all jobs falling in this category would actually be considered as untraditional based on the definition utilized for this study.

In addition to summarizing his own survey results, Pors discusses the survey results from 10 European library schools, carried out on students entering school in 1985 and 1986, to further support the assertion that there is growing interest in nontraditional employment. This survey, initiated by Bruyns (1989, The Hague), showed that over 30% of respondents would like to work as an information consultant or specialist, or work in "other types of employment (Pors, 1990, p. 123)." The "other types of employment" category excludes the specialization areas of public library, research or special library, and information consultant or specialist.

In the article *Changing Employment Patterns: An Australian Experience*, results are presented of a survey of 1997 – 2001 LIS graduates of the University of New South Wales (UNSW) (Willard, Wilson, & Cole, 2003). The purpose of this survey was to determine employment patterns of the graduates and gather their opinions on the usefulness of their education, and utilize this information for ongoing curriculum assessment and development. It was found that the majority of individuals had found employment in traditional settings; however, 29% were employed in positions that did not indicate a connection to a traditional library or information center and these individuals tended to have higher salaries than those working in more traditional roles. It is reported that the UNSW program trains individuals for information work within and outside the realms of traditional librarianship; therefore, graduates of this program might have a higher tendency to enter into alternative careers than graduates from programs with a more traditional program.

Zainab et al. provide a brief overview of some "tracer surveys" in their introductory literature review (2004). In the literature review, they reveal that a survey of graduates from the LIS program at Curtin University of Technology, Australia, found that individuals from this program were occupying jobs outside of the traditional information work realm (Genoni, Exon and Farrelly, 2000), and a similar tracer study performed in South Africa by Ochalla (2000), revealed an analogous finding. The results of a small-scale tracer study of graduates from the University of Malaya are presented. Reportedly, tracer studies are required for the University to maintain its ISO 9001: 2000 certification, and these studies are meant to ensure that the University is offering pertinent courses. 48 graduates were identified for the study, and 26 questionnaires were returned (response rate of 62%). Survey respondents were reported to hold positions as librarians, school teachers, university lecturers, information officers, and managers; however, the number of individuals in each area was not stated. It is noteworthy that no individuals reported being unwillingly unemployed and the authors of this article attribute this to the "specialized and narrow field of LIS in Malaysia and the expanding job opportunities in new institutions of higher learning, which is mushrooming at a fast pace and the opportunities afforded in information in large local and multinational corporations in Malaysia. (2004, pp. 34-35)"

Khoo and Ramaiah report that the Division of Information Studies at the School of Communication & Information, Nanyang Technological University, Singapore, revised its curriculum to meet the demands of their students (2004). Through a survey of applicants, the need for varying areas of specialization was detected and the school responded by defining the following specialty areas: academic libraries, corporate information services, public libraries, school libraries & media resources, document & records management, information

systems & product development, Internet & multimedia-based information services, and knowledge management. Half of the defined specialty areas can be categorized as "nontraditional" as they encourage employment outside of library settings. The profiles of those selecting various specialty areas were examined, and it appeared that there are differences in educational and work backgrounds for those selecting nontraditional specializations, as well as some gender and age differences among those selecting differing specializations, with younger individuals and males more apt to select technology specializations. No information is available regarding job placement of graduates. 327 applicants completed the survey, but response rate is not indicated.

Conclusions:

There is obvious long-standing interest in alternative careers for those with LIS degrees. Ascertaining the percentage of individuals with LIS degrees who have secured non-traditional employment has proven to be difficult. A recurrent problem with job placement surveys is that it is difficult to glean information through this type of data collection instrument. Job titles, name of employing organization, and job descriptions may not accurately reflect the true nature of the work. Also, inadequate response rates make it difficult to get an accurate overview of employment patterns. Failure to adopt a uniform definition of "alternative careers" also makes it difficult to analyze data across multiple surveys. Because of the difficulties with accurately determining the percentage of LIS graduates holding non-traditional jobs, it is difficult to make sweeping generalizations about the employment patterns in the United States, Canada, and other countries. From the information gleaned from the literature review, there is an obvious tendency for those working in the private sector to have higher salaries, and it appears from survey responses that interest in alternative careers has risen over the years. Numerous reasons are offered for the increased interest in alternative careers, including: technological drivers, career disaffection, salary incentives, market demand forcing exploration outside of traditional librarianship, and the opportunity to learn new skills. But in terms of being able to find survey research data that supports the anecdotal reports of increasing interest and opportunities for LIS graduates to find alternative careers with their LIS degrees, we have to say we did not find such data in the U.S. and Canada. There was some evidence that surveys of graduates in other countries were more successful in finding alternative careers, but even here the survey results are not consistent and not always presented in sufficient detail to confirm that there is a significant trend in successful employment in alternative careers.

Schools of library and information science, both in the United States and abroad, have an obvious need to be informed of the career desires of their applicants and currently enrolled students, as well as the job placements of their graduates. Only by maintaining a current awareness of job trends within the field will schools be able to provide first-rate curricula that meet the needs of their students and optimally promote the development of skills that will allow graduates to succeed in their career of choice, be it traditional librarianship or an alternative career.

The international implications for analyzing career patterns for LIS school graduates may be especially important as LIS schools explore and proceed toward implementation of international LIS degree programs that cross national borders through the utilization of the Internet and the World Wide Web. There are a number of programs that are in the planning stages or in operation today. As more develop, the need for accurate data on job placement

and alternative careers for LIS graduates will become even more important.

Suggestions for further study:

Because graduate career placement surveys are wrought with difficulties that often lead to response rates that are inadequate and fail to provide a global picture of employment patterns, it is recommended that LIS schools augment career placement surveys with surveys of applicants. These applicant surveys could be a mandatory part of the application process and could yield invaluable insight into the career interests of those wishing to obtain degrees in LIS.

Future studies might wish to augment survey results with interviews of respondents to gain further insight into non-traditional careers as well as changing roles within traditional careers. In addition, encouraging all schools within a country or group of countries to participate in job placement surveys would help to develop a better national and regional picture of the career patterns of LIS graduates.

Clearly there is a need for more longitudinal studies (Tracer studies) to determine the career pattern not just upon graduation but also five and ten years after graduation. This information would not only be useful in those situations where there is high unemployment in specific periods of placement, but also helpful to determine needed continuing education programs to assist alumni in their career information needs as they progress in their jobs.

But the most pressing need, especially in the U.S. and Canada, is for improved response rates to the existing surveys of placement of graduates. Much time and money is being wasted when year after year results of surveys yield 30% or 40% of all graduates. The gap between the anecdotal accounts of alternative careers as an option for LIS graduates and the known patterns of alternative careers will continue to exist until we have solved this problem. There are numerous techniques for improving response rates, including, but not limited to, timely follow-up to non-respondents, and providing rewards to those who do respond. But the most likely long-term method for improving response rates is the building of a sense of loyalty and obligation among the students before they graduate so they will share their placement experiences and career progressions with their school and the profession when asked to do so.

It is hoped that future studies will provide sufficient statistical data that can be applied effectively by schools of LIS as they plan both the future curriculum and employment counseling to graduates. We look forward to hearing suggestions and strategies from those who read our paper. Future improvements in determining the career patterns of our students is most likely to occur if it is a cooperative effort on the part of LIS schools to implement joint procedures in data gathering and uniform terminology for describing the results so we can provide a comparative analysis of career patterns of graduates that is useful internationally.

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APPENDIX 1 - CHRONOLOGICAL LISTING OF CITATIONS FOUND IN MARCELLA
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