ARTICLES

Surveying Archivists and Their Work toward Advocacy and Management, or "Enterprise Archiving"

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ABSTRACT

Archivists ensure preservation of and access to permanently valuable records in the course of their everyday work. We present results from a spring 2014 survey that sought to gather data on the work archivists do, competencies required for this work, and archivists' recommendations for graduate curricula in archival studies. Our research questions sought to measure or describe a) the nature of everyday archival work, b) the frequency of specific interactive and materials-based tasks, c) the greatest challenges of the archivist's work, and d) recommendations for further emphasis in graduate archival education. We targeted the survey strategically to professional archivists as well as to graduates of a master's program in information studies and obtained 490 responses. Much of the communication that archivists must do is "enterprise archiving," which centers around advocating for the value of well-managed archives. Recognizing prior efforts to raise awareness of professional demographics and skills used on the job, we present our work as a continuation of initiatives aiming to transform data gathered about our activities and competencies into broader public support for archives and archivists.

KEY WORDS

Advocacy, Collaboration, Management, Public services, Surveys

How do you measure a year in the life?

—*Jonathan Larson (1960–1996), as quoted by Kathleen Roe (2014)[1]*

In her incoming presidential remarks at the annual business meeting of the Society of American Archivists in August 2014, Kathleen Roe accentuated the importance of advocacy activities within the archival profession. Roe articulated a desire to see archives assume a more elevated public profile, one that would go beyond our status quo, "where archives and archival records are used in modest amounts, for a modest number of purposes by a modest range of users."[2] Roe argued that we already have the tools and stories to document how "archivists change lives" through services provided and that it is high time for archivists to visibly embrace their own powerful impact on society. With these words, Roe launched the "Year of Living Dangerously for Archives."[3] During this year, archivists participated in monthly calls to action centered around demonstrating the importance and value of archival work—acts that Roe acknowledged may require archivists to, at least at their workplaces, "live dangerously." For the success of Roe's initiative, it was important that archivists do something outside their normal course of duties to promote archives or compel others to render their support for archives in a material way. These actions could take many forms: meeting with legislators, hosting a repository tour, scheduling a media visit, writing a press release, penning a self-reflection, or gathering input from patrons. That these actions are considered to be potentially "dangerous" reflects the relative status of advocacy work within the total spectrum of archival work today as too often ignored in favor of more tangible tasks and duties.

Roe's announcement must become the catalyst for working toward a future in which our profession's collective capacity to self-advocate is stronger. The initiative highlighted advocacy work as a key proficiency but one that has not yet moved from the peripheries to the core of archivists' daily work practices. While some advocacy practices are well documented (e.g., in such reference works as Roe's *Arranging and Describing Archives and Manuscripts*, and in the SAA Standards Portal,[4] which offers resources from appraisal to preservation), only a few of these efforts have sought direct input from a quantifiably broad range of current archival practitioners. As Roe acknowledged shortly after launching her initiative, a decade has passed since the Archival Census and Education Needs Survey in the United States (A*CENSUS), sponsored by the U.S. Institute of Museum and Library Services (IMLS) and managed by SAA members and staff, generated data on American archives, archivists, and archival repositories.[5] Neither the A*CENSUS nor related work, as discussed below, focused on documenting advocacy, much less any preservice experiences that might prepare and inform these individual actions. Roe's initiative did result in the creation of such documentation in the form of individual actions and stories,[6]

and the study we describe attempts to parse how much work time archivists are spending on such actions. To understand the tasks that comprise archivists' daily work, the frequency of these tasks, and the significant challenges encountered around these tasks, we carried out a survey of archivists in the spring of 2014. The goal of this survey was to inform graduate archival curricular development and thus ultimately to benefit both archival students and archivists. The study presented here is part of a larger project, funded by the IMLS in 2012, to study the changing nature of the work of information professionals.[7]

Previous Surveys of Archival Work

To guide our survey design, we consulted previous research studies of professional archivists. Archivists and their work have been studied for well over a half-century, as noted in Appendix A of the A*CENSUS research article by Victoria Irons Walch et al.[8] In fact, the A*CENSUS constituted the seventh quantitative survey of the profession, counting two that were intentionally conducted on a small scale (by Ernst Posner in 1956 and by Frank B. Evans and Robert B. Warner in 1970).[9] As the immediate predecessor to the A*CENSUS, David Bearman's 1982 survey gathered demographic data about archivists, such as age, race, and sex, as well as occupational information, such as academic training, employment status, job title, salary, and workplace organization.[10] Importantly, Bearman's survey was the first to examine, in his words, what "kind of work persons who are members of archival organizations actually do."[11] While the other earlier surveys reached a range of archivists, they covered a limited set of topics: Mabel Deutrich and Ben DeWhitt's survey in 1979 explicitly focused on salaries, and a 1973 survey by an SAA committee assessed gender balance through comparative measures, as had Deutrich's separate 1970 survey.[12]

Apart from the broad topical range covered in the A*CENSUS research and its predecessors, other studies have used survey methods to examine particular aspects of archivists' work lives. In 1974, responding to a need identified within the World Bank, Charles Ziegler developed a set of procedures to govern the institution's archival materials by administering a questionnaire for the archival administrators at eleven agencies. His presentation of results attends specifically to archival skills as they provide useful descriptive and comparative information.[13] Haitao Li and Linlin Song adopted a similar focus in their 2009 empirical research study on archival skills, from the dual perspectives of practitioners and scholars in China.[14] A 1998–1999 survey administered to graduates of sixteen archival programs yielded a "large and comprehensive set of baseline data," which focused on such measures as age, residency status, time-to-degree, and professional participation. Elizabeth Yakel found that many archivists were thirty or younger at the time of graduation and had selected archives as a first

career; and, while most were employed by colleges and universities, almost one in two history program graduates entered the governmental sector.[15] David Wallace examined current archival graduate students' prior exposure to the archival profession and their career aspirations through a survey mediated by fellow archival educators and found that over one-third of respondents expressed a preference for working in the cultural heritage or fine arts sectors upon graduation. A 2006 study led by Wendy Duff obtained similar, longitudinal data in a Canadian context, finding that 65% of students felt that a great deal of computing knowledge would be needed in five years' time.[16] In 2006, Susan Davis surveyed archival repositories' levels of readiness for handling born-digital records.[17] Finally, Amber Cushing built on the work of the A*CENSUS in her 2008 survey of job satisfaction among young archivists.[18] Cushing observed that since most other archival surveys have been purposed toward the betterment of archival education, their survey instruments have primarily focused on outcome-centric measures such as job placement, retention, and salaries, rather than on job satisfaction. This is arguably the case for the A*CENSUS as well as several of the above studies. As this review reveals, prior study designs have emphasized gathering descriptive statistical data on measures that could feasibly generate actionable recommendations for future professional directions.

In addition to examining studies on archivists, we examined the extensive archival literature on graduate-level education, professional identity, and their intersections. We highlight a key difficulty within the archival science discipline, one that has historical roots: that of separating its issues into pure research or education spheres. Whether one follows a national, institutional (programmatic), or theoretical agenda in studying archives in society, the foundational principles of archives inevitably enter the discussion, and these have long been informed by both research and education. Understanding education to be broader than simply training, Terry Cook explicated an open-ended approach to archival education. Other articles in the special issue of *The American Archivist* on graduate archival education, edited by Elizabeth Yakel,[19] complemented his view. As Carol Couture's research and extensive bibliography made clear, the steady growth observed over the 1990s in the number of archives programs may be attributable to the rich well of professional practice that archival researchers are able to draw upon. Yet Couture remained concerned about the thinness of some areas of research, both because of the small numbers of people actively researching them and the immense breadth of available research topics.[20] John Colson had explored this same phenomenon earlier, noting that in the specific case of the archival profession, much of our search for (an externally facing) identity has been realized as a "debate about shadows rather than a concern with reality."[21] We appraise Colson's article as an early example advocating a unifying view of archives as one of the *information professions*, a key driver for our

study. Colson's argument preceded those of later scholars who centered their analyses of practical skills around understanding how convergence is affecting the traditional library, archives, and museum worlds.[22] Writing two decades later, Terry Eastwood made a closer and more philosophical examination of how archival curricula have developed within North American universities; his historical thesis argues that archival knowledge is inherently and unalterably "distinctive," and successful archival programs must recognize, pursue, and cultivate this distinct area of study and practice to be contributing members of it.[23] Otherwise, what they are doing is not archival science. Thus, we can begin to appreciate the burden placed upon archival educators: they carry out the task of reconciling archival theory with archival practice.

These concerns took on a more definitive form in the 1990s, when archival educators became visibly concerned with evaluating the state of the profession in light of the looming presence of electronic records. In his 1990 survey, Richard Cox found that graduate programs were still slow to add digital archiving issues to their archival curricula.[24] Terry Eastwood also commented on educators' unfortunate reluctance to assess "the skills graduates have." On top of arguing for such change, Eastwood suggested that embracing our blurriness may in fact be a good way forward: students should be "drawn into the wider running of a repository" just as practitioners should be drawn "into the educational exercise."[25] Furthermore, the placement of archival studies programs within universities makes the current moment a ripe one for educators to revive and re-embrace a curricular emphasis on teaching skills. As the field seriously confronts the challenges of digital archiving, archival educators are well positioned, particularly in iSchools (as Richard Cox and Ronald Larsen argued), to lead the way by creating new professionals who are well equipped to handle these new responsibilities.[26] Finally, we might do well by considering Timothy Ericson's reflection on the obligations and burdens of archival continuing education programs, which he argued exist because our archival world is an imperfect one: not all archivists are graduates of academic programs, much less archival ones. As he carefully critiqued these programs, Ericson also left us to ponder whether in archives, there may be no truly "distinct entities" at all.[27] His image of archival education as a continuum rather than a deliverable serves as an apt reminder of the responsibilities archival educators have to the profession.

Drawing on this background, the following sections introduce a survey on archivists that we conducted in spring 2014. We first discuss the motivations, design, and sample of our survey research, and then the particular tasks and skills archivists draw on in performing management and advocacy activities. Our recommendations for curriculum developers are based on the insights shared by almost 500 archivists working in a range of industries.

Methodology

MOTIVATIONS AND DESIGN

The Society of American Archivists, as a major professional organization, supports archival research on a national scale, both as a representative body and through support of its affinity groups.[28] We found that a simple inventory of these affinity groups provided an informative view on what range of professional activities we might measure, particularly since the groups identify major ways in which archivists engage with materials directly: appraisal, description, preservation, and access. While studies of each one of these major activities exist, we found that few efforts, besides the A*CENSUS, have considered each in relation to one another in the course of an individual archivist's workday. We intentionally designed our study around the activities of practicing archivists (rather than those of archives students[29]) as part of our broader interest in generating data about what work occurs in the field. We sought to reflect the authentic concerns faced by archivists in their everyday work, taking up the question put forth by Richard Cox: "How do educators teach their students to be as knowledgeable as possible *and* responsive to the situations faced by archivists and archival problems in the real world?"[30]

The survey of archivists pursued five guiding research questions, for which analysis of the first three is primarily quantitative while another two call for qualitative analysis of open-ended responses. We present each below along with the questionnaire item(s) in which we operationalized the issue. The full questionnaire can be found in Appendix A.

1. How can we measure or describe the nature of everyday archival work, specifically the proportion of weekly hours dedicated to interacting with clients/patrons and the breakdown of particular types of interactions? [Q6, Q10]
2. How frequently do archivists perform specific interactive tasks? [Q8]
3. How frequently do archivists perform specific materials management tasks? [Q9]
4. How do archivists describe the greatest challenges of their work? [Q11]
5. What specific components do archivists believe should be emphasized in graduate archival education? [Q12]

Our survey design relied on the creation of a questionnaire that respondents would read and complete online. Working initially within the structure of a graduate-level course on survey design (spring 2014) and then with a summer study group, we developed survey questions guided by the principles of clarity and purpose espoused by Floyd Fowler, including specific variables and measurement scales to meet our objectives[31] and also from themes we identified

from three prior research surveys (Walch et al., Yakel, and Wallace).[32] In addition to ten archivist-specific questions, the spring course participants developed demographic questions addressing participants' information industry, educational background, gender, and job satisfaction. The final survey instrument included nineteen questions.

More broadly speaking, we seriously considered the issues of the definition and identification of "archival graduates"[33] raised in previous research. Ultimately, we set aside the issue of having archival training and simply allowed each of our potential respondents to self-identify as an archivist. We recruited our sample from two groups of archivists: first, alumni of a graduate master's program in information studies[34] (2,260 individuals in the graduating classes of 1951 to 2013) and second, several archival listservs (hosted by the Society of American Archivists, the largest national professional organization of archivists). Combined with our encouragement to respondents to forward the survey to colleagues and other networks, the set of archivists we sought to reach did not have an upper limit; thus we characterize our data collection approach as snowball combined with targeted communication strategy (primarily electronic, including email and Twitter).

IMPLEMENTATION

The survey was conducted using the online software SurveyMonkey, and it remained active between March 26 and June 2, 2014. We emailed the survey to several professional archivists' listservs as summarized in Table 1,[35] as well as to alumni, who could choose to respond to questions about working in archives. We sent two reminders during this period to increase our response rate and continued to recruit participants through April 14. In total, we obtained 490 responses, of which 118 were alumni and 372 were reached through listservs and the snowball strategy (see Table 1).

Table 1. Professional Venues Reached in Sampling

Method of contact	Organization or group
Email	Society of American Archivists Archives and Archivists List Society of American Archivists Archives Management Roundtable Society of American Archivists Preservation Section Society of American Archivists Public Library Archives/Special Collections Roundtable Society of American Archivists Records Management Roundtable Society of American Archivists Students and New Professionals Roundtable University of Florida Records Management listserv Association for Information Science and Technology (ASIS&T)

Findings

Respondents' Backgrounds and Workplace Context

We first present statistics about our survey respondents to describe the state of contemporary archival work. Regarding full- or part-time archival work, 160 respondents (35% of 455 answering) reported working 40 or more full-time dedicated weekly hours, while even more (196, or 43%) worked between 20 and 39 hours, and some (99, or 22%) reported 19 or fewer dedicated hours worked weekly. A large proportion of our archivist sample worked less than full-time hours on archives—in a later question that asked the total hours worked "in a typical week," 72% ($N = 292$ of 405) reported working 40 or more hours. We see here that archivists' hours are not solely dedicated to archives-specific work.

We asked respondents to broadly categorize the industries their workplaces belong to. While over half selected education (52%, $N = 370$), we saw a "long tail" of responses to this question, including 25% government, 20% "information," 11% sports or media, 4% business or finance, 2% architecture or engineering, and 1% each food service, military, and sales. Such a range of industries speaks to the ubiquitous presence of archival records in all areas of society. The types of organizations in which archivists work are also diverse. Of 7 organizational types we presented, almost half of our sample worked in academic or higher education archives (21%, $N = 428$), though the next highest proportions of our sample were somewhat evenly distributed throughout libraries, museums, or other kinds of archives (see Table 2). We allowed respondents to select more than one type (i.e., for hybrid workplaces), which accounts for total percentages that exceed 100.

Archivists participating in this survey range from 5 or fewer years of experience (our majority, with 39% of 452) to 15 years or more (22%). Only 14 respondents reported less than 1 year of experience. The antepenultimate and

Table 2. Respondents' Places of Employment

Type of organization	Percentage of sample	Absolute # of respondents
Academic/higher education archives	48%	207
Library	21%	89
Government archives	19%	82
Nonprofit organization	15%	63
Museum	14%	62
Corporate archives	8%	33
Hospital/health archives	1%	5
	126% (multiple selection allowed)	$N = 428$

penultimate questions of our survey asked respondents about their educational backgrounds. Most of our respondents have earned at least a master's degree (94% of 402). Some have earned either a JD, a PhD, or an EdD (5%). The field of the highest degree earned for most of our respondents (78% of 396) is LIS/information studies, followed by the humanities (37%), social sciences (3%), and either other sciences, engineering/architecture/transportation, or business (1.5%). Finally, we asked respondents their job titles, yielding a set of 440 responses including "county archivist," "program manager," "electronic records unit coordinator," "reading room supervisor," and "curator of collections." We anticipate grouping these titles in novel ways in future work.

Archival Skills and Their Frequency in Daily Work

To understand what activities constitute archival work today, we gathered data in the spirit of a time-use study to measure and describe the practices of archivists. One of the guiding goals of the survey was to understand whether archivists interact with coworkers and patrons and how, or whether they work exclusively with the collections. Thus, we were specifically interested in activities that we could characterize as either interactive tasks (understood to be primarily people-centered, involving patron interaction and collaboration at work) or materials management tasks (object-centered) to explore the breakdown of particular types of interactions. Respondents could select from none to all of the tasks supplied in each question. For both, we used a 4-point Likert scale from never to frequently plus don't know (outside of the scale) to explore further nuance. The combined results compelled us to move the issue of *management* to the forefront of our analysis, for we recognized how this issue provides a comprehensive framework with which to consider most of the archival activities we explored. Chiefly, management is the skill and process of dealing with both objects and people, and below we expand the argument that archivists at all levels of the workplace spectrum consistently perform management.

We asked respondents to report how often they engage in particular tasks interacting with others. Unsurprisingly, organization was reported as a quotidian-level task, with 65% of respondents indicating that they performed this "frequently" ($N = 283$ of 435), and another 24% indicating that organization was an occasional task. While we did not explicitly define "organization" in the survey, we underscore here the word's multiple meanings, from delegating responsibilities, to coordinating activities, to creating assemblages and workflows for loose items (asking colleagues questions is key, in organizing). Additionally, respondents identified 4 other tasks as frequently performed (at or over 50% of respondents): institutional memory (55%, $N = 240$ of 440), writing (51%, $N = 225$ of 440), data management (50%, $N = 217$ of 437), and curation/appraisal (48%, $N = 212$ of 438).

When asked specifically about tasks related to materials management, respondents most commonly reported description (73%, *N* = 308 of 424). Storage (57%, *N* = 239 of 417), preserving physical materials (56%, *N* = 234 of 422), and inventorying collections (54%, *N* = 228 of 424) were also all reported as frequent tasks by over 50% of respondents. We present information on the relative frequency of activities in these two sets of tasks in Figures 1 and 2.
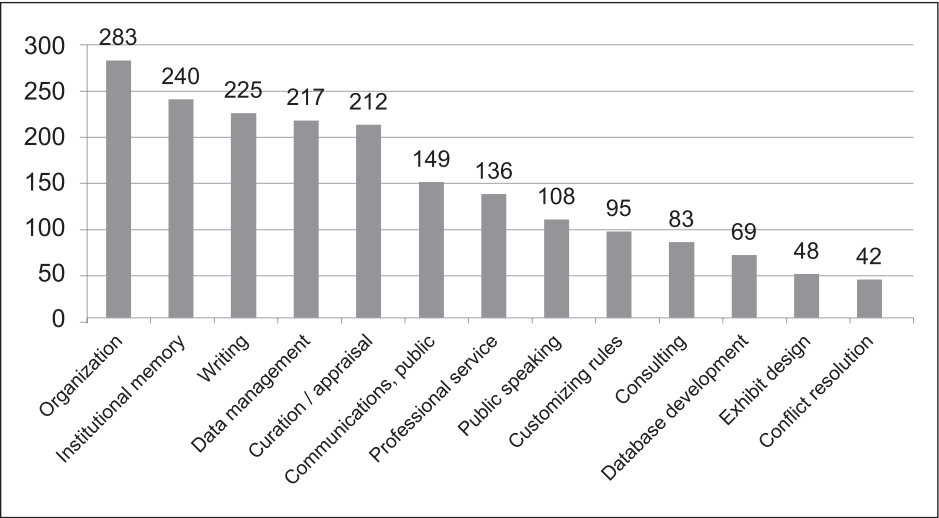

FIGURE 1. This bar graph illustrates the interactive tasks respondents performed most frequently (*N* = 443).
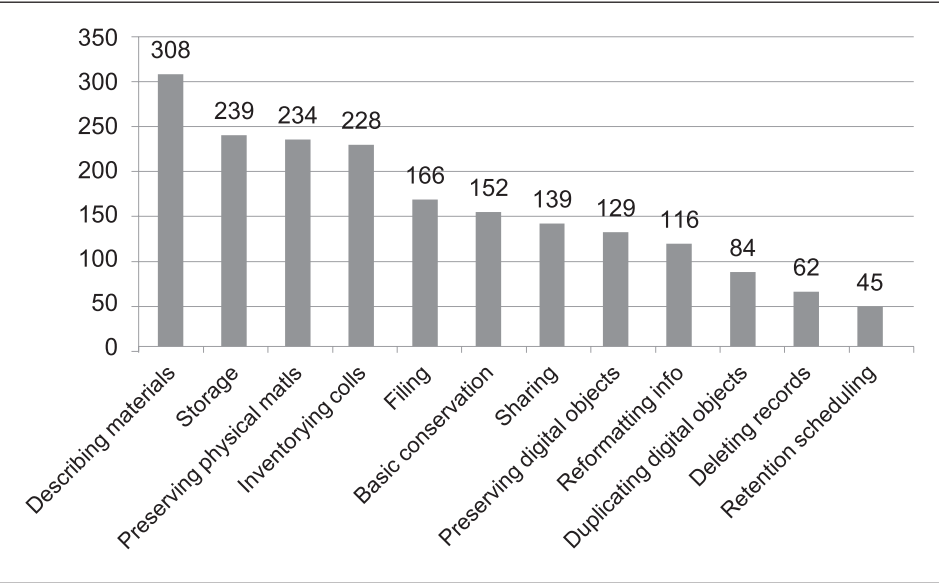

FIGURE 2. This bar graph illustrates the materials management tasks respondents performed most frequently (*N* = 425).

From these highest-frequency tasks, we can begin to build a picture of the practicing archivist's work as dominated by the following workflow tasks of processing archival materials: from appraising the suitability of materials for an institution's holdings, to describing materials in an organized manner, to establishing ways of providing access to materials. While the frequency of digital-specific tasks—including digital preservation (31%, N = 129 of 421) and database development (16%, N = 69 of 438)—was relatively low in our results, we note that our survey did not ask respondents to identify as digital or non-digital archivists. Such a decision reflects a theoretical stance that the work of archiving itself does not (or should not) distinguish between the media of materials collected, even as we respect that in practice, different media present different challenges to archivists.

Notably, public speaking was identified by 42% of respondents (N = 186 of 438) as an occasional task; only 7% of respondents (N = 30) indicated never having engaged in public speaking. Similarly, 65% of respondents (N = 292 of 436) stated that they occasionally or frequently "communicate to the public (e.g., use social media)" as part of their archival work. Disrupting the now-outdated perception of archiving as a solitary, object-centered profession, our results—along with the analysis of open-ended questions we present below—present strong evidence that archivists should not neglect "soft skills" like public speaking and that graduate-level education must position the teaching of go-to skills such as organizing and communicating more centrally in archival curricula.

The Challenge of Managing Archival Resources

We asked two open-ended questions of survey respondents, including, "What is your greatest challenge as a cultural preservation professional?" (323 respondents answered) and "What advice, if any, would you provide to a degree program that educates future cultural preservation professionals?" (309 respondents answered). Using techniques similar to a grounded theory approach,[36] we generated a set of themes. These included 13 categories that summarize the archivists' responses (archival competencies, communication, learning preference, employment, financial competencies, interpersonal skills, librarian competencies, management, medium of material, institutional organization, resources, technical skills, and lone arranger). Particular themes were more prevalent in one set of question responses than the other; for example, while the "resources" theme was central in responses to our question about challenges, it was less visible in the responses about desired curriculum (see Figure 4). We found extensive concern about advocacy communication and with resource management issues, as shown in Figure 3. Respondents' open-ended responses surfaced potential solutions to the most prevalent challenge that our
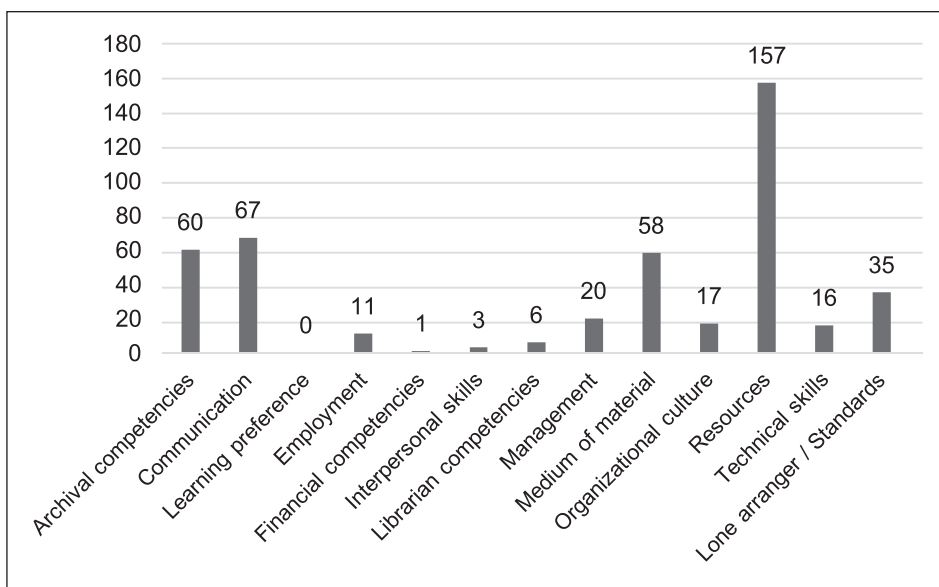
FIGURE 3. This bar graph illustrates categories of the "greatest challenge" reported by archivists (*N* = 323; total codes 451).

respondents reported: resource scarcity. We discuss these themes below. Quotes are attributed in order of response received, as in Archivist 42 (A42).

Our survey participants overwhelmingly emphasized practical and resource problems when asked about their greatest challenges (49%, *N* = 157 of 323). References to lack of resources ranged from the general, such as "Time and money. Not enough of either" (A42), to the specific, for example, ". . . money for resources. Resources being boxes, folders, enclosures, shelves, software, hardware, production of outreach materials, and additional labor" (A97). These responses most frequently referred to lack of staff, funding, time, or some combination thereof. The following quote is representative: "Too much material to care for (physically & electronically) without enough staff, supplies, or equipment to do the job well" (A46). Issues of staff, funding, and time are clearly related in that more funding could lead to more staff, which would allow individual staff more time to accomplish their tasks. We argue, furthermore, that *gaining mastery* in management is one way that our respondents indicated they solved the ever-present problems of too many records, too few resources, and too little time. As a respondent averred, "managing resources, because there's never enough money, time, staff, to do it all" (A274). To even begin doing their work, archivists must be able to manage their resources.[37] The importance of management and interpersonal communication skills is particularly clear in the case of a single archivist on staff, but apparent even with multiple archivists. Accordingly, one respondent stated that the greatest challenge was "balancing my own working time as well as the working time of my staff on many, often

competing, interests/audiences" (A268). Another respondent commented that her challenge is "working as a 'lone arranger' and as the first archivist at the institution at which I am employed. Doing outreach and educating the archives' stakeholders about the purpose and benefits of the archives." (A95). Being the sole archivist in an organization creates the challenging work of continually asserting the importance of the archival mission.

Relatedly, just over one-fifth of respondents (21%, N = 64 of 309) indicated that an archives curriculum should include management skills. While this is not a majority, we note that this open-ended question asked respondents to provide advice; for many of our archivists, management rises to the top of their list. Moreover, the survey did not include prompts about management, so for 21% to volunteer these comments is significant. Some survey respondents indicated a retrospective desire for management training and experience: in the words of one respondent, "emphasis on management and people skills is a must" (A11). The chronic lack of resources in archival institutions is difficult to fully address through archival education: apart from practicum experiences, course activities that focus on acquiring technical and computing skills can be incongruous with others that emphasize refining argumentative speaking skills and creating visual messaging to bring archival tools into underserved places. The archivists' individual responses, however, suggest potential ways in which archival education might prepare new professionals to address the challenge of limited resources.

Curricular Recommendations on Advocacy

Archivists' open-ended responses about challenges and about curricular recommendations express, directly or indirectly, the importance of communication skills in archival work. Whether communicating with information technology staff about archival requirements for born-digital materials, networking with the larger archival community, or conveying the value of the archives to upper-level administrators with no archival training, communication skills are integral to getting work done for archivists on a daily basis. "Communication" was among the top themes emerging from these open-ended data (15%, N = 45 of 309), as summarized in Figure 4. Much of the communication that archivists do is "enterprise archiving,"[38] which centers around explaining the needs and value of the archives to people who are unfamiliar with them. Very frequently, such communication includes asking for resources or support from those people: responses specifically discussed the need for advocating for more resources, whether funding, staff, or supplies. In these situations, it seems clear that acquiring this support relies heavily on the skill of the archivist in communicating the value that the archives provides to the larger organization and/
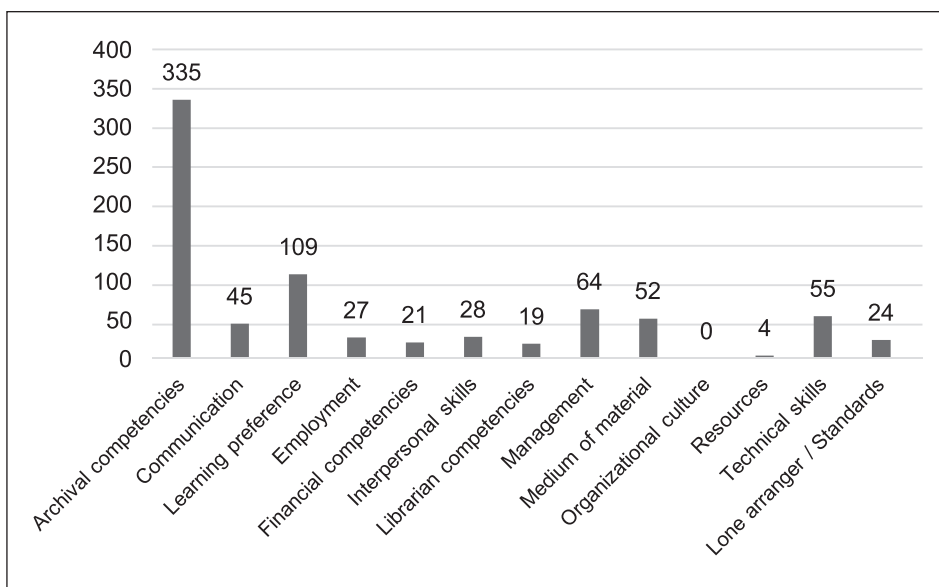
FIGURE 4. This bar graph illustrates categories of archivists' advice to archival educators (N = 309; total codes 783).

or to the public. Our data suggest that effective communication and advocacy skills are essential for archivists. Further illustrating the frequent use of public speaking skills discussed above, archivists encouraged educators to continue disabusing students of the notion that archival work is wholly object-driven: "You have to be willing to *talk to people* and not just focus on things" (A204).

Over the course of analyzing the earlier question on challenges, with distressing frequency we encountered archivists expressing issues of institutional un- or underappreciation of the archives, or of superiors and other nonarchival employees not understanding the value of the archives for the institution. Such situations paved the way for a generative set of recommendations that we can put forward with regard to advocacy-as-communication. Of the 45 "communication"-centered responses, 15 explicitly described some effort to advocate for the archives by asserting a personal or professional competency (that is unique to archivists). One respondent connected the perception of unappreciation to the notion of neutrality in archives and relayed the advice that students should cultivate a strong sense of public engagement with local and world events: "While we aspire to be neutral, no one else is—politics is huge when trying to deal with the needs of these types of orgs.—work on communication styles, and get internships. Learn to negotiate, learn to ask for money" (A45). Another suggested: "Incorporate true community engagement and ownership" (A5) and, similarly, another: "Be the best in your field. Attend conferences, join professional groups, network, intern during the summer and have a passion about your work" (A6). Respondents across the archival organization types represented in this study

(see Table 2) agreed that few if any individuals who work alongside archivists understand what archivists do, as articulated by A202: "Teach them communication skills necessary with working amongst non-archivists." In return, archivists advised educators to prioritize advocacy communication in graduate curricula: "Design a course that focuses on outreach—how to effectively communicate the value of the profession to stakeholders" (A69).

Discussion

Why is it a problem if the larger organization or funding organization does not understand the functions of the archives? It becomes a problem when in the absence of such information, the entity (and its constituents) does not find the motivation to fund the archives. It is important not only to communicate with those who control the funding, but also with the public, especially for archives with collections accessible to the public. Awareness of the archives and its services is not only part of the archival mission of making information publicly accessible, it also shores up support for the archives. Simply put, students should be ready to, in the words of one respondent, "Educate the public about what an Archives is and how it can benefit cultural heritage" (A208). The issue of resources is coupled with that of advocacy because the archivist must convince whoever controls the funding that the archives is a deserving recipient of resources.

Archivists must therefore constantly ensure that those who control their funding understand the value of the archives. Part of effectively communicating this message is demonstrating how the archival program manages its collections, resources, and staffing. Indeed, the largest percentage of respondents to the question about open-ended curriculum emphasized management skills (21%, $N = 64$ of 309): one respondent stated, "spend more time on management and leadership" (A88). We suggest that not only do future archivists need to learn about archives and how to manage them during their education, they must also be able to teach others about archives. As one respondent stated, "The greatest challenge is educating nonarchivists about what I do and why it's important. I choose this as my number one priority because I believe that I need to elevate my standing in order to make my job sustainable. I've spent the last 6 years creating exhibits and educational pieces that are meant to engage my community in the power of archives" (A241).

We reflect on our findings by drawing a strong connection between management skills and advocacy for archivists, which enables archival work to be economical while also public-facing. If advocacy and communication are skills needed to obtain necessary resources, management skills are required to use those resources wisely, or to stretch limited resources farther. Our results indicate

that even when respondents reported being the sole archivist on staff, the daily work of archivists involves a great deal of management: either of resources, time, or other individuals (in larger organizations). Given the definition of management proposed by the American Management Association, "getting things done through and with people," we would offer the following modification to define archival management: "getting things done through and with *resources*, including people." Management skills are especially important for archivists who work alone because of the need, highlighted by Yakel,[39] to produce clear policies and justifications to administrative staff unfamiliar with archives. For this reason, we consider advocacy and management to be archival competencies that go hand-in-hand.

The survey data confirm the importance of many issues that the archival education literature had previously raised—such as the need for practical experience through site internships or class projects, and for training in technical skills generally—while not neglecting fundamental archival skills such as arrangement and description. Our study endeavors to expand the discussion about advocacy and management found in related work such as the *New Skills for a Digital Era* report, which considered roles for managers. Leaders in the archival profession stressed that no information professional can be excused from developing management skills and that archivists need to be ready to deploy such skills early, convincingly, and inclusively.[40] Respondents in our survey encouraged educators to spend time teaching advocacy communication and allowing students to practice these skills: "communication skills, collaboration skills, diplomatic skills, etc. will do more good for your projects in the long run than almost any technical skills you may gain in formal education" (A111). Such an investment at the student level will be long-lasting.

Advocacy skills are becoming increasingly essential for archivists to cultivate. As funding becomes more constricted, archivists will continue to find themselves required to argue for the value of their work. As Terry Eastwood suggested, archivists should continue to cultivate expertise in particular skills but always keep sight of the big picture of archives; by embracing our blurriness, we draw students in and provide them the opportunity to make an impact. Students will quickly encounter opportunities to put these skills to the test: in 2012, the Georgia secretary of state attempted to defund the Georgia Archives, and, more recently, the Iowa State Historical Society has faced declining funds.[41] Especially in state-funded archives, such examples show that public support can mean the difference between funds and the lack thereof, given that with every election cycle, new officials shift priorities, which can wreak havoc on archival budgets. With a united voice, archivists rallied productively around the Georgia Archives by working with organizations including the Coalition to Preserve the Georgia Archives. In the process, they tried out several new strategies for achieving

effective advocacy. Eira Tansey has warned that archivists must redouble their collective competency in the core function of "outreach and advocacy" to avert a future where archives, and significantly depleted archives, exist without archivists working to ensure their perpetual availability.[42] As we introduced earlier, SAA's own affinity groups represent profession-wide concerns, and they are well positioned to respond to current events. Jeremy Brett and Jasmine Jones, members of SAA's then-Issues and Advocacy Roundtable (now Section), conducted important research that asked archivists about the role of advocacy at work. We can continue to build on such research by examining how archival advocacy "happens" and what might improve its effectiveness in the future.[43]

Limitations and Future Work

Our study has some limitations. The survey was deployed in and targeted responses from professional archivists in the United States, therefore, our data may not represent the experiences of archivists elsewhere. We recognize that archival studies is an international field, as evidenced by similar studies conducted in Great Britain and Brazil.[44] Our sample, while it exhibits considerable diversity in topics raised and institutional types, is still less than 10% of the size of the Society of American Archivists (we did not ask membership status). We are likely to have reached many more full-time archivists than part-time, and responses may not accurately capture the insights of students, retirees, and archivists not subscribed to professional listservs. Finally, the results we have presented here are but a selection of the data gathered, and the general (parent) codes emerged from our qualitative data alone. Future work to examine interactions between the quantitative data and our qualitative themes might explore advocacy concerns related to type of institution, time in the field, and particular attitudes (toward digitization or management), or even job title. Such an analysis could investigate a prediction from the A*CENSUS that new archivists would be pushed into management positions sooner than their predecessors. Other explorations could examine the relationship between interacting with patrons and interpersonal skills (and time in the field), time in the field and job satisfaction, primary tasks and greatest challenges, and interacting with patrons and full- or part-time employment.

Conclusion

This study gathered working archivists' insights and advice on archival skills that are necessary for professional work and how educators might prioritize their teaching in graduate programs. Graduate archival education remains a perennial topic of interest across the archival profession, and it serves a vital

role in advancing conversations about the future of archival practice. Our work was motivated by such discussions, taking particular note of Yakel's special issue on graduate archival education, and we positioned this study as an effort to critically examine graduates' own perspectives on a wide scale. The conversation will continue: two sessions at the 2014 SAA Annual Meeting addressed issues in graduate archival education, including a special forum.[45] By elevating advocacy communication and management skills in the agenda of graduate archival education, we hope to foster ongoing efforts to ensure that students emerge from archival programs prepared to be effective advocates for the profession.

Archivists respond to the challenges of archival work by recognizing the need to organize resources and seize the opportunity to broadcast widely the value of archives. Archivists surveyed here encourage archival educators not to overlook the importance of developing advocacy communication skills—it is not a nonarchival task but rather one crucial to gaining and sustaining public support. Given the general importance of communication skills, we emphasize that the direction for such skills to take is advocacy, or "enterprise archiving." We direct implications for graduate archival education based on this study to educators and senior archivists, who must elevate advocacy communication and management skills when designing curricula and managing an archives. Developing and exercising these skills are shared responsibilities.

Appendix A: Survey Instrument

[Note: The project "Research on the Work of 21st Century Information Professionals" was approved by the Institutional Review Board of the University of Texas at Austin on October 29, 2013. It received protocol number 2013-09-0103.]

Thank you for taking this survey about the work of information professionals. Your responses and advice will contribute to a better understanding of your field and how information schools can better prepare future information professionals. The survey takes less than 15 minutes, depending on how much you want to comment.

Do you want a report of the survey results? The last page of the survey includes a link to a form where you can input your email address. Your email address will not be associated with your survey responses. You can also write Lecia Barker at lecia@ischool.utexas.edu or call 512-232-8364.

Do you know of other information professionals who would be willing to take the survey? Copy and paste this link into an email and send to them: https://www.surveymonkey.com/s/UTInfoProSurvey

We are a group of graduate students at the University of Texas at Austin School of Information working with Professor Lecia Barker and the Information Work Research Group. We have approval from the University of Texas at Austin Institutional Review Board to conduct this study under #2013-09-0103 and funding from the U.S. Institute of Museum and Library Services. If you have questions about your rights or are dissatisfied at any time with any part of this study, you can contact, anonymously if you wish, the Institutional Review Board by phone at (512) 471-8871 or email at orsc@uts.cc.utexas.edu.

The advice and information we receive from you and your peers will be reported anonymously and only in the aggregate to our curriculum committee and in relevant information journals.

Q1 Which of the following categories best describes your employment status? Employment here could mean self-employed or working for another organization or person.

Answer Choices:
- ☐ Retired
- ☐ **Employed, working full time** *[Note: one of two response categories analyzed here]*
- ☐ **Employed, working part time** *[Note: one of two response categories analyzed here]*

☐ Not employed, but seeking employment
☐ Not employed, but NOT seeking employment

Q2 Among the roles that you take on in your everyday work, which of the following would you like to answer questions about?
    ☐ Social media work (e.g., for communications, public relations, or marketing)
    ☐ Records and/or digital assets management
    ☐ Librarianship (any category or position, any kind of library)
    ☐ Data analysis, data science (e.g., analysis of quantitative data to inform decision making)
    ☐ User experience/user interface design, information architecture
    ☐ **Archives, museums, or other cultural preservation** *[Note: the response category analyzed here]*
    ☐ Instruction, educational administration, instructional design
    ☐ Intelligence, business, or market analyst (any industry, including government)
    ☐ Other (Please explain below)

First, please tell us a little about the context of your cultural preservation (archives, museums, etc.) work.

Q3 What kind of cultural preservation organization do you work in presently? (please select all that apply)
    ☐ Academic/higher education archives
    ☐ Museum
    ☐ Non-profit organization
    ☐ Corporate archives
    ☐ Government archives
    ☐ Hospital/health archives
    ☐ Library
    ☐ Other (please explain)

Q4 What is your job title?

Q5 How long have you done cultural preservation (archives, museums, etc.) work?
    ☐ Less than one year
    ☐ 1–5 years
    ☐ 6–10 years
    ☐ 11–15 years
    ☐ More than 15 years
    ☐ Other (please explain)

Q6 How often do you interact with clients/patrons (users of archives, museums)?
- ☐ Daily
- ☐ Weekly
- ☐ Monthly
- ☐ A few times a year
- ☐ Less than once a year
- ☐ Never
- ☐ Other (please explain)

Q7 In a typical week, about how many hours do you do cultural preservation work (archives, museums, etc.)?
- ☐ fewer than 10
- ☐ 11–19
- ☐ 20–29
- ☐ 30–39
- ☐ 40 or more
- ☐ Other (please explain)

Now, please tell us what kinds of tasks you typically perform in your cultural preservation work.

Q8 How often do you perform the following cultural-preservation tasks? (scale: Never, Rarely, Occasionally, Frequently, Don't know)
- ☐ Curation / appraisal
- ☐ Exhibit design
- ☐ Communications to the public (e.g., use of social media)
- ☐ Data management
- ☐ Consulting
- ☐ Customizing rules
- ☐ Database development
- ☐ Institutional memory
- ☐ Conflict resolution
- ☐ Organization
- ☐ Public speaking
- ☐ Professional service (committees)
- ☐ Writing
- ☐ Other (please specify)

Q9 How often do you perform the following materials management tasks? (scale: Never, Rarely, Occasionally, Frequently, Don't know)
- ☐ Basic conservation
- ☐ Deleting records
- ☐ Describing materials

☐ Duplicating digital objects
☐ Filing
☐ Inventorying collections
☐ Preserving physical materials
☐ Preserving digital objects
☐ Retention scheduling
☐ Sharing
☐ Storage
☐ Reformatting paper / digital information
☐ Other (please specify)

Q10 How often do you interact with patrons/clients in the following ways? (scale: Never, Rarely, Occasionally, Frequently, Don't know)
☐ Records request
☐ Research questions
☐ Accessing physical materials
☐ Accessing digital materials
☐ Overseeing use of materials
☐ Teaching or advising amateur archivists (e.g., community archives)
☐ Other (please specify)

Q11 What is your greatest challenge as a cultural preservation professional?

Q12 What advice, if any, would you provide to a degree program that educates future cultural preservation professionals?

Q13 Please select the situation that best describes your current position.
☐ I am an independent consultant (self-employed).
☐ I am employed by a single organization whose main business is providing consulting services to other individuals or organizations.
☐ I am employed by a single organization.

Q14 Broadly speaking, how would you describe the industry in which you work? (please select all that apply)
☐ Education
☐ Government
☐ Information
☐ Arts, Design, Entertainment, Sports, or Media
☐ Community or Social Service
☐ Business or Financial Operations
☐ Science (Life, Physical, or Social)
☐ Management (for- or not for profit)
☐ Architecture or Engineering

☐ Healthcare
☐ Office or Administrative Support
☐ Legal
☐ Computer or Mathematical
☐ Food Service
☐ Military
☐ Sales or Related Occupations

Q15 In a typical week, about how many total hours do you work?
☐ fewer than 10
☐ 11–19
☐ 20–29
☐ 30–39
☐ 40 or more

Q16 Please tell us your level of agreement or disagreement with the following statements: (scale: Strongly Disagree, Disagree, Agree, Strongly Agree, N/A or Don't know)
☐ In general, I am satisfied with my job.
☐ I am satisfied with my career advancement so far.
☐ I would recommend my job to others.

Q17 Which degrees have you earned? (please select all that apply)
☐ Associate's degree
☐ Bachelor's degree
☐ Master's degree
☐ Juris doctor
☐ PhD
☐ EdD

Q18 What is the field of your highest degree earned? (please select all that apply. e.g., if you have two master's degrees)
☐ Library and information science / Information studies
☐ Humanities (e.g., history, literature, arts)
☐ Social science (e.g., psychology, anthropology)
☐ Natural, formal, or systems science (e.g., chemistry, mathematics, statistics)
☐ Engineering, architecture, transportation
☐ Business
☐ Education
☐ Healthcare science
☐ Journalism, media studies and communication
☐ Law

□ Public administration
□ Social work

Q19 What is your gender?
□ Female
□ Male
□ Decline to answer
□ Other (please explain)

Thank you for completing this survey! We deeply appreciate your time and advice.

Do you want a report of the survey results? Click here: https://www.surveymonkey.com/s/Email_for_Report and enter your email address in the form. Your email address will not be associated with your survey responses. You can also write Lecia Barker at lecia@ischool.utexas.edu or call 512-232-8364.

Do you know of other information professionals who would be willing to take the survey? Copy and paste the following link into an email and send to them: https://www.surveymonkey.com/s/UTInfoProSurvey

The survey is sponsored by the Institute of Museum and Library Services and is being conducted by Professor Lecia Barker and 11 graduate students at the University of Texas at Austin School of Information.

Notes

[1] Kathleen Roe, "Incoming Presidential Remarks: The Year of Living Dangerously for Archives," Society of American Archivists, August 16, 2014, https://www2.archivists.org/history/leaders/kathleen-d-roe/incoming-presidential-remarks-the-year-of-living-dangerously-for-archives.

[2] Roe, "Incoming Presidential Remarks."

[3] Society of American Archivists, "A Year of Living Dangerously for Archives," 2014–2015, http://www2.archivists.org/living-dangerously.

[4] Kathleen D. Roe, *Arranging and Describing Archives and Manuscripts* (Chicago: Society of American Archivists, 2005); advocacy is a minor presence in the SAA Standards Portal but the "Guidelines for Evaluation of Archival Institutions," approved in 1994, can assess how successful an advocacy effort is: https://www2.archivists.org/standards. Other SAA advocacy resources (if not yet standards) include online toolkits for MayDay, American Archives Month, and those produced by at least three Sections: Reference, Access, and Outreach; Business Archives; and Public Library Archives/Special Collections.

[5] Kathleen Roe, "Data about Archives and Archivists?," Society of American Archivists, *Off the Record* blog, September 16, 2014, http://offtherecord.archivists.org/2014/09/16/data-about-archives-and-archivists.

[6] Society of American Archivists "A Year of Living Dangerously for Archives." The initiative prompted a subsequent "Archives Change Lives" campaign and Advocacy Café webinar series, and since late 2015 has been integrated into the work of the organization's Committee on Public Awareness.

[7] The University of Texas at Austin School of Information, "Information Work Research Group," https://blogs.ischool.utexas.edu/iwrg.

[8] Victoria Irons Walch, Nancy P. Beaumont, Jeannette Bastian, Elizabeth Yakel, Susan Davis, Nancy Zimmelman, and Anne Diffendal, "A*CENSUS (Archival Census and Education Needs Survey in the United States)," *The American Archivist* 69, no. 2 (2006): 438–47.

[9] Mabel E. Deutrich and Ben DeWhitt, "Survey of the Archival Profession—1979," *The American Archivist* 43, no. 4 (1980): 527. Additionally, see Ernst Posner, "What, Then, Is the American Archivist, This New Man?," *The American Archivist* 20, no. 1 (1957): 4–6; and Frank B. Evans and Robert M. Warner, "American Archivists and Their Society: A Composite View," *The American Archivist* 34, no. 2 (1971): 157–72.

[10] David Bearman, "1982 Survey of the Archival Profession," *The American Archivist* 46, no. 2 (1983): 233–41.

[11] Bearman, "1982 Survey of the Archival Profession," 233.

[12] Deutrich and DeWitt, "Survey of the Archival Profession—1979," 528; Mabel E. Deutrich, "Women in Archives: A Summary Report of the Committee on the Status of Women in the Archival Profession," *The American Archivist* 38, no. 1 (1975): 43–46; Mabel E. Deutrich, "Women in Archives: Ms. versus Mr. Archivist," *The American Archivist* 36, no. 2 (1973): 171–81.

[13] Charles Ziegler, "Archival Practices Survey," *The American Archivist* 38, no. 2 (1975): 191–203.

[14] Haitao Li and Linlin Song, "Empirical Research on Archivists' Skills and Knowledge Needs in Chinese Archival Education," *Archival Science* 12, no. 3 (2012): 341–72, doi:10.1007/s10502-012-9183-4.

[15] Elizabeth Yakel, "The Future of the Past: A Survey of Graduates of Master's-Level Archival Education Programs in the United States," *The American Archivist* 63, no. 2 (2000): 304.

[16] David A. Wallace, "Survey of Archives and Records Management Graduate Students at Ten Universities in the United States and Canada," *The American Archivist* 63, no. 2 (2000): 284–300; Wendy M. Duff, Joan M. Cherry, and Nalini Singh, "Perceptions of the Information Professions: A Study of Students in the Master of Information Studies Program at a Canadian University," *Archival Science* 6, no. 2 (2006): 171–92, doi:10.1007/s10502-006-9027-1.

[17] Susan Davis, "Electronic Records Planning in 'Collecting' Repositories," *The American Archivist* 71, no. 1 (2008): 167–89.

[18] Amber Cushing, "Career Satisfaction of Young Archivists: A Survey of Professional Working Archivists, Age 35 and Under," *The American Archivist* 73, no. 2 (2010): 600–25.

[19] Terry Cook, "'The Imperative of Challenging Absolutes' in Graduate Archival Education Programs: Issues for Educators and the Profession," *The American Archivist* 63, no. 2 (2000): 380–91. See in the same issue especially Luciana Duranti, "The Society of American Archivists and Graduate Archival Education: A Sneak Preview of Future Directions," 237–42; Richard Cox, "The Society of American Archivists and Graduate Education: Meeting at the Crossroads," 368–79; and Anne J. Gilliland-Swetland, "Archival Research: A 'New' Issue for Graduate Education," 258–70.

[20] Carol Couture, "Education and Research in Archival Science: General Tendencies," *Archival Science* 1, no. 2 (2001): 176, doi:10.1007/BF02435646.

[21] John C. Colson, "On the Education of Archivists and Librarians," *The American Archivist* 31, no. 2 (1968): 168.

[22] Lisa M. Given and Lianne McTavish, "What's Old Is New Again: The Reconvergence of Libraries, Museums and Archives in the Digital Age," *Library Quarterly* 80, no. 1 (2010): 7–32; Russell Bowden, "Colloquium on the Harmonization of Education and Training Programmes for Library, Information and Archival Personnel," *Education for Information* 5, nos. 2–3 (1987): 207–33, doi:10.3233/EFI-1987-52-312.

[23] Terry Eastwood, "Nurturing Archival Education in the University," *The American Archivist* 51, no. 3 (1988): 238.

[24] Richard Cox, "The Roles of Graduate and Continuing Education Programs in Preparing Archivists in North America for the Information Age," *The American Archivist* 56, no. 3 (1993): 449.

[25] Terry Eastwood, "Building Archival Knowledge and Skills in the Digital Age," *Archival Science* 6, no. 2 (2006): 168, doi:10.1007/s10502-006-9026-2.

[26] Richard J. Cox and Ronald L. Larsen, "iSchools and Archival Studies," *Archival Science* 8, no. 4 (2008): 307–26, doi:10.1007/s10502-009-9092-3.

[27] Timothy L. Ericson, "Professional Associations and Archival Education: A Different Role, or a Different Theater?," *The American Archivist* 51, no. 3 (1988): 311.

[28] We note that, after 2016, all roundtables were transitioned to sections.

[29] For these, see Wallace, "Survey of Archives and Records Management Graduate Students at Ten Universities in the United States and Canada," and Duff, Cherry, and Singh, "Perceptions of the Information Professions."

[30] Cox, "The Society of American Archivists and Graduate Education," 369.

[31] Floyd Fowler, *Survey Research Methods*, 5th ed. (Thousand Oaks, Calif.: SAGE Publications, Inc., 2014).

[32] Victoria Irons Walch et al., "A*CENSUS," 461; Yakel, "The Future of the Past"; and Wallace, "Survey of Archives and Records Management Graduate Students at Ten Universities in the United States and Canada."

[33] Anne J. Gilliland-Swetland, "Graduate Archival Education and the Professional Market: Perspectives on Data and Data Gathering," *Archival Issues* 23, no. 2 (1998): 98.

[34] Under "information studies," we include prior graduates in library and information science and in library science.

[35] "Survey of Archival & Records Professionals," Archives & Archivists listserv messages, March 27, 2014, http://forums.archivists.org/read/messages?id=122906, and April 10, 2014, http://forums.archivists.org/read/messages?id=123739.

[36] Juliet Corbin and Anselm Strauss, *Basics of Qualitative Research 3e* (Los Angeles: SAGE Publications, 2008), 160.

[37] Decisions of priority recall Greene and Meissner's argument introducing MPLP, in Mark A. Greene and Dennis Meissner, "More Product, Less Process: Revamping Traditional Archival Processing," *The American Archivist* 68, no. 2 (2005): 208–63. Here, Greene and Meissner advocated for archival triage to reduce unsustainable backlogs and get collections processed and out the door. Our survey respondents indicated that management skills allowed them to implement some of the

choices that would lead to more product, and inversely, that they felt at a disadvantage if they did not have management skills.

[38] We offer this term in honor of David B. Gracy II, the profession's first professor in archival enterprise.

[39] Elizabeth Yakel, "Institutionalizing an Archives: Developing Historical Records Programs in Organizations," *The American Archivist* 52, no. 2 (1989): 203.

[40] Richard Pearce-Moses and Susan E. Davis, eds., *New Skills for a Digital Era* (Chicago: Society of American Archivists, 2008), 10, 30, http://www.archivists.org/publications/proceedings/NewSkillsForADigitalEra.pdf.

[41] Courtney Chartier and Sarah Quigley, "Evolving Advocacy: The Society of Georgia Archivists and the Georgia Archives Budget Crisis," *Provenance: Journal of the Society of Georgia Archivists* 31, no. 1 (2013): 43, http://digitalcommons.kennesaw.edu/provenance/vol31/iss1/10; Shelton Stromquist, "Iowa is at a precipice of 'historic' proportions," *Iowa City Press-Citizen*, March 24, 2015, http://www.press-citizen.com/story/opinion/contributors/guest-editorials/2015/03/23/iowa-is-at-a-precipice-of-historic-proportions/25083509; William Petersen, "Iowa—The Challenge of the Archives," *The American Archivist* 26, no. 3 (1963): 327–31.

[42] Eira Tansey, "Archives without Archivists," *Reconstruction: Studies in Contemporary Culture* 16, no. 1 (2016), at http://reconstruction.eserver.org/Issues/161/Tansey.shtml.

[43] Jeremy Brett and Jasmine Jones, "Persuasion, Promotion, Perception: Untangling Archivists' Understanding of Advocacy and Outreach," *Provenance: Journal of the Society of Georgia Archivists* 31, no. 1 (2013), http://digitalcommons.kennesaw.edu/provenance/vol31/iss1/11.

[44] Mary Ellis, "Establishing a Research Culture for Archive Administration in the UK," *Education for Information* 23, no. 1–2 (2005): 91–101; Georgete Medleg Rodrigues and Angelica Alves da Cunha Marques, "Archival Science in Brazil: The Establishment of a Scientific Discipline and Its Impact on Training Archivists in the Era of Information and Knowledge," *Archival Science* 8, no. 2 (2008): 103–121, doi:10.1007/s10502-009-9082-5.

[45] Michelle Light, Danielle Plumer, Cecilia Salvatore, Samantha Winn, and Peter Wosh, "Session 106—Archival Education: Outcomes and Opportunities," *ARCHIVES*RECORDS 2014: Ensuring Access*: Joint Annual Meeting of CoSA, NAGARA, and SAA (August 14, 2014), http://sched.co/1hI8cQB; and "Forum: Continuing the Conversation: Archival Education—and Beyond," *ARCHIVES*RECORDS 2014: Ensuring Access*: Joint Annual Meeting of CoSA, NAGARA, and SAA (August 14, 2014), http://sched.co/1hIajng.

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