Quo Vadis, Preservation Education?

A Study of Current Trends and Future Needs in Continuing Education Programs

By Karen F. Gracy and Jean Ann Croft

This research study assesses preservation education offered by continuing education (CE) providers in the United States. Educators teaching preservation workshops for regional field service organizations and other local and regional preservation networks were surveyed about the type and number of workshops offered, content of preservation offerings, audience, faculty resources, future plans for curricula, and availability of continuing education credits. The investigators hypothesize that preservation workshops offered by CE providers serve multiple purposes for the library and archival science professions, becoming not only an avenue for professionals to continue to develop or reinforce their knowledge and skills in preservation, but also often the primary source of rudimentary preservation education for library and information science professionals and paraprofessionals. This paper reviews the literature relevant to the study of preservation in the CE environment, describes the research methodology employed in designing and conducting the survey, presents the resulting data, and analyzes the trends revealed by the data in order to understand more fully the goals and objectives of CE in preservation during the last decade and to gauge future directions of the field. This paper concludes by presenting plans for further research, which will expand upon initial findings of this survey.

The Need for Continuing Education in the Field of Preservation

A s part of an overall desire to promote continuing professional development and to foster lifelong learning, continuing education (CE) provides an essential service to library and information science (LIS) practitioners. It gives librarians, archivists, and other cultural heritage professionals essential information, skills, and insight throughout their career. Both the American Library Association (ALA) and the Society of American Archivists (SAA) affirm the value of CE in promoting lifelong learning for practitioners.¹

Continuing education plays a particularly important role in sustaining the preservation imperative, as it often serves as the first or only source of information for professionals and support staff on how to protect and extend the life of library and archival materials. The 2005 Heritage Health Index, which aimed to "assess the condition and preservation needs of U.S. Collections," indicates the

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Submitted February 27, 2006; accepted for publication April 17, 2006, pending revision; revision submitted May 24, 2006, and accepted for publication. fundamental need for preservation education: of the more than 30,000 American cultural institutions, responsible for more than 4.8 billion artifacts, 70 percent of collecting institutions indicate a need to provide additional training and expertise for staff caring for their collections.² The LIS field must focus on providing practitioners with ample opportunities to increase their knowledge of preservation concepts and help them master key preservation skills, through both graduate and continuing education.

Given the challenges to be faced in educating the next generation of LIS professionals to care for cultural heritage materials, the authors of this paper felt that the time was ripe to conduct a formal study of the state of continuing education. Thus, this research aims to thoroughly document activities in the field of continuing education for preservation during the last decade, and offer suggestions for how CE providers can best place themselves to provide the needed knowledge and expertise to effectively administer preservation programs in libraries and archives.

History of Preservation Continuing Education and Its Impact on the Preservation Field

Education in preservation has a relatively brief history compared with that of other specializations within LIS. In the 1970s, few graduate library science programs offered conservation or preservation as a regular part of their curriculum. Continuing education offerings—primarily in the form of workshops and short courses-constituted the primary source of preservation education for most practitioners. Many current graduate school offerings in preservation can trace their roots to these pilot programs, as they were often first offered through university CE programs.³ In the last three decades, many leading preservation professionals (both educators and administrators) focused their efforts on integrating preservation into graduate library science education.⁴ These labors have been fruitful, as more than threequarters of all LIS schools with ALA accreditation now offer at least one course in the area of preservation.⁵ Continuing education was seen as playing a complementary role, however. Its role was not particularly well-defined beyond the general recommendation to acquaint practitioners with the "basic tenets of preservation," and to serve as a potential route to specialization within the preservation field.⁶

In its 1991 report, the Preservation Education Task Force, organized by the Commission on Preservation and Access, suggested that CE efforts should focus on developing short-term, intensive training programs for mid-career librarians and archivists, similar to the in-house training program found at the library system of the University of California–Berkeley.⁷ The reasoning behind this recommendation was that such programs were necessary because presIn the 1990s, several programs were launched in emulation of the short-term model, including the SAA Preservation Management Institute (1987) and its successor, the Preservation Management Training Program (1992– 1994); the Preservation Intensive Institute, first hosted by the University of Pittsburgh in 1993 and in 1994 at UCLA; and the Rutgers Preservation Management Institute (first held in 1998). As the names of these programs suggest, they emphasized the management aspects of preservation, rather than simply teaching basic skills such as book repair. They had significant impact on the LIS profession, as dozens of professionals graduating from these programs were able to integrate preservation administration principles into the management of their own institutions.⁸

Programs of this kind require a significant investment of time and resources, and rely heavily on subsidies from federal and regional funding agencies. Without such funding, sustaining programs is difficult, as most potential students cannot afford them (unless their employers provide subsidies). For example, tuition for the most recent offering of the Rutgers Preservation Management Institute (PMI) in 2005 was \$4,075, which covered the costs of fifteen days of instruction and the review of course assignments by instructors. This amount did not include costs for travel, accommodations, and meals. Scholarships from the National Endowment for the Humanities and the New Jersey Historical Commission covered tuition and travel-associated costs for a dozen students; each offering of the PMI is limited to twenty students.

Of the three major initiatives, only the Rutgers program has survived over the long term and continues to educate administrators to manage preservation programs. While the aims of these programs were admirable, the difficulties in sustaining intensive programs of this type mean that most of them remained experiments rather than successful models that could be duplicated in multiple venues.

Given the high costs of intensive training, another model for continuing preservation education also grew and expanded during this period: the regional workshop, as offered by field service programs, professional associations, and other local preservation-focused organizations. The target audience for these briefer offerings (most often held as half-day or one-day programs) has been much broader than for intensive programs, as educators aim to serve the needs of professionals and paraprofessionals at all levels of expertise, not just mid-career professionals. Workshop providers focus on providing training in key areas such as disaster preparedness and recovery, management of environmental conditions, and book repair. While the management perspective is still central to most of these workshops, the broad spectrum of the potential audience and the limited time available for instruction often leads to a focus on training and skills rather than analysis and synthesis of preservation concepts.

The work of Cloonan provides an interesting perspective on approaches to preservation education.⁹ Cloonan's research targeted respondents in various institutional environments as well as international settings. Utilizing interviews and questionnaires, the author surveyed respondents and sought feedback concerning what they identified as issues and challenges in preservation education and suggested resolutions to the problems. In considering the differences in focus and objectives between graduate and continuing education in preservation, Cloonan made a distinction among several related concepts: training, education, and continuing education:

Training usually implies the learning of specific or specialized skills, often in a workshop setting; for example, disaster recovery, care of photographic prints, book repairs, or monitoring the library environment. Education is a more comprehensive term which refers not only to acquiring skills, but also to obtaining knowledge through experience, creativity, analysis, and the exchange of ideas. Education is life-long while training takes place over a finite period of time. Continuing education can take place at any stage of one's career. It may consist of refresher courses, or may lead to certificates of advanced study. Library schools, libraries, and professional associations offer continuing education programs.¹⁰

Although these distinctions are helpful in theory, in practice the lines between training and continuing education are often blurred in preservation CE offerings. For the purposes of this study, the investigators chose to combine the categories of training and continuing education together under the category of continuing education.

Furthermore, other organizations in addition to universities, libraries, and associations have taken on responsibility for CE as Cloonan defined it. Although a number of graduate education providers continue to offer CE courses to the LIS community, the fiscal realities of running a selfsufficient CE program (one that may have been heavily subsidized by the institution or external grants) have led many information schools to bow out as CE providers, particularly in those areas where the audience may not be large, or where a region is already well-served by a field service provider.¹¹ This trend away from universities as preservation CE providers and toward other organizations also affected how the investigators chose to define the population for this study; see the Current Sources of Continuing Education for Preservation and Research Method sections that follow.

Current Sources of Continuing Education for Preservation

In the United States, many different organizations offer continuing education on preservation topics; sources include field service programs of regional conservation centers and library consortia, local preservation networks, universities, and professional associations. Although some of these education providers offer preservation workshops (particularly those dealing with popular topics such as book repair or disaster recovery) on a regular basis, others offer preservation topics sporadically, as the need arises, or upon request.

The organizations comprising the Regional Alliance for Preservation (RAP) have become among the most reliable sources for preservation education. RAP is a network of organizations devoted to preservation and conservation of cultural objects that provide assistance to library, archive, and museum professionals across the country. RAP organizations focusing on preservation of library and archival materials include the Northeast Document Conservation Center (NEDCC), the Conservation Center for Art and Historic Artifacts (CCAHA), Amigos Library Services, and the Southeastern Library Network (SOLINET). All of them consider education to be part of their mission and have developed an ongoing curriculum in preservation.

Other regional and local organizations, such as the California Preservation Clearinghouse, the Massachusetts Board of Library Commissioners, and the New York State Program on the Conservation/Preservation of Library Research Materials, also play an important role in providing preservation education to practicing professionals and paraprofessionals. These local organizations often work with RAP institutions to offer workshops, with the local preservation network providing the venue and the RAP member providing qualified instructors. Associations, while serving as a critical source of CE workshops, are not always consistent providers of CE programs. Most association CE offerings are tied to annual conferences and must be proposed by members of the association each year, thus one cannot count on the same topics being offered regularly. The primary exception to this situation is SAA, which offers a full slate of regional workshops through its CE program in addition to its conference offerings.

New Directions for Continuing Education

While core topics such as disaster response and recovery, management of environmental conditions, and book repair continue to be the mainstay of continuing education in preservation, CE providers also strive to address digital preservation issues. Thus far most CE programs have focused primarily on using digitization to reformat objects. The School for Scanning, a three-day symposium hosted by the NEDCC, was a pioneer in providing education in how to manage digitization projects (its target audience is preservation administrators). The ongoing preservation of digitized and "born-digital" materials has received far less attention to date, although that is slowly changing as the field begins to embrace digitization as a preservation reformatting method.¹² The recent introduction of workshops that aim to give a general overview of the critical issues surrounding digital preservation indicate that the field is beginning to move beyond the building of digital libraries, to the maintenance of these new resources over time. While the preservation community recognizes the need for educating librarians and archivists in how to preserve the massive quantities of digital materials in their care, the lack of concrete strategies and standards continue to frustrate both educators and potential audiences for CE workshops in digital preservation.

CE programs are also moving beyond the care of paper-based materials, to target visual materials, sound recordings, and moving images. According to a 2001 study of Association of Research Libraries (ARL) members, the holdings of ARL libraries include 1.3 million moving images, 5.3 million sound recordings, and more than 64 million graphic materials.¹³ The Heritage Health Index, which includes many more institutions, indicates that cultural institutions hold 40.2 million moving images, 46.4 million sound recordings, and 724.4 million items in photographic collections.¹⁴ Yet, many librarians and archivists with preservation responsibilities are not adequately prepared to care for these media. Most graduate courses and CE workshops that focus on the basics of preservation give scant attention to the care of media other than paper-based material or still photographs. Although some CE workshops specializing in these media exist, they are not offered with the same regularity as other courses, often being seen as special topics or part of an advanced curriculum rather than being included at the introductory level.

Comparing the Roles of Graduate and Continuing Education in Preservation

The division between preservation education in graduate programs and through CE is murky, as the curriculum of graduate and CE courses often overlaps significantly. One might trace the reasons for this overlap to two factors: the relatively small number of professionals exposed to preservation in graduate school (less than 5 percent of all MLIS recipients include preservation as part of their coursework), leading to a large number of practitioners who must then pursue basic preservation education elsewhere; and, the large number of paraprofessionals given preservation responsibilities who do not have access to preservation education through a formal degree program.¹⁵

Because of this blurring of the line between graduate and continuing education for preservation, the authors of this study hypothesize that the opportunities offered by CE providers go beyond simply facilitating lifelong learning objectives. They aim to close the gap in the knowledge base of LIS practitioners that cannot be filled satisfactorily by formal educational programs or on-the-job training alone. While they aspire to serve multiple audiences and a variety of purposes for the library and archival science professions, they now function as the de facto primary source of rudimentary preservation education for LIS professionals and paraprofessionals. As a corollary hypothesis, this study suggests that current preservation education within traditional library and archival studies programs does not provide adequate preparation in the areas of technical and managerial expertise to deal with the preservation of digital collections, audiovisual media, or visual materials. The investigators approached these problems as issues worthy of research, in order to document the current situation and place these issues on the national LIS educational agenda. Specifically, the investigators sought to address the following research questions:

- 1. What is the composition of curricula for CE programs in preservation? How has that curricula changed over the past decade?
- 2. What is the relationship between graduate and continuing education in preservation?
- 3. How do educators plan to keep pace with new formats and technological advancements?
- 4. Do preservation educators provide students with the opportunity to put theory into practice? If so, how is this achieved?
- 5. What do preservation educators see as the key knowledge and values in preservation education? How are these values reflected in the curricula?

The following report summarizes the results of the research undertaken to find answers to the previous questions.

Research Method

This survey aimed to document the extent and breadth of offerings found in continuing education offerings sponsored by field service programs and other regional or local networks. The survey also attempted to gauge the attitudes and views of preservation educators across the spectrum of preservation education in relation to topics such as growth of the field.

Establishing a Working Population of Preservation Education Providers

This assessment of preservation education was directed toward CE providers in the United States. The population of CE providers proved to be an amorphous group, thus recipients of surveys were identified in several ways. The investigators used a combination of sources, including a listing of members of RAP (which consists of field service providers), listings in the eighth edition of the ALA Preservation Education Directory (published in 2002), and recommendations from colleagues.¹⁶ The research team also sent out a general call via several electronic discussion groups: the Preservation Administration Discussion Group, or PADG; jESSE (a list devoted to discussion of library and information science education issues); and Forum for Archival Educators (a private discussion list whose members are educators in archival studies programs).¹⁷ Additionally, a Web site was set up to allow individuals involved in preservation education to request a survey.¹⁸ Finally, an announcement was published in October 2003 issue of The Abbey Newsletter, a periodical devoted to current news and developments in library and archival preservation.¹⁹

The main criterion for including an education provider in the study was evidence that the organization was committed to offering preservation workshops with some regularity (i.e., at least once a year). An examination of the information provided in the ALA *Preservation Education Directory* and the organization's Web site (if one existed) served as the primary method that was used to make this determination. The investigators may have underestimated the size of the CE provider population, in that they may have failed to identify ad hoc or regional organizations; however, these methods provided a feasible sampling frame with which to proceed with the study. When multiple responses were received from the same institution, the researchers compared responses and selected the most reliable.

To encourage participation, survey recipients were assured of the confidentiality of their responses. Because of this requirement, the investigators were sometimes required to aggregate data in order to maintain the confidentiality of participants despite the small size of the working population.

Description of the Survey Instrument

The survey (see appendix) was sent to field service providers and other organizations identified as sources of continuing education. The research team targeted those individuals identified as being in charge of educational offerings. The investigators asked questions dealing with the following topics:

- type and number of workshops offered;
- frequency of workshop offerings;
- enrollment statistics;
- existence of credential in preservation and/or award of CE credits;

- content of preservation workshops;
- incorporation of preservation into related workshops;
- faculty resources;
- future plans for curricula; and
- audience for workshops.

In total, 38 surveys were sent to potential participants; this list consisted of educators identified through the initial compilation of the working population (as previously detailed). Although postings were made to various electronic discussion groups as previously detailed, the investigators received no additional requests for the survey from educators who were not on this initial list. Recipients who did not respond to the call to participate were sent a reminder after six weeks; a second reminder was sent twelve weeks after the initial contact to those who still had not responded. After three attempts at contact, the research team considered the data collection period to be closed.

To standardize coding and subsequent analysis of data, the survey used checkboxes wherever possible, and refrained from open-ended questions as much as possible. Where participants were asked to fill in answers (for example, "list each preservation workshop offered"), the investigators created nominal coding categories to aggregate data.

Potential Sources of Bias

The investigators see several potential sources of bias in this research. First, the data may be slanted toward those individuals who are predisposed to participate in surveys. Field service providers were more apt to respond, as education is often a central part of their organizational mission. Second, answers to certain questions about future plans in hiring and curriculum should be treated somewhat cautiously. Respondents who were not full-time employees of an organization may not have had a complete understanding of the current situation regarding hiring or curriculum revision. Additionally, some organizations may be wary about revealing plans in this area (despite assurances of anonymity) for fear of being seen as making a firm commitment to hiring of new instructors or offering new workshops.

A second source of bias lies in the definition of the working population for this study. Early in the research project, investigators made the decision to exclude professional associations as part of the population on the observation that many associations do not regularly offer preservation workshops as part of an established CE program (as most workshops are tied to conferences). SAA is the primary exception, as has been previously noted. In retrospect, the research team admits that the exclusion of association data may slightly skew the overall trends identified and conclusions reached in this study. The most significant potential bias of this research concerns truthfulness in reporting data. For the questions that asked respondents to provide hard numbers (particularly about enrollment figures over a five-year span), several participants indicated that the numbers they were providing were estimates or guesses since they had not kept good records of such data. Thus the researchers exercised extreme caution in interpreting these statistics, with the understanding that they may not be exact representations of the phenomenon being measured.

Findings and Discussion

In total, the research team received a total of 20 completed surveys from CE providers. This number was reduced slightly due to the removal of institutions or organizations that identified themselves as being outside of the working population, leaving 18 useable surveys. Revising their population size to 36 providers, the investigators calculate the response rate as 50 percent (numbers do not include surveys removed for the previously noted reasons). This rate offers some reassurance that the research team may rely on the results to be statistically accurate. The extremely small population size in question leads them to be extremely cautious in interpreting results and their potential implications, however.

The investigators used a standard statistical analysis package, SPSS, for all survey data entry and analysis. The primary analysis used was frequency distribution; this data is presented in tabular form, with discussion following each table.

Survey Responses

Readers are invited to consult the appendix to examine the survey instrument; the report uses the abbreviation "Q" followed by the question number to indicate from which question the data are drawn (thus, Q1 refers to Question 1).

Availability of Course Offerings

As stated previously, 18 surveys from CE providers were used in the final analysis. Of those 18 usable surveys, 13 organizations indicated that they offered workshops in preservation (Q1). Those organizations that teach

preservation workshops are more likely to offer a series of sessions touching upon preservation issues rather than just a single workshop (Q2): out of 13 respondents, 10 organizations (76.9 percent) offer more than 3 workshops, 2 organizations (15.4 percent) offer 3 workshops, and 1 organization offers 2 workshops (7.7 percent). The investigators interpret these results to be an indication of the popularity of preservation as a topic for CE workshops. The hands-on nature of many of these programs appeals to both professionals and paraprofessionals, who see them as having practical use (see also the discussion below of reasons for attending preservation workshops).

Enrollment in Preservation Workshops

CE providers were asked to list the workshops they offered by title, indicate their frequency, and give the enrollment figures for the period of 1999–2003 (Q3) (see table 1). Unfortunately, the investigators are unable to report the total number of workshops offered in this period, due to variations in the way that this data was reported (some respondents did not indicate how many times in a year that certain workshops were offered).

Table 2 data show that disaster planning and emergency management workshops have consistently had the most appeal for CE students. The topic is offered by the majority of respondents, has high enrollment, and is most likely to be

Table 1. Frequency of preservation workshops offered by continuing education providers (*N* varies)

Type of workshop	Annually	Biannually	More than once a year	Irregular or unspecified frequency	Total number of providers (<i>N</i>)
Care and handling/ collections conservation	2	1	4	5	12
Book repair	0	1	2	3	6
Commercial binding	1	0	0	1	2
Management of environment/pest and mold control	2	0	1	3	6
Disaster planning/ emergency management Exhibits and security	3	0	4	5 4	12 5
Care of time-based (audiovisual) and visual materials	1	0	0	4	5
Reformatting and digitization	0	0	2	2	4
Grant writing and fund-raising	1	0	0	2	3

offered two or more times a year. The investigators suspect that the spike in enrollment for these workshops in 2000 may have been due to a state-sponsored program that promoted disaster planning in that year. Given the continued interest in disaster planning in the wake of recent natural disasters such as Hurricane Katrina and concern over terrorism, the researchers suggest that interest is likely to remain strong. Workshops focusing on the management of environmental conditions, including pest and mold control, show steady enrollment. Interest in the programs is not surprising, as they complement offerings in disaster planning. Problems with pests and mold often materialize as a result of waterrelated disasters. In considering the enrollment in 2001, the investigators believe that this increase may be another example of a state or regionally sponsored educational offering that generated the upswing.

The popularity of care, handling, and book repair programs also seems fairly consistent over the five-year period; half of the respondents report offering care and handling at least once a year (one-third of them offer it more than once a year). Investigators suspect that many of the enrollees in these classes are either paraprofessionals or professional librarians who did not have the opportunity to take preservation in their LIS graduate program. Also, those students who may have had exposure to the administrative side of preservation in previous courses, but not some of the more technical aspects, may find this workshop to be of interest. This topic also holds appeal for those practitioners working tion of institutional practices in establishing and sustaining digitization projects. While the investigators speculate that these classes initially attracted many librarians and archivists who were given the responsibility for managing or initiating digitization projects, the demand for this information also may be partially fulfilled through graduate education offerings in digital libraries that have emerged in the past decade.

The small number of individuals taking workshops in commercial binding may be tied to the reduction in the number of print subscriptions in favor of electronic journal subscriptions, as well as increased interest in reallocating staff and fiscal resources to digitization projects. These trends are not surprising, given the proliferation of new media as part the responsibilities of librarians and archivists. The heterogeneity of most collections demands that information professionals become versed in the preservation requirements of many different types of media.

Shifting resource and budgetary management may also affect grant writing and fund-raising efforts. While workshops focusing on these areas currently have the benefit of a solid enrollment rate, the investigators expect that institutions will continue to place a greater emphasis on securing outside funding, which may drive enrollment rates higher. The strain on operating budgets will compel institutions to educate their staff in how to write viable grant proposals that will stand out as superior in an increasingly competitive funding environment.

in institutions where resources are minimal; improvements in care and handling of materials, such as proper shelving and housekeeping, are often inexpensive to implement.

The data reveal several other interesting trends, particularly the increasing interest in the preservation of audiovisual media. Workshops in time-based and visual materials show steady increases in enrollment from 1999 to 2003, as more and more cultural heritage professionals become cognizant of the importance of preserving these types of materials.

Reformatting and digitization workshops are still in demand, although the downward trend indicates that their initial appeal may be waning somewhat due to the matura-

Table 2. Enrollment statistics for preservation workshops, 1999-2003						
Type of workshop	1999	2000	2001	2002	2003	Total (1999–2003)
Care and handling/ collections conservation (<i>N</i> =12)	319	351	231	267	424	1,592
Book repair (N=6)	173	106	182	151	261	873
Commercial binding (N=2)	14	11	12	21	9	67
Management of environment/ pest and mold control (<i>N</i> =6)	56	42	110	86	71	365
Disaster planning/emergency management (N=12)	515	855	483	439	386	2,678
Exhibits and security (N=5)	17	63	26	16	122	244
Care of time-based (audiovisual) and visual materials (<i>N</i> =5)	67	26	193	165	120	571
Reformatting and digitization (<i>N</i> =4)	356	292	274	166	145	1,233
Grant writing and fund-raising (<i>N</i> =3)	97	17	160	0	95	369

Attendance and participation in workshops about exhibits and security have some fluctuation, but interest remains strong. The diversity of collections presents institutions more opportunities to showcase their treasures and highlight a specific corpus of information amidst the greater body of work, yet the fragility and vulnerability of these materials requires archivists and librarians to learn how to exercise caution in presenting them.

Audience

Eight respondents gave information about the types of students who enrolled in their workshops (Q16). The investigators calculated the mean of reported percentages for the following categories: administrators (13.1 percent), supervisors or department heads (15 percent), entry-level professionals (22.5 percent), support staff (i.e., paraprofessionals, 30.6 percent), students (7 percent), volunteers (7.8 percent), and others (4 percent). Other types of attendees noted by respondents included the general public and facilities staff. One respondent wrote in the margins of the survey instrument that the composition of the audience depends upon the topic of the workshop. While disaster preparation and recovery tended to draw administrators, supervisors, department heads, entry-level professionals, and support staff, the digitization workshops were composed of nonsupervisory entry-level professionals, support staff, students, and faculty ("many of them senior faculty," a respondent reported). The high number of paraprofessionals and entrylevel professionals (those segments of the audience comprise 53.1 percent) suggests that these individuals are arriving on the job with little or no exposure to preservation concepts or experience with preservation work. In particular, for entry-level professionals, the significant number of MLIS graduates who have had minimal preservation education is particularly troubling.

Reasons for Attending Preservation Workshops

The reasons why attendees enroll in preservation workshops are varied. The 11 organizations offering data on this question (Q17) cited the following motives for enrollment: CE credits (3 organizations, 27.3 percent), workshop required for performing job duties (9 organizations, 81.8 percent), general interest in subject matter (9 organizations, 81.8 percent), and other reasons (4 organizations, 36.4 percent). The other reasons mentioned included:

- part of degree program;
- continuing education (no CE credits awarded);
- new job responsibility; and
- "course useful for understanding reasons behind techniques or work (for example, book repair, or introduction to XML)."

From this data, investigators surmise that students are most likely to enroll when they are beginning a new job, have new job responsibilities, or when the workshop offers a hot topic such as digitization with which students feel they should be familiar. The researchers also infer that employees may be more likely to take workshops if their employer subsidizes the cost of enrollment, which may help to explain the high percentage of organizations reporting that enrollees cite general interest as a reason for taking classes.

Credentials and CE Credits

Among survey respondents, no CE providers offered a credential in preservation or preservation management, aside from one program that is affiliated with an LIS school (Q4). Several providers do offer CE credits, however (3 respondents out of 13, or, 23.1 percent, grant credits) (Q5). The investigators suspect that public and school librarians tend to be most interested in CE credits, as most academic librarians do not have CE requirements.

Faculty Resources

The individuals who teach preservation in CE programs consist largely of professional conservators and preservation administrators (Q9). Many of these instructors work fulltime or part-time for field service programs (comprising almost two-thirds of the total number of faculty), while the rest work as consultants for some of the smaller regional preservation alliances, and organizations that function largely on a volunteer basis. Just how many of the full-time and part-time staff members also "moonlight" as consultants for the smaller organizations is unknown, but anecdotal evidence suggests that the percentage of overlap between the two is significant. The investigators interpret the high number of faculty who work full-time for these organizations (42, or 63.6 percent) as an indication of survey respondents' strong commitment to preservation education.

Credentials of Educators

Instructors of preservation workshops generally possess at minimum a professional-level master's degree (MLIS or equivalent); 42 of the instructors at the 13 responding organizations have such a background (Q10). Many of them also possess a post-master's degree certificate in conservation or preservation administration (15 instructors). Ph.D.s teaching CE courses are a rarity; the lone Ph.D. reported in the survey was qualified in history, not library science. Ph.D.s serving as CE instructors are likely to remain scarce as few Ph.D. students are specializing in preservation at this time. In addition, many of the workshops focus on practical day-to-day skills, with which many Ph.D.s may not be as familiar. Respondents also cited extensive experience in conservation benchwork as a valued credential. Other types of credentials mentioned (by 9 instructors) included benchwork, a degree in museum studies, and an internship in a preservation department at an Association of Research Libraries (ARL) library. Because of the practical emphasis of many of the CE workshops, practitioners with significant technical expertise and administrative experience appear to be the most desirable candidates for instructor positions.

Hiring in Preservation CE

The survey asked respondents to indicate whether or not they planned to hire additional instructors to teach CE courses in preservation. Out of the 13 respondents to this question, 7 (53.8 percent) reported in the affirmative, while 6 (46.2 percent) said that

they had no plans to hire additional staff at this time (Q11). Those who responded in the affirmative (and one respondent who had responded in the negative) indicated the following types of field service positions would be offered: 3 organizations would like to hire a conservator on a full-time basis, 4 organizations would like to hire consultants on a contractual basis, and 1 organization would like to use more volunteers (Q12). Investigators interpret these data as a sign of positive growth for CE in the preservation arena.

The Preservation Curriculum in CE

As might be expected, workshops tend to be much more focused than graduate school courses, less theoretical, and oriented toward issues of practice and technique. Table 4 summarizes the types of topics and formats covered in workshops offered by organizations that participated in the survey (Q6). Disaster recovery and control of environmental hazards have significant coverage in preservation education workshops. The data also show the continued importance of teaching preservation of paper-based media, book repair, enclosures and housing, and visual materials. While digitization, electronic media objects, audiovisual media, and electronic records have received some attention by CE providers, the primary focus of these workshops is still on the perennial preservation imperatives of books, paper, and photographs.

Other topics and activities mentioned included "metadata relating to digitization or preservation," "copyright as it relates to digitization," and "packing and shipping." Other formats mentioned included:

Table 3. Preservation faculty in continuing education (broken down by rank; N=13)

Type of faculty	Number of faculty	Percentage of total number of faculty
Full-time staff (conservation training)	29	43.9
Full-time staff (preservation administration training)	13	19.7
Part-time staff (conservation training)	1	1.5
Part-time staff (preservation administration training)	2	3.0
Consultants hired on contract basis	20	30.3
Volunteers	1	1.5
Total	66	100*

*Percentages do not add up to 100 due to rounding.

- "all non-paper-based collections: ceramics, glass, metals, organic material, plastics, textiles, ptgs [paint-ings], etc.";
- "paintings, ethnographic material (including Native American), art on paper, frames, polychrome sculp-ture";
- scrapbooks; and
- archival material.

Because a number of the organizations offer workshops in the conservation of cultural heritage objects, they cited various other formats that one may not consider to be part of the library or archival preservation agenda. Interestingly, conservation treatments are not often taught; this omission may be related to the distinction between activities that may be carried out by preservation administrators and support staff and those repairs and treatments that require the attention of a trained conservator.

Preservation Issues and Related Workshops

Preservation also plays a part in other workshops in which it is not the main focus. In particular, workshops on archives and manuscripts, special collections, and collections management are most likely to discuss preservation issues. Other workshop topics mentioned included rare books librarianship, digital libraries, technical services, and security (see table 5). Many organizations cited this question as "not applicable" because all of their workshop offerings focus on preservation (Q7).

Survey participants were also asked to list workshops that included "preservation as a significant component

education preservation worksho	ops(N=13)	
Topic or Format Covered	Number of Providers Offering	Number of Providers Not Offering
•	- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -	y
(Topics) History and theory of conservation/ preservation	5 (38.5%)	8 (61.5%)
Ethics of conservation/preservation	5 (38.5%)	8 (61.5%)
Conservation science (including materials deterioration)	5 (38.5%)	8 (61.5%)
Book repair and rebinding (including		
hands-on practice)	8 (61.5%)	5 (38.5%)
Conservation treatments	3 (23.1%)	10 (76.9%)
Enclosures and housing	8 (61.5%)	5 (38.5%)
Reformatting options (microfilming, photocopying, digitization)	7 (53.8%)	6 (46.2%)
Control of environmental conditions (temperature, relative humidity, air quality, pest management)	10 (76.9%)	3 (23.1%)
Preservation assessment (surveying and policy recommendations)	7 (53.8%)	6 (46.2%)
Management (personnel, fiscal, facilities)	4 (30.8%)	9 (69.2%)
Emergency preparedness and disaster recovery	12 (92.3%)	1 (7.7%)
Staff and user education	6 (46.2%)	7 (53.8%)
Other topics	2 (15.4%)	11 (84.6%)
(Formats) Paper-based media (books and documents)	12 (92.3%)	1 (7.7%)
Photographic media	12 (92.3%)	1 (7.7%)
Visual materials	7 (53.8%)	6 (46.2%)
Audiovisual media (sound recordings and moving images)	7 (53.8%)	6 (46.2%)
Magnetic and optical media (removable storage media)	6 (46.2%)	7 (53.8%)
Electronic records	4 (30.8%)	9 (69.2%)
Digital library objects (both digitized and "born digital")	5 (38.5%)	8 (61.5%)
Other formats	4 (30.8%)	9 (69.2%)

 Table 4. Topics, activities, and formats covered in continuing education preservation workshops (N=13)

(defined as spending at least 10 percent of workshop time speaking about preservation issues)" (Q8). Only 2 out of 13 organizations reported such workshops, largely because many of these organizations only offer workshops in the area of preservation. Organizations that offer other types of workshops list the following classes as having a significant preservation component:

- Introduction to Library Collections (30 percent of workshop);
- "Digital topics" (10 percent of workshop);
- Commercial Library Binding (60 percent of work-shop); and
- Local History and Special Collections (30 percent of workshop).

Plans for the Future

Ten out of 13 respondents, or 76.9 percent, responded affirmatively to the question, "Does your institution plan to introduce new workshops in preservation in the near future (in the next 1–3 years)?" (Q13). Table 6 summarizes those subjects seen as potential new workshops (Q14, respondents could mark more than one choice).

Respondents appear to be most interested in adding workshops to deal with photographic and other types of visual materials. Somewhat counterintuitively, interest in reformatting and digital preservation is weak, leading investigators to wonder whether or not current offerings are seen as sufficient and meeting demand. Four providers indicated that they desired to add a collections conservation laboratory class, which researchers interpret as a response to students' continuing demand for more hands-on opportunities. This data may also suggest that institutions have increasing interest in supporting in-house repair programs as part of a triage strategy (identifying and repairing minor damage early on, in hopes of increasing the number of times materials can be circulated).

Other future workshops mentioned included the following:

- "permanence and safety of artist materials";
- "writing a disaster plan," "disaster planning," "disaster response";
- "conducting building risk assessments";
- "collection care planning and management, conservation/preservation planning, handling and housekeeping for collections, earthquake supports and mounts, protecting collections on display and in storage, integrated pest management";
- "environmental threats"; and
- "designing conservation concerns into new buildings and additions."

As these topics indicate, providers are most interested in offering new workshops that target specific topics within the broader areas already defined. The nature of CE workshops, which rarely last longer than a day, encourages providers to narrow the focus and scope of programs.

The other three organizations showed no interest in additional workshops in the area of preservation (Q15). Reasons cited included:

- low enrollment in current offerings (1 respondent);
- lack of available expertise to offer workshop (1 respondent);
- lack of fiscal resources (1 respondent); and
- "[organization] will merge with [professional association] and preservation will become a component of their workshop offerings."

Because of the small number of responses, identifying any sort of trend from this data is difficult, other than the fact that a lack of human and fiscal resources is slightly more likely to affect an organization's ability to offer new workshops than other factors.

Conclusion

Data from this study supports the premise that CE is picking up much of the slack that LIS programs are creating, offering programs on multiple topics not given sufficient coverage at the graduate level; additionally, CE courses often provide the only preservation education for paraprofessionals and administrators who did not have the benefit of such a course in their graduate program.

After examining the survey results, the investigators wonder whether it is problematic that CE providers often serve as the primary source for preservation education. When comparing the current state of preservation education to the circumstances that existed fifteen years ago, the research team sees little actual change over this period. The specificity of the programs and the brevity of the encounters often hinder efforts to transition CE into the kind of educational experience envisioned by Cloonan and others, i.e., the opportunity to facilitate the sharing of knowledge through "experience, creativity, analysis, and the exchange of ideas."20 Hence, CE should not be considered a substitute for graduate education, but ideally, a supplement that builds upon a foundation already laid by LIS programs, and a path towards specialization in preservation. The investigators suggest that CE providers and institutions consider exploring new avenues for providing the type of in-depth experience introduced by the intensive models (for example, Rutgers and the other preservation management institutes offered in the past), but adapted to the online environment, Table 5. Preservation integrated into other workshops? (N=13)

Other Workshops	Yes	No
Archives and manuscripts	3 (23.1%)	10 (76.9%)
Rare books librarianship	1 (7.7%)	12 (92.3%)
Map librarianship	0 (0%)	13 (100%)
Special collections	4 (30.8%)	9 (69.2%)
1	,	· · · · ·
Collections management/development	4 (30.8%)	9 (69.2%)
Digital libraries	2 (15.4%)	11 (84.6%)
Records management (including electronic records management)	0 (0%)	13 (100%)
Technical services (including serials)	2 (15.4%)	11(84.6%)
Other (Security)	1 (7.7%)	12 (92.3%)
Not applicable	7 (53.8%)	6 (46.2%)

Table 6. Interest in Expanding Preservation Curricula (N=10)

Workshop Topic	Number of Respondents
Introductory course in preservation history	1
Collections conservation laboratory	4
Reformatting	1
Photographic media	4
Visual materials	5
Audiovisual media	2
Digital preservation	1
Other courses	8

which would keep costs down and make them more accessible to students whose institutions could not support onsite attendance. Although not all topics lend themselves easily to the online environment, digital preservation is an area that seems particularly suited to this model.

The investigators found that the data generated from this study answered many of the questions raised about the "who, what, when, and where" of CE in preservation, but did not sufficiently capture the underlying explanations of certain phenomena. Questions that remain unanswered include:

• Is growth in CE driven more by demand or by the availability of government subsidies of both provider programs and enrollment in those programs? What happens to CE programs if government funding is severely curtailed or eliminated—will employing institutions assume the full costs of providing CE opportunities to their employees?

• How do graduate LIS curricula influence CE curricula, and vice-versa? Although CE programs can be more agile in offering new topics, in areas such as audiovisual and visual materials, to what level of complexity can CE aspire, given the brief nature of most workshops?

The investigators feel that these questions are best addressed using another methodological approach, ideally a qualitative one. Thus this study represents the first phase of a larger research project. Building upon the initial results of the survey, the investigators hope to follow up with in-depth interviewing of key informants involved in preservation CE at selected sites. After analyzing the interview data and comparing those results to those of the survey, the investigators hope to have a more complete picture of the state of preservation CE in the United States, which will be used to create recommendations for directing preservation CE in the next decade.

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Appendix: Survey Instrument

Preservation Education Needs for the Next Generation of Information Professionals

Survey for Educators Teaching Preservation in Field Service Programs and Other Providers of Continuing Education for Preservation

Types of Courses/Frequency Offered

- 1. Does your organization offer workshops on preservation and/or conservation of library/ archival materials?
 - ____Yes (go to next question)
 - _____ No (go to question 18)
- 2. How many workshops do you offer on preservation of library/archival materials? Do not include courses that merely incorporate preservation as part of a related topic (such as archives or collection development) unless preservation issues constitute at least one-third of the material covered.

_____1 _____2 _____3 _____ More than 3

3. List each preservation course offered, and indicate the regularity with which it is offered. Also indicate its enrollment over the last five years, broken down by years.

Course Title	Frequency	Enrollment over the Last Five Years
		2003: 2002: 2001: 2000: 1999:

4. Does your organization offer a credential in preservation?

____ Yes ___ No

5. Does your organization offer continuing education credits?

_____Yes

____ No

Content of Preservation/Conservation Coursework

- 6. What topics are covered in preservation coursework? Check all that apply.
 - _____ History and theory of conservation/preservation
 - _____ Ethics of conservation/preservation
 - _____ Conservation science (including materials deterioration)

Activities:

- _____ Book repair and rebinding (including hands-on practice)
- _____ Conservation treatments
- _____ Enclosures and housing
- _____ Reformatting options (microfilming, photocopying, digitization)
- _____ Control of environmental conditions (temperature, relative humidity, air quality, pest management)
- _____ Preservation assessment (surveying and policy recommendations)
- _____ Management (personnel, fiscal, facilities)
- _____ Emergency preparedness and disaster recovery
- _____ Staff and user education
- ____ Other: _____

Formats:

- _____ Paper-based media (books and documents)
- _____ Photographic media
- _____ Visual materials (architectural drawings, maps, prints)
- _____ Audiovisual media (sound recordings and moving images)
- _____ Magnetic and optical media (removable storage media)
- _____ Electronic records
- _____ Digital library objects (both digitized and "born digital")
- _____ Other: _____

Related Coursework

- 7. How do you incorporate preservation into other workshops? Please check all that apply.
 - _____ Archives and manuscripts
 - _____ Rare books librarianship
 - _____ Map librarianship
 - _____ Special collections
 - _____ Collections management/development
 - _____ Digital libraries
 - _____ Records management (including electronic records management)

_____ Technical services (including serials)

____ Other: _____

____ Not applicable

8. Please list any related courses that include preservation as a significant component (defined as spending at least 10 percent of workshop time speaking about preservation issues).

Course Title	Percentage of Course Devoted to Preservation Issues

- 9. Who teaches preservation workshops for your organization? Fill in the blanks with the number of instructors. Do not count instructors who merely incorporate preservation as part of a related topic (such as technical services).
 - _____ Full-time staff with conservation training and experience
 - _____ Full-time staff with preservation administration training and experience
 - _____ Part-time staff with conservation training and experience
 - _____ Part-time staff with preservation administration training and experience
 - ____ Consultants (hired on a contractual basis to teach particular courses)
 - _____ Volunteers
- 10. How many faculty members hold:
 - _____ A professional-level master's degree?
 - _____ A certificate of advanced study in conservation or preservation?
 - _____ A Ph.D. degree?
 - _____ Another degree or certification (please list types: ______)?
- 11. Do you have any plans to hire additional staff or recruit volunteers to teach in the area of preservation/conservation?
 - _____Yes (go to next question)
 - ____ No (go to question 13)
- 12. If yes, what type(s) of position(s) would be offered? Fill in the blanks with the number of positions.
 - _____ Full-time staff position for conservator
 - _____ Full-time staff position for preservation administrator
 - _____ Part-time staff position for conservator
 - _____ Part-time staff position for preservation administrator
 - Consultant (hired on a contractual basis to teach particular courses)
 - _____ Volunteer work
- 13. Does your institution plan to introduce new workshops in preservation in the near future (in the next 1–3 years)?
 - _____Yes (go to next question)
 - _____ No (go to question 15)

14. If yes, please list what type(s) of course(s) will be offered and when you hope to offer it (them):

Year	Type of Course
	Introductory course in preservation history, theory, science, etc.
	Collections conservation laboratory experience (book repair, rebinding, deacidification, other treatments)
	Reformatting (microfilming, copying, digitization)
	Specialized preservation seminars in:
	Photographic media
	Visual materials (architectural drawings, maps, prints, etc.)
	Audiovisual media (sound recordings, moving images)
	Digital preservation (electronic records and other digital media)
	Other:

Go to question 16.

15. If no, why not? Check all that apply.

_____ Low enrollment in current preservation offerings

_____ Low enrollment in past preservation offerings

Preservation felt to be discussed sufficiently in other workshops on related topics (e.g., technical services, collection development)

- _____ Lack of available expertise to offer workshop
- _____ Lack of fiscal resources
- _____ Other: _____

Audience

- 16. Please estimate average percentages of students who enroll in coursework:
 - _____ Administrators
 - _____ Supervisors or department heads
 - _____ Entry-level professionals
 - _____ Support staff (paraprofessionals)
 - _____ Students
 - _____ Volunteers
 - _____ Other: _____
- 17. What reasons do attendees give for enrolling in your courses? Check all that apply.
 - _____ Continuing education credits
 - _____ Course required for performing job duties
 - _____ General interest
 - _____ Other: _____

Future Participation in This Study of Preservation Education Needs

- 18. May the investigators of this study contact you or a representative of your institution again about participating in the next phase of this study? Please check the appropriate box below with your preference and include contact information if requested.
 - _____ No, I am not interested in further participation. Please do not contact me again.
 - _____Yes, I (or a representative of my institution) would be interested in further participation. Please contact ______ at the following address, phone number, and/or e-mail: ______

Phone: _____ E-Mail: _____

Thank you for participating in this survey! Any further questions or comments may be directed to Dr. Karen F. Gracy (kgracy@pitt.edu) or Ms. Jean Ann Croft (jeanann@pitt.edu).