Academic Research Librarians with Subject Doctorates: Data and Trends 1965-2006

Thea Lindquist
University of Colorado Boulder, thea.lindquist@Colorado.EDU

Todd Gilman
Yale University, todd.gilman@yale.edu

Follow this and additional works at: https://scholar.colorado.edu/libr_facpapers
Part of the Library and Information Science Commons

Recommended Citation
https://scholar.colorado.edu/libr_facpapers/3

This Article is brought to you for free and open access by University Libraries at CU Scholar. It has been accepted for inclusion in University Libraries Faculty & Staff Contributions by an authorized administrator of CU Scholar. For more information, please contact cuscholaradmin@colorado.edu.
Academic/Research Librarians with Subject Doctorates: Data and Trends 1965-2006

Thea Lindquist, Todd Gilman

portal: Libraries and the Academy, Volume 8, Number 1, January 2008, pp. 31-52 (Article)

Published by The Johns Hopkins University Press
DOI: 10.1353/pla.2008.0008

For additional information about this article
http://muse.jhu.edu/journals/pla/summary/v008/8.1lindquist.html
Academic/Research Librarians with Subject Doctorates: Data and Trends 1965–2006

Thea Lindquist and Todd Gilman

abstract: The topic of academic/research librarians with subject doctorates is largely unexplored in the literature, despite recent efforts to recruit them. Based on survey data gathered from non-LIS doctorate holders currently working in U.S. and Canadian academic/research libraries, this article highlights data and trends relating to these librarians, focusing on their demographic profile, educational background, paths into librarianship, and range of positions. It is important not only to provide vital information to the academic/research library community about these librarians as a distinct and potentially sought-after group but also to communicate their experiences to advanced-degree holders considering a career in librarianship.

Introduction

The topic of academic/research librarians with subject doctorates is largely unexplored in the literature, in spite of a projected shortage of librarians with advanced subject degrees and academic libraries’ recent efforts to recruit them. The Council on Library and Information Resources’ (CLIR) Postdoctoral Fellowship in Scholarly Information Resources, New York University and Long Island University’s Dual Degree Program for Scholar-Librarians, and programs at individual universities that expose advanced-degree holders to librarianship are just some of the many recruitment initiatives designed to attract those with advanced subject and language expertise to the profession. In the limited literature that does exist, surprisingly little has been heard directly from librarians with advanced subject degrees. Under the circumstances, the authors deemed it important not only to provide vital information to the academic/re-

Copyright © 2008 by The Johns Hopkins University Press, Baltimore, MD 21218.
search library community about academic librarians with subject doctorates as a distinct and potentially sought-after group but also to communicate these librarians’ experiences to advanced-degree holders who might be considering a career in librarianship.

This study highlights data and trends relating to librarians who hold doctorates in disciplines other than library and information studies and who are currently working in academic/research libraries in the United States and Canada. The authors assess the background, experiences, and perceptions of these librarians based on survey data the librarians themselves supplied. The survey collected information from a broad spectrum of the target population. This article focuses particularly upon survey respondents’ demographic profile, educational background, paths into librarianship, and range of positions currently held. The authors plan a follow-up piece concentrating on respondents’ experiences in the workplace and views about the advantages and disadvantages of academic librarianship as a career for those with subject doctorates. In this piece, we present the basic characteristics of the population of doctorate-holding academic librarians and reveal relationships among demographic, educational, and professional variables particular to this population. What was the timing and motivation for their educational and career choices? Are there any discernible patterns related to whether they hold an MLS? In which fields do they have subject expertise, and how has it influenced their careers? What aspects of their current positions reveal characteristics and trends that are unique to them? When are they likely to retire, and what sort of impact might this have?

Literature Review

The place and utility of advanced subject degrees in academic librarianship have been topics of interest in the literature for decades. The articles reviewed below, which include both research and opinion pieces, show that thought on these topics has simultaneously evolved, remained static, and retrogressed over the past 80 years. Although most of these articles pertain to advanced subject degrees more generally, the conclusions and observations they draw are relevant to subject doctorates as well.

Philip J. Jones’ 1998 article provides a logical starting point because it handily summarizes the debate about the value of advanced subject degrees as a credential for academic librarianship from the 1930s through the late 1990s. The idea that academic libraries benefit greatly from employing librarians with advanced subject degrees—particularly scholar-librarians who continue to pursue independent scholarship—has had a long life and even received the imprimatur of the Association of College and Research Libraries (ACRL) in 1959. In light of decades of research on the topic, Jones argues that ACRL’s decisive 1975 statement declaring the American Library Association’s accredited MLS (ALA-MLS) as the terminal professional degree for academic librarians was unprecedented, questionable, and possibly unjustified; reversed the flexible and pragmatic position ACRL had adopted 16 years earlier; and inhibited further debate...
for many years to come. He endorses Bill Crowley’s argument that academic librarians need to be better educated to compete in academic life because expectations continue to rise and supports Crowley’s belief that “lack of a doctorate equals life on the periphery of the research university.”

Jennifer Mayer and Lori J. Terrill’s 2005 piece investigates the desirability of advanced subject degrees for academic librarians in addition to an MLS. Their study is one of the few that is based on data collected directly from librarians who hold advanced subject degrees, in addition to those who do not. Mayer and Terrill seek to re-initiate discussion on the role of advanced subject degrees in academic librarianship to aid informed decision-making about required and preferred qualifications for academic library positions. Their results show that most respondents feel that academic librarians with advanced subject degrees tend to bring certain assets to their work, including research skills not taught in library school, immersion in the academic culture, and a commitment to life-long learning. Those who hold advanced subject degrees are more likely to report that these degrees are valuable than those who do not. The latter finding is relevant to our follow-up article and will be discussed in more detail there.

Mary Grosch and Terry L. Weech’s 1991 article explores the perceived value of subject master’s degrees, in addition to an MLS, to the work and career advancement of librarians who hold them. Grosch and Weech directly survey their target population, which is not limited to academic librarians and excludes those who hold doctorates and other terminal degrees. Certain of their findings pertain to issues treated in our study. In the area of demographics, a higher proportion of men held subject master’s degrees compared to the overall percentage of men in the profession, and a large number of respondents were born between 1940 and 1949. In the area of educational choices, respondents tended to earn their subject master’s degree before their MLS. Finally, in the area of current employment, the largest percentage of respondents worked in academic libraries, and most felt that their job performance was improved by the knowledge and skills they acquired in earning their subject master’s degree.

Three opinion pieces address specific issues related to academic librarians with advanced subject degrees, and particularly doctorates. Three PhD holders, Jeffrey Cooper, Janet Gertz, and Mark Sandler, relate their reasons for and experiences during their transition to academic librarianship. They are committed to the ideal of the scholar-librarian Jones mentions and believe that their advanced academic training and experience enhances their effectiveness as librarians. In a more recent piece, Larry Hardesty discusses recruitment issues related to advanced subject degrees. According to Hardesty, one of the main difficulties academic library directors encounter in hiring is that requirements for these degrees and foreign-language skills, often desiderata of the teaching faculty, tend to eliminate otherwise good candidates. The article thus suggests that tensions over advanced subject degrees as an appropriate credential for academic librarians persist in academia. Shortly after Hardesty’s piece, John N. Berry III discussed the pros and cons of recruiting subject doctorate holders without an MLS into specialized positions in research libraries, specifically citing the CLIR initiative. He concluded that most library school deans and research library directors prefer an MLS or similar professional training in addition to a subject doctorate.
Methodology

This study surveyed doctoral degree holders in disciplines other than library and information studies who are currently working in academic/research libraries in the United States and Canada. Although the authors initially considered surveying a broader population, including academic librarians holding any advanced subject degree, we concluded we did not have adequate support to manage the data we might receive from the larger group and wanted to focus specifically on those holding subject doctorates. We selected our target survey group with the aim of discovering trends based on educational background, current position (area of work, type of responsibility, and type of library), number of years as a librarian, and librarian status within the institution (academic/professional, non-tenure-track faculty, or tenure-track faculty).

The authors invited librarians meeting the requirements of the target population to complete an online survey during a two-week period in September 2006. In the first two days it was open, we posted messages to over 40 electronic discussion lists with an invitation to complete the survey. Most of the lists were associated with various American and Canadian professional library organizations, which we had identified based on extensive Web research. Recipients were also encouraged to forward the invitation to appropriate individuals or electronic discussion lists. This strategy resulted in wide circulation of the invitation. During the two weeks the survey was open, 664 librarians responded.

The survey included approximately 30 questions, asking respondents for information about their demographic profile, educational background, career choices, and current employment, as well as their views regarding both how they are perceived in the workplace and how they view librarianship as a career for those with subject doctorates (see appendix for the survey). At two points they were asked to self-select into “tracks,” based on when they decided on a career in librarianship (question 3) and their status as a librarian at their institution (question 15) so that we could ask questions more specific to their experience. Due to the sheer volume and richness of the data, the authors elected to focus in this article on the respondents’ demographic profiles, educational backgrounds, paths into librarianship, and current positions.

Survey results were analyzed using statistical software. Our analysis focused on evaluating response frequency, valid percentage, and cross tabulations for questions related to relevant themes. We used this information to present results and draw conclusions about doctorate-holding academic librarians as a group. First, we presented basic data on the characteristics of this population in the areas of demographics, educational and career choices, and current employment. Second, we assessed connections between respondents’ educational and career choices and three particular demographic variables—age, years as a librarian, and the year that the doctorate was earned—to determine patterns in the timing of and motivation for these choices. Third, we examined more specifically the relationship between whether or not respondents hold an MLS and factors related to their disciplinary specialization and current position—main area of work, status at their institution, and institutional environment. Chi-square ($\chi^2$) results are reported to indicate where associations between variables are statistically significant.

In order to provide context for our survey findings, we occasionally refer to data that professional or research organizations have gathered. One caution in assessing the
Thea Lindquist and Todd Gilman

The demographic information that survey respondents supplied not only gave a clear picture of their background in this area but also provided a basis for analyzing the remainder of the survey data. Of the respondents, 58.1 percent (337) were female, and 41.9 percent (243) were male. For the purposes of comparison, we created a complementary data set by removing PhD holders from ACRL membership data derived from ALA’s “Member Demographics Survey.” This data set shows that the breakdown in the general non-PhD-holding ACRL population is 76.2 percent (1,946) female and 23.8 percent (609) male. Comparatively, then, the percentage of male doctoral degree holders is much greater than the percentage of male non-PhD-holding ACRL members.

Demographics

Women are clearly in the majority among non-PhD-holding ACRL members as well as in our doctorate-holding population. In the latter group, however, men close the gap significantly. Why are male academic librarians significantly more likely to hold a doctorate than their female counterparts? Since librarianship is obviously a female-dominated profession, this discrepancy seems to point to greater opportunities for men to earn a doctorate, greater motivation among men to earn a doctorate, or both. Also, because universities produce more doctorates than the academic job market can bear, and men earn the majority of doctorates, more men may seek alternative employment in academic libraries.

The respondents’ racial/ethnic background is quite homogeneous, with 93.3 percent (540) selecting White, 1.9 percent (11) other, 1.9 percent (11) Hispanic or Latino/a, 1.6 percent (9) Black or African American, 1.2 percent (7) Asian, and 0.1 percent (1) American Indian or Alaska Native. None of the respondents selected Native Hawaiian or other Pacific Islander. Non-PhD-holding ACRL members show a higher representation of librarians identifying with minority groups, with 85.5 percent (2,189) choosing White,
5.5 percent (140) Hispanic, 3.7 percent (96) Black, 2.9 percent (74) other, 2 percent (50) Asian, and .4 percent (10) American Indian/Alaskan Native.

Since the graying of the profession is a topic of great interest in the literature, we collected data on age of academic librarians with subject doctorates. Respondents’ ages range from 29 to 71 years, with a mean of 50.5 years. Figure 1 shows that 60.7 percent (347) of survey respondents are age 49 or older, and the age category with the highest percentage of respondents, representing 17.7 percent of the population (101), is 53–56 years.

Assuming an average retirement age of 65, over 60 percent of respondents will retire in approximately the next 15 years, and 33 percent will retire in less than five years. These figures support predictions that academic librarians will retire on a large scale by 2010, when the front end of the baby boom generation reaches retirement age, and will continue to retire at a brisk pace for at least a decade thereafter. Potential retirements among librarians with subject doctorates are serious when one considers that the results of the 2002 ALA Librarian Salary Survey reported that university libraries already showed the highest vacancy rate among the various types of libraries surveyed and that the most common reason a position could not be filled was a “shortage of people with a particular subject specialty.” These findings take on more meaning when one considers that university libraries employ the largest percentage of librarians with subject doctorates and that these librarians, as a group, tend to fill subject specialist positions. How much of a shortage subject specialists’ retirements will produce, of course, depends upon many factors, including whether academic libraries plan to fill these positions as they currently exist, with adjustments to duties, or not at all.

Educational and Career Choices

We asked survey respondents a variety of questions related to the motivation for and timing of their educational and career choices, including why they earned a subject doctorate and in which discipline, when and why they chose librarianship as a career, and whether or not they hold an MLS. They pursued a subject doctorate for a variety of reasons. Since we expected these reasons would depend to a large extent upon their educational and employment goals at the time they pursued their doctorate, we first asked respondents when they decided on a career in librarianship—before starting their doctoral program, during their doctoral program, or after finishing their doctoral program. Respondents who decided on a career in librarianship before starting their doctoral program would likely have different reasons for pursuing a subject doctorate than those who decided upon a career in librarianship when they were in the midst of or had completed their doctoral program. Only 28 percent (182) of respondents decided to become a librarian before they started their doctoral program, whereas 72 percent (468) did so during (18 percent, 119) or after (54 percent, 351) their doctoral program. A strong relationship exists between when respondents earned their doctorate and when they decided on a career in librarianship ($X^2 = 81.987$, with 18 df, $p = .000$). Those who decided on librarianship after finishing their doctoral program were always in the clear majority in every temporal cohort, but their share is greater the further back in time one goes.
Figure 1. Age of Respondents, 2006

Figure 2. When Respondents Decided on Librarianship by Year Doctorate Earned
Respondents who decided during their doctoral program peaked in the 1970s, which is probably associated with the abysmal academic job market of those years, especially for humanities disciplines in which the majority of respondents earned their doctorate. The number of respondents who decided on librarianship before starting their doctoral program has risen steadily as one goes forward in time and recently evidenced a significant upward trend among those who earned their doctorate in 2000 and later.

The greatest percentage of those who decided on a career in librarianship before starting their doctoral program chose "personal interest/fulfillment" (85) or "increased potential for advancement in the library profession" (41) as their main reason for pursuing a subject doctorate.

These results indicate that, among those who chose librarianship first, the overwhelming majority who earned a doctorate for reasons other than personal interest/fulfillment did so to get ahead in the library profession or to move into a library position related to their area of subject interest.

The greatest percentage of respondents who decided on a career in librarianship either during or after finishing their doctoral program gave "wanted a teaching position at a college/university" (188) or "personal interest/fulfillment" (152) as their main reason for pursuing a subject doctorate. For those who chose librarianship during or after, we discovered a significant relationship between the main reason respondents pursued their doctorate and the number of years since they earned it ($\chi^2 = 63.870$, with 45 df, $p = .033$). The two most noteworthy trends are: first, that those who earned their doctorate recently—after 1998—were most likely to have done so for reasons of personal interest/fulfillment and, second, that those who earned it before 1979 were most likely to have done so because they wanted a teaching position at a college/university. Similarly, younger respondents aged 29–41 were most likely to select "personal interest/fulfillment," whereas baby-boomer respondents aged 42+ were most likely to select "wanted a teaching position" as their main reason for pursuing a subject doctorate. Whether by date they earned their doctorate or by age, the percentage of respondents who selected "wanted a teaching position at a college/university" increases the further back in time one goes. One possible reason that so many younger respondents reported pursuing the doctorate for personal interest rather than to obtain a teaching job could be their heightened awareness of the poor job market, especially in the humanities. Another possible reason, of course, could be the natural human tendency not to want to admit to having pursued a teaching career unsuccessfully. In other words, it could well be the case that some respondents reported that they pursued the doctorate for personal interest even when they tried and were unable to obtain a teaching position because, for instance, they did not want to acknowledge defeat or have convinced themselves that teaching was not the right career choice for them anyway.

Respondents who had already started or finished their doctoral program when they decided to become a librarian gave a variety of reasons for choosing librarianship...
as a career. In order to provide a more nuanced view of their motivations, they were allowed to select all the options that applied. “Enjoyed library work” was by far the most popular (53.4 percent, 242), followed by “wanted more job options” (38.9 percent, 176), “unable to find a permanent/tenure-track teaching position at a college/university” (33.3 percent, 151), “wanted a job related to my subject area” (32.5 percent, 147), and “wanted to become a scholar-librarian” (28.3 percent, 128). Lagging further behind but still attaining respectable percentages were “wanted an academic job but not the teaching in an academic department” (21.2 percent, 96), “wanted more geographic mobility” (18.5 percent, 84), and “wanted an academic job but not the tenure process in an academic department” (14.8 percent, 67). “Other” made up 14.6 percent of the total, with responses related to liking the work/mission/environment of libraries (5.5 percent, 25), wanting a stable job/offered a library job (4.3 percent, 19), and personal/family considerations (2.7 percent, 12). When one considers that some of these options are closely linked, a more detailed picture emerges. Respondents who were unable to find a permanent teaching position or who wanted an academic job but not teaching or the tenure process in an academic department, for instance, were also likely to want more job options, a job related to their subject area, and to become a scholar-librarian. A large
percentage of respondents who had already started or finished their doctoral program when they decided to become a librarian clearly chose librarianship as a career because they enjoyed library work, indicating that most had worked in a library in some capacity beforehand. This finding suggests that exposing more advanced-degree holders to the profession tends to result in more entering it.

The variety of disciplines in which survey respondents earned their subject doctorates was even more diverse than their reasons for pursuing them. When asked in which discipline they had earned their doctorate, they responded with 32 different fields that we later grouped into four disciplinary areas (humanities and arts, social sciences, natural sciences, and professions/applied sciences). The large number of respondents in professions/applied sciences may be attributed, in part, to many academic law libraries’ expectation or preference for a JD.

Approximately 30 percent of law librarians hold a JD or LLB.

The fact that, from 1985 to 2005, the highest percentage of doctorate holders who were still seeking employment or further study within a year of earning their doctorate were in the humanities suggests that weakness in the academic job market may have contributed to the prevalence of respondents with doctorates in this area.

In order to examine in greater depth the relationship between fluctuations in the academic job market and the tendency of doctorate holders in the humanities to decide on a career in librarianship, we took a closer look at history, the discipline in which the greatest number of survey respondents received their doctorates (107). We compared our survey data on those who earned a PhD in history and decided to become a librarian during or after finishing their doctoral program to trends in history PhD production and job openings in history departments over time. According to a recent report published in Perspectives, the American Historical Association’s newsletter, the job market was extremely unfavorable from 1970 to 1980, was in flux between 1981 and 1986, saw an upturn for a short time between 1987 and 1990, and entered an extended downturn between 1991 and 2003, with the situation improving only in the last couple of years.


Survey respondents who earned their doctorate during certain time periods were more likely to have earned it in a specific discipline ($X^2 = 239.459$, with 203 df, $p = .041$). In 1975–1979, during the second half of the decade-long job crisis for humanities PhDs, history (25 percent), English (18.2 percent), and foreign languages and literatures (14.7 percent) attained the highest percentage of the total doctorates earned for all disciplines during this time frame and the highest percentage of the total that they achieved in any previous or subsequent time frame. Although at this point the job market had been depressed for some time, a delayed reaction on the part of doctorate earners is to be
### Table 2
Disciplines and Disciplinary Areas in Which Respondents Earned Doctorates

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Humanities and Arts</strong></td>
<td>59.9%</td>
</tr>
<tr>
<td>History</td>
<td>16.5%</td>
</tr>
<tr>
<td>English Language/Literature</td>
<td>12.0%</td>
</tr>
<tr>
<td>Foreign Language/Literature</td>
<td>8.3%</td>
</tr>
<tr>
<td>Music</td>
<td>6.9%</td>
</tr>
<tr>
<td>Area Studies</td>
<td>4.0%</td>
</tr>
<tr>
<td>Art History</td>
<td>3.4%</td>
</tr>
<tr>
<td>Philosophy</td>
<td>1.7%</td>
</tr>
<tr>
<td>Classics</td>
<td>1.5%</td>
</tr>
<tr>
<td>Art (MFA)</td>
<td>1.4%</td>
</tr>
<tr>
<td>Comparative Literature</td>
<td>1.2%</td>
</tr>
<tr>
<td>Religious Studies</td>
<td>1.2%</td>
</tr>
<tr>
<td>Medieval Studies</td>
<td>0.9%</td>
</tr>
<tr>
<td>Folklore</td>
<td>0.6%</td>
</tr>
<tr>
<td>Theatre</td>
<td>0.3%</td>
</tr>
<tr>
<td><strong>Natural Sciences</strong></td>
<td>5.4%</td>
</tr>
<tr>
<td>Life Sciences</td>
<td>4.2%</td>
</tr>
<tr>
<td>Physical Sciences</td>
<td>1.2%</td>
</tr>
<tr>
<td><strong>Professions / Applied Sciences</strong></td>
<td>24.4%</td>
</tr>
<tr>
<td>Law</td>
<td>11.6%</td>
</tr>
<tr>
<td>Education</td>
<td>10.8%</td>
</tr>
<tr>
<td>Health Sciences</td>
<td>1.4%</td>
</tr>
<tr>
<td>Business</td>
<td>0.3%</td>
</tr>
<tr>
<td>Public Administration</td>
<td>0.3%</td>
</tr>
<tr>
<td><strong>Social Sciences</strong></td>
<td>8.8%</td>
</tr>
<tr>
<td>Anthropology</td>
<td>2.3%</td>
</tr>
<tr>
<td>Political Science</td>
<td>1.4%</td>
</tr>
<tr>
<td>Geography</td>
<td>1.1%</td>
</tr>
<tr>
<td>Sociology</td>
<td>1.1%</td>
</tr>
<tr>
<td>Linguistics</td>
<td>0.9%</td>
</tr>
<tr>
<td>Psychology</td>
<td>0.9%</td>
</tr>
<tr>
<td>Communication</td>
<td>0.8%</td>
</tr>
<tr>
<td>Archaeology</td>
<td>0.3%</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td>1.4%</td>
</tr>
<tr>
<td><strong>N=649</strong></td>
<td></td>
</tr>
</tbody>
</table>
expected; most of this group of respondents earned a doctorate to teach and presumably needed some time to absorb the realities of the job market and adjust their goals. When the humanities experienced another job crisis in the 1990s, history and English again led the way in percentage of the total for 1995–1999, with 16.8 percent each, outdistancing all other disciplines. Results for the disciplinary area of humanities and arts, as a whole, reinforce these findings. Of academic librarians who earned their doctorate in this area, by far the highest percentages did so during two time periods, 1975–1979 and 1995–1999.26 Most recently, the disciplines with the highest percentage of the total number of doctorates earned in 2000 and later were in education (17.6 percent), history (15.5 percent), law (14.2 percent), and English (10.1 percent). These fields fall into either the humanities and arts or professions/applied sciences and have supplied large numbers of doctorate-holding librarians over time.

Since ACRL declared the ALA-MLS the appropriate terminal professional degree for academic librarians in 1975, the debate for and against hiring advanced-degree holders in librarian positions without an MLS has inspired an extended and, at times, heated exchange in the literature.27 This controversy prompted us to ask survey respondents whether or not they hold an MLS, since advanced-degree holders are often seen as one of the main groups from which academic librarians without an MLS are drawn. The majority, 82.6 percent (537), hold an ALA-MLS; and an additional 1.8 percent (12) hold a non-ALA-accredited MLS; but fully 15.5 percent (101) do not hold an MLS at all. Data on ACRL members minus PhDs point to 95.5 percent (2,448) holding an ALA-MLS, 1.5 percent (38) holding a non-ALA-accredited MLS, and only 3 percent (77) not holding an MLS. The fact that survey respondents are much less likely than ACRL members to hold an MLS is closely connected to variables related to subject expertise described in more detail below.28

In spite of the fact that ALA regards an accredited MLS as the terminal degree, the Association of Research Libraries (ARL) stated in 1995 that academic/research libraries increasingly require librarians to have advanced academic and/or specialized training, a need “driven by changes in library organizations, but . . . also due in part to the rising credentialing spiral brought about by the expansion of graduate education and attendant specialization in academia.”29 Our survey shows that doctorate-holding academic librarians who had fewer years of professional experience were much more likely not to hold an MLS than their more experienced counterparts ($X^2 = 49.385$, with 18 df, $p = .000$).

The percentage holding an ALA-MLS increases steadily with years of experience. Those respondents with 28–31 years experience show the highest percentage within all age categories. The percentage holding an ALA-MLS degree drops somewhat in the 32–35 and 36+ years of experience categories; however, the results in these categories should be approached cautiously because they have the fewest number of respondents (35 and 14, respectively). These findings, combined with the percentage of newer librarians without an MLS, seem to bear out an increasing need for doctorate
holders with subject expertise, even at the expense of sacrificing the MLS requirement. The fact that so many respondents lack the MLS but are, nonetheless, employed as professional librarians indicates that a significant number of academic/research library employers do not insist upon an MLS if the potential employee has a subject doctorate.\textsuperscript{30} It also effectively reinforces a widely held (if minority) view that, in certain situations, a subject doctorate offers many of the essentials that an MLS provides while also assuring that the candidate has deep subject knowledge in a particular field, advanced knowledge of the research process, or both.

In what fields are employers likely to be looking for this subject expertise? Survey respondents in specific disciplinary areas are less likely to hold an ALA-MLS than in others ($\chi^2 = 18.068$, with 8 df, p = .021). Respondents with doctorates in the social sciences are the least likely of the four disciplinary areas to hold an ALA-MLS, and those with doctorates in the humanities and arts are below average in holding an ALA-MLS. Respondents with doctorates in the natural sciences are above average in holding an ALA-MLS, and those with doctorates in the professions/applied sciences are the most likely to hold an ALA-MLS. Interestingly, the latter two groups are also more likely to hold a non-ALA-accredited MLS, so having the professional credential seems to be the main issue. These results indicate that those with doctorates in the social sciences and humanities and arts are more likely than their counterparts in the natural sciences and professions/applied sciences to be hired as academic librarians without an MLS. The results are reinforced when one looks at individual disciplines with the highest and lowest percentages of respondents holding an MLS. Of survey respondents, 33 percent in anthropology (social sciences), 27.3 percent in art history, 24.3 percent in history, and 23.1 percent in area studies (all humanities and arts) do not hold an MLS.\textsuperscript{31} On the other hand, only 5.8 percent in education, 6.7 percent in law (both professions/applied sciences), and 7.4 percent in life sciences (natural sciences) do not hold an MLS. Libraries likely to hire those with doctorates in the professions/applied sciences may be more strict about requiring an MLS; academic law libraries, for instance, from which a large percentage of our professions/applied sciences respondents are drawn, are very strin-
gent about requiring this credential. Additionally, libraries that hire those with social sciences and humanities doctorates tend to be more flexible about hiring without an MLS, especially for certain positions. The need for subject specialists in the social sciences and humanities, as well as for rare books/special collections librarians and archivists, is probably driving the trend to hire them without an MLS. Finally, despite the demand for academic librarians with a science background, many respondents with doctorates in the natural sciences may have felt it necessary to earn an MLS because their experience using libraries during their doctoral program would have been more limited by the nature of their work. Another contributing factor could be that they found themselves more financially able to pursue an MLS since doctoral candidates in the natural sciences tend to be well funded throughout their doctoral programs, unlike many of those in the humanities and social sciences.

**Current Position**

Survey respondents provided a variety of information on their current positions—area of work, kind of library, type of responsibility, whether any of the duties they perform are connected directly to their subject doctorate, and their status at their institution (academic/professional, tenure-track faculty, or non-tenure-track faculty). The main areas of work they chose most frequently were reference/information (18.7 percent, 114), administration (18.2 percent, 111), and collection development/management (17.7 percent, 108). Their fourth most frequently chosen area was rare books/special collections (10 percent, 61), with cataloging and instruction running a distant fifth and sixth (5.9 percent, 36 and 5.6 percent, 34, respectively). These areas are followed by archives (3.8 percent, 23) and extension/outreach and systems/automation (2.1 percent, 13, respectively). A significant relationship exists between survey respondents’ area of work and their age ($X^2 = 188.204$, with 135 df, $p = .002$). The most noticeable findings are that the highest percentage of respondents ages 29–52 work in reference/information, whereas the highest percentage for ages 53–65+ work in either in collection development/management...
agement or, as one might expect, administration. These trends may suggest that more opportunities exist for younger respondents in entry-level public services positions such as those in reference/information. A complementary factor may be that fewer collection development/management positions are available because they are often filled above the entry level. Moreover, librarians who hold these positions tend to remain in them; and, when they leave their positions, these may not be filled.

In addition, survey respondents who lack an MLS are significantly more likely to hold positions in certain areas of work than those with an ALA-MLS ($X^2 = 73.404$, with 30 df, $p = .000$). Of all areas of work, respondents in archives are the least likely to hold an MLS, followed by those in extension/outreach and rare books/special collections. Since academic/research libraries often prefer those with relevant subject and/or research expertise for these positions, they are probably more willing to hire doctorate holders without an MLS.

Data drawn from ALA’s membership database on ACRL members’ area of work and type of responsibility provide a basis of comparison between a more general population of academic librarians and survey respondents for these two variables. One striking difference in area of work is that 19.2 percent (112) of survey respondents work in collection development/management and acquisitions as compared to only 6.3 percent (550) of ACRL members; since less than 1 percent of respondents work in acquisitions, the bulk of them work in collection development/management. Similarly, 10.4 percent (61) of respondents work in rare books/special collections as compared to only 5.1 percent (445) of ACRL members. Doctorate holders, therefore, are clearly desirable candidates for positions in collection development/management and rare books/special collections—again, areas that make the greatest use of their advanced subject and research skills.

In spite of the fact that reference/information is the largest main area of work for survey respondents, a significantly higher percentage of ACRL members (29.8 percent, 2,599) than survey respondents (19.5 percent, 114) work in reference/information. The fact that a higher percentage of respondents than ACRL members reported collection development/management and rare books/special collections as their main areas of work might help explain why a lower percentage of respondents chose reference/information. Since many survey respondents hold subject specialist positions that combine collection development/management and reference/information, and these positions tend to be more collections- than reference-oriented, respondents may be inclined to select collection development/management as their main area of work. Also, even though administration is respondents’ second-largest main area of work, significantly more ACRL members reported administration as their main area of work—30.1 percent (2,626) as compared to survey respondents (18.2 percent, 111). This fact is consistent with the finding about the type of responsibility reported below that shows more ACRL members than survey respondents hold a position at the level of department head or higher. In all other areas of work, respondents and ACRL members are represented in comparable percentages.

When asked in what type of library they work, the vast majority of survey respondents indicated “university library (with graduate programs)” (78.3 percent, 477). “Other research library” (9.4 percent, 57), “four-year college library” (6.4 percent, 39),
and “community college library” (2.3 percent, 14) ran a distant second, third, and fourth, respectively. “Other” (3.6 percent, 22) included presidential libraries, state libraries and archives, historical societies, museum libraries, and other special libraries.

In response to a question about the type of responsibility they have in their current position, the largest percentage of respondents (41.9 percent, 255) indicated “non-supervisory.” Of the supervisory positions, they chose “department head” first (17.6 percent, 107), “supervisor” second (14.9 percent, 91), and “director/dean” third (12.3 percent, 75). The smallest number of respondents selected “assistant/associate director” (6.9 percent, 42). Still, taken together, those in supervisory positions make up a larger proportion of respondents (51.7 percent) than those in non-supervisory positions (41.9 percent). These figures show that the majority of survey respondents took on the supervisory role, even though many of them did not wish to, did not have the opportunity, or were not considered good candidates to supervise compared to ACRL members. Although the largest proportion of ACRL members also hold non-supervisory positions (20.5 percent, 2,064), this percentage is much lower than that of survey respondents in these positions. Among ACRL members, 18.1 percent (1,827) are directors/deans, 17.8 percent (1,796) are department heads, 10 percent (1,010) are supervisors, and 8.2 percent (824) are assistant/associate directors. All together, then, 54.1 percent of ACRL members hold supervisory positions, whereas only 51.7 percent of survey respondents hold these positions. Other than non-supervisory positions, the lowest level—supervisor—is the only category for which the percentage of survey respondents (14.9 percent) is higher than that for ACRL members (10 percent). Thus, a greater proportion of ACRL members than doctorate-holding academic librarians are in department head or higher positions.

When asked whether any of the duties they perform in their current position are connected directly to their subject doctorate, a significant minority of survey respondents (21.2 percent, 129) said that their current duties are not connected directly to their doctorate, but the vast majority (78.8 percent, 480) said they are. The latter group was then asked what skills from their doctorate they use in their current library work. In order to provide a more comprehensive understanding of their views, they were allowed to select all options that applied. A large majority indicated “knowledge of the research process in my subject area” (85.6 percent, 523), “familiarity with scholarly communication” (84.5 percent, 516), “subject expertise” (79.9 percent, 488), and “knowledge of the literature in my subject area” (75.5 percent, 461). Somewhat less common but still significant were “teaching experience” (64.2 percent, 392) and “language skills” (45 percent, 275). Fully 15 percent (92) reported that they bring other doctorate-related skills to their library work, including “an understanding of higher education culture, values, and processes,” “writing/communication skills,” “bibliography, printing, and publishing history,” “the ability to communicate at a high level with faculty members in various disciplines,” “empathy for students learning same subject,” and “an understanding of the causes of researchers’ frustration with libraries.” The fact that so many survey respondents work in non-supervisory positions, have duties connected to their subject doctorate, and selected so many different subject-related skills—including foreign languages—as necessary or valuable to their current position indicates that many choose to remain in “lower-level” positions in which they can remain heavily involved in subject-specific librarianship. This tendency may help explain why fewer respondents work in administration and in supervisory positions than ACRL members.
In answer to a question about the status of librarians at their institution, the clear majority of survey respondents indicated that they hold non-faculty positions (administrative/professional status, 50.4 percent, 310). Those who hold tenure-track faculty positions follow fairly closely (36.7 percent, 226), with those who hold non-tenure-track faculty positions trailing at 12.8 percent (79). A significant relationship exists between the respondents’ status at their institution and whether or not they possess an ALA-MLS ($X^2 = 11.471$, with 4 df, $p = .022$). The most striking finding is that respondents with administrative/professional status are more likely not to hold an MLS. Within the various groups, 19.5 percent with administrative/professional status lack an MLS as compared to only 10.4 percent with non-tenure-track faculty status and 9.8 percent with tenure-track faculty status. Similarly, 66.7 percent of the total who do not hold an MLS fall into the administrative/professional category. These results might be explained, at least in part, by comparing the status of survey respondents to that of librarians at ARL libraries—an elite group of 120 major research libraries. According to a 2002 survey of ARL directors, academic librarians have tenure-track faculty status at about half of all ARL libraries, and they have either non-tenure-track faculty status or administrative/professional status at the other half. Moreover, within the subset of ARL libraries that have the most available resources and greatest need for subject expertise—those associated with Ivy League and other leading private and public universities—librarians tend to have administrative/professional status. Presumably many of these libraries are less concerned about their librarians holding an MLS since subject expertise and the prestige of the doctorate matter more.

### Conclusion

This article assesses the basic characteristics, educational and career choices, and current positions of academic librarians who hold subject doctorates in the United States and Canada. We gathered data directly from the target population through a broad-based online survey and used these data to describe and analyze their MLS-holding patterns, timing and motivation for educational and career choices, field of subject expertise, range of current positions, and projected retirement trends. We undertook the larger study upon which this article is based in order to provide academic/research libraries with current information about doctorate-holding librarians as a distinct and heavily recruited group as well as to convey their experiences to advanced-degree holders who may be considering librarianship as a career.

Those who think that nearly every doctorate holder seeking work in an academic/research library requires an ALA-MLS should think again. One of the present authors needed to do just that. In a recent opinion piece in *The Chronicle of Higher Education*, he argued that an MLS was necessary to ensure long-term career mobility. The piece was based upon his own experience as well as many informal discussions with other academic librarians over a period of six years. Our survey results confirm the truth of this statement for the great majority of doctorate-holding academic librarians. We must now acknowledge, however, that the results also clearly reveal that there are more exceptions to this rule—by years as a librarian, disciplinary area, area of work, type of employing library, and status of librarians in the institution—than either of us imagined. Perhaps
most interesting is that respondents with fewer years of experience are more likely to lack an MLS than their more experienced counterparts.

Beyond this significant fact, we discovered that most respondents decided to become a librarian after finishing their doctorate, that the greatest number of those who chose librarianship before starting their doctorate were motivated by personal interest/fulfillment to earn it, and that the greatest number of those who chose librarianship during or after completing their doctorate undertook it in order to teach and chose librarianship because they enjoyed library work. Moreover, the greatest number of respondents earned their doctorate in the humanities and arts, especially in history and English, followed by the professions/applied sciences, particularly in law and education. Their main areas of work in rank order are reference/information, administration, collection development/management, and rare books/special collections, with the latter two areas notable for making most use of respondents’ subject expertise and the first area for attracting younger respondents.

Most respondents work in university libraries. The largest numbers of respondents, as opposed to ACRL members, are not supervisors and tend to remain in positions relating to their subject expertise. The only supervisory responsibility type with a greater proportion of survey respondents than ACRL members is the lowest level of supervisor. Thus the overall percentage of ACRL members is greater in supervisory positions and particularly in higher-level supervisory positions. Finally, the majority of respondents hold positions with administrative/professional status and are less likely to hold an MLS than those with faculty status, tenure-track or not.

Given the small percentage they represent in the overall population of librarians, we were quite surprised that 664 academic librarians holding subject doctorates responded to our survey. Even if they were more likely than academic librarians, in general, to participate in this type of survey, the sheer number who responded in the two weeks the survey was available indicates that many more such professionals currently work in U.S. and Canadian academic/research libraries than one might expect. Considering this population in light of recent concerns about the graying of the profession, we wondered whether we should expect a shortage of doctorate-holding librarians in the foreseeable future. In keeping with overall retirement trends, a large number of respondents will retire in the next five to 15 years; but, as our data show, doctorate holders continue to flock to academic libraries in ever-increasing numbers proportionate with those who earn doctorates. Whether retirements will contribute to the projected shortage will depend upon many factors, including how many work past age 65 and whether their jobs are reposted as currently configured, with adjustments to duties, or not at all. The bulk of respondents obviously enjoy and, therefore, remain in subject-related jobs (the oldest tend to work in collection development/management); however, in an academic library environment in which roles are constantly being redefined, it remains to be seen whether deep subject and language expertise will continue to be preferred, let alone required, and, if so, to what extent. In a world of shelf-ready books and cooperative purchasing programs, will the projected retirements of doctorate-holding librarians make a great impact? Will academic libraries continue to recruit them but mainly in the area we see the younger respondents entering—reference/information? Is it possible that certain kinds of academic libraries (for example, those with the greatest financial resources and
affiliated with large graduate programs) will keep hiring them into a variety of positions that make good use of advanced subject and research skills, such as collection development/management, rare books/special collections, and archives?

Our follow-up article on the perceptions of doctorate-holding academic librarians will reveal greater detail about this population, especially their experiences in the workplace, level of satisfaction with their choice of career, and views about the advantages and disadvantages of academic librarianship as a career for those with subject doctorates. One possible avenue for future research would be to investigate how academic/research library directors perceive future needs for doctorate holders at their institutions and whether they expect the trend toward decreasing MLS requirements for these employees to continue, plateau, or reverse themselves in the next decade.

Appendix

Please note that the appendix can be located on Project Muse, http://muse.jhu.edu/journals/pla/v008/supp_open/8.1lindquist_appendix.doc.

*The appendix has been added to the end of this paper.*

Thea Lindquist is history and Germanic language and literature librarian and librarian for collections research, University Libraries, University of Colorado Boulder, Boulder, CO; she may be contacted via e-mail at: Thea.Lindquist@Colorado.edu.

Todd Gilman is librarian for literature in English, Sterling Memorial Library, Yale University, New Haven, CT; he may be contacted via e-mail at: todd.gilman@yale.edu.

Notes
9. The survey results are anonymous and thus unassociated with any identifiable personal information. Respondents were advised of this to encourage them to be as forthcoming as possible.
10. The breadth of the audience the electronic discussion lists could potentially reach was great. Just some examples were lists for U.S. and Canadian academic librarians, subject specialists (for example, English, Slavic, anthropology and sociology, education, and behavioral sciences), special librarians (for example, rare books and manuscripts, map, art, law, medical, music, and government documents), and librarians interested in specific library services/functions (for example, reference, collections, information technology, administration, and distance learning).
11. Demographic variables used in cross tabulation but not described in this section are age, years as a librarian, and year earned doctorate.
12. Consultants at the Yale University Social Science Statistical Laboratory have approved our strategy for creating this data set. Since ALA’s “Member Demographics Survey” is voluntary, only 27 percent of ACRL members completed it between May 2005 and January 2007; however, the sample is substantial (3,434 respondents). Additional information about this survey is available at http://www.ala.org/ala/or/s/reports/reports.htm. ALA and ACRL provided, for the purposes of comparison, gross membership figures on an “as is, as available” basis and are not responsible for errors in or omissions from these data, including but not limited to technical inaccuracies and/or typographical errors.
14. Based on data reported every fifth year from 1975 to 2005, 53.3 percent of doctorates in non-science and engineering fields were awarded to men and 46.7 percent to women; 55.1 percent were awarded to men and 44.9 percent to women in the humanities, the disciplinary area in which the largest number of survey respondents earned their doctorate. Moreover, these data do not include figures from 1965 and 1970, which would have certainly raised the overall male percentage (National Opinion Research Center, Survey of Earned Doctorates, “Survey of Earned Doctorates Summary Report Tables” (2006), 48, table 7, http://www.norc.org/NR/rdonlyres/2E87F80C-82F6-4E26-9F78-CA46E0B79C6/0/sed2005.pdf (accessed October 7, 2007).
17. The University of Wisconsin–Madison School of Library Information Studies and the University of Maryland College of Information Studies are conducting the IMLS-funded project “Subject Specialists for Academic and Research Libraries: Research, Recruitment, and Education,” which is collecting data on issues relevant to a projected shortage of subject specialists in academic/research libraries. For more information, see: http://slisWeb.lis.wisc.edu/~imls/ (accessed October 5, 2007).
19. We did not include data for respondents who earned their doctorate 2003–2006 because respondents in the “before” category were already librarians, and those in the “during” category probably became librarians more quickly than “after” respondents would. Thus, the percentage of respondents who chose librarianship cannot be accurately represented for those who earned doctorates in this time frame. However, the actual numbers who chose librarianship before are accurate and show a sustained rise through 2006.

20. Thirty disciplines were listed in our survey, but we received no respondents in some categories such as mathematics and added new ones based on “other” responses such as folklore.


24. Townsend, “History PhD Numbers.” See particularly figure 1: “Trend in History PhD Production and Job Openings, 1970–01 to 2005–06.” In the late 1980s, several studies projected a significant shortage of PhDs in the humanities and social sciences relative to job openings, thus contributing to an unprecedented jump in enrollments in history PhD programs. William Bowen and Julie Ann Sosa, Prospects for Faculty in the Arts & Sciences (New York: Princeton University Press, 1989), 168; John H. D’Arms, “Universities Must Lead Efforts to Avert PhD Shortages,” The Chronicle of Higher Education, January 17, 1990, B1. The anticipated job openings, however, did not materialize for a variety of reasons, including a slow down in the retirement rate, loss of retirees’ lines, few new lines, larger class sizes, and the increasing use of part-time and emeritus faculty. Thus the 1990s job crisis and widespread pessimism within the profession about the long-term job outlook for history PhDs was due to the increasing disparity between the numbers of new PhDs and available academic positions. Robert B. Townsend, “Report 1997: Bleak Outlook for the History Job Market,” Perspectives (April 1997): 7–9, 11–13.

25. Due to the low numbers of survey respondents who received their history PhD in 1965–1969 and 1970–1974, presumably due to retirements, the data could not reliably be compared to that for other time frames.

26. In addition to the push created by a poor academic market, there may have been a complementary pull phenomenon resulting from increased funding to academic libraries during these time periods. One possible avenue for further research would be to explore hiring trends in academic libraries during these years.


30. According to Neal, academic library employers tend to forego an MLS for “feral” positions, such as human resources, fundraising, and instructional technology, in addition to positions requiring subject expertise and language skills.

31. One notable departure from this trend is music, which has only 11.1 percent without an MLS—a humanities discipline well below the average.
32. If candidates are hired with a JD only, law libraries generally require them to earn an MLS as well. The authors thank Celeste Smith of the American Association of Law Librarians for this information.

33. Less than 1 percent of respondents work in government documents, acquisitions, circulation, interlibrary loan, preservation, or development.

34. In order to facilitate comparison, we eliminated archives, interlibrary loan, and development (26) from our survey data since these categories did not exist in the ACRL membership data, and we combined our collection development/management and acquisitions categories since they exist as one category in the ACRL data.

35. The percentage of ACRL members who report working in administration (30.1 percent; 2,626) is significantly lower than the percentage who report, in answer to a separate question on type of responsibility, working as supervisors, department heads, assistant/associate deans, and directors (together this totals 54.1 percent; 5,457). We assume this is because many ACRL members think of their position according to the unit in which they work (such as collection development or reference) rather than their level of responsibility within the hierarchy (for example, administration). Thus, a head of reference presumably reports herself as working in reference/information not administration.

36. Other answers comprise the percentage difference to equal 100 percent for both respondent and ACRL data.


38. Ibid. In response to a question about hiring librarians without an MLS, many ARL directors said as much.

Survey

I. Educational Background

1. In what field did you earn your doctorate? For Area Studies, specify the subject field under “Other,” e.g. American Studies, Latin American Studies.
   - Anthropology
   - Archaeology
   - Architecture
   - Area Studies
   - Art (MFA)
   - Art History
   - Business
   - Classics
   - Communication
   - Comparative Literature
   - Economics
   - Education (incl. EdD)
   - Engineering/Computer Science
   - English Language/Literature
   - Foreign Language/Literature
   - Geography
   - Health Sciences (incl. MD)
   - History
   - Life Sciences
   - Linguistics
   - Law (incl. JD)
   - Mathematics
   - Music
   - Philosophy
   - Physical Sciences
   - Political Science
   - Psychology
   - Religious Studies
   - Sociology
   - Theatre
   - Other (please specify)

2. Do you hold a master’s degree in library/information studies (MLS)?
   - No
   - Yes, not ALA-accredited
   - Yes, ALA-accredited

3. When did you decide on a career in librarianship?
   - Before starting my doctoral program (checking this box and clicking Next below will send you to Question 4)
II. Subject Doctorate

4. What is the main reason you pursued a subject doctorate?
   - Become a member of the teaching faculty
   - Gain the respect of teaching faculty
   - Personal interest/fulfillment
   - Increase potential for advancement in the library profession
   - Become a subject specialist/bibliographer
   - Other (please specify)
   
   [Skip to Question 7]

II. Librarianship as a Career Choice

5. What was the main reason you pursued a subject doctorate?
   - Did not have a better idea of what I wanted to do after finishing my bachelor’s/master’s degree
   - Outside expectations
   - Personal interest/fulfillment
   - Would make me more marketable in whatever career I chose
   - Wanted a teaching position at a college/university
   - Other (please specify)

6. Why did you choose librarianship as a career? (check all that apply)
   - Unable to find a permanent/tenure-track teaching position at a college/university
   - Wanted an academic job, but not the tenure process in an academic department
   - Wanted an academic job, but not the teaching in an academic department
   - Wanted more geographic mobility
   - Wanted more job options
   - Wanted a job related to my subject area
   - Wanted to become a scholar-librarian (i.e., a librarian pursuing independent scholarship)
   - Enjoyed library work
   - Other (please specify)

7. Which of the following would have made it easier for you to earn an MLS? Please respond whether you hold an MLS or not. (check one only)
   - Option to apply previously earned graduate credit in subject area towards MLS credit requirements
   - Combined doctorate/MLS program
   - Better distance degree options (e.g., online degrees)
   - More fellowship options
   - GRE waiver
III. Current Library Position

8. Please state your descriptive job title, e.g. History Librarian instead of Librarian III.

9. What is your main area of work?
   - Collection Development/Management
   - Reference/Information
   - Instruction
   - Extension/Outreach
   - Rare Books/Special Collections
   - Archives
   - Government Documents
   - Circulation
   - Interlibrary Loan
   - Systems/Automation
   - Cataloging
   - Acquisitions
   - Preservation
   - Development
   - Administration
   - Other (please specify)

10. Which category best describes your type of responsibility?
    - Non-Supervisory
    - Supervisor
    - Department Head
    - Assistant/Associate Director
    - Director/Dean
    - Other (please specify)

11. In what type of library do you work?
    - Community college library
    - Four-year college library
    - University library (with graduate programs)
    - Other research library
    - Other (please specify)

12. Is any of the work you do in your current position connected directly to your subject doctorate?
    - No
    - Yes

13. Which of the following skills does your subject doctorate bring to your current library work? (check all that apply)
- None (skip to Question 15)
- Subject expertise
- Language skills
- Knowledge of the literature in my subject area
- Knowledge of the research process in my subject area
- Teaching experience
- Familiarity with scholarly communication
- Other (please specify)

14. Do you feel you are adequately compensated in pay and benefits for these skills?
   - 1 = not at all
   - 2 = not much
   - 3 = somewhat
   - 4 = very much
   - 5 = extremely

15. Which of the following best describes the status of librarians at your institution? Your response will send you to questions tailored to your work situation.

   Faculty status = librarians are officially recognized as faculty and are eligible to participate in faculty governance
   Tenure track = librarians undergo a formal tenure process after which they are officially tenured
   Academic/Professional status = librarians undergo a formal promotion review process that leads to continuing appointment or similar status

   - Faculty status - tenure track (checking this box and clicking Next below will send you to Question 16)
   - Faculty status - non tenure-track (checking this box and clicking Next below will send you to Question 31)
   - Academic/Professional status - non faculty (checking this box and clicking Next below will send you to Question 46)

IV. Publishing

16. Have you published scholarly peer-reviewed articles or books since becoming a librarian?
   - No (skip Question 17/32/47 and click Next)
   - Yes, peer-reviewed articles
   - Yes, peer-reviewed books
   - Yes, both peer-reviewed articles and books

17. If you answered Yes, in what area have you published the most?
   - Library/information studies (LIS)
   - Your subject area (that in which you hold your doctorate)
   - Another subject area (besides that in which you hold your doctorate)
V. Attitudes About Librarians With Subject Doctorates

18. In general, how do library co-workers at your place of employment view your subject doctorate?
   - 0 = neutrally (no opinion)
   - 1 = not at all favorably
   - 2 = not very favorably
   - 3 = somewhat favorably
   - 4 = very favorably
   - 5 = extremely favorably

19. Why do you feel this way?

20. Which do you think is more important to the teaching faculty regarding you with collegial respect, that you hold a subject doctorate or that you are tenure-track (20.) / have faculty status (35.)?
   - Faculty do not regard librarians with collegial respect
   - Subject doctorate
   - Tenure-track (20.) / Faculty status (35.)
   - Other (please specify)

VI. Concluding Comments

21. In general, how much do you like being a librarian?
   - 1 = not at all
   - 2 = not much
   - 3 = somewhat
   - 4 = very much
   - 5 = extremely

22. Overall, do you think the profession of librarianship welcomes those with subject doctorates?
   - 1 = not at all
   - 2 = not much
   - 3 = somewhat
   - 4 = very much
   - 5 = extremely

23. What do you see as the greatest advantage of being a librarian with a subject doctorate?

24. What do you see as the greatest challenge of being a librarian with a subject doctorate?

25. Please share any additional comments or observations you may have.

VII. Demographics
26. How many years total have you worked as a professional librarian?

27. What year did you earn your doctorate?

28. What year were you born?

29. What is your sex?
   - Male
   - Female

30. Which category best describes your race/ethnicity?
   - Hispanic or Latino/a
   - Native Hawaiian or Other Pacific Islander
   - Asian
   - White
   - Black or African American
   - American Indian or Alaska Native
   - Other (please specify)