

## Face Sheet

1. Applicant Organization  
University of North Carolina at Chapel Hill, School of Information & Library Science and Institute on Aging

2. Institutional Mailing Address  
104 Airport Drive, Suite 2200, CB# 1350

3. City  
Chapel Hill

4. State  
NC

5. Zip Code  
27599-1350

6. Web Address [osr.unc.edu/index.php](http://osr.unc.edu/index.php)

7. DUNS Number 608195277

8. TIN Number  
[REDACTED]

9. Name and Job Title of Project Director  Mr.  Ms.  Dr.  
Joanne Gard Marshall, Professor

10. Business Phone of Project Director  
(919)843-9968

11. Project Director Mailing Address  
720 Airport Road, Suite 200, CB# 1030

12. City  
Chapel Hill

13. State  
NC

14. Zip Code  
27599-1030

15. Fax Number of Project Director  
(919)966-0510

16. E-mail Address of Project Director  
marshall@ils.unc.edu

17. Name and Title of Authorizing Official  
Tony Waldrop, Vice Chancellor for Research

18. Business Phone of Authorizing Official  
(919)966-3411/3412

19. Authorizing Official Mailing Address  
104 Airport Drive, Suite 2200, CB# 1350

20. City  
Chapel Hill

21. State  
NC

22. Zip Code  
27599-1350

23. E-mail Address of Authorizing Official  
resadminosr.unc.edu

24. Sponsoring institution if applicable (e.g., municipality, state, or university)  
 check if this entity will manage funds if an award is made. Name and address:

25. Is the applicant organization university controlled?  yes  no

26. Priority addressed in this application (check only one):

- Priority 1: Master's Level Programs
- Priority 2: Doctoral Level Programs
- Priority 3: Pre-Professional Programs
- Priority 4: Research
- Priority 5: Programs to Build Institutional Capacity
- Priority 6: Continuing Education

27. Project Title Workforce Issues in Library and Information Science (WILIS)

28. AMOUNT REQUESTED \$ 804,344

29. Amount of Matching Funds \$ 250,650

30. Grant Period (Starting Date) 07 / 01 / 05 — 06 / 30 / 08 (Ending Date)

31. In the space below, include names of any organizations that are official partners of the project.

32. Check governing control of applicant (select one)  State  Municipal  County  
 Private Non-Profit  Tribal Government  Other, please specify \_\_\_\_\_

33. Check Type of Organization (select one)

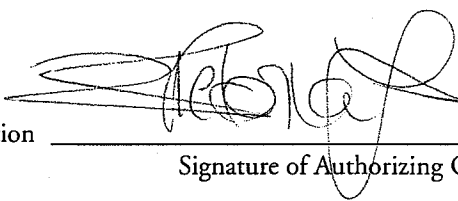
- Public Library
- Research Library/Archives
- School library or school district applying on behalf of a school library or libraries
- Museum library
- Library Association
- Academic Library
- Special Library
- Library Consortium
- State Library Agency
- Institutions of Higher Education other than listed below:
  - Graduate school of library and information science
  - Four Year College
  - Community College
- Other, please specify: \_\_\_\_\_

CONTINUE TO ITEM NO. 34

34. Institution Name UNC Chapel Hill SILS and IOA

35. In the space below, summarize the project activities (200 word maximum).

Workforce Issues in Library and Information Science (WILIS) is a three-year research project designed to study the career patterns of graduates of LIS programs. In general, LIS programs have lacked the time and resources to track their graduates. As a result, stakeholders do not have an adequate understanding of what happens to LIS graduates over the long term. LIS educators, in particular, do not have consistent data on the extent to which their programs meet students' expectations, prepare them for the workplace or meet continuing learning needs. Such an understanding would assist in educating and managing the LIS workforce more effectively. WILIS has two major parts. Part 1 will build an in-depth understanding of educational, workplace, career and retention issues faced by LIS graduates. This part of the research will be sited in NC where a full range of LIS program types exist. One of the programs is in a historically Black institution, allowing a focus on minority career and retention issues. Part 2 will use the methods developed in Part 1 to generate a transferable model for career tracking of LIS graduates nationally.

36. Certification   
Signature of Authorizing Official

Acting For  
Tony G. Waldrop

12/13/04  
Date

**Workforce issues in Library and Information Science (WILIS):  
Developing a Model for Career Tracking of LIS Graduates**

**Abstract**

**Workforce Issues in Library and Information Science (WILIS)** is a three-year research project designed to study the career patterns of graduates of LIS programs. In general, LIS programs have lacked the time and resources to track their graduates. As a result, stakeholders do not have an adequate understanding of what happens to LIS graduates over the long term. LIS educators, in particular, do not have consistent data on the extent to which their programs meet students' expectations, prepare them for the workplace or meet continuing learning needs. Such an understanding would assist in educating and managing the LIS workforce more effectively. WILIS has two major parts. **Part 1** will build an in-depth understanding of educational, workplace, career and retention issues faced by LIS graduates using the life course perspective from the social sciences. This part of the research will be sited in North Carolina where a full range of LIS program types exist. One of the programs is in a historically Black institution, allowing a focus on minority career and retention issues. **Part 2** will use the methods developed in Part 1 to generate a transferable model for career tracking of LIS graduates nationally. The specific research goals are:

- 1. To build a comprehensive understanding of educational, workplace, career and retention issues facing LIS graduates.** The research team will use the following sources to develop a primarily web-based survey of LIS graduates: 1) previous LIS career tracking studies; 2) the expertise of LIS investigators related to type of employment, both library and non-library; 3) the expertise of non-LIS investigators in work and life course studies; 4) the experience of investigators in conducting a similar career-focused, web-based survey in the Workforce Aging in the New Economy (WANE) project; and 5) key informant interviews. WILIS will complement the IMLS *National Study on the Future of Librarians in the Workforce* by gathering more in-depth data on career and retention issues and including LIS graduates who have left the field temporarily or permanently.
- 2. To conduct an in-depth investigation of planning and tracking issues for LIS programs that influence the current and projected supply of LIS professionals.** The study team will conduct key informant interviews with LIS program directors in NC; heads of library and information organizations and associations; and representatives of LIS employers (i.e., academic, public, school and special libraries and non-library employers). Based on the issues that emerge, the team will gather data from LIS programs nationally. The two purposes will be: 1) to determine current planning and tracking practices, including future enrollment plans and views on recruitment, retention and other workforce issues and 2) to gauge the level of interest in and feasibility of developing a national career tracking system for LIS graduates.
- 3. To develop a career tracking model for use by LIS program planners and other stakeholders.** Based on data from Goals 1 and 2, the team will create a model that includes: 1) a theoretical approach to the study of workforce issues based on the life course perspective which takes into account a wide range of factors that affect career patterns; 2) a methodology for conducting a study that can be applied elsewhere; 3) a career tracking survey instrument; and 4) recommendations on the feasibility of a national career tracking system. The model will be available on the project website and could be used by individual or groups of programs at the regional, state or national levels, depending on the level of interest and feasibility established in Goal 2.
- 4. To disseminate study findings in an effort to facilitate workforce planning by stakeholder groups.** A web site will serve as the major communications vehicle for the study. Findings will be reported on an ongoing basis on the web, at conferences and in publications. At the end of the study, the team will conduct a webcast of the findings that will be widely advertised through LIS listservs. Specialized research and practice-oriented publications will be produced by team members. The LIS researchers will produce publications tailored to the needs of specific types of libraries and information services. Particular emphasis will be placed on dissemination of findings that address minorities and minority workforce issues.

**Workforce Issues in  
Library and Information Science (WILIS)**

**Narrative**

# Workforce Issues in Library and Information Science (WILIS): Developing a Model for Career Tracking of LIS Graduates

## Narrative

### I. Need and Intended Results

Over the last decade the library and information science (LIS) literature has reflected an increasing concern with workforce issues including the aging of the workforce (e.g. Berry, 2003; Lynch, 2000; J. Marshall, in press; Matarazzo, 2000); the lack of minority presence in the field (e.g. Alire, 1996; Winston, 1998); and the need for succession planning (e.g. Curran, 2003; Wilder, 2003; Young, Herson & Powell, 2004). In response to this concern, IMLS launched an initiative to recruit the next generation of LIS professionals (Eberhart, 2002) and funded a *National Study on the Future of Librarians in the Workforce* in October 2004 (hereafter referred to as the *IMLS National Study*).

Although recruitment, education and retention of LIS professionals continue to be cited among the top issues facing the field (Paulson, 2003), little systematic research has been done to characterize the exact nature of the problem and to develop data collection models that can be used to track the workforce on an ongoing basis. Furthermore, efforts to date have tended to focus on recruitment rather than retention. The *IMLS National Study* promises to provide a broad overview of existing data sources and to gather new data from samples of libraries, employers, educators, library funders, practicing LIS professionals, school counselors, high school seniors and undergraduates over a two-year period; however, additional in-depth research such as the study proposed here, will be needed over time to build our understanding of the complex personal, organizational and social factors that affect the LIS workforce.

Workforce Issues in Library and Information Science (WILIS) is a three-year research project designed to study the career patterns of graduates of LIS programs in North Carolina from 1964 to 2004 (N=7500). This study will have both scientific and practical significance. The research findings will complement the *IMLS National Study* by enriching the understanding of careers in LIS but, in addition, the results will be used to create a transferable model for career tracking of graduates that can be used by LIS programs nationally. The intended outcome of the project is to provide stakeholders at all levels with results that will assist them to plan, educate and manage the LIS workforce more effectively.

### II. Theoretical Perspective

As a framework for the research, WILIS will use the life course perspective, a social science approach that has been used extensively to study occupational careers. This perspective spans various stages in the life course ranging from education to work transitions through the retirement transition (Elder, Johnson & Crosnoe, 2003; V. Marshall, Heinz, Krueger & Verma, 2001) and has recently been used to address labor force policy issues (V. Marshall & Mueller, 2002). In the context of changing social conditions and demography, the life course perspective directs attention to an individual's experiences over time, examining stability and change in the occupational career.

The use of the life course perspective acknowledges that a complex set of factors influence recruitment and retention behavior. Life course researchers have challenged older models of occupational careers, which assumed that most workers have stable occupational histories, i.e. a brief period of 'churning' followed by settling into a 'career job' until retirement at or near age 65. Increasingly, workers are now moving in and out of the workforce, either voluntarily or involuntarily due to changing economic conditions, restructuring and downsizing in work settings (Cappelli, et al. 1997, Doeringer, 1990, V. Marshall, et al. 2003). Acknowledging this lack of standardized career patterns is especially important for occupations with predominantly female composition as these older models do not incorporate interruptions in careers. This emphasis on contingency may also be important when attempting to understand the careers of underrepresented groups in LIS, as the impact of family transitions and circumstances may differ by race and ethnic background. Life course research

has also shown that end-stage developments, such as retirement timing, job satisfaction and income are contingent on the nature of working experiences and transitions earlier in life. Retirement behavior is related not just to the immediate circumstances prior to retirement itself, but to the broader context of the career (Hayward, Friedman & Chen, 1998; V. Marshall & Mueller 2002). Most people now retire before age 65, but increasing proportions of workers seek reemployment. Occupational patterns throughout life, but especially as older workers facing the retirement transition, are strongly influenced by benefits packages and pension conditions (Hardy & Hazelrigg 1999). Understanding complex reemployment and retirement intentions and behavior is likely to inform workforce planning related to potential workforce shortages in fields such as LIS.

### III. Overview

WILIS has two major parts. **Part 1** is a research study aimed at building an in-depth understanding of educational, workplace, career and retention issues faced by LIS graduates. The data collection will be designed for application to the LIS field. While factors that lead to recruitment will be investigated, the major focus of this study will be on those factors that lead individuals to remain in LIS. The study will measure factors that may be salient both earlier and later in the LIS professional's career, as well as changes in career motivation and commitment and the fit between aspirations and achievement in relation to exit and re-entry patterns from the LIS workforce. By identifying those who are no longer employed in the LIS field, but express an interest in re-engaging with the field, the instrument should facilitate efforts to draw people back into LIS careers. Since LIS has had a history of attracting individuals with other advanced degrees or those who are seeking a career switch from another field, particular attention will also be paid to the experience of such recruits. Factors that affect time of retirement will also be explored. The research results will help LIS educators to design life-course appropriate degree programs as well as lifelong learning and academic upgrading opportunities in response to changing educational needs over the life course.

**Part 2** is a transferable model for career tracking of LIS graduates that will have the potential to be used nationally. The **WILIS model** will incorporate:

- 1) **A theoretical approach to the study of workforce issues based on the life course perspective.** This approach will guide the data collection by recognizing a complex set of variables that affect career decisions and retention issues including historical events, changing labor markets, demography, family transitions and other factors such as health.
- 2) **A methodology for conducting a career tracking study of graduates of LIS programs.** The methodology will take the form of a toolkit for conducting a career tracking study. Examples of content include: the most efficient and effective means of obtaining accurate contact information for graduates; creating a web survey with appropriate mail or telephone follow up; survey design and testing; data analysis templates; and use of results for program planning and monitoring.
- 3) **A career tracking survey instrument.** This survey instrument will be designed and tested as part of the NC study and an optimal group of measures selected for inclusion in the version created for wider use.
- 4) **Recommendations on the feasibility of implementing a national career tracking system for LIS graduates.** The feasibility of using the WILIS model nationally will be tested in a variety of ways as part of the study design. If the full model appears difficult to implement nationally in the short or long term, individual programs and groups of programs at the regional or statewide level will still be able to use the WILIS model to facilitate their own career tracking studies.

While the impact of this research has national significance, the data will be collected primarily in North Carolina and will be supplemented by data that is national in scope. The centerpiece of the methodology will be a career tracking study of graduates from the six LIS programs in NC (1964 through 2004). The programs include three ALA-accredited programs; two non-accredited; and one library technicians' program in a community college. One of the accredited programs is located in a historically Black university (HBU), increasing the ability of the study to focus on factors affecting minority career and retention issues. The range of LIS programs in NC makes the state an excellent study site. A description of the LIS programs in NC may be found in Appendix F. These data will be supplemented by 1) semi-structured interview data with key

informants, 2) a web-based survey of the deans, directors and chairs of accredited, non-accredited and other LIS programs nationally and 4) interviews with representatives of a strategic sample of programs that have some type of alumni tracking system in place. The quality of the WILIS study will be enhanced by the strong support of the institutions involved (see Appendix B for letters) and the multidisciplinary nature of the research team at UNC Chapel Hill, which incorporates LIS researchers and social scientists with expertise in work and life course issues (see Resume Section).

#### **IV. Related Studies**

WILIS will complement the *IMLS National Study* by surveying LIS professionals who have left the field temporarily or permanently as well as those who are currently practicing. This study provides an opportunity to gather more in-depth career-related data from an entire population that graduated in NC over a 40-year period, thus capturing the baby boom generation as well as the more recent LIS graduates (N=7500). The *IMLS National Study* plans to survey a smaller national sample (n=2500) of practicing LIS professionals with master's degrees and other library personnel. A letter of support in Appendix B from Jose-Marie Griffiths, principal investigator of the *IMLS National Study*, acknowledges the complementary nature of WILIS and offers to share data. Wilder (2003: 27) states that the critical factor affecting the librarian workforce will be the management of the population cycle in the organization. This cycle includes all stages of recruitment, compensation and retention of staff. The findings produced by WILIS will assist all organizations that hire LIS graduates to understand the factors that affect career decisions thereby enhancing the ability of employers and policy makers to manage this population cycle more effectively.

The WILIS study is also complementary to an ongoing international study entitled *Workforce Aging in the New Economy* ([www.WANE.ca](http://www.WANE.ca)) that focuses on career and retention issues in the information technology (IT) sector. Two of the WILIS investigators (J. Marshall and V. Marshall) are also investigators on the WANE project. This project will provide WILIS with access to 16 eminent scholars in the area of work and the life course and to valuable reports and survey instruments. The collaboration with WANE will allow WILIS researchers to make use of previous work using the life course perspective and to investigate similarities and differences between the LIS and IT workforces. Since the LIS and IT workforces overlap, there are many advantages of studying both groups simultaneously. A letter of support from the WANE project is included in Appendix B.

#### **V. Project Evaluation and Detailed Research Design**

As a first step, the investigators will establish a **Project Advisory Committee (PAC)** consisting of representatives of the six LIS programs and up to four additional members who can advise on the scientific aspects of the research, including the transferability of the model to other settings. The PAC will include nationally recognized scholars and one or more members who have particular expertise and interest in diversity issues. The specific role of PAC will be to provide advice on: 1) the overall research design; 2) data collection (including obtaining contact information for LIS graduates and maximizing response rates); 3) progress of the study; 4) results achieved; 5) dissemination activities; 6) transferability of the model to other LIS programs nationally. The PAC will be asked to pay particular attention to the aspects of the study that deal with minority career and retention issues. The project will use a program logic model required by IMLS to determine whether expected outcomes are achieved. WILIS has the following goals:

##### **GOAL 1. To build a comprehensive understanding of educational, workplace, career and retention issues facing LIS graduates.**

The primary data gathering tool will be a web-based survey of graduates of the LIS programs in NC. The tool will be developed using the following resources: 1) previous LIS career tracking studies; 2) the expertise of LIS investigators related to type of employment, both library and non-library; 3) the expertise of non-LIS investigators in workforce, aging and life course studies; 4) the experience of investigators in conducting a similar career-focused, web-based survey in the *Workforce Aging in the New Economy (WANE)* project; and 5) qualitative key informant interviews.



**1.1 Review of existing literature and secondary data sources.** In an effort to contextualize the data, team members will conduct a systematic literature review and gather secondary data. The team will begin by reviewing the existing literature on alumni and career tracking. Additionally, the study team will use the Association of Library and Information Science Education (ALISE) annual statistics as a general backdrop in which to situate the WILIS study findings. The ALISE statistics are compiled and edited at the UNC School of Information and Library Science (SILS) and provide data on enrollment numbers, faculty, students, curricula and income and expenditures of accredited programs. ALISE has provided a letter of support (see Appendix B). The study team will liaise with ALISE during the study and ensure that an ALISE representative is appointed to the Project Advisory Committee (PAC). Additional data sources will be sought for non-accredited and community college programs.

**1.2 Gathering, cleaning and testing alumni sampling frames.** Prior to fielding of the survey, the WILIS team will allocate a substantial amount of time to cleaning and testing the alumni listings provided by the NC LIS programs. All six programs have indicated support for the study as shown in the letters provided in the Appendix B. Although listings provided by the programs will be the primary source, the team anticipates that association mailing lists, internet databases and other sources will be necessary as well. Through triangulation of all these sources and email and mail pre-contacts fielded with the help of the six LIS programs, the study team will provide the complete list of working email, mail and telephone numbers to the contracted research firm for use as the study sample. Copies of the updated alumni lists will be provided to the participating programs. These lists may be useful to the programs in a number of ways, including possible future application of the tracking model, marketing and fundraising.

**1.3 Developing the career tracking survey instrument.** The survey instrument will be developed by the study team in consultation with PAC during Year 1. Life course theory and the practical needs of the LIS programs will be used to guide the process. Examples of the type of research questions that will be addressed include:

- 1) What are the career patterns of LIS graduates? Do these patterns differ by age, race, ethnicity, sex, type of library or non-library setting in which they work, and school program?
- 2) What groups are underrepresented or overrepresented in librarianship? What implication does this have for supply, given shifting workforce demographics?
- 3) What is the perceived quality of LIS jobs? How well did educational preparation match job choice? How do these jobs match graduates' education? How do they match expectations, values and aspirations?
- 4) What are needs of LIS graduates in terms of continuing education at different points in their career? What kinds of educational programs are best suited to the needs of those switching into LIS as a second career or to re-entering LIS professionals?

The career tracking survey will emphasize graduates' own views of factors influencing their personal recruitment to LIS, career patterns, and factors affecting retention and retirement behavior. The instrument development will benefit from the previous experience of the WILIS researchers in workforce survey design.

**1.4 Piloting the career tracking survey.** This survey will be fielded using a census of alumni who graduated from one of the six LIS programs in NC between 1964 and 2004 (N=approximately 7500). Using web-based surveys in these target populations with high computer literacy will likely be the most efficient and cost-effective method of data collection. Web-based surveys are increasingly used for large scale surveys and researchers such as Dillman (2000) and Crawford, 2002; Crawford, Couper & Lamias, 2001) have begun to systematically explore the intricacies of research design and factors influencing quality of such research.

From a cost perspective, using the web makes it possible to include the entire population (the census) rather than a sample of the population. The census approach with the web survey is also likely to allow the team to get a larger study sample of underrepresented populations (e.g. racial and ethnic minorities) in the LIS field. Racial/ethnic background is not necessarily known from school program listings, making it difficult to take a stratified sampling approach for minority populations. Since one of the goals of WILIS is to develop a model

for career tracking of graduates for LIS programs, a data gathering approach that includes all graduates is desirable. This approach will allow WILIS to assess the efficacy of and provide recommendations for maximizing response rates for a web-only approach to career tracking which is likely to be the most attractive option for programs.

WILIS will prepare the alumni lists for the sample, field the pre-notification letter customized by school program, and use an experienced web survey organization to mount and distribute the survey. The study team has narrowed the choice of research firms to provided contracted data collection services to two options. Both firms have a great deal of practical experience with all modes of survey data collection (i.e., web, mail and telephone) and the study team has good working relationships with the designated contact person at each firm. The first bid on the contracted services is from Market Strategies, Inc. (MSI). MSI was solicited to enter a bid because of the firm's extensive experience with national-level surveys, the exceptionally high quality of its senior leadership, and the team's positive experience with the firm on the WANE project.

The second bid on the data collection services is from Survey Sciences Group, LLC (SSG). Unlike MSI, this firm focuses exclusively on academic and government research. The president of SSG is also invested in constantly improving data collection methodologies especially as it relates to web surveys as shown in his publication record (See Resume Section and Appendix C for more detailed information on both firms). The costs of this component of the study as projected by the two firms are nearly identical given slight differences in assumptions and designs (See Appendix C). As the second firm is a newly founded research firm, the study team plans to delay the choice between the two firms until the initial phase of the grant period.

**1.5 Fielding the career tracking survey.** While web-based surveys will be the primary method of data collection for those alumni with working email addresses, non-responding alumni and those without working email addresses will be sent a regular mailed paper survey or receive a telephone interview. These two web-alternative options for non-respondents to the web survey will be piloted using an experimental design. Both options are outlined in the proposed budgets from the firms (See Appendix C). As telephone non-response follow-up is more expensive than mailed survey follow-up, the firms were asked to develop cost-neutral options. This means that the response rate and data quality have to be significantly higher for the telephone non-response pilot than for the mailed non-response pilot for the telephone follow-up to be chosen as the team can afford significantly fewer respondent follow-ups using the telephone option. This optional avenue will be important as the alumni lists often consist of home email addresses and home internet access may be slow or not available, particularly for retirees or paraprofessional LIS graduates, as internet access varies by household income, age and working status (US Department of Commerce, 2004). Incentives or chances at winning incentives such as a 1 in 25 chance of winning a \$50 gift certificate for an online bookstore will be structured such that approximately \$2 will be spent per survey response. Such incentives have been shown to decrease non-response (Singer, 2002).

The survey will be completed in a four step process. First, the surveys will be pre-tested on the web using a small sample of alumni. After this pre-test, changes will be made to the survey and, if necessary, to the data gathering process. When the survey is fielded, respondents will receive a pre-notification letter from the program from which they graduated followed by an email invitation to participate in the web-based survey. Respondents will receive 2 or 3 reminder emails approximately 3 to 5 days apart. After the non-response experiment outlined above is concluded, the remaining non-responders (or a strategically sampled portion) will receive either a mailed survey or a telephone interview. The study team will employ features of a tailored approach in order to maximize response rates (Dillman, 2000). When these steps are completed (see Appendix D for detailed timeline), the contracted firm will provide the study team with a raw SPSS data set and a comprehensive methods report. The study team in Chapel Hill will be able to interactively review the data as it is being collected through the web and telephone and through optical scanning of mailed surveys.

**GOAL 2. To conduct an in-depth investigation of planning and tracking issues for LIS programs that influence the supply of LIS professionals.**

The study team will triangulate largely primary data from several sources: 1) key informant interviews with directors of the six LIS programs in NC; heads of NC library and information organizations and associations; and representatives from each of the five types of LIS employers (i.e., academic, public, school and special libraries and non-library employers), 2) web-based surveys with deans, directors and chairs of LIS programs nationally and 3) telephone key informant interviews with selected deans, directors and chairs and representatives of national organizations including ALISE and the ALA Office of Accreditation. These individuals will be selected based on their interest and involvement with alumni or career-tracking issues in LIS. The methodologies for these three components are described below.

**2.1 LIS key informant interviews.** In an effort to achieve a broad understanding of the issues in LIS workforce planning, the study team will conduct semi-structured interviews with approximately 30 selected key contacts. The program heads of the six participating schools will form the basis of the initial sample. Representatives of library and non-library employers, professional associations and educators in NC and across the country will be strategically sampled. After our initial interviews, the study team will use snowball sampling techniques until the investigators are confident that saturation of content has been achieved (Glaser & Strauss, 1967). These interviews will be completed by the end of the first year. The study team will use NVivo 2.0 to code and analyze the transcripts from these tape-recorded interviews. Team members will iteratively revise the interview schedule to address gaps in understanding as the interviews proceed. These data will first be used to inform the instrument development for the deans, directors and chairs survey. The survey will include heads of all of the accredited LIS programs (N=58) and as many non-accredited and community college programs in the US as can be identified. The same content will also contribute to the data available to address the research questions outlined in Goal 2.

**2.2 Web-based survey of deans, directors and chairs of LIS programs nationally.** The two main purposes of this survey will be: 1) to assess the degree to which individual accredited, non-accredited and paraprofessional LIS programs track their alumni and the methodologies used and 2) to gauge the interest of deans, directors and chairs in utilizing a standardized alumni career tracking model. This information will be used by the WILIS team to assess the feasibility of launching such a model nationally. Recommendations based on the findings will be included in the final WILIS report.

The deans, directors and chairs survey will be fielded by the study team using SurveyMonkey.com, a web survey program which is considered to be adequate and manageable for short, non-complex surveys with small sample sizes. Based on the responses to this survey, LIS investigators J. Marshall, Moran, Solomon and Barreau will conduct telephone key informant interviews with a strategic sample deans, directors and chairs as well as representatives of national organizations. The dean, director and chair interviews will be conducted with the primary purpose of gathering data on alumni tracking systems that are in place in accredited, non-accredited and library technician programs that may not be published. The interviews with representatives of national organizations will be limited to those that have a strong interest in career tracking issues such as ALISE and ALA.

**GOAL 3. To develop a model for career tracking of LIS graduates for use by LIS program planners and other LIS stakeholders.**

From data gathered in Goals 1 and 2, the team will create a WILIS model that includes: 1) a theoretical approach to the study of workforce issues based on the life course perspective; 2) a methodology for conducting a career tracking study of graduates of LIS programs that can be applied nationally; 3) a career tracking survey instrument; and 4) recommendations on the feasibility and possible benefits of implementing a national career tracking system for LIS graduates. The survey could be used by individual programs or by groupings at the regional, state or national levels, depending on the level of interest and feasibility established in Goal 2.

The study team anticipates that the model will take the form of a toolkit that can be posted on the WILIS website and published as an appendix in the final report. This approach will remove a significant portion of the time and cost barrier currently experienced by LIS programs in mounting this type of survey. Potential collaborations with national organizations such as IMLS, ALISE and the ALA Office on Accreditation in disseminating and using the toolkit will be explored. The use of the toolkit may also result in the availability of comparable data that can be used for benchmarking by participating programs.

**GOAL 4. To disseminate study findings in an effort to facilitate workforce planning by stakeholder groups.**

**4.1 General dissemination activities.** A web site will serve as the major communications vehicle for the study while it is in progress. The project proposal and periodic updates will be posted on the site and it will be linked from the SILS and IOA home pages. IMLS may also want to link the site. Other candidates for inclusion on the site include the project bibliography, list of data sets used, survey instruments and other resource materials related to the project. Opportunities will be sought to develop documents and tools that will assist libraries, non-library employers of librarians and LIS educators to undertake effective workforce planning, including short reports on topics such as minority career and retention issues (see Appendix E). Such tools could include a guide to analyzing workforce structure in organizations; best practices in recruitment and retention; and methods of data collection for ongoing workforce monitoring.

After completion of the final report, the project team will conduct a webcast of the findings that will be widely advertised through the major LIS listservs. Specialized research and practice-oriented publications will be produced by the team members in their areas of expertise. The LIS researchers will produce publications tailored to the needs of specific types of libraries and information services. Particular emphasis will be placed on dissemination mechanisms that address minorities and minority workforce issues.

A variety of scholarly publications will be produced by the team members on topics related to their research disciplines. The LIS researchers will produce publications tailored to the needs of specific types of libraries and information services and functional specializations. As part of the study, the investigators will prepare a series of short reports that will be posted on the website (see Appendix E for list). A report on minority career and retention issues will be part of this series. The WILIS investigators will liaise with the investigators of the *IMLS National Study* and the WANE study to optimize the complementary nature of the studies from a dissemination perspective.

**4.2 Using the webcast as dissemination and evaluation device.** After completion of the final report, the project team will conduct a webcast of the findings that will be widely advertised. Emphasis will be placed on exploring the feasibility of a national approach to career tracking of LIS alumni. We expect to use the webcasting facilities of the UNC School of Public Health (SPH) or an equivalent facility on campus. The SPH facilities include a large 250-seat auditorium for in-person participation; slide and video capabilities; and access via fax, email and phone by remote users to ensure interaction with the participants in the auditorium. The webcast can also be taped for re-broadcasting and facility personnel are on-hand to manage all webcast logistics. Interested parties will be able to view the webcast, in segments or in its entirety, up to one year after the initial broadcast.

## **VI. Management Plan**

The UNC Institute on Aging (IOA) grants management team, led by Business Manager Wendy Mann, includes two administrative assistants (one each for budget and events planning); a program assistant who handles additional budget, travel, and other miscellaneous project-related tasks; and a reception staff. This team has managed research supported by \$4.15M annually in the past 3 years. The IOA information services team consists of an Associate Director for Library Services with an MSLS, Danielle Borasky, a second part-time

librarian and a SILS LIS graduate student. The library provides reference and bibliographic services and maintains a comprehensive website ([www.aging.unc.edu](http://www.aging.unc.edu)). Digital and hard copy resources are collected and catalogued on a continuing basis for all research, education and service areas of the Institute.

In addition to the support provided to investigators by the above two teams, principal investigators are assisted by a research support team, led by the IOA Director (Victor Marshall) and including Associate Directors for Program Development, Aging and Diversity, Clinical Services, Public Service, and Educational Development, as well as by a Senior Research Scientist, Thomas R. Konrad, three Research Scientists (Jennifer Craft Morgan, Sharon Williams and Mahyar Mofidi), and a Social Research Associate. These personnel serve in a consultative fashion for proposal development, grants management and scientific input and review.

The IOA has approximately 30 full and part-time employees accommodated in 7,943 square feet of space (32 offices, large meeting room, 2 conference rooms, library, reception and storage). All IOA Offices are equipped with IBM-compatible microcomputers, which are networked to a secure server offering password-protected shared files and document storage. Additional laptop computers are retained for research use. Computer systems support is provided under contract to the Cecil G. Sheps Center for Health Services Research. The full range of scientific software is available through package programs owned or, more frequently leased through the University's central IT support services. The Institute will provide dedicated office space for the two Principal Investigators (J. Marshall and V. Marshall), one Co-Investigator (T. Konrad), the Project Coordinator (Morgan), Data Manager (TBA) and two Graduate Research Assistants (TBA), a dedicated CATI-based interviewing office, as well as needed meeting, lab and secure storage facilities.

SILS (<http://www.sils.unc.edu>) has 20 full-time faculty and almost 400 students in undergraduate, master's and doctoral programs. A range of expertise in communications, event planning and IT is available in the school. Students will be available to assist in project activities, particularly dissemination activities and webcast support. Students will also be given the opportunity to develop master's research projects related to the project. Space and facility limitations prevent the WILIS project from being housed at SILS; however, the IOA is a short distance from the school and parking and bus services are easily available. The research staff and facilities at IOA make it an ideal location for WILIS research activities.

The investigators understand the need to adhere to a tight timeline (see Appendix D) and to forward this effort the PIs have assigned primary management responsibilities to investigators for the lead on deliverables related to their area of expertise as shown in Appendix E. Final responsibility of completion of all goals rests with the principal investigators; however, the full study team will participate in ongoing planning and monitoring of project progress. Careful monitoring on completion of each subcomponent will ensure that the project as a whole is completed in an accurate and timely manner. This will be key to the effective management of the project as many of these activities must happen simultaneously. All investigators will be supported by the project coordinator, data manager and the two graduate students. Management of support staff time will be conducted by the principal investigators.

## VII. Summary

The Application Evaluation Criteria specified by IMLS have been discussed in a variety of contexts throughout the proposal. The following summary provides an overview of ways in which the WILIS project meets the criteria. The audience for the WILIS research is all stakeholders that have a keen interest in LIS workforce issues. The results will be of particular benefit to LIS employers and educators. The need for studies that provide in-depth data on career and retention issues with particular attention to minority issues is demonstrated in the LIS literature. WILIS is complementary to the *IMLS National Study* and will benefit from the experience of the investigators in the WANE project. The project goals have been developed to meet both a research objective and the need for a practical model that can be used on an ongoing basis by other programs to conduct career tracking studies.

By informing stakeholders about factors that affect the career and retention patterns of LIS graduates, WILIS will increase the ability of stakeholders to effectively manage the LIS workforce. The results will provide guidance for educators and employers in putting educational and employment-related programs in place that will increase the likelihood that the brightest and best LIS professionals will be recruited and retained. Since a full range of accredited, non-accredited and community college LIS educational programs exists in NC, the WILIS research results will be relevant throughout the country. Graduates of all of these types of programs contribute to the LIS workforce. The career tracking model developed in the WILIS project will be transferable to other settings.

The WILIS research team includes LIS investigators with expertise in all types of libraries (academic, public, school and special) as well as non-library settings. The non-LIS investigators in the WILIS project bring unique expertise in work and life course research that give the research a strong theoretical and methodological base. If libraries and other information organizations that employ LIS graduates are going to be successful in meeting their future workforce challenges, innovative approaches to recruiting and retaining qualified staff will be required. The WILIS project will provide results that have the potential to spur such innovation. WILIS clearly supports the purposes and priorities of the IMLS Librarians for the 21<sup>st</sup> Century Project by addressing key research issues that relate to the growing shortage of LIS professionals. The research results will be put to immediate use in the development of a model to facilitate future tracking of LIS graduates nationally.

WILIS will optimize the possibility of including minority LIS graduates in NC by surveying all those who graduated between 1964 and 2004. The inclusion of a program at an HBU will be important in this regard. By using the census, there should be a sufficient number of minority respondents for data analysis purposes allowing for a substantive discussion of issues related to minority career and retention issues. A report on minority career and retention issues will be prepared by team members as part of the study (see Appendix E for full list of reports). The study team will ensure that one or more PAC members have expertise in and are particularly attuned to minority issues. The IOA Center for Aging and Diversity will provide further consultation on diversity issues.

The project methodology has been discussed at length in the design section and clear goals and methods have been described for the research and model development. The resumes of the investigators and the involvement of the Co-Principal Investigators in the WANE project illustrate the ability of the study team to carry out the research in an effective manner. Both the SILS and the IOA are cost sharing investigator time for the project and contributing in various ways to ensure that the project will be a success.

The study findings will be shared via a website and investigators will share the results in conference presentations, publications and through a webcast that will take place at the conclusion of the project. The presence of LIS investigators with expertise related to various types of library and information service settings will ensure that the results are disseminated to the full range of LIS organizations and specialized publication outlets.

The research team anticipates that the benefit of WILIS will be sustained beyond the grant period in three ways. First, the publication of research findings in the LIS and social sciences literature will be of ongoing value to others. Second, the findings will be available for use by libraries and other information organizations as they implement innovative approaches to human resources management. Third, the model for conducting career tracking studies of LIS graduates will continue to be available for use by educators nationwide.

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