





Laura Bush 21st Century Grant Program Evaluation (Grant Years 2003–2009)

VOLUME II

PROJECT REPORT APPENDICES

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Exhibit A-1				
	Advisory Board Members			
Name	Organization	Area of Expertise		
Jennifer Arns	University of South Carolina School of Library and Information Science	Expertise in Public Librarianship, Information Systems Policy, Information Systems in Organizations and Foundations of Librarianship and Information Services; PhD from the University of North Carolina at Chapel Hill in 2002.		
Carolyn Brodie	Kent State University School of Library and Information Science	Professor at Ohio's Kent State University School of Library and Information Science (SLIS); expertise in children's literature, technology, both school and public libraries.		
Michèle Cloonan	Simmons College	Former Chair and Associate Professor, Department of Information Studies, UCLA; written extensively about preservation, such as preservation of digital media and the moral and ethical dimensions of preserving cultural heritage; former book conservator at the Newberry Library in Chicago; started the preservation program at Brown University.		
Denise Davis	Deputy Director, Sacramento Public Library	Serves on NISO Business Information Topic Committee and Working Group Z39.7 (Library Statistics), and PLA Statistical Report Advisory Committee; Director of the Office for Research & Statistics, American Library Association (ALA) administered research initiatives for the ALA, oversaw sponsored grants and contracts; cooperated with agencies that collect statistics (e.g., National Center for Education Statistics, Association of Research Libraries).		

Appendix A: Advisory Board Members



Exhibit A-1 Advisory Board Members			
Name	Organization	Area of Expertise	
Trudi Bellardo Hahn	Drexel University, College of Information Science & Technology	Teaching Professor and Director of Academic Outreach at Drexel University, College of Information Science & Technology; Author of "Federal Support for Library & Information Science Research" in <i>Influencing Funding on Advances in</i> <i>Librarianship;</i> Former Professor of Practice at University of Maryland Library School; Former NCLIS Executive Director; Active member of ASIS&T history of information systems, online retrieval, indexing, databases, information literacy, education and training for the information profession.	
Ronald Larsen	University of Pittsburgh	Dean and Professor at University of Pittsburgh School of Information Sciences; expertise in research, assessment, and the management of federal research grant programs.	
Linda Smith	University of Illinois at Urbana-Champaign, Graduate School of Library and Information Science	Associate Dean for Academic Programs and Professor in the Graduate School of Library and Information Science, University of Illinois at Urbana-Champaign, where she has been a faculty member since 1977. She is past president of the Association for Library and Information Science Education and of the Association for Information Science and Technology. Her teaching areas include information organization and access; reference; and scientific and technical information. She has served on more than 100 dissertation committees for PhD students in library and information science.	
Herman L. Totten	University of North Texas, College of Information	Regents Professor and Dean for the School of Library and Information Sciences; Past President of the Texas Library Association (TLA); MLS and PhD degrees in the fields of library and information science from the University of Oklahoma.	



Appendix B: Research Questions for the Evaluation Study

Question Set 1

- 1-1. What is the range of LIS educational and training opportunities that were offered by grantees under the auspices of LB21 program grants?
- 1-2. How many new educational and training programs were created by the program?
- 1-3. What are the placement outcomes of masters (doctoral) students?

Question Set 2

- 2-1. Among the sampled institutions, how many students received scholarship funds?
- 2-2. Were any parts of these scholarship programs sustained with university or private funds?
- 2-3. How many students who received scholarship funds received full financial support?
- 2-4 Did students who received full financial support have a higher completion rate than those who received only partial financial support?
- 2-5. What were the important factors for success?
- 2-6. How effective were the various enhancements to the classroom activities that were provided by the grants (mentoring, internships, sponsored professional conference attendance, special student projects, etc.)?

Question Set 3

- 3-1. How many of the educational and training programs were sustained after the LB21 grant funds were expended?
- 3-2. What types of programs were sustained?
- 3-3. What resources, partnerships or collaborations were used to sustain these programs?

Question Set 4

- 4-1. Did these new scholarship or training programs have a substantial and lasting impact on the curriculum or administrative policies of the host program, school or institution?
- 4-2. If so, how were the curricula or administrative policies affected?

Question Set 5

5-1. What impact have these new programs had on the enrollment of master's students in nationally accredited graduate library programs? What impact have these LB-21 supported doctoral programs had on librarianship and the LIS field nationwide?



- 5-2. How have LIS programs leveraged LB21 dollars to increase the number of students enrolled in doctoral programs?
- 5-3. What is the placement rate of program participants?
- 5-4. Does the LB21 participant placement rate vary substantially from that of non-program participants at the same school?
- 5-5. For LB21 master's programs with library partners and/or internships as a program enhancement, did the employment opportunities/outcomes of program participants improve as a result of program participation?

Question Set 6

- 6-1. What substantive areas of the information science field are LB21 supported doctoral program students working in?
- 6-2. Are these programs that will prepare faculty to teach master's students who will work in school, public, and academic libraries or prepare them to work as library administrators?

Question Set 7

- 7-1. What is the full range of "diversity" recruitment and training opportunities that were created under the auspices of LB21 program grants?
- 7-2. What are the varied ways in which grant recipients have defined "diverse populations"?
- 7-3. Which of these programs were particularly effective in recruiting "diverse populations"
- 7-4. What were the important factors for success?

Question Set 8

- 8-1. What is (are) the most effective way(s) to track LB21 program participants over time?
- 8-2. What is the state of the art in terms of administrative data collection for tracking LB21 program participation among grantee institutions?
- 8-3. How can social media technologies be employed to identify and track past LB21 program participants?

Question Set 10

10. What has been the impact of the research funded through the LB21 program?



Appendix C: Full Study Methodology

The Laura Bush 21st Century Librarians grant program (LB21) funded by IMLS was established in 2003 and emphasizes the recruitment and education of the next generation of librarians. Since 2003, IMLS has awarded 369 LB21 grants supporting initiatives addressing Library and Information Science (LIS) education, training of library staff, research, and institutional capacity. Through this grant program, IMLS has pursued three primary goals:

- S Increase the number of professionals with master's and doctoral degrees in library and information science,
- S Increase diversity within the profession, and
- Promote the development of new curricula to ensure new professionals have the skills needed for the 21st century.

The awards were made to institutions and organizations to benefit students participating in those programs. Some were simply "pass throughs," providing tuition assistance to targeted populations (a diversity issue) or programs to reach librarians serving in rural communities with minimal professional development opportunities locally. The last has somewhat been alleviated today through the multitude of online degree programs, free webinars, online tutorials, etc., but this was less true in 2003. Others were aimed at creating more lasting and innovative education, training and research programs for the profession. LB21 grants were divided into the following seven primary grant categories:

- S LIS Master's programs
- § LIS Doctoral programs
- S Continuing Education programs
- S Early Career programs
- **§** Institutional Capacity programs
- **§** Pre-Professional programs
- S Research programs.

The grant category for Pre-Professional was eliminated in late 2010 and was thus excluded from the evaluation. Of the remaining grant categories, all but the Research programs category were divided into two sub-categories, creating a distinction between grant projects that emphasized diversity and those that emphasized innovation. As described in the Introduction Chapter in Volume I of this report, diversity-focused grants included any grant project with a focus on increasing or promoting diversity, while innovation-focused grants included those grant projects that did not focus on diversity. For the purposes of classifying grant projects into the diversity and innovation sub-categories, a broad definition of diversity was used. The creation of these sub-category each for Master's, Doctoral, Continuing Education, Early Career, and Institutional Capacity program grants, and one category of the Research program grants. During the course of the evaluation, the diversity sub-category of the Early Career program was eliminated from the analysis due to a combination of a low overall population of grants eligible for inclusion in



the analysis and poor availability of data for the interview portion of the evaluation. This additional removal created a final evaluation based on ten grant program categories.

Methodological Parameters

The LB21 evaluation study was designed to inform the future directions of the LB21 grant program. The approach included examining identifiers of past effective grants and best practices, as well as lessons learned to be considered for future programmatic emphasis. Data for the evaluation came from three sources: final grantee reports¹, telephone interviews with grantees, and benchmark interviews with individuals that represented three separate grant programs at two Federal agencies. The primary evaluation was based on the first two sources of data – the grant reports and grantee interviews. The benchmark interview data was analyzed separately and used only in supplementing the conclusions section of this report. Through these sources, the evaluation sought to highlight noteworthy qualities of the grants, identify which program components best met the goals of IMLS, and discover new approaches that could be useful to the future of the LB21 grant program.

Comparative Case Study Design

T The characteristics of projects funded by the LB21 Program differ substantially across the grant categories. Thus, it would be imprudent to treat all grant projects as a homogenous group. The evaluation was designed to identify differences and similarities within subsets of grant program categories, and where broader thematic comparisons were possible, across grant categories and sub-categories. A research design modeled after a comparative case study approach was used. Although the LB21 Grant Program evaluation does not qualify as a true case study,² the analysis was constructed using a modified comparative case study technique, based on the approach formulated by Yin (2009). The study utilized two sources of data: one interim or final grant report for each grant project; and one hour-long interview with the PI or equivalent for each grant project. Data from these sources were triangulated and analyzed using a detailed coding scheme and a case study database. Additional supplemental data came from a series of three benchmark interviews conducted with representatives of outside agencies regarding the ways in which they operate grant programs with goals similar to IMLS's LB21 Grant Program.

The main evaluation focused on the LB21 Grant Program and involved two levels of analysis. The first was an analysis of the grant projects within each grant category or sub-category, driven by answers to each of the research questions emphasized for the grant category. The second level of analysis was across the grant categories, addressing the relevant research questions asked of

¹ Not all grant projects in the Early Career category had been completed at the time of the evaluation. For these projects, the most recent interim report was examined as a substitute for the final report.

 $^{^{2}}$ A true case study necessitates the examination of exhaustive sources of evidence for each case, typically including interviews with a number of individuals for each case as well as numerous documents and site visits. The LB21 program evaluation did not utilize such an exhaustive approach but did draw on many of the features of a case study, including the use of multiple sources of evidence and the creation of a case study database for maintaining a chain of evidence.



multiple categories. Particular attention was paid to the differences in grant projects addressing diversity and those addressing innovation.

Research Questions

A taxonomy of research questions served as the guiding framework for the data analysis and overall evaluation. The evaluation project began with 10 initial research questions identified by IMLS. These questions underwent several revisions throughout the evaluation process, resulting in the elimination of one research question. The nine remaining questions were then operationalized and modified to fit the varied grant program types, resulting in 29 specific questions to be addressed through the evaluation. The content of these questions can be found in Appendix B.

In an effort to reduce respondent burden during grantee interviews, and because not all research questions were of equal importance for each grant category, the evaluation limited the number of research questions asked of each grant type. To do this, IMLS ranked each of the research questions in terms of importance – high, medium, or low importance – for each of the grant categories or sub-categories. Only those questions ranked as being of high or medium importance were included in the evaluation for each grant type. This system narrowed the number of research questions asked of each grant type to between 11 and 22 of the original 29 questions. The evaluation for each grant category or sub-category addressed between 11 and 17 questions of high importance and between 0 and 9 questions of medium importance. Exhibit C-1 lists the research questions addressed in the evaluation under each primary grant category.

Exhibit C-1 Overview of Primary Research Question Areas by Grant Category						
Primary			Grant Cat	egory		
Research Question Area	Masters'	PhD	Institutional Capacity	Continuing Education	Early Career	Research
Question 1: Education and Training Opportunities	1-1, 1-2, 1- 3	1-1, 1-2, 1- 3	1-1, 1-2	1-1, 1-2, 1-3	1-1, 1-2	1-1, 1-2
Question 2: Scholarships	2-1, 2-2, 2- 3, 2-4, 2-5, 2-6	2-1, 2-2, 2- 3, 2-4, 2-5, 2-6	2-6	2-1, 2-2, 2-3, 2-4, 2-5, 2-6	2-2	
Question 3: Program Sustainment	3-1, 3-2, 3- 3	3-1, 3-2, 3- 3	3-1, 3-2, 3-3	3-1, 3-2, 3-3	3-1, 3-2, 3-3	3-1, 3-2, 3-3
Question 4: Curriculum and Policy Impacts	4-1, 4-2	4-1, 4-2	4-1, 4-2	4-1, 4-2	4-1, 4-2	4-1, 4-2
Question 5: Program Impacts	5-3, 5-4, 5- 5	5-1, 5-2, 5- 3, 5-4, 5-5	5-1, 5-2	5-3, 5-4, 5-5	5-1, 5-2, 5-5	5-1, 5-2



Over	Exhibit C-1 Overview of Primary Research Question Areas by Grant Category					
Primary			Grant Cat	egory		
Research Question Area	Masters'	PhD	Institutional Capacity	Continuing Education	Early Career	Research
Question 6: Doctoral Impacts		6-1, 6-2			6-1, 6-2	6-1
Question 7: Diversity	7-1, 7-2, 7- 3	7-1, 7-2, 7- 3	7-1, 7-2, 7-3, 7-4	7-1, 7-2, 7-3, 7-4	7-1, 7-2, 7-3, 7-4	7-1, 7-2
Question 8: Tracking Participants	8-1, 8-2, 8- 3		8-1, 8-2	8-1, 8-2, 8-3		8-1, 8-3
Question 10: Research Impact					10	10

Sample Selection Procedures

The full spectrum of grant projects to be considered for the evaluation (i.e., the sample population) included 170 grant projects. As shown in Exhibit C-2, the majority of the grant projects were Master's Program grants. The sample population included completed grant projects, or those awarded between 2003 and 2007, for all grant programs except the Early Career program. The Early Career grant category was added to the LB21 program later. Thus, not all of the grant projects examined within this category had been completed at the time of the evaluation. The sample population for Early Career grants included those awarded between 2007 and 2009. IMLS grant awards are generally for a three year-grant period, though some grant projects requested and were successfully awarded one-year grant period extensions.

To allow for robust comparative analysis, a proportional case size of 75% of the grants per grant category or sub-category was selected.³ This yielded a sample of 135 grant projects. In selecting the 135 grant projects, a purposeful sampling strategy was employed. Three key features were prioritized during the sample selection: overall success of the grant project, project size, and year of grant award. One primary goal of the research was to determine the approaches used by the more successful grant projects to provide best practices and lessons learned, thus these projects were selected first among the population of grant projects within each grant category. The secondary goals were to emphasize larger programs (since they have a greater monetary risk) and more recently employed projects (since these presumably will be more germane to the types of grant projects that will be considered for future funding). To address these goals, cases were removed from consideration using a three-step process. The first step was removing grant projects from the sample based on this initial criterion: Projects ranked with a lower point value

³ This was based off of the original categorization of grant projects into the diversity or innovation categories based on a review of the interim or final grant reports. Some of the grant projects were later re-classified into the opposite category based on the grantee interviews, which often provided a richer context of the full grant project goals and activities.



using a 5-point ranking scale based on an assessment of the project grants' quality and richness from an overall analysis of each project's original proposals, interim and final grantee reports, and final performance reviews.⁴

The 5-point scale was created by initially dividing the grants within each grant category into those with a high potential for discovering a replicable new approach or lesson learned (5 points), those with a moderate interest to the LIS field (3 points), and those with low potential for learning something new or different (1 point), based on expert knowledge of evidence-based project literature in LIS, including articles in library and information science journals, as well as conference presentations. Specific criteria considered in awarding points included the following:

- **§ Diverse Approaches.** For those projects where diversity was a major emphasis, a ranking of "4" was given to projects that indicated initial calls for students utilizing more diverse recruitment approaches, including advertising in publications and speaking at events outside the traditional library environment and with groups oriented to specific target ethnic groups.
- Projects with partnerships. Those projects that included partnerships were "bumped up" a notch. Partnerships of LIS programs with other areas within an institution (e.g., Education Department, University library) and partnerships outside LIS were deemed to be of greater interest than those with traditional library association partners.
- **Extraordinary Efforts/Issues.** In all cases, the final grant reports were used to enlighten the evaluation team to extraordinary efforts taken on the part of the grantee, or issues that evolved through the period covered by the grant (e.g., number of beneficiaries who dropped out of the program).
- **S Conference Participation (for PhD/Early Career programs).** For those in the PhD and Early Career grant programs, grant projects that offered students a wider range of conference participation (not mere attendance) were preferred.
- **§** Access to a larger pool of beneficiaries. All other elements being equal, projects with better contact information (phone, email, address, work) were ranked higher than those with fewer potential contacts for the interview portion of the evaluation.
- **Reputation of Grantee.** The reputation of the grantee PI played a minor role when determining which of two similar projects would be deemed of greater interest than the other.

After eliminating projects with a point value of three or below, if projects still needed to be removed from any group, this was done by following these two rules: 1) all else equal, larger grants were favored and 2) all else equal, more recently awarded grants were favored.

Final grant project reports (or most recent interim reports for those Early Career grant projects that were still ongoing at the time of the evaluation) were available for the full population of grant projects; however, interviews were not able to be obtained for all grant projects included in

⁴ In assigning these rankings, project staff conducted a thorough evaluation of the full IMLS administrative grantee files that included all original proposals, interim and final grantee reports, and final performance reviews. This differs from later parts of the project, which relied solely on the final grant report (or most recent interim reports for those Early Career grant projects that were still ongoing at the time of the evaluation) for each grant project.



the final sample. When interview data was not able to be obtained, the grant project was declared to have insufficient data and dropped from the final analysis. In some instances, one individual was the same PI for more than one grant included in the sample. If the grant projects were similar (in many cases more than one grant was awarded to similar grant projects in a sequential fashion), interviewees were asked to provide information about both grant projects during the same interview. When this was not the case, the PI was asked to recommend another person who would be a suitable replacement to interview for one of the projects. When no other individual was available, the grant project was classified as having insufficient data, as no grantee was asked to complete more than one interview. Individuals who declined to participate in an interview were also classified as having insufficient data. No re-sampling procedures were used to account for those grant projects for which insufficient data were available. The decision was also made, as was previously mentioned, to eliminate the Early Career Diversity sub-category of grants from the analysis due to small sample size and insufficient data. A total of 26 grant projects were eliminated from the final analysis for these reasons, yielding a final sample of 109 grant projects reviewed for this evaluation.

Exhibit C-2 shows the breakdown of total cases in the sample population and total cases included in the final sample, by grant category and sub-category. While 109 cases is more cases than is typically reviewed in a comparative analysis, it was determined that such a large sample size was necessary due to the variability within and across grant projects.

Exhibit C-2 Overview of Total Cases and Sample by Program Grant Category			
Overview of Total Cases and Sample by Prog	Population	Final Sample	
Masters Grant Program Category:			
Diversity Subset	61	38	
Innovation Subset	24	14	
PhD Grant Program Category:			
Diversity Subset	7	4	
Innovation Subset	14	8	
Continuing Education Grant Program Category			
Diversity Subset	8	8	
Innovation Subset	19	12	
Institutional Capacity Grant Program Category			
Diversity Subset	7	5	
Innovation Subset	10	6	



Exhibit C-2			
Overview of Total Cases and Sample by Program Grant Category			
Population Final Sample			
Early Career Grant Program Category			
Diversity Subset	3	N/A	
Innovation Subset	10	6	
Research Grant Program Category118			

Data Sources

As indicated previously, data for the main part of the evaluation came from two primary sources: final grantee reports (or most recent interim reports for those Early Career grant projects that were still ongoing at the time of the evaluation) submitted to IMLS and telephone interviews with the PI or equivalent for each grant project. This primary data was supplemented by additional data gathered during the agency benchmark interviews discussed later in this appendix. Each of the primary data sources is addressed in further detail below.

Final Grantee Reports

Each grant project is required by IMLS to provide interim and final grant reports throughout the life of the project. The analysis included a comprehensive review of the most recent of these reports for each grant project (in most cases this was the final grant report) to document key data that would serve as the foundation of the evaluation and subsequent interviews. One report was reviewed for each grant project. When available, the final grant report was used. When the final report was not available (as in the case of those Early Career grant projects that had not concluded by the time of the evaluation), the most recent interim report was used. The review began by documenting administrative information for each grant, such as grant type, institution type (small, medium, large university; association; public library system; etc.), year of grant award, and dollar amount of the award. Next, each grant's stated project goals and main project activities were recorded along with notable information related to recruitment efforts, definitions of diversity, project outcomes, anticipated future endeavors, lessons learned and challenges, and any feedback received from stakeholders or participants. The grant projects were also reviewed for project linkages to IMLS goals. A short project overview was constructed for each grant project during this review as well. The factors to examine from this data source were determined based on a preliminary review of the documents with the intent of determining which IMLS research questions could be addressed through the source.

It should be noted that these reports are expected to follow a specific organizational structure prescribed by IMLS. Ideally, the reports are to include a narrative of the project that addresses key points of interest as well as a completed quantitative data sheet detailing such information as the number of participants involved in the project and the number of products resulting from the project. However, because not all grantees followed the requested guidelines for formatting the report, a large variation in data quality existed. The interviews with grantees served a critical role



in expanding upon details contained in the reports and filling in gaps in information, in addition to addressing the remaining research questions which were deemed unable to be answered through the reports.

Interviews with Grantees

To supplement the inconsistent data provided in the grantee reports and gain a richer understanding of each grant project, telephone interviews were conducted with the grantees from each grant project evaluated. The grantee institutions varied greatly and included colleges and universities, libraries, library associations, and other not-for-profit organizations. As such, the PIs for the projects also varied, but often included professors, deans, and library directors. The first individuals contacted for interviews were the PIs identified in the final grant reports. The reports provided contact information for the majority of these individuals. Those PIs who had left the grantee institution were tracked at their current place of employment using internet searches. When the PI was not available, other suitable interviewees were sought using the contact verification protocol detailed below.

Contact Verification Protocol

A member of the evaluation team contacted the PI first by telephone, and later by email if no response was received following the telephone contact, using the contact information contained in the final grant report to verify that s/he was indeed the PI. If contact with the PI was made, the team verified contact information for the PI (to include phone, email, and postal address). If the PI could not be reached, the team left a voice message reviewing the purpose for the communication and requesting a call back to verify contact information. When no call back was received, the team followed up with three additional contact attempts over the following sevenday period. When the phone number provided was incorrect or the additional contact attempts were unsuccessful, the team sought alternative means of obtaining correct contact information using internet searches and contact with experts in the field.

If contact was made but the person listed as the PI reported that someone else was a better person to provide the information sought, contact information for that person was obtained. When the PI was no longer with the institution, the evaluation team contacted the institution/organization administrators to ask for updated/current contact information. If this information was available, the preceding steps were used to verify the information. If this information was not available, the team conducted an online search for contact information. In the event that the team was still unable to establish contact with the PI, the team contacted the administration at the grantee's institution or organization to identify another suitable individual with knowledge of the grant project. If the team could not establish telephone or email communication with the PI or find an appropriate substitute, the individual's information was forwarded to an expert with several known contacts in the field to attempt contact verification. If this method also was unsuccessful, the project was dropped from the case study analysis. The full contact verification protocol document is available in Appendix E-1.



Interview Protocols

The interview protocols were designed for an interview lasting no more than one hour. Consent for the interview was done verbally using a scripted consent protocol and a short series of verification questions. Using the research questions established for each grant type, a series of interview protocols was developed. Because each grant category or sub-category had slightly different research questions of interest, a separate protocol was created for each of the 10 grant categories. Research questions ranked to be of high importance, as described earlier in this appendix, received greater attention in terms of time allotted and number of follow up questions in the interview protocols than those questions ranked as being of medium importance. An additional question was added to the beginning of each of the protocols to address goals of the research project, as this is an important piece of information in determining the projects' effectiveness in reaching their goals. The protocols noted the research question to which each protocol question applied to facilitate the analysis and ensure all applicable research questions were addressed during the interviews.

The protocols were designed to build upon existing knowledge gleaned from the grant reports. Where applicable, sections were included in the protocols to incorporate known information. Interviewers conducted a thorough review of the grant reports prior to conducting the interviews to obtain a basic understanding of the grant project and search for known information that would not require further discussion during the interviews. Known information obtained from the reports was included in the appropriate sections of the protocol to facilitate analysis. This information was frequently expanded upon during the interviews, but known information of sufficient quality for analysis was not re-asked. The protocol questions were broken into several sections, with anticipated time frames provided for each section to allow interviewers to pace the questions appropriately in order to complete the interview on time. A team of four trained interviewers conducted the 109 interviews over a period of 11 weeks. All were instructed in ethics and guidelines for protecting human subjects, using the administrative grant reports to tailor the interview protocols, and using the protocols as a guideline for discussion as opposed to a script for recitation.

Conducting the Interviews

Prior to the research team contacting the PIs to schedule the interviews, IMLS sent each PI a letter through postal mail notifying them of the upcoming study and requesting their cooperation. IMLS is a known entity for this population, thus it was anticipated that the PIs would likely want to be responsive to an IMLS-initiated request. Following this letter from IMLS, grantees were emailed an invitation to participate in an interview by the research team. If no response was obtained within two business days, PIs were called directly. If contact was not made, a voice message was left for the interviewee or a message with someone else in the organization, requesting that the PI (or other previously identified contact) call back to schedule an interview. These phone calls were followed up by emails providing the same information. This was done because many of the interviewees had indicated during the contact verification procedures that they are best reached through email.



This process of telephone calls followed by emails was repeated two additional times, with a 3day wait period between contact attempts. If the PI had a voicemail indicating they would be out of the office for at least three days, contact was attempted again on the date of their return. For interviewees who indicated an unwillingness to participate in a telephone interview, the team requested the name and contact information of another person who worked on the grant project and would be able to complete the interview instead. An attempt was made to accommodate each interviewee's preferred date and time for the interview. Scheduled interviews were followed up with a confirmation email providing information on the logistics of the interview and an overview of the information that would be requested during the interview to allow the interviewee to prepare for the interview. Interviewees were also sent a reminder email one day prior to the interview confirming the date and time of the interview and again providing information on the logistics of the interview and again providing information on the logistics of the interview and the information that would be requested during the interview. The interview scheduling protocol is included in Appendix E-2.

In some cases, the interviews included more than one person from the grant project, at the request of the interviewee. A transcriber participated in each of the interviews to record the conversation, and the interviewee was made aware of the additional person on the phone line at the beginning of the interview. When approved by the interviewee, a recording of the interview was also created. The recording was used to fill in any details missed during the transcription process. The interviews varied in duration, as some interviewees were able to recall more details about the grant projects than others. This often depended on the period of time that had passed since the grant project had ended, if the project had been sustained, and if the grant project had been followed up by an additional grant with similar project goals and components. In some cases, interviewees sent additional information to the interviewers about the grant project in response to questions they were unable to address during the interview. This information was reviewed once the transcript of the interview was made available, and interviewers added pertinent information to the interview transcripts to ensure the information was included in the analysis. Information added to the transcripts post-interview was noted. The team of interviewers met periodically to discuss issues that arose during the interview process and collaborate on best practices for addressing them.

Qualitative Analysis Procedures for Administrative and Interview Data

The qualitative analysis employed a detailed coding system developed to organize and categorize responses to interview questions and a team of coders who conducted content analysis on the text using the coding scheme. Grant reports and interview transcripts were independently coded. These data were combined using a case study database created in MS Access to preserve the chain of evidence. The database allowed for triangulation of the data by noting the origin of the codes and overlaps in codes among both sources of data. Frequency counts of the codes were compiled and used to guide the analysis team as it used content analysis to identify themes in both data sources.

Analysis centered on answering each of the research questions deemed by IMLS to be most important for each grant category or sub-category. The overall procedures for the analysis involved the following steps, each of which is examined in greater detail in the sections below: (1) develop a coding scheme, (2) code the final grant reports, (3) revise the coding scheme based



on the additional questions to be addressed through the interview data, (4) code the interview data, (5) incorporate and triangulate the codes from the grant reports and the interviews using a case study database, (6) produce frequency counts for the codes within each question for each grant type to develop case-level conclusions, (7) review both sources of evidence within each grant project to qualitatively look for evidence to support and nuance the overarching themes and frequency counts produced through the coded data, and (8) where possible, develop cross-case conclusions by repeating steps six and seven at a cross-case level.

Development of the Coding Scheme

All analyses were based on a very specific and ongoing coding strategy. An a priori approach to developing the coding scheme was used, meaning that the team began with a provisional list of codes based on an initial review of the grant reports and amended this list throughout the analysis process as necessary. The coding scheme was first developed for analysis of the final grant reports. Prior to beginning the interviews, the coding scheme was altered to ensure the analysis team would be able to code responses to the research questions not addressed in the analysis of the grant reports and to better facilitate analysis of the interview data. This updated coding scheme continued to expand as new codes emerged during the first round of interviews. (Approximately 25% of the total interviews had been conducted when the coding scheme from the initial analysis was revised to accommodate analysis of the interview data.) The coding scheme was viewed as a living document and was updated based on interview responses and ongoing internal conversations within the evaluation team. After initial coding refinements were completed following the first round of interviews, the coding system was formalized for the remaining interviews. At this point, a final coding dictionary was created with additional modifications made only when necessary to accurately capture the interview data. The full coding scheme is shown in Appendix D.

The coding dictionary provides an abbreviation for each code, the full title of the code, and the location of the code within the coding system. The final coding scheme was based around six categories of codes – goals, outcomes, methods, factors for success, lessons learned/challenges, and post-grant period activities and sustainment outcomes. Under these six categories are up to three additional layers of codes. An example of the four-layer coding scheme is shown below in Exhibit C-3. The first layer (Methods / M) is one of the six overarching categories of codes. Under that is the sub-category of New Developments Under Grant (M-ND), further broken down by New/Modified Courses (M-ND-NMC) and New/Modified Curriculum (M-ND-CUR). Finally, the fourth layer of codes, for New Courses (M-ND-NMC-NEW) and Modified Courses (M-ND-NMC-MOD), was added. As can be seen, each layer of codes builds upon the previous one. The final coding scheme included 289 individual codes (see Appendix D). The categories and sub-category layers of codes served as the initial basis for linking the codes to the research questions, as will be discussed further later in this appendix.



Exhibit C-3 Example Four Layer Coding Scheme	
Description of Code	Code
Methods	М
Methods~New Developments Under Grant	M-ND
Methods~New Developments Under Grant~New/Modified Courses	M-ND-NMC
Methods~New Developments Under Grant~New/Modified Courses~New	M-ND-NMC-
Courses	NEW
Methods~New Developments Under Grant~New/Modified Courses~Modified	M-ND-NMC-
Courses	MOD
Methods~New Developments Under Grant~New/Modified Curriculum	M-ND-CUR

Coding of Grant Reports

The analysis of the grant reports (i.e., the archival analysis) was conducted in January 2012, prior to the selection of the final sample of 135 grant projects to be included in the study. As such, all 170 final grant reports (or most recent interim reports for those Early Career grant projects that were still ongoing at the time of the evaluation) were analyzed during this process. The archival analysis focused on only a subset of research questions and additional larger themes. The specific objective of the archival data collection was to obtain the following information:

- S Assessment of how well each report answered selected research questions (including research questions 1-1, 1-2, 1-3, 2-5, 2-6, 5-1, 7-1, 7-2, and 7-3)
- S Documentation of the following, where present: grant activities; grantees' reported definitions of diversity; program participants and recruiting methods; outcomes of the grant; lessons learned and challenges as perceived by grantees; and anticipated future endeavors as reported by grantees
- S Identification of the goals of the grant program and whether they were achieved
- S Assessment of if the goals of the grant program were in line with the mission, goals and objectives of IMLS, including whether and how the grant aligned with or achieved the goals of IMLS and the LB21 program
- S Contact information for grantees and beneficiaries, when provided.

A team of trained coders conducted the archival analysis. As described in the previous section on development of the coding scheme, the initial coding scheme was developed as the analysis was being carried out. The archival analysis team met frequently to discuss the creation and evolution of the coding scheme, as well as the proper usage for each series of codes. The coding team reviewed each grant report to code sections of the reports relevant to the research questions being addressed. Periodic checks of inter-rater reliability were conducted within the coding team over the course of the archival analysis process. To do this, the team was assigned the same grant report to code, coding the report separately and independently. Then the team would gather to discuss the codes used for the project report. The differences between coded reports were few, and the team thoroughly discussed those codes that were disputed until coming to a consensus. This process occurred both during coding training and at the beginning of the actual coding process, to the point where coders could assume sufficient inter-rater reliability.



Coding the Interview Data

While the initial coding scheme used for the grant reports was primarily constructed through inductive coding, the changes to the coding scheme made to accommodate the interview data were a mixture of deductive codes based on the grant report analysis and inductive codes based on the first round of interviews. Once the initial alterations to the coding scheme had been made, the coding team met to discuss the categories and sub-categories of codes that were most likely to be used to address each research question. This initial coding framework was supplemented by additional codes added through an inductive process coding during the first round of interviews. In addition to assigning codes in response to the questions to be addressed, the team decided that additional information would need to be collected to fully address certain questions. In some cases, such as in response to research question 2-1 (addressing the number of students who received scholarships), this involved noting quantitative figures. In other cases, research question 3-1 (addressing if the grant project sustained past the grant period), the coders were to record a yes/no response regarding full or partial sustainment. Exhibit C-4 presents this overview of codes to be used and additional information to be collected in addressing each research question. This information was provided to each of the coders, along with training. In addition to focusing on the purpose and standard procedures for data coding, the training focused on developing an indepth understanding of the research questions, the coding scheme, and how the research questions relate to the coding scheme.

Coding was done within digital copies of the interview transcript documents. The linkage of research question to protocol questions was built into the interview protocols to facilitate coding, but coders were also trained to recognize instances where the responses to one protocol question may apply to multiple or different research questions or the response to a research question may have been provided in response to a previous protocol question and thus not asked again. To conduct the coding, the coders highlighted the appropriate portion of text to which the code (or additional numerical or yes/no response) applied and commented out the code and information using the comments feature of MS Word. In cases where the code applied to more than one research question or the code addressed a research question other than the one being sought by the protocol question, the appropriate research question(s) was also noted. Coders were also able to provide additional notes in the comment boxes in order to highlight key aspects of the grant project or provide clarifying information to accompany the code. This information was placed into the case study database under a "Notes" section. Initial and periodic tests of inter-rater reliability were conducted to ensure consistency throughout the analysis process. This was accomplished by having the coders code the same portion of text and comparing the codes for consistency. Any points of contention were discussed and agreed upon, in keeping with the process described by Baxter and Jack (2008).



Exhibit C-4 Coder Training for Most Likely Codes to Use for Each Research Question			
Research Question	Operationalized Questions	Most Likely Codes Used to Address the Question	
Goal	What were the goals the grantees had in mind when initially pursuing the grant funding?	Goals	
Lessons Learned	Lessons learned not captured under the main research questions	Lessons Learned & Factors for Success	
1-1	What is the range of LIS educational and training opportunities that were offered by grantees under the auspices of LB21 program grants?	Methods	
1-2			
	Codes for new training programs created	Methods	
	Number of new training programs created	N/A - numerical response	
1-3	Codes for placement outcomes Placement ratio	Outcomes N/A - numerical response	
		N/A - numerical response	
2-1	Codes for scholarship funds	Methods	
	Number who received scholarships	N/A - numerical response	
2-2	Were scholarships sustained?	N/A - yes/no only	
	Codes for funds used to sustain scholarships	Future	
2-3	Codes for types of scholarship/funding provided	Methods~Financial	
	Number of full scholarships	N/A - numerical response	
	Proportion of full versus partial scholarship	N/A - numerical response	
2-4	Codes	Methods~Financial & Outcomes~ Effectiveness	
	Did they have higher completion rates?	N/A - yes/no only	
2-5	What were the important factors for success [with respect to academic achievement of students with full and partial LB21 scholarships]?	Factors for success	



Code	Exhibit C-4 Coder Training for Most Likely Codes to Use for Each Research Question			
Research Question	Operationalized Questions	Most Likely Codes Used to Address the Question		
2-6	Codes for enhancements usedWas each enhancement effective?How was effectiveness determined?Notes for how the idea was conceived	Methods N/A - yes/no only Outcomes~Effectiveness Notes		
3-1	Fully sustained? Partially sustained?	N/A - yes/no only N/A - yes/no only		
3-2	Codes for sustained programs	Methods & Future		
3-3	Codes for resources used to sustain	Future~Future Actions~Program Continued Without IMLS Funds		
4-1	Had an effect on curriculum?Had an effect on policies?	N/A - yes/no only N/A - yes/no only		
4-2	Codes for how they were affected	Outcomes~Affected Career & Outcomes codes below those		
5-1	Codes for impact How was effectiveness measured?	Outcomes Outcomes~Effectiveness		
5-2	How have LIS programs leveraged LB21 dollars to increase the number of students enrolled in doctoral programs?	Methods		
5-3	Placement rate number/percentage	N/A - numerical response		
5-4	Placement rate varied substantially?	N/A - yes/no only		
5-5	 Did the program have one or more library partners? Did the partnerships improve participant outcomes? Codes for partnerships How did they determine the effectiveness of the partnerships? 	N/A - yes/no only N/A - yes/no only Methods~Parnterships & Outcomes Outcomes~Effectiveness		



Exhibit C-4 Coder Training for Most Likely Codes to Use for Each Research Question			
Research		Most Likely Codes Used to	
Question	Operationalized Questions	Address the Question	
	Did the program have internships?	N/A - yes/no only	
	Did the internships improve participant		
	outcomes?	N/A - yes/no only	
	Codes for internship improvement results	Outcomes	
	How did they determine the effectiveness of the internships?	Outcomes~Effectiveness	
6-1	Codes for research topics	Outcomes~Building Skills (O~SKL~OTH with notes if not adequately covered under these codes)	
	Still researching/working in that field?	N/A - yes/no only	
6-2	Prepare them to teach or work as		
	administrators?	N/A - yes/no only	
7-1	What is the full range of "diversity" recruitment and training opportunities that were created under the auspices of LB21 program grants?	Methods	
7-2	What are the varied ways in which grant recipients have defined "diverse populations"?	Methods~Recruiting~Targeted Populations	
7-3	Which of these programs were particularly effective in recruiting "diverse populations"?	Methods (NOTE: only code methods used that were reported to be effective)	
	How was effectiveness determined?	Outcomes~Effectiveness	
7-4	What were the important factors for success?	Factors for Success	
8-1	What is (are) the most effective way(s) to		
0-1	track LB21 program participants over time?	Methods~Tracking Students	
	How was effectiveness determined?	Outcomes~Effectiveness	
8-2	What is the state of the art in terms of administrative data collection for tracking LB21 program participation among grantee institutions?	Methods	



Exhibit C-4 Coder Training for Most Likely Codes to Use for Each Research Question				
Research Question	Operationalized Questions	Most Likely Codes Used to Address the Question		
8-3	Did the grant project employ social media - yes/no How can social media technologies be employed to identify and track past LB21 program participants?	N/A - yes/no only Future~Lessons Learned~KNO/EMP (and others that)		
10	What has been the impact of the research funded through the LB21 program?	Future~Future~PUB/STF/SUS & Outcomes~Career		

Case Study Database

The coded narrative data from the interviews were next integrated with that from the archival analysis using a case study database constructed using MS Access. This was done to allow for a more robust textual content analysis using a pattern matching method. Archival data and interview data were treated equally during the analysis, with an independent field used to identify the origin of the data and triangulation among the two data sources. The database was designed to serve as a "chain of evidence" to collect and combine the data from both sources into one single database for analysis.

Since the analysis was focused primarily on addressing each of the research questions, a separate form for entering data was created for each research question. Additional forms were added to capture information on the goals of the project and lessons learned, as both were often addressed through the grant reports and the interviews. The form for each research question included fields for entering the applicable codes, check boxes to note the origin of the data (archival, interview, or both), and a section for notes pertaining to each research question. For applicable questions, there were boxes for entering additional data, such as a check box for if the grant project had library partners and a field for entering the number of scholarships awarded by the grant projects not adequately captured in the codes. The database also contained administrative-type information on each grant (e.g., grant ID, grantee, project title.). A screen shot of the form for entering codes for research question 2-5 in the database is shown below in Exhibit C-5.



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Analyzing the Coded Archival and Interview Data

Coded data was analyzed by looking for overarching patterns and themes within each grant type or sub-type and across grant types, where relevant. To do this, a pattern-matching approach was used to examine emerging themes and patterns as well as contrasts and irregularities. This began by examining frequencies of the codes used under each grant type by research question. A table showing the coded frequencies for all research questions and grant categories is found in Appendix G. The frequencies were used to highlight patterns among several grant projects within a grant category (or across multiple grant categories) or key features applicable to only a small number of grant projects within a given category. The analysis involved looking for (1) answers to each of the research questions for the grant type, (2) relationships among the project goals, project activities, and project outcomes and (3) features of the project that continued once LB21 grant funding had ended⁵. To discern this, the team examined both the coded data and any additional information included in the case study database under the notes sections. Because data was coded in the original source (archival or interview) and the database noted the source of all

⁵ This last focus is based on the assumption that elements of the grant projects that continued once LB21 funding had ended are likely to be strong components of the project that were deemed by the grantees to be worth continuing and project elements that are worthwhile funding endeavors for IMLS in future grant awards.



codes, the analysis team was able to quickly go back to the original source when additional information or details were needed to draw more thorough conclusions. Recognizing that coded data provide only general information about each grant project and lack the more nuanced detail that is often necessary for detecting variations within and across projects with similar codes, the team often reviewed the original data sources as well to find more substantive evidence to support the general themes that emerged through the coding process. The analysis was designed to produce a more thoughtful case-level answer to each research question and overarching conclusions about each case. To do this, a further review of both grant reports and interview transcripts from each grant project was conducted to look for overarching themes and evidence to support the frequency counts produced through the coded data, as well as exemplars to highlight the results within several of the prominent themes identified.

This initial series of within-case analyses was then examined for overarching conclusions across grant categories. Where similar results were found across multiple grant categories, results are reported at a cross-case level in the Findings Chapter. Where findings differed by grant category, these differences are highlighted. The method for determining cross-case results utilized a similar approach in conducting the cross-grant category analysis. Case-level frequencies and patterns were analyzed to look for cross-case themes, and these patterns were explored in greater detail through the additional review of the data files and supportive data for the case-level results.

As cautioned in qualitative analysis, discussion around prevalence of an activity or method within a grant category is minimized. However, when specific numbers were provided by grantees, those are indicated in the text. True to the conduct of qualitative analysis, the process of identifying themes involved collective sense-making and consensus discussion among senior researchers. General guidance on theme identification included highlighting concepts that were either reiterated by more than half of the grantees asked the relevant research question(s) or identified as top priority or of most importance to the grant program by grantees in more than one grant category.

Procedures for Agency Benchmarking Interviews

The goal of the Benchmarking Task was to determine what Federal agencies in other program contexts do "to promote technical education and training and expand participation among diverse populations for a given field." This information was used to add additional perspective to the evaluation of LB21 grants and the construction of the Recommendations Chapter. To accomplish this objective, three grant programs within two Federal agencies were benchmarked. These grant programs and the interviewee(s) for each grant program are provided in Exhibit C-6. The list of grant programs to be benchmarked was determined in collaboration with IMLS. Specific interviewees within each grant program came from recommendations provided by an expert in the field, in addition to internet searches and collaboration with IMLS.



Exhibit C-6 Overview of Benchmarking Participants					
Organization	Division	Grant Program	Interviewee(s)		
Department of Education	Office of Post- Secondary Education (OPE) within the Office of the Under-Secretary	Fund for the Improvement of Postsecondary Education (FIPSE) Comprehensive Program	Ms. Sarah Beaton Program Director		
National Science Foundation	Directorate for Computer & Information Science & Engineering	Computing Education for the 21 st Century (CE21 Program)	Ms. Janice Cuny Program Director		
National Science Foundation	Directorate for Education & Human Resources	Advancing Informal STEM Learning Program (Informal Program)	Ms. Celestine H. Pea & Mr. Dennis Schatz Program Directors		

Interview Protocol

The benchmarking data collection began by determining the specific research questions to be addressed in the benchmark interviews and developing a telephone interview protocol. The benchmarking protocol contained a series of qualitative questions to determine the strategies these agencies have used to promote diversity and technical education/training within their grant programs. The interviews were specifically designed to obtain the following information:

- **§** Definition of diversity use for the grant program,
- S How diversity is considered in the recruitment and selection of organizations awarded grant funds,
- Strategies used to promote education and training of diverse populations,
- § Notable or significant outcomes of the grant projects funded,
- § Methods for evaluating project outcomes,
- § Effective methods for tracking grant projects or grant participants across time,
- **§** Grant program planning and management,
- S Evaluation methods for grant projects funded by the grant program or the grant program as a whole, and
- § Methods for communicating grant evaluation outcomes to relevant stakeholders.

To provide context and to confirm or supplement basic publicly-available information about the program, a short series of descriptive queries was also asked of respondents (e.g., annual number of grants issued, target constituents, typical duration of grant awards, average dollar range of grant awards). Respondent job title and tenure with the organization was also recorded. The protocol was designed to complete each interview within 30 minutes. The benchmarking protocol is provided in Appendix F-2.



Conducting the Interviews

Once a contact person for each of the grant programs was established, a member of the research team reached out to the contacts by telephone to request an interview. The member explained the purpose of the interview and requested that the individual schedule a time convenient to him/her to conduct a 30 minute interview. Interviews were able to be scheduled with all three of the grant programs. Instructions were provided to the interviewees on the logistics of the telephone interview.

Prior to the interview, the interviewer examined available program descriptions, brochures and/or grant guidelines from each selected division to gain familiarity with the grant program. This was done to both reduce the burden of respondents as well as sharpen the quality of the discussions. A trained interviewer conducted the interviews, with the assistance of a transcriber to record the conversation. Verbal consent for the interviews was obtained using a scripted consent statement and short series of verification questions to obtain verbal consent. When consent was provided, the interviews were recorded to allow the transcriber to fill in any details that were missed during the conversation. Interviewees were informed at the outset of the interview that a transcriber was on the line. Each interview lasted between 30 and 45 minutes and resulted in a digital transcript to be used for the analysis.

Analyzing the Interview Data

Qualitative information from these interviews was analyzed using content analysis. Because there were only three interviews conducted, no coding scheme was used. Although the analysis team looked for similarities across grant programs, interesting nuances of a given grant program were also highlighted. Findings were analyzed with an understanding that the goal was to provide IMLS with useful information on potential practices to be incorporated into the LB21 grant program. Strategies reported by these agencies which overlapped with those raised by grantees were highlighted in the Conclusions and Recommendations Chapters and outcomes compared, as relevant. This included both emergent themes and unique perspectives provided by respondents on strategies used to enhance diversity and promote technical training.



Appendix D: Coding Scheme for Analysis

Coding Scheme for Analysis of Archival and Interview Data	
Description	Code
Goals	G
Building Skills of Librarians and Archivists in Targeted Areas	G-SKL
Goals~Building Skills of Librarians and Archivists in Targeted	
Areas~Conservation/Preservation Management Training	G-SKL-CON
Goals~Building Skills of Librarians and Archivists in Targeted Areas~Digital Skills	
Development	G-SKL-DIG
Goals~Building Skills of Librarians and Archivists in Targeted	
Areas~Economic/Community Development/Financial Literacy	G-SKL-ECO
Goals-Building Skills of Librarians and Archivists in Targeted Areas-Teaching	
Librarians how to Develop 21 st Century Skills in Users	G-SKL-21C
Goals-Building Skills of Librarians and Archivists in Targeted Areas-Teaching	C CIVIL ALL
Librarians 21 st Century Skills	G-SKL-21L
Goals~Building Skills of Librarians and Archivists in Targeted Areas~Early Learning	G-SKL-EAR
Goals~Building Skills of Librarians and Archivists in Targeted Areas~Health	
Information	G-SKL-HEA
Goals~Building Skills of Librarians and Archivists in Targeted Areas~Lifelong	C SVI LIE
Learning/Intergenerational Goals~Building Skills of Librarians and Archivists in Targeted Areas~STEM (Science,	G-SKL-LIF
Technology, Engineering, Math)	G-SKL-STEM
Goals-Building Skills of Librarians and Archivists in Targeted	0-SILL-SILM
Areas~Civic/Community Engagement	G-SKL-CIV
Goals-Building Skills of Librarians and Archivists in Targeted Areas-Broadband	
Access/Digital Literacy/Information Literacy	G-SKL-BRO
Goals~Building Skills of Librarians and Archivists in Targeted Areas~Library	
leadership Development	G-SKL-LEA
Goals~Building Skills of Librarians and Archivists in Targeted Areas~Library/Digital	
Library Policy/Policy Analysis	G-SKL-POL
Goals~Building Skills of Librarians and Archivists in Targeted Areas~Research	G-SKL-RES
Goals~Building Skills of Librarians and Archivists in Targeted Areas~Library Media	
Specialist	G-SKL-LMS
Goals~Building Skills of Librarians and Archivists in Targeted Areas~Workforce	
Recruitment	G-SKL-REC
Goals~Building Skills of Librarians and Archivists in Targeted Areas~Support Staff	G-SKL-SUP
Goals~Increasing Library Capacity to Better Serve Communities	G-CAP
Goals~Increasing Library Capacity to Better Serve Communities~Population Served	G-CAP-POP
Goals~Increasing Library Capacity to Better Serve Communities~Population	G-CAP-POP-
Served~Children and Youth	KID
Goals~Increasing Library Capacity to Better Serve Communities~Population	G-CAP-POP-
Served~Adults	ADU
Goals~Increasing Library Capacity to Better Serve Communities~Population	G-CAP-POP-
Served~Aging, Elderly, Senior Citizens	SEN
Goals~Increasing Library Capacity to Better Serve Communities~Population	G-CAP-POP-
Served~At Risk or Underserved Population (for example, ethnic and language)	UND G-CAP-POP-
Goals~Increasing Library Capacity to Better Serve Communities~Population Served~Other	G-CAP-POP- OTH
Goals~Increasing Library Capacity to Better Serve Communities~Demographic	0111
Subgroups Being Served	G-CAP-DEM
	U-CAI-DEM



Coding Scheme for Analysis of Archival and Interview Data	
Description	Code
Goals~Increasing Library Capacity to Better Serve Communities~Demographic	G-CAP-DEM-
Subgroups Being Served~Asian, Pacific Islander Heritage	ASI
Goals~Increasing Library Capacity to Better Serve Communities~Demographic	G-CAP-DEM-
Subgroups Being Served~Black, African Heritage	AFR
Goals~Increasing Library Capacity to Better Serve Communities~Demographic	G-CAP-DEM-
Subgroups Being Served~Hispanic, Latino Heritage	HIS
Goals~Increasing Library Capacity to Better Serve Communities~Demographic	G-CAP-DEM-
Subgroups Being Served~Middle Eastern Heritage	MEA
Goals~Increasing Library Capacity to Better Serve Communities~Demographic	G-CAP-DEM-
Subgroups Being Served~Native Americans/Native Hawaiians	NAT
Goals~Increasing Library Capacity to Better Serve Communities~Demographic	G-CAP-DEM-
Subgroups Being Served~Immigrants, Newcomers, Refugees	REF
Goals~Increasing Library Capacity to Better Serve Communities~Demographic	G-CAP-DEM-
Subgroups Being Served~Rural Populations	RUR
Goals~Increasing Library Capacity to Better Serve Communities~Demographic	G-CAP-DEM-
Subgroups Being Served~Urban Populations	URB
Goals~Increasing Library Capacity to Better Serve Communities~Demographic	G-CAP-DEM-
Subgroups Being Served~Military Families	MIL
Goals~Increasing Library Capacity to Better Serve Communities~Demographic	G-CAP-DEM-
Subgroups Being Served~Diverse/Undefined Minority populations	DIV
Goals~Increasing Library Capacity to Better Serve Communities~Demographic	G-CAP-DEM-
Subgroups Being Served~Regional	REG
Goals~Increasing Library Capacity to Better Serve Communities~Demographic	G-CAP-DEM-
Subgroups Being Served~Special Academic/Content Matter Interests	SPE
Goals~Increasing Library Capacity to Better Serve Communities~Demographic	G-CAP-DEM-
Subgroups Being Served~Other	OTH
Goals~Increasing Library Capacity to Better Serve Communities~Targeted Programs or	
Institutions	G-CAP-PRO
Goals~Increasing Library Capacity to Better Serve Communities~Targeted	G-CAP-PRO-
Programs or Institutions~Academic/Research Libraries	ACA
Goals~Increasing Library Capacity to Better Serve Communities~Targeted	G-CAP-PRO-
Programs or Institutions~Archives/Historical Societies	ARC
Goals~Increasing Library Capacity to Better Serve Communities~Targeted	G-CAP-PRO-
Programs or Institutions~Rural Public Libraries	RPL
Goals~Increasing Library Capacity to Better Serve Communities~Targeted	G-CAP-PRO-
Programs or Institutions~Special Libraries (for example, medical, business, law)	SPE
Goals~Increasing Library Capacity to Better Serve Communities~Targeted	G-CAP-PRO-
Programs or Institutions~Tribal Libraries/Museums/Cultural Centers	CUL
Goals~Increasing Library Capacity to Better Serve Communities~Targeted	G-CAP-PRO-
Programs or Institutions~Urban Public Libraries	UPL
Goals-Increasing Library Capacity to Better Serve Communities-Targeted	G-CAP-PRO-
Programs or Institutions~Museum Libraries	MUS
Goals~Increasing Library Capacity to Better Serve Communities~Targeted	G-CAP-PRO-
Programs or Institutions~LIS Programs in Universities-Master's	MAS
Goals-Increasing Library Capacity to Better Serve Communities-Targeted	G-CAP-PRO-
Programs or Institutions~LIS Programs in Universities-Double Master's	2MA
Goals~Increasing Library Capacity to Better Serve Communities~Targeted	G-CAP-PRO-
Programs or Institutions~LIS Programs in Universities-CAS	CAS
Goals~Increasing Library Capacity to Better Serve Communities~Targeted	G-CAP-PRO-
Programs or Institutions~LIS Programs in Universities-PhD	PHD



Coding Scheme for Analysis of Archival and Interview Data	
Description	Code
Goals~Diversifying the Profession	G-DIV
Goals~Promoting Librarianship	G-LIB
Goals~New Recruitment	G-REC
Goals~Accessibility to resources and information	G-ACC
Outcomes	0
Outcomes~Building Skills of Librarians and Archivists in Targeted Areas	O-SKL
Outcomes~Building Skills of Librarians and Archivists in Targeted Areas	U-SKL
Areas~Conservation/Preservation Management Training	O-SKL-CON
Outcomes~Building Skills of Librarians and Archivists in Targeted Areas~Digital Skills	0-SKL-CON
Development	O-SKL-DIG
Outcomes~Building Skills of Librarians and Archivists in Targeted	
Areas~Economic/Community Development/Financial Literacy	O-SKL-ECO
Outcomes~Building Skills of Librarians and Archivists in Targeted Areas~Teaching	
Librarians how to Develop 21st Century Skills in Users	O-SKL-21C
Outcomes~Building Skills of Librarians and Archivists in Targeted Areas~Teaching	
Librarians 21 st Century Skills	O-SKL-21L
Outcomes~Building Skills of Librarians and Archivists in Targeted Areas~Early	
Learning	O-SKL-EAR
Outcomes~Building Skills of Librarians and Archivists in Targeted Areas~Health	
Information	O-SKL-HEA
Outcomes~Building Skills of Librarians and Archivists in Targeted Areas~Lifelong	
Learning/Intergenerational	O-SKL-LIF
Outcomes~Building Skills of Librarians and Archivists in Targeted Areas~STEM	
(Science, Technology, Engineering, Math)	O-SKL-STEM
Outcomes~Building Skills of Librarians and Archivists in Targeted	
Areas~Civic/Community Engagement	O-SKL-CIV
Outcomes~Building Skills of Librarians and Archivists in Targeted Areas~Broadband	O SVI DDO
Access/Digital Literacy/Information Literacy	O-SKL-BRO
Outcomes~Building Skills of Librarians and Archivists in Targeted Areas~Library leadership Development	O-SKL-LEA
Outcomes~Building Skills of Librarians and Archivists in Targeted	U-SKL-LEA
Areas~Library/Digital Library Policy/Policy Analysis	O-SKL-POL
Outcomes~Building Skills of Librarians and Archivists in Targeted Areas~Research	O-SKL-FOL O-SKL-RES
Outcomes~Building Skills of Librarians and Archivists in Targeted Areas~Research	U-SKL-RES
Media Specialist	O-SKL-LMS
Outcomes~Building Skills of Librarians and Archivists in Targeted Areas~Workforce	U-SKL-LWIS
Recruitment	O-SKL-REC
Outcomes~Building Skills of Librarians and Archivists in Targeted Areas~Other	O-SKL-OTH
Outcomes~Increasing Library Capacity to Better Serve Communities	
Outcomes~Increasing Library Capacity to Better Serve Communities~Population	O-CAP
Served	O-CAP-POP
Outcomes~Increasing Library Capacity to Better Serve Communities~Population	O-CAP-POP-
Served~Children and Youth	KID
Outcomes~Increasing Library Capacity to Better Serve Communities~Population	O-CAP-POP-
Served~Adults	ADU
Outcomes~Increasing Library Capacity to Better Serve Communities~Population	O-CAP-POP-
Served~Aging, Elderly, Senior Citizens	SEN
Outcomes~Increasing Library Capacity to Better Serve Communities~Population	O-CAP-POP-
Served~At Risk or Underserved Population (for example, ethnic and language)	UND



Coding Scheme for Analysis of Archival and Interview Data	
Description	Code
Outcomes~Increasing Library Capacity to Better Serve Communities~Population	O-CAP-POP-
Served~Other	OTH
Outcomes~Increasing Library Capacity to Better Serve Communities~Demographic	
Subgroups Being Served	O-CAP-DEM
Outcomes~Increasing Library Capacity to Better Serve	O-CAP-DEM-
Communities~Demographic Subgroups Being Served~Asian, Pacific Islander Heritage	ASI
Outcomes~Increasing Library Capacity to Better Serve	O-CAP-DEM-
Communities~Demographic Subgroups Being Served~Blacks, African Heritage	AFR
Outcomes~Increasing Library Capacity to Better Serve	O-CAP-DEM-
Communities~Demographic Subgroups Being Served~Hispanic, Latino Heritage	HIS
Outcomes~Increasing Library Capacity to Better Serve	O-CAP-DEM-
Communities~Demographic Subgroups Being Served~Middle Eastern Heritage	MEA
Outcomes~Increasing Library Capacity to Better Serve	O-CAP-DEM-
Communities~Demographic Subgroups Being Served~Native Americans/Native Hawaiians	NAT
Outcomes~Increasing Library Capacity to Better Serve	O-CAP-DEM-
Communities~Demographic Subgroups Being Served~Immigrants, Newcomers, Refugees	REF
Outcomes~Increasing Library Capacity to Better Serve	O-CAP-DEM-
Communities~Demographic Subgroups Being Served~Rural Populations	RUR
Outcomes~Increasing Library Capacity to Better Serve	O-CAP-DEM-
Communities~Demographic Subgroups Being Served~Urban Populations	URB
Outcomes~Increasing Library Capacity to Better Serve	O-CAP-DEM-
Communities~Demographic Subgroups Being Served~Military Families	MIL
Outcomes~Increasing Library Capacity to Better Serve	O-CAP-DEM-
Communities~Demographic Subgroups Being Served~Other	OTH
Outcomes~Increasing Library Capacity to Better Serve	O-CAP-DEM-
Communities~Demographic Subgroups Being Served~Diverse/Undefined Minority populations	DIV
Outcomes~Increasing Library Capacity to Better Serve	O-CAP-DEM-
Communities~Demographic Subgroups Being Served~Regional	REG
Outcomes~Increasing Library Capacity to Better Serve	O-CAP-DEM-
Communities~Demographic Subgroups Being Served~Special Academic/Content Matter Interests	SPE
Outcomes~Increasing Library Capacity to Better Serve Communities~Targeted	SIL
Programs or Institutions	O-CAP-PRO
Outcomes~Increasing Library Capacity to Better Serve Communities~Targeted	O-CAP-PRO-
Programs or Institutions~Academic/Research Libraries	ACA
Outcomes~Increasing Library Capacity to Better Serve Communities~Targeted	O-CAP-PRO-
Programs or Institutions~Archives/Historical Societies	ARC
Outcomes~Increasing Library Capacity to Better Serve Communities~Targeted	O-CAP-PRO-
Programs or Institutions~Rural Public Libraries	RPL
Outcomes~Increasing Library Capacity to Better Serve Communities~Targeted	O-CAP-PRO-
Programs or Institutions~Special Libraries (for example, medical, business, law)	SPE
Outcomes~Increasing Library Capacity to Better Serve Communities~Targeted	O-CAP-PRO-
Programs or Institutions~Tribal Libraries/Museums/Cultural Centers	CUL
Outcomes~Increasing Library Capacity to Better Serve Communities~Targeted	O-CAP-PRO-
Programs or Institutions~Urban Public Libraries	UPL
	OPL O-CAP-PRO-
Outcomes~Increasing Library Capacity to Better Serve Communities~Targeted	
Programs or Institutions~Museum Libraries	MUS
Outcomes~Increasing Library Capacity to Better Serve Communities~Targeted	O-CAP-PRO-
Programs or Institutions~LIS Programs in Universities-Master's	MAS
Outcomes~Increasing Library Capacity to Better Serve Communities~Targeted	O-CAP-PRO-
Programs or Institutions~LIS Programs in Universities-Double Master's	2MA



Coding Scheme for Analysis of Archival and Interview Data	
Description	Code
Outcomes~Increasing Library Capacity to Better Serve Communities~Targeted Programs or Institutions~LIS Programs in Universities-CAS	O-CAP-PRO- CAS
Outcomes~Increasing Library Capacity to Better Serve Communities~Targeted	O-CAP-PRO-
Programs or Institutions~LIS Programs in Universities-PhD	PHD
Outcomes~How Effectiveness Was Determined	O-EFF
Outcomes~Effectiveness~Student Reported	O-EFF-STU
Outcomes~Effectiveness~Informal/Anecdotal Report from Grantee	O-EFF-INF
Outcomes~Effectiveness~Employer Reported	O-EFF-EMPL
Outcomes~Effectiveness~Placement Outcomes/Met Numerical Goals for Program	
(graduation percentage, number of scholarships awarded, etc.)	O-EFF-PLA
Outcomes~Effectiveness~Surveys/Focus Groups Conducted	O-EFF-SUR
Outcomes~Affected Career	O-CAR
Outcomes~Affected Career~Gained Tenure	O-CAR-TEN
Outcomes~Affected Career~Got a New Job	O-CAR-NEW
Outcomes~Affected Career~Advanced in Current Position	O-CAR-ADV
Outcomes~Affected Career~Improved Experience in Current Position	O-CAR-IMP
Outcomes~Administrative Policies Affected	O-ADM
Outcomes~Partnerships Continued	O-PAR
Outcomes~Diversifying the Profession	O-DIV
Outcomes~Promoting Librarianship	O-LIB
Outcomes~Impacted Additional Research	O-RES
Outcomes~New Recruitment	O-REC
Outcomes~Accessibility to resources and information	0-ACC
Methods	M
Methods~Educational and Training Opportunities	M-ETO
Methods~Educational and Training Opportunities~Internship/Volunteerism	M-ETO-INT
Methods~Educational and Training Opportunities~Mentorship (including peer)	M-ETO-MEN
Methods~Educational and Training Opportunities~Graduate	
Assistantships/Fellowships	M-ETO-ASS
Methods~Educational and Training Opportunities~Tailored courses	M-ETO-COU
Methods~Educational and Training Opportunities~Cohort Model for Classes	М-ЕТО-СОН
Methods~Educational and Training Opportunities~Conferences/Symposia	
Attendance	M-ETO-CNF
Methods~Educational and Training Opportunities~Career	
placement/networking/resume writing guidance/career counseling	M-ETO-CRR
Methods~Educational and Training Opportunities~Seminars/Lectures	M-ETO-SMN
Methods~Educational and Training Opportunities~Workshops/Training	
sessions/Orientation Attendance	M-ETO-WOR
Methods~Educational and Training Opportunities~Publications/articles/presentations (disseminate findings)	M-ETO-PUB
Methods~Educational and Training Opportunities~Certification	M-ETO-TOB
Opportunity/Eligibility	M-ETO-CER
Methods~Educational and Training Opportunities~Orientation	M-ETO-ORI
Methods~Educational and Training Opportunities~Networking opportunities	
(listservs)	M-ETO-NTW
Methods~Educational and Training Opportunities~Lecture/Lecture series	M-ETO-LEC
Methods~Educational and Training Opportunities~Concerts	M-ETO-CON



Coding Scheme for Analysis of Archival and Interview Data	
Description	Code
Methods~Educational and Training Opportunities~Symposia	M-ETO-SYM
Methods~Educational and Training Opportunities~Organization Membership	M-ETO-MEM
Methods~Educational and Training Opportunities~Networking and Professional	
Development	M-ETO-PRO
Methods~Educational and Training Opportunities~Materials & Technology	M-ETO-MAT
Methods~Educational and Training Opportunities~Other	M-ETO-OTH
Methods~New Developments Under Grant	M-ND
Methods~New Developments Under Grant~New/Modified Courses	M-ND-NMC
Methods~New Developments Under Grant~New Courses	M-ND-NMC- NEW
Methods~New Developments Under Grant~Modified Courses	M-ND-NMC- MOD
Methods~New Developments Under Grant~New/Modified Curriculum	M-ND-CUR
Methods~New Developments Under Grant~New Curriculum	M-ND-CUR- NEW
Methods~New Developments Under Grant~Modified Curriculum	M-ND-CUR- MOD
Methods~New Developments Under Grant~Workshop Developed	M-ND-WOR
Methods~New Developments Under Grant~Conference Developed/Planned	M-ND-CON
Methods~New Developments Under Grant~Information Sharing and Learning Resources	M-ND-SHR
Methods~New Developments Under Grant~Creation/Improvement of Website	M-ND-WEB
Methods~New Developments Under Grant~Tracking/Evaluation Tools	M-ND-TLS
Methods~New Developments Under Grant~Social Media	M-ND-SOC
Methods~New Developments Under Grant~New Equipment in Schools/Libraries	M-ND-EQP
Methods~New Developments Under Grant~Materials to Promote Libraries	M-ND-PRO
Methods~New Developments Under Grant~Recruitment Technique	M-ND-TEC
Methods~New Developments Under Grant~Learning Resources	M-ND-LRN
Methods~New Developments Under Grant~Research	M-ND-RES
Methods~New Developments Under Grant~New Research	M-ND-RES- NEW
Methods~New Developments Under Grant~Modification or Addition to Existing Research	M-ND-RES- MOD
Methods~New Developments Under Grant~Survey/Questionnaire/Evaluation	M-ND-SUR
Methods~Recruiting	M-REC
Methods~Recruiting~Targeted Populations	M-REC-POP
Methods~Recruiting~Targeted Populations~Undefined Minority	M-REC-POP- MIN
Methods~Recruiting~Targeted Populations~Unidentified Diversity/Multiethnic	M-REC-POP- DIV
Methods~Recruiting~Targeted Populations~Asian, Pacific Islander Heritage	M-REC-POP- ASI
Methods~Recruiting~Targeted Populations~Black, African Heritage	M-REC-POP- AFR
Methods~Recruiting~Targeted Populations~Hispanic, Latino Heritage	M-REC-POP- HIS
Methods~Recruiting~Targeted Populations~Middle Eastern Heritage	M-REC-POP- MEA



Coding Scheme for Analysis of Archival and Interview Data	_
Description	Code
Methods~Recruiting~Targeted Populations~Native Americans/Native Hawaiians	M-REC-POP- NAT
Methods~Recruiting~Targeted Populations~Immigrants/Newcomers/Refugees	M-REC-POP- REF
Methods~Recruiting~Targeted Populations~Caucasian/White	M-REC-POP- CAU
Methods~Recruiting~Targeted Populations~Rural Populations	M-REC-POP- RUR
Methods~Recruiting~Targeted Populations~Urban Populations	M-REC-POP- URB
Methods~Recruiting~Targeted Populations~Foreign Populations	M-REC-POP- FOR
Methods~Recruiting~Targeted Populations~Military Families	M-REC-POP- MIL
Methods~Recruiting~Targeted Populations~Special Academic/Content Matter Interests	M-REC-POP- SPE
Methods~Recruiting~Targeted Populations~College/University students	M-REC-POP- UNI
Methods~Recruiting~Targeted Populations~Multilingual	M-REC-POP- MUL
Methods~Recruiting~Targeted Populations~Regional	M-REC-POP- REG
Methods~Recruiting~Targeted Populations~Underserved Populations	M-REC-POP- UND
Methods~Recruiting~Targeted Populations~Education and Librarian Professionals	M-REC-POP- TEA
Methods~Recruiting~Targeted Populations~Men	M-REC-POP- MEN
Methods~Recruiting~Targeted Populations~Women	M-REC-POP- WOM
Methods~Recruiting~Targeted Populations~Disabled	M-REC-POP- DIS
Methods~Recruiting~Targeted Populations~Religious Populations	M-REC-POP- REL
Methods~Recruiting~Method/Strategy	M-REC-MET
Methods~Recruiting~Method/Strategy~Website	M-REC-MET- WEB
Methods~Recruiting~Method/Strategy~Publication/Journal Advertisement	M-REC-MET- PUB
Methods~Recruiting~Method/Strategy~Word of Mouth	M-REC-MET- WOM
Methods~Recruiting~Method/Strategy~Internet/Email/Listserv	M-REC-MET- INT
Methods~Recruiting~Method/Strategy~Meetings/Conferences	M-REC-MET- CON
Methods~Recruiting~Method/Strategy~Libraries	M-REC-MET- LIB
Methods~Recruiting~Method/Strategy~Radio Ads	M-REC-MET- RAD
Methods~Recruiting~Method/Strategy~Television Ads	M-REC-MET-



	Coding Scheme for Analysis of Archival and Interview Data	
	Description	Code
		TV
	Methods~Recruiting~Method/Strategy~Referrals/Recommendations (Word of	M-REC-MET-
Mouth)		REC
	Methods~Recruiting~Method/Strategy~Fliers/Brochures	M-REC-MET- FBR
		M-REC-MET-
	Methods~Recruiting~Method/Strategy~Campus Visits	VIS
	Methods~Recruiting~Method/Strategy~Professional Association	M-REC-MET-
	Methous-Keerunning-Methou/Strategy-Trofessional Association	PRO
	Methods~Recruiting~Method/Strategy~American Library Association	M-REC-MET-
		PRO-ALA M-REC-MET-
	Methods~Recruiting~Method/Strategy~Regional/State Association	PRO-REG
		M-REC-MET-
	Methods~Recruiting~Method/Strategy~Association for Minorities	PRO-MIN
	Methods~Recruiting~Method/Strategy~Field-Specific Association (archivists,	M-REC-MET-
school libr	arians, etc.)	PRO-FLD
	Methods~Recruiting~Method/Strategy~Workshops	M-REC-MET-
		WOR
	Methods~Recruiting~Method/Strategy~Guaranteed Job Placement	M-REC-MET- JOB
Meth	ods~Financial	M-FIN
	Methods~Financial~Scholarships	M-FIN-SCH
		M-FIN-SCH-
	Methods~Financial~Scholarships~Full	FUL
	Mathada Einanaial Scholarshing Dartial	M-FIN-SCH-
	Methods~Financial~Scholarships~Partial	PAR
	Methods~Financial~Salary for Hired Staff (faculty, graduate assistants, etc.)	M-FIN-SAL
	Methods~Financial~Stipend	M-FIN-STP
	Methods~Financial~Miscellaneous Program or Material Fees	M-FIN-MSC
	Methods~Financial~Travel for Conferences/Workshops	M-FIN-TRA
1	Methods~Financial~Outside Contractor Hired	M-FIN-CTR
	Methods~Financial~Organization Membership	M-FIN-MEM
	ods~Partnerships	M-PAR
	Methods~Partnerships~Library	M-PAR-LIB
	Methods~Partnerships~Institution	M-PAR-INST
1	Methods~Partnerships~Association	M-PAR-ASC
1	Methods~Partnerships~Other organization	M-PAR-ORG
Methe	ods~Tracking Students~Survey	M-TRK-SUR
Metho	ods~Tracking Students~Email	M-TRK-EML
	ods~Tracking Students~Social Media	M-TRK-SOC
	ods~Tracking Students~Informal/Anectodal	M-TRK-INF
	ods~Tracking Students~Contractual/Formal	M-TRK-CON
	ods~Preparation/Planning/Conception of Project	M-PRE
	Methods~Preparation/Planning~Addressing a need in the field	M-PRE-NEE
	Methods~Preparation/Planning~Research	M-PRE-RES
1	Methods~Preparation/Planning~Personal/Institutional Experience	M-PRE-EXP



Coding Scheme for Analysis of Archival and Interview Data	
Description	Code
Methods~Preparation/Planning~Continuation of Former Grant Project	M-PRE-CON
Methods~Preparation/Planning~Assess caliber of Students	M-PRE-STU
Methods~Preparation/Planning~Review of Special Content	M-PRE-RSC
Methods~Preparation/Planning~Certification/Authorizations or program	M-PRE-CER
Methods~Preparation/Planning~Collaboration with Partners	M-PRE-PAR
Methods~Preparation/Planning~Review of Staff	M-PRE-STA
Methods~Preparation/Planning~External Advisory Council	M-PRE-ADV
Factors for Success	S
Success~Financial Support	S-FIN
Success~Financial Support~Full Support	S-FIN-FUL
Success~Financial Support~Partial Support	S-FIN-PAR
Success~Financial Support~Stipends	S-FIN-STI
Success~Technical Training	S-TEC
Success~Mentor/Supervisional Support	S-MEN
Success~Mentorship~Method of Matching Students with Mentors	S-MEN-MTC
Success~On-the-job training/Career Training Experience	S-OJT
Success~Support/cooperation/buy-in from current/existing employer	S-EMPL
Success-Cohort Model (took all/some classes together as a group)	S-COH
Success~Partnerships	S-PAR
Success Advisory Council	S-ADV
Success-Received a Job	S-JOB
Success~Other	S-OTH
Lessons Learned/Challenges	LL
Future~Lessons Learned/Challenges	F-LL
Future~Lessons Learned/Challenges~Insufficient Funding & Tuition Increases	F-LL-INF
Future Lessons Learned/Challenges Knowledge/Experience of Participants	F-LL-KNO
Future Lessons Learned/Challenges Depletion of Funds/Budgeting	F-LL-DEP
Future Lessons Learned/Challenges Insufficient Time to Complete Program	F-LL-INT
Future~Lessons Learned/Challenges~Program Timing & Scheduling	F-LL-INT F-LL-TIM
Future~Lessons Learned/Challenges~Frogram Thining & Scheduling Future~Lessons Learned/Challenges~Issues with Recruiting & Enrolling Targeted	
Population	F-LL-REC
Future~Lessons Learned/Challenges~Overbearing Program/Curriculum	
Requirements	F-LL-OVE
Future~Lessons Learned/Challenges~Retention	F-LL-RET
Future~Lessons Learned/Challenges~Need for Experienced Staff and Faculty	F-LL-STF
Future~Lessons Learned/Challenges~Communication and Coordination	F-LL-COM
Future~Lessons Learned/Challenges~Post-graduate Employment and Success	F-LL-EMP
Future~Lessons Learned/Challenges~Issues With Internship/Work Placement	F-LL-WOR
Future~Lessons Learned/Challenges~Need for Travel/Relocation	F-LL-REL
Future (i.e., Post-Grant Period Methods/Outcomes)	F
Future~Future Actions	F-FUT
Future~Future Actions~Program Continued Without IMLS Funds	F-FUT-CON
Future~Future Actions~Continued the Program Through a non-IMLS Grant	F-FUT-CON- GRA
Future~Future Actions~No Funding Needed to Continue the Program	F-FUT-CON- NFN



Coding Scheme for Analysis of Archival and Interview Data	
Description	Code
Future~Future Actions~Continued the Program Through Partnerships	F-FUT-CON- PAR
Future~Future Actions~Continued the Program Through Funding from the	F-FUT-CON-
Educational Institution	INS
Future~Future Actions~Prepare for Future Grant Submissions/Secured Additional	
Funds through IMLS	F-FUT-GRA
Future~Future Actions~Request Extension	F-FUT-EXT
Future~Future Actions~Expand Program or Curriculum	F-FUT-EXP
Future~Future Actions~Promote the Program (non-recruitment)	F-FUT-PRO
Future~Future Actions~Additional Courses, Trainings or Workshops	F-FUT-ADD
Future~Future Actions~New Recruitment Methods	F-FUT-REC
Future~Future Actions~Post-graduate Employment Support	F-FUT-EMP
Future~Future Actions~Promote Diversity	F-FUT-DIV
Future~Future Actions~New Recruitment Population	F-FUT-POP
Future~Future Actions~Sustain Beneficial Relationships/Networking	F-FUT-SUS
Future~Future Actions~Promote New Technologies	F-FUT-TEC
Future~Future Actions~Changes in Faculty/Staff	F-FUT-STF
Future~Future Actions~Publications	F-FUT-PUB



Appendix E-1: Contact Verification Phone Script

Hello [CONTACT NAME], my name is [FIRST NAME] [LAST NAME] and I am calling on behalf of the Institute of Museum and Library Services, about the Laura Bush 21 Grant Program? Can I speak with [INSERT GRANTEE NAME?]

When grantee takes the line, or answering individual questions purpose of call:

[Reintroduce SELF as necessary] I'm calling because IMLS and its contractor ICF International are hoping talk to you [or name GRANTEE] this summer about an ongoing study of the LB21 Grant Program and if it was helpful. We are updating our contact records and want to make sure we have a valid phone number for you [or name GRANTEE] this summer as the study gets underway. IMLS has provided your name as the best person to contact regarding the grant received in [YEAR]. Is this correct?

[IF YES]

Great! I just want to take a minute to update your contact info for the summer months. IMLS will be sending an official letter shortly to you announcing the purpose of the study and how the results will be used. You should expect that around [DATE].

Field	Current List	Update/Summer Info
Title	TITLE	TITLE
Last Name	LAST NAME	LAST NAME
First Name	FIRST NAME	FIRST NAME
Institution	INSTITUTION	INSTITUTION
Telephone Number	PHONE	PHONE
Email Address	EMAIL	EMAIL
Address 1	ADDRESS 1	ADDRESS 1
Address 2	ADDRESS 2	ADDRESS 2
City	CITY	CITY
State	ST	ST
Zip	ZIP	ZIP

We currently have the following contact information for you from IMLS. [READ CURRENT LIST AND UPDATE AS NECESSARY]

Thanks once again. [END CALL]

[IF NO]

Ok, who would be the right person to speak to?

Thank you so much. Can you please spell [his/her] name for me? [RECORD NAME] What is the best way is to reach [new contact name]?



[RECORD CONTACT INFORMATION; PROBE FOR ALL INFORMATION BELOW]

Title	TITLE
Last Name	LAST NAME
First Name	FIRST NAME
Institution	INSTITUTION
Telephone Number	PHONE
Email Address	EMAIL
Address 1	ADDRESS 1
Address 2	ADDRESS 2
City	CITY
State	ST
Zip	ZIP

Thanks so much for your help today. If you would like to verify this study or if you have any questions, you may contact [ENTER NAME] AT XXX.XXX.XXXX.

Thanks once again.

[END CALL]

IF SENT TO VOICEMAIL:

Hello [CONTACT NAME], my name is [FIRST NAME] [LAST NAME] and I am calling on behalf of the Institute of Museum and Library Services, about the Laura Bush 21 Grant Program. I'm calling because IMLS and its research contractor ICF International are hoping talk to you this summer about an ongoing study of the LB21 Grant Program and if it was helpful. We are updating our contact records and want to make sure we have a valid phone number for you this summer as the study gets underway. Please give me a call back to confirm that we have the correct contact information for you. My number is [PHONE]. If you are not the correct person to contact regarding this data collection effort, please let me know so that I may contact the appropriate person. Thank you.

(Note: Follow up with phone call in 48 hours if no response.)

IF ASKED TO LEAVE A MESSAGE WITH SOMEONE ELSE:

My name is [FIRST NAME] [LAST NAME] and I am calling on behalf of the Institute of Museum and Library Services, about the Laura Bush 21 Grant Program. I'm calling because IMLS and its research contractor ICF International are hoping talk to [GRANTEE] this summer about an ongoing study of the LB21 Grant Program and if it was helpful. We are updating our contact records and want to make sure we have a valid phone number for [GRANTEE] this summer as the study gets underway. Is this the correct number to reach [him/her]?



[IF NO]

What is the best number to reach [him/her]? [RECORD NUMBER AND CALL BACK WITH THE UPDATED NUMBER]

[IF YES]

Great. Could you leave [him/her] a message to call me back to confirm we have the right contact information? My name is [NAME] and my number is [PHONE]. Thank you.

(Note: Follow up with phone call in 48 hours if no response.)



Appendix E-2: Interview Scheduling Protocol

Hello, my name is [FIRST NAME] [LAST NAME] and I am calling on behalf of the Institute of Museum and Library Services, about the Laura Bush 21 Grant Program? Can I speak with [INSERT GRANTEE NAME]?

When grantee takes the line, or answering individual questions purpose of call:

[Reintroduce SELF as necessary] I'm calling because IMLS and its research contractor ICF International are hoping talk to you [or name GRANTEE] this summer about an ongoing study of the LB21 Grant Program and if it was helpful. You should have received a letter from IMLS in the mail recently, explaining the purpose of the evaluation program and letting you know that we would be calling to schedule a phone interview with you. Did you receive this email?

[IF YES]

I'm pleased to hear that. We are interested in understanding your motivations for seeking the grant funds, how you used the grant funds, and any lasting impacts the grant program has had. The interview will take no longer than an hour and will be scheduled at your convenience. Would you be available to participate in a phone interview with us regarding your experiences with the LB21 program?

[IF NO]

I'm sorry to hear that you did not receive that. Let me take a moment to explain the project. IMLS is conducting an evaluation of the LB21 grant program for the purposes of identifying best practices and lessons learned for the future of the grant program. As part of the evaluation being conducted by their research contractor ICF International, we will be conducting phone interviews with past recipients of the grants to learn more about their experiences with the grant program. We are interested in understanding your motivations for seeking the grant funds, how you used the grant funds, and any lasting impacts the grant program has had. The interview will take no longer than an hour and will be scheduled at your convenience. Would you be available to participate in a phone interview with us regarding your experiences with the LB21 program?

[IF YES]

Great! We will be conducting the interviews throughout the next couple of weeks. When is a good time for you?

[MATCH DATE/TIMES PROVIDED TO INTERVIEWER AND RECORDER SCHEDULES TO SCHEDULE THE INTERVIEW]

Also, I just want to take a minute to make sure we have the correct contact info for you for the summer months.

We currently have the following contact information for you from IMLS. [READ CURRENT LIST AND UPDATE AS NECESSARY]



Field	Current List	Update/Summer Info
Title	TITLE	TITLE
Last Name	LAST NAME	LAST NAME
First Name	FIRST NAME	FIRST NAME
Institution	INSTITUTION	INSTITUTION
Telephone Number	PHONE	PHONE
Email Address	EMAIL	EMAIL

Thanks so much for your help today. You will be conducting the interview with [INTERVIEWER NAME]. She will send an email to you later today verifying the date and time of the interview. The email will also have a toll free phone number for you to call in for the interview and a passcode. If you have any questions in the meantime, you may contact me at [PHONE].

Thanks once again. [END CALL]

[IF NO]

Ok. Is there anyone else who was familiar with the grant project who we may be able to contact for an interview? We are looking for someone who is very familiar with the grant project from its initiation to its completion and would be able to provide information on the motivations for seeking the grant funds, how you used the grant funds, and any lasting impacts the grant program has had.

Thank you so much. Can you please spell [his/her] name for me? [RECORD NAME] What is the best way is to reach [new contact name]? [RECORD CONTACT INFORMATION; PROBE FOR ALL INFORMATION BELOW]

Title	TITLE
Last Name	LAST NAME
First Name	FIRST NAME
Institution	INSTITUTION
Telephone Number	PHONE
Email Address	EMAIL

Thanks so much for your help today. If you would like to verify this study or if you have any questions, you may contact [ENTER NAME] AT XXX.XXX.XXXX .

Thanks once again. [END CALL]

IF SENT TO VOICEMAIL:

Hello [CONTACT NAME], my name is [FIRST NAME] [LAST NAME] and I am calling on behalf of the Institute of Museum and Library Services, about the Laura Bush 21 Grant Program. I'm calling because IMLS and its research contractor ICF International are hoping talk to you this



summer about an ongoing study of the LB21 Grant Program and if it was helpful. We would like to schedule a phone interview with you for some time during the next couple of weeks. Please give me a call back to schedule a time for your interview. My number is [PHONE]. If you are not the correct person to contact regarding this data collection effort, please let me know so that I may contact the appropriate person. Thank you.

(Note: Follow up with email within 30-60 minutes.)

IF ASKED TO LEAVE A MESSAGE WITH SOMEONE ELSE:

My name is [FIRST NAME] [LAST NAME] and I am calling on behalf of the Institute of Museum and Library Services, about the Laura Bush 21 Grant Program. I'm calling because IMLS and its research contractor ICF International are hoping to talk to [GRANTEE] this summer about an ongoing study of the LB21 Grant Program and if it was helpful. Could you leave him/her a message to call me back to discuss the possibility of scheduling a short phone interview? My name is [NAME] and my number is [PHONE]. Thank you.

(Note: Follow up with email within 30-60 minutes.)



Appendix F-1: Sample Interview Protocol

Laura Bush 21st Century Librarians Grant Program

Telephone Interview Protocol

Master's Programs: Diversity Theme

Instructions to Interviewer

One workday prior to telephone interview, send a reminder confirmation email to the respondent.

Prior to the interview, read archival data for this grant project to identify and become familiar with what is known about it. This interview builds on data obtained from archival documents. Information that is known from archival data will not be sought again in this interview, unless clarification is requested in the text of the protocol.

Prior to the interview, plan and tailor the interview protocol to satisfy remaining information needs. Review the tailored protocol and mentally rehearse its execution. Consult the case selection matrix document and consider identified "unique aspects" and "additional considerations" to shape the interview.

This telephone interview protocol is a guideline for discussion, not a script for recitation. Keep the intent of the study and of the research questions in mind as you use probes to delve further into a particular topic for clarification or richness.

Keep track of time, and pace questions to end the interview on time. Sometimes interviewees will not have a lot to say in response to a particular question. Do not spend excessive time probing for an answer. Move on when you are confident that the provided answer is sufficient and complete.

Introduction (5 minutes)

Hello, this is <<NAME>> from ICF International calling on behalf of the Institute of Museum and Library Services. Is this <<NAME OF POC WITH WHOM THE INTERVIEW WAS COORDINATED>>?

We are interviewing recipients of grants from the Institute's Laura Bush 21st Century Librarians grant program (LB21 for short). The interviews are designed to learn more about grant recipients' experiences with the LB21 grant program. I understand that your department received a Master's Program Grant in <<YEAR>>. Is this correct?

Let me briefly review some administrative information and the **Privacy Act Notification**.



(Statutory Authority)

IMLS is authorized to collect this information under the Museum and Library Services Act of 2010.

(Purpose and Use)

As I mentioned in my initial email contact with you, the purpose of this interview is to better understand the ways in which the projects funded by LB21 grants pursued their goals and to learn more about the outcomes of the grant-funded projects. In particular, we want to learn what project methods, components, and features were used and how effective they were in helping to achieve the goals of the project. We would also like to learn about the lasting effects of the project, including project elements or curricular changes that persisted after the grant ended, changes to policy or practice, and effects on participants. The study we are conducting will help inform the awards made to future grantees and help ensure that the LB21 grant program continues to be effective in supporting and developing the field of Library and Information Science.

(Length of the Study)

The interview will take about one hour to complete. Is now still a good time to talk?

(Voluntary participation / Privacy act)

Your participation is strictly voluntary, and you may choose to end the interview at any point. Information gathered during this interview will be reported using a blended case-study format. That is, we will combine the information that you provide with information obtained from interviews with grant recipients that had similar project goals. Although we will avoid using the names of specific institutions and individuals, it may be possible for institutions or individuals to be identified from other project information that is reported. Of course, the purpose of this IMLS evaluation is to improve the grant program moving forward, by gathering information from all grantees included in this study. The goal is not to pinpoint particular weaknesses of your particular grant. In addition, none of your responses today will affect review of your current or future funding.

The OMB Control Number for this study is: 3137-0086. The collection expires December 31, 2015.

Verification Questions:

Do you understand that your participation is voluntary? [Yes/No]

Do you understand that while we will make every effort to protect the identity of the program and will only report data in the aggregate, there may be combinations of data that will uniquely identify you to other institutions or individuals? [Yes/No]

Do you have any questions about this? [Yes/No]

Do you consent to continue with the interview? [Yes/No]



Finally, we would like to record the call so we're able to capture as much detail as possible. Is it ok with you to record this conversation? The recording will be deleted after we use it to extract all essential information [Yes/No]

[IF YES: Record Call by pressing *22]

[INTERVIEWER AND TRANSCRIBER: Record responses to each question]

Thank you for agreeing to talk with me today.

In preparing for this interview, I have reviewed your grant report that was most recently submitted to IMLS.

DIVERSITY (10-15 minutes)

- 1. In your report, we interpret that your goals for initially pursuing the LB21 grant were <<enter goals>>. Is this correct?
 - [IF YES] Were there any additional goals you had in mind when pursuing the LB21 grant?
 - [IF NO] What were the goals you had in mind for your program when you initially pursued the LB21 grant?
- [IF NO DEFINITION OF DIVERSITY IS PROVIDEDOR IMPLIED IN ARCHIVAL DATA, ASK] Your grant project included a goal of recruiting a diverse student body. For the purposes of your project, how did you define "diversity?" [Map to Research Question 7-2]

[IF A DEFINITION OF DIVERSITY WAS PROVIDED OR IMPLIED IN ARCHIVAL DATA, ASK] You mentioned << enter specified definition of diversity>>, is this how you defined diversity for this grant project? [Map to Research Question 7-2]

- Probe for any additional clarification
- [IF NO RECRUITMENT STRATEGIES WERE PROVIDED IN ARCHIVAL DATA, ASK] What strategies did you use to recruit these populations? [Map to Research Question 7-1]

[IF RECRUITMENT STRATEGIES WERE PROVIDED IN ARCHIVAL DATA, ASK] You previously reported you used <<enter strategies>> to recruit these populations. Is this correct? Are there any additional strategies you used? [Map to Research Question 7-1]

• [GET FULL LIST OF STRATEGIES, THEN GO TO THE FOLLOWING QUESTIONS.]



• [IF SCHOLARSHIPS ARE MENTIONED AS A FEATURE, INCLUDE THE SCHOLARSHIP MODULE.]

FOLLOW UP:

- Which of these strategies were particularly effective in recruiting diverse populations? [Map to Research Question 7-3]
 - Why do you think they were effective?
- Were there strategies you tried that were not effective or less effective than you thought they would be?
 - Why do you think they were not effective or less effective?
- How did you determine the effectiveness of these strategies?
- 4. What other ways was diversity considered in the design of your grant project? [Map to Research Question 7-1]

FOLLOW UP:

- Can you say a little more about that? [Map to Research Question 7-1]
- Which of these features were particularly effective in retaining diverse populations? [Map to Research Question 2-6]
 - How did you determine they were effective?
- Which of these features were effective at promoting the students' success? [Map to Research Question 2-6]
 - How did you know they were effective?
- To what extent did these features have a lasting effect on the program, after the end of the grant project? [Map to Research Question 4-1]
- [IF OTHER PROGRAM FEATURES WERE NAMED BUT NOT DESCRIBED AS EFFECTIVE] Why do you think other features of your program were not effective?

USE OF FUNDING (5-10 minutes)

- 5. We talked about <<enter diversity feedback>> under the goal of diversity, and your final grant report mentioned that you used grant funds for <<enter funded elements identified in archival data>>. In what other ways did your program use the funding you received for this project? [Map to Research Questions 1-1, 1-2, 2-6]
 - [CONSTRUCT LIST OF PROGRAM ELEMENTS, ENHANCEMENTS, ETC. FROM DIVERSITY SECTION, ARCHIVAL DATA VERIFICATION, AND NEWLY REPORTED ELEMENTS]



- PRIORITIZE LIST USING PREVIOUSLY IDENTIFIED "UNIQUE ASPECTS" AND "ADDITIONAL CONSIDERATIONS"
- EXAMINE EACH USING QUESTION 5 AND ITS PROBES]

PRIMERS:

- Some examples might be: classroom activities, mentoring, internships, sponsored professional conference attendance, special student projects, scholarship programs, library partnership, training programs.
- IF NOT MENTIONED, ASK:
 - Did your program have one or more library partners? [Map to Research Question 5-5]
 - What was the nature of the partnership(s)? [Map to Research Question 5-5]
 - **§** Was <list library partnership>> effective?
 - § [IF RELEVANT] How did you determine the effectiveness of this partnership?
 - § [PRIMERS IF NEEDED] For example, did it increase employment opportunities for project participants, enhance the depth of knowledge in certain subject areas, increase participants' exposure to professional associations?
 - Did you have a scholarship program?
 - [IF SCHOLARSHIPS ARE MENTIONED AS A FEATURE, INCLUDE THE SCHOLARSHIP MODULE.]

6. Was <element>> a new program element or was this an enhancement to an existing program? [Map to Research Question 1-2]

FOLLOW UP:

- How effective do you think <list element/enhancement>> was? [Map to Research Question 2-6]
 - Why do you think it was effective? [OR] Why do you think it was not effective?
- How did you determine the effectiveness of this element/enhancement?
- Do you believe that <list element/enhancement>> had a substantial effect on your program? [Map to Research Question 4-1]
 - Did it have a lasting effect on the curriculum (an effect that lasted after the grant was over)? [Map to Research Question 4-1]
 - [IF YES] How was the curriculum affected? [Map to Research Question 4-2]



- Did it have a lasting effect on any administrative policies (an effect that lasted after the grant was over)? [Map to Research Question 4-1]
 - [IF YES] How were the policies affected? [Map to Research Question 4-2]

SCHOLARSHIPS (5 minutes)

[IF NOT ADDRESSED IN Q4 OR Q5]

S.1. Does your program have a way of tracking students who received scholarship funds from LB21 grant money? [Map to Research Question 2-1]

FOLLOW UP:

- [IF "YES" BUT METHOD NOT STATED] How do you track these students?
- Under this particular grant project, how many students received scholarship funds from grant money? [Map to Research Question 2-1]
- Of these students, how many received full financial support? [Map to Research Question 2-3]
- What amount was considered full financial support versus partial? [Map to Research Question 2-3]

[IF NOT ADDRESSED IN Q2 OR Q3]

S.2. Were any of these scholarships used to promote the diversity goals of the project? [Map to Research Question 7-1]

FOLLOW UP:

- What factors were important for the success of the scholarships in supporting the diversity goals of your grant project? [Map to Research Questions 2-5, 7-3]
- What factors were important for the success of the scholarship program as a whole or for other goals of the scholarships? [Map to Research Questions 2-5, 7-3]

[IF NOT ADDRESSED IN Q2 THROUGH Q5]

S.3. Do you believe that scholarships had a substantial effect on your program? [Map to Research Question 4-1]



FOLLOW UP:

- Did they have a lasting effect on the curriculum, (an effect that lasted after the grant was over)? [Map to Research Question 4-1]
 - [IF YES] How was the curriculum affected? [Map to Research Question 4-2]
- Did they have a lasting effect on any administrative policies, (an effect that lasted after the grant was over)? [Map to Research Question 4-1]
 - [IF YES] How were the policies affected? [Map to Research Question 4-2]

SUSTAINABILITY OF PROGRAMS (5-10 minutes)

7. Did the project as a whole, or any elements or enhancements created under the project, continue after the LB21 funds were expended? [Map to Research Questions 3-1, 3-2]

FOLLOW UP:

- [IF YES] How long did the project as a whole continue after the LB21 funds were expended? [Map to Research Questions 3-1, 3-2]
- [IF THE PROJECT DID NOT CONTINUE AS A WHOLE] How long did any of the elements or enhancements continue? [Map to Research Questions 3-1, 3-2]
- We've talked about <list all elements and enhancements>>. Were any of the features we have discussed today eliminated after the LB21 grant funds were expended and the grant was over? [Map to Research Questions 3-1, 3-2]
 - Why were they eliminated?
- 9. Were any of these features sustained after the LB21 grant funds were expended and the grant was over... [GO TO Interview Question 8.1] [Map to Research Question 3-1, 3-2]
- 9.1. ...let's start with those that were related to the diversity goal. You reported <st these>>. [GO THROUGH FOLLOW UP] [Map to Research Questions 3-1, 3-2]
- 9.2. Let's move on to those that were not related to diversity. You reported <list these>>. [GO THROUGH FOLLOW UP] [Map to Research Questions 3-1, 3-2]



FOLLOW UP:

- Which of these were sustained? [Map to Research Question 3-2]
 - [IF THE PROJECT AS A WHOLE IS NAMED] Why do you believe that the project was sustained? [Map to Research Question 3-2]
 - [FOR EACH ELEMENT OR ENHANCEMENT NAMED] Why do you believe that <list element/enhancement>> was sustained? [Map to Research Question 3-2]
 - How was this program sustained? [Map to Research Question 3-3]
 - [PRIMERS IF NEEDED] For example resources, partnerships, collaborations, internal or external funding.
 - How was the <list resource, partnership, collaboration, or funding source>> obtained?
- [FOR THOSE WITH SCHOLARSHIP PROGRAMS] Was any part of the scholarship program sustained with university or private funds? [Map to Research Question 2-2]
 - How were these funds obtained?

STUDENT OUTCOMES (5-10 minutes)

10. Does your program have a means by which to track student placement outcomes? [Map to Research Question 1-3]

FOLLOW UP:

- How did you accomplish this? [Map to Research Question 1-3]
- 11. Can you tell me about the placement outcomes of the master's students who participated in or benefitted from this particular project? [Map to Research Questions 1-3, 5-3]

FOLLOW UP:

- Do you think that students who participated in or benefitted from your LB21 grant project experienced a substantially different job placement rate than students who did not? [Map to Research Question 5-4]
 - How did the two groups compare in their job placement rates? [Map to Research Questions 5-3, 5-4]
- Do you think that the nature or quality of the job placements differed between the two groups? [Map to Research Question 5-4]
 - How do the two groups compare in the nature or quality of their job placements? [Map to Research Question 5-3]





FINAL COMMENTS (5 minutes)

12. Those are all of the specific questions that I have for you. Are there any additional comments about the LB21 program you would like to share?

Closing Text:

Those are all of the questions that I have for you today. Thank you for taking the time to share your opinions and experiences with us. Your thoughts are very valuable to our efforts to inform the Laura Bush 21st Century Librarians Grant Program on these matters. If you would like more information or if you have any questions about this research, please contact Brad Booth at ICF or Matt Birnbaum at IMLS. I'll send you their contact info via email. Once all interviews have been completed, you will receive a copy of the final report. It will be sent to the email we have on file for you.



Appendix F-2: Benchmarking Interview Protocol

Laura Bush 21st Century Librarians Grant Program Benchmarking Telephone Interview Protocol

Instructions to Interviewer

One workday prior to telephone interview, send a reminder confirmation email to the respondent.

Prior to the interview, re-read background data related to the target benchmark program to identify and become familiar with what is known about it. This interview builds on data obtained from background documents. Information that is known from background data will not be sought again in this interview, unless clarification is needed.

Prior to the interview, plan and tailor the interview protocol to satisfy remaining information needs. Review the tailored protocol and mentally rehearse its execution.

This telephone interview protocol is a guideline for discussion, not a script for recitation. Keep the intent of the study and of the research questions in mind as you use probes to delve further into a particular topic for clarification or richness.

Keep track of time, and pace questions to end the interview on time. Sometimes interviewees will not have a lot to say in response to a particular question. Do not spend excessive time probing for an answer. Move on when you are confident that the provided answer is sufficient and complete.

Introduction (5 minutes)

Hello, this is <<NAME>> from ICF International calling on behalf of the Institute of Museum and Library Services. Is this <<NAME OF POC WITH WHOM THE INTERVIEW WAS COORDINATED>>? Can you confirm your position and tenure with your agency?

Position:

Tenure: _____

Thank you. Now let me briefly review some administrative information.

Privacy Act Notification.

(Statutory Authority)

IMLS is authorized to collect this information under the Museum and Library Services Act of 2010.



(Purpose and Use)

As I mentioned in my initial email contact with you, the purpose of this interview is to better understand the ways in which the projects funded by your program pursued their goals and to learn more about the outcomes of the grant-funded projects. The study we are conducting will help inform the awards made to future grantees and help ensure that the LB21 grant program continues to be effective in supporting and developing the field of Library and Information Science.

(Length of the Study)

The interview will take about 30 minutes to complete. Is now still a good time to talk?

(Voluntary participation / Privacy act)

Your participation is strictly voluntary, and you may choose to end the interview at any point. You should also know that results of this interview will be summarized in our final report, which will be made public.

The OMB Control Number for this study is: 3137-0086. The collection expires December 31, 2015.

Verification Questions:

Do you understand that your participation is voluntary? [Yes/No]

Do you have any questions about the interview? [Yes/No]

Do you consent to continue with the interview? [Yes/No]

Finally, we would like to record the call so we're able to capture as much detail as possible. Is it ok with you to record this conversation? The recording will be deleted after we use it to extract all essential information [Yes/No]

[IF YES: Record Call by pressing *22]

CONTEXT (5 minutes)

1. [IF A DESCRIPTION OF THE PROGAM IS NOT PROVIDED IN REVIEW, ASK] Can you provide an overview of your program and its major objectives?

FOLLOW UP (IF NOT PROVIDED IN BACKGROUND REVIEW):

- Who are the target constituents (grantees and end users of grants)?
- What are the categories or goals of grant funding within the program?
- · How many grants are awarded each year total and by category?
- What is the average dollar range of grant awards?
- · What is the typical duration of grant awards?



 Can you provide a summary of the types of educational and training activities supported? In these activities, what portion of grant funding is typically used for scholarships?

DIVERSITY (5 minutes)

- 2. If applicable, can you provide a description of how diversity is operationalized within your program? Does the definition vary from grantee to grantee?
- 3. How is diversity considered in the recruitment and selection of organizations who receive grant funds?

FOLLOW UP:

- Which of these strategies has been particularly effective in recruiting diverse populations?
- Were there strategies you tried that were not effective or less effective than you thought they would be? Does this vary by grant category?
- How did you determine the effectiveness of these strategies?
- 4. What strategies are used by your organization and/or your grantees to promote education and training among your target population(s)?

OUTCOMES (5 minutes)

5. Can you describe some of the most notable or significant outcomes of the grant opportunities offered under this program?

FOLLLOW UP:

- Were the outcomes primarily benefiting the individual program participants, the institution as a whole, or the community?
- How do grantees communicate outcomes to your agency and/or their stakeholders (e.g., reports, social media)?
- 6. How are outcomes measured or evaluated by your program or grantees?

FOLLOW UP:

• Is there a pre-established set of standards?



- How are evaluation standards for project grants applied? Do the standards vary by grant size or any other identifiable factors (e.g., grant program category, grant duration)?
- How are outcomes reported?
- Can you describe any practice that have been particularly effective for collecting and storing administrative information related to grantees?
- 7. What have been the most effective way(s) in which your program and/or the individual program grantees have tracked participants over time?

MANAGEMENT (10 minutes)

8. How is strategic planning conducted and subsequently implemented for your program?

FOLLOW UP:

- How does the program plan to address the needs for the targeted field and how does this correspond with grant funding priorities?
- How does the program reach applicants to address these needs?
- How has your grant program evolved over time? What major changes have occurred?

9. How is evaluation done for each individual project grant and for the program as a whole?

FOLLLOW UP:

- How is assistance provided to applicants to build their capacity to evaluate their projects?
- How do project evaluations get rolled up into assessments of the entire program, and how does this information subsequently get used by your agency and other stakeholders?
- Do evaluations of individual grants impact future funding for the grantee?
- How often are grants extended within your program?

10. How is information about the grant program communicated to stakeholders outside your agency?

FOLLLOW UP:



- Do you use your agency's web page, social media, and/or other mechanisms (e.g., webinars, presentations at professional meetings)?
- What practices work well and what could be improved in reaching new constituents or audiences?

FINAL COMMENTS (5 minutes)

11. Those are all of the specific questions that I have for you. Are there any additional comments or lessons-learned about your program you would like to share?

Closing Text:

Thank you for taking the time to share your opinions and experiences with us. Your thoughts are very valuable to our efforts to inform the Laura Bush 21st Century Librarians Grant Program on these matters. If you would like more information or if you have any questions about this research, please contact Brad Booth at ICF or Matt Birnbaum at IMLS. I'll send you their contact info via email.



Appendix G: Code Frequencies by Research Question and Grant Type

Continuing	g Educ	ation [Diversi	ty (8)																	
	Q1- 1	Q1- 2	Q1- 3	Q2- 1	Q2- 2	Q2- 3	Q2- 4	Q2- 5	Q2- 6	Q3- 2	Q3- 3	Q4- 2	Q5-5 int.	Q5-5 part.	Q5-5 part. eff	Q7- 1	Q7- 2	Q7- 3	Q8- 1	Q8- 2	Total
F-LL- REC	0	0	N/A	N/A	N/A	1	0	0	N/A	N/A	1										
G-CAP- DEM- AFR	0	0	N/A	N/A	N/A	2	0	2	N/A	N/A	4										
G-CAP- DEM-ASI	0	0	N/A	N/A	N/A	1	0	0	N/A	N/A	1										
G-CAP- DEM-HIS	0	0	N/A	N/A	N/A	3	0	1	N/A	N/A	4										
G-CAP- DEM- NAT	0	0	N/A	N/A	N/A	3	0	1	N/A	N/A	4										
G-CAP- DEM- REG	1	1	N/A	N/A	N/A	0	0	0	N/A	N/A	2										
G-CAP- DIV	0	0	N/A	N/A	N/A	0	0	1	N/A	N/A	1										
G-CAP- POP- UND	1	0	N/A	N/A	N/A	2	1	0	N/A	N/A	3										
G-CAP- PRO- ACA	0	0	N/A	N/A	N/A	1	0	0	N/A	N/A	1										
G-CAP- PRO- CUL	0	0	N/A	N/A	N/A	0	0	1	N/A	N/A	1										
G-CAP- PRO- SPE	1	1	N/A	N/A	N/A	1	0	0	N/A	N/A	3										
G-DIV	1	0	N/A	N/A	N/A	0	0	0	N/A	N/A	1										



| G-SKL-
CON | 1 | 1 | N/A | 0 | 0 | 0 | N/A | N/A | 2 |
|-----------------------|---|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---|---|---|-----|-----|---|
| G-SKL-
DIG | 1 | 1 | N/A | 0 | 0 | 0 | N/A | N/A | 2 |
| G-SKL-
LEA | 0 | 1 | N/A | 0 | 0 | 0 | N/A | N/A | 1 |
| G-SKL-
RES | 0 | 1 | N/A | 0 | 0 | 0 | N/A | N/A | 1 |
| M-ETO-
CNF | 4 | 2 | N/A | 0 | 0 | 0 | N/A | N/A | 6 |
| M-ETO-
COU | 0 | 0 | N/A | 1 | 0 | 0 | N/A | N/A | 1 |
| M-ETO-
PRO | 1 | 0 | N/A | 0 | 0 | 0 | N/A | N/A | 1 |
| M-ETO-
PUB | 0 | 2 | N/A | 0 | 0 | 0 | N/A | N/A | 2 |
| M-ETO-
WOR | 3 | 3 | N/A | 0 | 0 | 0 | N/A | N/A | 6 |
| M-FIN-
SCH | 5 | 1 | N/A | 1 | 0 | 1 | N/A | N/A | 8 |
| M-ND-
CUR | 0 | 0 | N/A | 0 | 0 | 1 | N/A | N/A | 1 |
| M-ND-
NMC | 1 | 2 | N/A | 0 | 0 | 0 | N/A | N/A | 3 |
| M-ND-
SHR | 1 | 2 | N/A | 0 | 0 | 0 | N/A | N/A | 3 |
| M-REC-
MET-
PRO | 0 | 0 | N/A | 0 | 0 | 1 | N/A | N/A | 1 |
| M-REC-
MET-
WEB | 0 | 0 | N/A | 0 | 0 | 1 | N/A | N/A | 1 |
| M-REC-
POP-
AFR | 0 | 0 | N/A | 0 | 1 | 1 | N/A | N/A | 2 |
| M-REC-
POP-ASI | 0 | 0 | N/A | 1 | 1 | 1 | N/A | N/A | 3 |



M-REC- POP-HIS	0	0	N/A	0	1	1	N/A	N/A	2												
M-REC- POP-MIN	0	0	N/A	1	2	0	N/A	N/A	3												
M-REC- POP- NAT	0	0	N/A	1	2	1	N/A	N/A	4												
M-REC- POP- REG	1	1	N/A	0	0	1	N/A	N/A	3												
M-REC- POP- TEA	0	0	N/A	1	0	0	N/A	N/A	1												
M-REC- POP- UND	0	0	N/A	1	2	0	N/A	N/A	3												
O-CAP- DEM-ASI	1	0	N/A	0	0	0	N/A	N/A	1												
O-SKL- DIG	1	0	N/A	0	0	0	N/A	N/A	1												
O-SKL- LEA	1	0	N/A	0	0	0	N/A	N/A	1												
S-FIN	1	1	N/A	0	0	0	N/A	N/A	2												
Total	26	20														21	10	15			91



Continuing	Educat	tion In	novatio	on (12)	1																
	Q1- 1	Q1- 2	Q1- 3	Q2- 1	Q2- 2	Q2- 3	Q2- 4	Q2- 5	Q2- 6	Q3- 2	Q3- 3	Q4- 2	Q5-5 int.	Q5-5 part.	Q5-5 part. eff	Q7- 1	Q7- 2	Q7- 3	Q8- 1	Q8- 2	Total
M-ND- NMC	0	1	0	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	1
F-FUT- CON	0	0	0	0	N/A	0	0	0	0	1	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	1
F-FUT- CON-GRA	0	0	0	0	N/A	0	0	0	0	0	1	0	N/A	0	N/A	N/A	N/A	N/A	0	0	1
F-FUT- CON-INS	0	0	0	0	N/A	0	0	0	0	1	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	1
F-FUT- CON-NFN	0	1	0	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	1
F-FUT- EXP	0	0	0	0	N/A	0	0	0	0	1	0	1	N/A	0	N/A	N/A	N/A	N/A	0	0	2
F-FUT- EXT	0	0	0	0	N/A	0	0	0	0	0	0	0	N/A	1	N/A	N/A	N/A	N/A	0	0	1
F-FUT- STF	0	0	0	0	N/A	0	0	0	0	1	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	1
F-LL-REC	0	0	0	0	N/A	0	0	0	2	1	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	3
F-LL-RET	0	0	0	1	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	1
G-ACC	2	0	0	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	2
G-CAP- DEM-REG	1	0	0	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	1
G-CAP- DEM-RUR	1	1	0	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	2
G-CAP- DEM-SPE	1	0	0	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	1
G-CAP- POP-OTH	1	0	0	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	1
G-CAP- POP-UND	1	0	0	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	1
G-CAP- PRO-ACA	1	1	0	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	2



G-CAP- PRO-CAS	0	1	0	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	1
G-CAP- PRO-MUS	1	1	0	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	2
G-CAP- PRO-SPE	1	0	0	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	1
G-SKL-21L	1	1	0	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	2
G-SKL- CON	1	0	0	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	1
G-SKL- DIG	1	1	0	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	2
G-SKL- ECO	1	0	0	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	1
G-SKL- LEA	1	2	0	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	3
G-SKL- LMS	0	1	0	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	1
G-SKL- SUP	0	1	0	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	1
M-ETO- CER	2	1	0	0	N/A	0	0	0	1	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	4
M-ETO- CNF	3	3	0	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	6
M-ETO- COU	1	1	0	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	2
M-ETO- MEN	0	0	0	0	N/A	0	0	0	0	0	0	0	N/A	2	N/A	N/A	N/A	N/A	0	0	2
M-ETO- OTH	0	1	0	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	1
M-ETO- PRO	1	2	0	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	3
M-ETO- PUB	1	1	0	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	2
M-ETO- WOR	6	6	0	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	12



M-FIN- CTR	1	0	0	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	1
M-FIN- MSC	1	1	0	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	2
M-FIN-SAL	3	3	0	0	N/A	0	0	1	1	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	8
M-FIN- SCH	6	3	0	2	N/A	1	0	0	1	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	12
M-FIN- SCH-PAR	1	1	0	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	2
M-FIN- TRA	2	1	0	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	3
M-ND- CUR	2	3	0	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	5
M-ND- CUR-NEW	2	2	0	0	N/A	0	0	0	2	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	6
M-ND- NMC	1	2	0	0	N/A	0	0	0	4	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	7
M-ND- NMC-MOD	2	2	0	0	N/A	0	0	0	2	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	6
M-ND- PRO	0	1	0	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	1
M-ND- RES-NEW	1	0	0	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	1
M-ND-SHR	1	1	0	0	N/A	0	0	0	1	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	3
M-ND-TEC	1	1	0	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	2
M-ND-TLS	2	0	0	0	N/A	0	1	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	2	0	5
M-ND- WEB	3	6	0	0	N/A	0	0	0	1	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	10
M-ND- WOR	3	2	0	0	N/A	0	0	0	2	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	7



M-PAR- ASC	0	0	0	0	N/A	0	0	0	0	0	0	0	N/A	1	N/A	N/A	N/A	N/A	0	0	1
M-PAR-LIB	0	0	0	0	N/A	0	0	0	0	0	0	0	N/A	1	N/A	N/A	N/A	N/A	0	0	1
M-PAR- ORG	1	1	0	0	N/A	0	0	0	1	0	1	0	N/A	0	N/A	N/A	N/A	N/A	0	0	4
M-PRE- ADV	1	1	0	0	N/A	1	0	0	1	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	4
M-PRE- CON	0	1	0	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	1
M-PRE- NEE	3	0	0	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	3
M-PRE- PAR	1	0	0	0	N/A	0	0	0	1	0	0	0	N/A	1	N/A	N/A	N/A	N/A	0	0	3
M-PRE- RES	1	0	0	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	1
M-REC- MET-PRO- ALA	0	0	0	0	N/A	0	0	0	1	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	1
M-REC- MET-PRO- REG	0	0	0	0	N/A	0	0	0	1	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	1
M-REC- POP-NAT	1	1	0	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	2
M-REC- POP-RUR	1	1	0	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	2
M-REC- POP-URB	1	1	0	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	2
M-TRK- INF	0	0	1	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	1	0	2
M-TRK- SOC	0	0	0	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	1	0	1
M-TRK- SUR	0	0	0	1	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	3	1	5
O-ACC	1	0	0	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	1



O-CAP- POP-KID	0	0	0	0	N/A	0	0	0	1	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	1
O-CAP- POP-UND	1	1	0	0	N/A	0	0	0	1	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	3
O-CAP- PRO-CAS	1	1	0	0	N/A	0	0	0	1	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	3
O-CAR- ADV	0	0	0	0	N/A	0	0	0	1	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	1
O-EFF- STU	0	0	0	1	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	1
O-EFF- SUR	0	0	1	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	1	0	2
O-SKL- DIG	2	0	0	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	2
O-SKL- LEA	2	0	0	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	2
O-SKL- LMS	1	0	0	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	1
O-SKL- OTH	0	0	1	0	N/A	0	0	0	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	1	0	2
S-ADV	0	0	0	0	N/A	1	0	0	1	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	2
S-EMPL	0	0	0	0	N/A	0	0	0	1	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	1
S-FIN	0	0	0	1	N/A	0	0	2	1	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	4
S-FIN-PAR	0	0	0	0	N/A	0	0	1	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	1
S-OJT	0	0	0	0	N/A	0	0	1	0	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	1
S-OTH	0	0	0	0	N/A	0	0	1	1	0	0	0	N/A	0	N/A	N/A	N/A	N/A	0	0	2
S-PAR	1	1	0	0	N/A	0	0	1	2	0	0	0	N/A	1	N/A	N/A	N/A	N/A	0	0	6
Total	80	65	3	6		3	1	7	32	5	2	1		7					9	1	221



Early Care	er Inno	ovation	i (6)																		
	Q1- 1	Q1- 2	Q1- 3	Q2- 1	Q2- 2	Q2- 3	Q2- 4	Q2- 5	Q2- 6	Q3- 2	Q3- 3	Q4- 2	Q5-5 int.	Q5-5 part.	Q5-5 part. eff	Q7- 1	Q7- 2	Q7- 3	Q8- 1	Q8- 2	Total
G-LIB	1	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1										
G-SKL- 21C	0	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1										
M-ETO- CNF	2	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2										
M-ETO- COU	1	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1										
M-ETO- MAT	1	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1										
M-ETO- PUB	3	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3										
M-ETO- WOR	1	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2										
M-FIN- SAL	2	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2										
M-ND- CUR	0	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1										
M-ND- NMC	0	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1										
M-ND- SHR	2	2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4										
M-ND- TLS	1	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2										
M-ND- WEB	1	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2										
O-CAP- PRO- SPE	1	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2										
Total	16	9																			25



Institution	al Capa	acity D	iversit	y (5)																	
	Q1- 1	Q1- 2	Q1- 3	Q2- 1	Q2- 2	Q2- 3	Q2- 4	Q2- 5	Q2- 6	Q3- 2	Q3- 3	Q4- 2	Q5-5 int.	Q5-5 part.	Q5-5 part. eff	Q7- 1	Q7- 2	Q7- 3	Q8- 1	Q8- 2	Total
G-CAP- DEM- AFR	0	0	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	N/A	N/A	1	0	N/A	N/A	N/A	1
G-CAP- POP- UND	0	0	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	N/A	N/A	1	0	N/A	N/A	N/A	1
G-CAP- PRO- CAS	1	1	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	2
G-DIV	0	0	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	N/A	N/A	2	1	N/A	N/A	N/A	3
G-SKL- BRO	1	0	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	1
G-SKL- CON	0	1	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	1
G-SKL- DIG	0	1	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	1
M-ETO- CNF	1	2	N/A	N/A	N/A	N/A	N/A	N/A	1	N/A	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	4
M-ETO- INT	1	0	N/A	N/A	N/A	N/A	N/A	N/A	3	N/A	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	4
M-ETO- MEN	0	0	N/A	N/A	N/A	N/A	N/A	N/A	1	N/A	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	1
M-ETO- PRO	1	0	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	1
M-ETO- PUB	0	0	N/A	N/A	N/A	N/A	N/A	N/A	1	N/A	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	1
M-ETO- WOR	1	1	N/A	N/A	N/A	N/A	N/A	N/A	1	N/A	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	3
M-FIN- TRA	0	0	N/A	N/A	N/A	N/A	N/A	N/A	1	N/A	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	1
M-FIN- SCH	2	0	N/A	N/A	N/A	N/A	N/A	N/A	2	N/A	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	4



M-ND- CUR	0	1	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	1
M-ND- NMC	2	2	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	4
M-ND- SHR	0	1	N/A	N/A	N/A	N/A	N/A	N/A	1	N/A	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	2
M-ND- WEB	0	1	N/A	N/A	N/A	N/A	N/A	N/A	1	N/A	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	2
M-REC- MET- PRO	0	0	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	N/A	N/A	1	0	N/A	N/A	N/A	1
M-REC- POP-AFR	0	0	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	N/A	N/A	0	1	N/A	N/A	N/A	1
M-REC- POP-MIN	0	0	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	N/A	N/A	4	3	N/A	N/A	N/A	7
M-REC- POP- UND	0	0	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	N/A	N/A	2	2	N/A	N/A	N/A	4
O-CAP- PRO- PHD	1	0	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	1
O-DIV	1	0	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	1
Total	12	11	0	0	0	0	0	0	12							11	7				53



Institution	al Capa	acity In	novati	on (6)																	
	Q1- 1	Q1- 2	Q1- 3	Q2- 1	Q2- 2	Q2- 3	Q2- 4	Q2- 5	Q2- 6	Q3- 2	Q3- 3	Q4- 2	Q5-5 int.	Q5-5 part.	Q5-5 part. eff	Q7- 1	Q7- 2	Q7- 3	Q8- 1	Q8- 2	Total
G-SKL- CON	1	1	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2
G-SKL- DIG	0	1	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1
G-SKL- OTH	0	1	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1
M-ETO- CNF	3	2	N/A	N/A	N/A	N/A	N/A	N/A	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6
M-ETO- COU	0	1	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1
M-ETO- INT	2	2	N/A	N/A	N/A	N/A	N/A	N/A	2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6
M-ETO- MAT	1	1	N/A	N/A	N/A	N/A	N/A	N/A	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3
M-ETO- PRO	0	0	N/A	N/A	N/A	N/A	N/A	N/A	2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2
M-ETO- PUB	1	2	N/A	N/A	N/A	N/A	N/A	N/A	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4
M-ETO- WOR	4	3	N/A	N/A	N/A	N/A	N/A	N/A	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	8
M-FIN- SCH	3	0	N/A	N/A	N/A	N/A	N/A	N/A	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4
M-FIN- TRA	1	0	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1
M-ND- CUR	3	2	N/A	N/A	N/A	N/A	N/A	N/A	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6
M-ND- NMC	2	3	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5
M-ND- SHR	1	1	N/A	N/A	N/A	N/A	N/A	N/A	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3
M-ND- WEB	0	2	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2



O-CAP- PRO- MAS	1	0	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	1										
O-CAP- PRO- PHD	1	0	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	1										
Total	24	22																			57



Master's Div	versity	(38)																			
	Q1- 1	Q1- 2	Q1- 3	Q2- 1	Q2- 2	Q2- 3	Q2- 4	Q2- 5	Q2- 6	Q3- 2	Q3- 3	Q4- 2	Q5-5 int.	Q5-5 part.	Q5-5 part. eff	Q7- 1	Q7- 2	Q7- 3	Q8- 1	Q8- 2	Total
F-FUT- CON-INS	N/A	0	0	0	0	0	N/A	0	0	0	1	0	0	0	0	0	0	0	N/A	N/A	1
F-FUT- CON-PAR	N/A	0	1	0	1	0	N/A	0	0	0	1	0	0	0	0	0	0	0	N/A	N/A	3
F-FUT-DIV	N/A	0	0	0	0	0	N/A	0	0	2	0	0	0	0	0	0	0	1	N/A	N/A	3
F-FUT- EMP	N/A	0	1	0	0	0	N/A	0	0	0	0	0	0	0	0	0	0	0	N/A	N/A	1
F-FUT- EXP	N/A	0	0	0	0	0	N/A	0	0	2	0	0	0	0	0	0	0	0	N/A	N/A	2
F-FUT- GRA	N/A	0	0	0	0	0	N/A	0	0	0	2	0	0	0	0	0	0	0	N/A	N/A	2
F-FUT- PRO	N/A	0	0	0	0	0	N/A	0	0	1	0	0	0	0	0	0	0	0	N/A	N/A	1
F-FUT-STF	N/A	0	0	0	0	0	N/A	0	0	1	0	0	0	0	0	0	0	0	N/A	N/A	1
F-FUT- SUS	N/A	0	0	0	0	0	N/A	0	0	3	0	0	0	0	0	0	0	0	N/A	N/A	3
F-LL-COM	N/A	0	0	0	0	0	N/A	0	0	1	0	1	0	0	0	1	0	0	N/A	N/A	3
F-LL-EMP	N/A	0	1	0	0	0	N/A	0	0	0	0	0	0	0	0	0	0	0	N/A	N/A	1
F-LL-REC	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	2	0	2	N/A	N/A	4
F-LL-RET	N/A	0	0	0	0	0	N/A	0	0	1	0	0	0	0	0	0	0	0	N/A	N/A	1
F-LL-TIM	N/A	0	0	0	0	0	N/A	0	0	0	0	1	0	0	0	0	0	1	N/A	N/A	2
F-LL-WOR	N/A	0	0	0	0	0	N/A	0	1	0	0	0	0	1	0	0	0	0	N/A	N/A	2
G-CAP- DEM-AFR	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	0	0	1	N/A	N/A	1
G-CAP- DEM-DIV	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	1	2	0	N/A	N/A	3
G-CAP- DEM-HIS	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	1	1	1	N/A	N/A	3



G-CAP- DEM-NAT	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	0	0	1	N/A	N/A	1
G-CAP- DEM-OTH	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	0	1	0	N/A	N/A	1
G-CAP- DEM-REG	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	1	0	0	N/A	N/A	1
G-CAP- DEM-RUR	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	0	1	0	N/A	N/A	1
G-CAP- DEM-URB	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	0	1	1	N/A	N/A	2
G-CAP- DEM	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	0	0	15	N/A	N/A	15
G-CAP- POP-UND	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	0	2	0	N/A	N/A	2
G-CAP- PRO-ACA	N/A	0	1	0	0	0	N/A	0	0	0	0	0	0	0	0	1	0	0	N/A	N/A	2
G-CAP- PRO-SPE	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	0	1	0	N/A	N/A	1
G-DIV	N/A	1	0	0	0	0	N/A	0	0	0	0	0	0	0	0	4	9	1	N/A	N/A	15
G-LIB	N/A	2	0	0	0	0	N/A	0	0	0	0	0	0	0	0	0	0	0	N/A	N/A	2
G-SKL	N/A	1	0	0	0	0	N/A	0	0	0	0	0	0	0	0	0	0	0	N/A	N/A	1
G-SKL- 21C	N/A	0	0	0	0	0	N/A	0	1	0	0	0	0	0	0	0	0	0	N/A	N/A	1
G-SKL-CIV	N/A	0	0	0	0	0	N/A	1	0	0	0	0	0	0	0	0	0	0	N/A	N/A	1
G-SKL- CON	N/A	1	0	0	0	0	N/A	0	0	0	0	0	0	0	0	0	0	0	N/A	N/A	1
G-SKL-DIG	N/A	2	0	0	0	0	N/A	0	0	0	0	0	0	0	0	0	0	0	N/A	N/A	2
G-SKL- HEA	N/A	1	0	0	0	0	N/A	0	1	0	0	0	0	0	0	0	0	0	N/A	N/A	2
G-SKL- STEM	N/A	0	0	0	0	0	N/A	0	1	0	0	0	0	0	0	0	0	0	N/A	N/A	1
M-ETO- CER	N/A	1	0	0	0	0	N/A	0	1	0	0	0	0	0	0	1	0	0	N/A	N/A	3



M-ETO- CNF	N/A	17	0	1	0	0	N/A	6	17	0	0	0	0	0	0	0	0	0	N/A	N/A	41
M-ETO- COH	N/A	0	0	0	0	0	N/A	0	1	0	0	0	0	0	0	1	0	0	N/A	N/A	2
M-ETO- CON	N/A	0	0	0	0	0	N/A	0	0	1	0	0	0	0	0	0	0	0	N/A	N/A	1
M-ETO- COU	N/A	5	0	0	0	0	N/A	0	3	0	0	0	0	0	0	2	0	0	N/A	N/A	10
M-ETO- CRR	N/A	2	0	0	0	0	N/A	0	0	0	1	0	0	0	0	0	0	0	N/A	N/A	3
M-ETO- INT	N/A	6	1	0	0	0	N/A	2	7	1	0	0	0	1	0	2	0	0	N/A	N/A	20
M-ETO- MAT	N/A	1	0	0	0	0	N/A	0	0	0	0	0	0	0	0	0	0	0	N/A	N/A	1
M-ETO- MEM	N/A	1	1	0	0	0	N/A	3	5	0	0	0	0	0	0	0	0	0	N/A	N/A	10
M-ETO- MEN	N/A	17	0	0	0	0	N/A	3	16	3	0	0	0	0	0	1	0	1	N/A	N/A	41
M-ETO- NET	N/A	2	0	0	0	0	N/A	1	6	0	0	0	0	0	0	0	0	0	N/A	N/A	9
M-ETO- OTH	N/A	3	0	0	0	0	N/A	1	2	0	0	0	0	0	0	0	0	0	N/A	N/A	6
M-ETO- PRO	N/A	9	0	0	0	0	N/A	3	9	0	0	0	0	1	0	1	0	0	N/A	N/A	23
M-ETO- PUB	N/A	4	0	0	0	0	N/A	1	3	0	0	0	0	0	0	0	0	0	N/A	N/A	8
M-ETO- WOR	N/A	12	0	0	0	0	N/A	2	6	0	0	0	0	0	0	1	0	0	N/A	N/A	21
M-FIN	N/A	1	0	0	0	0	N/A	1	0	0	0	0	0	0	0	0	0	0	N/A	N/A	2
M-FIN- MEM	N/A	1	0	0	0	0	N/A	0	1	0	0	0	0	0	0	0	0	0	N/A	N/A	2
M-FIN- MSC	N/A	4	0	0	0	0	N/A	0	4	0	0	0	0	0	0	0	0	0	N/A	N/A	8
M-FIN-SAL	N/A	7	0	0	0	0	N/A	0	8	0	0	0	0	0	0	0	0	0	N/A	N/A	15



M-FIN- SCH	N/A	12	1	0	0	0	N/A	5	10	1	0	0	0	0	0	0	0	0	N/A	N/A	29
M-FIN- SCH-FUL	N/A	7	0	2	0	2	N/A	0	5	0	0	0	0	0	0	0	0	0	N/A	N/A	16
M-FIN- SCH-PAR	N/A	1	0	0	0	2	N/A	0	3	0	0	0	0	0	0	0	0	0	N/A	N/A	6
M-FIN-STP	N/A	5	0	1	0	1	N/A	0	4	0	0	0	0	0	0	0	0	0	N/A	N/A	11
M-FIN-TRA	N/A	10	0	1	0	0	N/A	0	11	0	0	0	0	0	0	0	0	0	N/A	N/A	22
M-ND- CON	N/A	2	0	0	0	0	N/A	0	2	0	0	0	0	0	0	0	0	0	N/A	N/A	4
M-ND-CUR	N/A	5	0	0	0	0	N/A	0	0	0	0	0	0	0	0	1	0	0	N/A	N/A	6
M-ND- CUR-MOD	N/A	1	0	0	0	0	N/A	0	1	0	0	0	0	0	0	0	0	0	N/A	N/A	2
M-ND- CUR-NEW	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	1	0	0	N/A	N/A	1
M-ND-LRN	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	1	0	0	N/A	N/A	1
M-ND- NMC	N/A	7	0	0	0	0	N/A	0	1	0	0	0	0	0	0	0	0	0	N/A	N/A	8
M-ND- NMC-MOD	N/A	0	0	0	0	0	N/A	0	0	0	0	1	0	0	0	0	0	0	N/A	N/A	1
M-ND- NMC-NEW	N/A	0	0	0	0	0	N/A	0	0	0	0	1	0	0	0	2	0	0	N/A	N/A	3
M-ND-PRO	N/A	2	0	0	0	0	N/A	0	0	0	0	0	0	0	0	0	0	0	N/A	N/A	2
M-ND-SHR	N/A	1	0	0	0	0	N/A	0	0	0	0	0	0	0	0	1	0	0	N/A	N/A	2
M-ND-TLS	N/A	4	0	0	0	0	N/A	0	2	0	0	0	0	0	0	0	0	0	N/A	N/A	6



M-ND- WEB	N/A	5	0	0	0	0	N/A	1	0	0	0	0	0	0	0	1	0	0	N/A	N/A	7
M-ND- WOR	N/A	1	0	0	0	0	N/A	0	2	1	0	0	0	0	0	0	0	0	N/A	N/A	4
M-PAR	N/A	0	0	0	0	0	N/A	0	0	0	1	0	0	1	0	0	0	0	N/A	N/A	2
M-PAR- ASC	N/A	1	0	0	0	0	N/A	0	0	0	0	0	0	1	0	0	0	0	N/A	N/A	2
M-PAR- INST	N/A	2	0	0	0	0	N/A	0	2	0	0	0	0	3	0	0	0	0	N/A	N/A	7
M-PAR-LIB	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	5	0	0	0	0	N/A	N/A	5
M-PRE- ADV	N/A	1	0	0	0	0	N/A	0	0	0	0	0	0	0	0	0	0	0	N/A	N/A	1
M-PRE- PAR	N/A	1	0	0	0	0	N/A	0	2	0	0	0	0	0	0	1	0	0	N/A	N/A	4
M-PRE- STU	N/A	0	0	0	0	0	N/A	0	1	0	0	0	0	0	0	1	0	0	N/A	N/A	2
M-REC- MET	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	1	0	0	N/A	N/A	1
M-REC- MET-CON	N/A	1	0	0	0	0	N/A	0	0	0	1	0	0	0	0	7	2	2	N/A	N/A	13
M-REC- MET-FBR	N/A	1	0	0	0	0	N/A	0	0	0	0	0	0	0	0	7	0	0	N/A	N/A	8
M-REC- MET-INT	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	6	0	2	N/A	N/A	8
M-REC- MET-LIB	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	7	0	2	N/A	N/A	9
M-REC- MET-PRO	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	3	0	0	N/A	N/A	3
M-REC- MET-PRO- ALA	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	1	0	1	N/A	N/A	2
M-REC- MET-PRO- FLD	N/A	1	0	0	0	0	N/A	0	0	0	0	0	0	0	0	3	1	1	N/A	N/A	6



M-REC- MET-PRO- MIN	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	0	0	2	N/A	N/A	2
M-REC- MET-PRO- REG	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	1	0	1	N/A	N/A	2
M-REC- MET-PUB	N/A	1	0	0	0	0	N/A	0	0	0	1	0	0	0	0	4	0	1	N/A	N/A	7
M-REC- MET-RAD	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	1	0	0	N/A	N/A	1
M-REC- MET-REC	N/A	1	0	0	0	0	N/A	0	0	0	0	0	0	0	0	6	0	1	N/A	N/A	8
M-REC- MET-TV	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	1	0	0	N/A	N/A	1
M-REC- MET-VIS	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	3	0	3	N/A	N/A	6
M-REC- MET-WEB	N/A	2	0	0	0	0	N/A	0	0	0	1	0	0	0	0	10	1	1	N/A	N/A	15
M-REC- MET-WOM	N/A	2	0	0	0	0	N/A	0	0	0	0	0	0	0	0	6	0	4	N/A	N/A	12
M-REC- POP	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	1	0	0	N/A	N/A	1
M-REC- POP-AFR	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	2	12	1	N/A	N/A	15
M-REC- POP-ASI	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	1	6	1	N/A	N/A	8
M-REC- POP-CAU	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	0	1	1	N/A	N/A	2
M-REC- POP-HIS	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	3	9	3	N/A	N/A	15
M-REC- POP-MEA	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	0	1	0	N/A	N/A	1
M-REC- POP-MEN	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	1	5	1	N/A	N/A	7
M-REC- POP-MIN	N/A	1	0	0	0	0	N/A	0	0	0	0	0	0	0	0	9	23	15	N/A	N/A	48



1																					
M-REC- POP-MUL	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	2	4	3	N/A	N/A	9
M-REC- POP-NAT	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	4	10	3	N/A	N/A	17
M-REC- POP-REG	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	2	4	3	N/A	N/A	9
M-REC- POP-REL	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	0	2	0	N/A	N/A	2
M-REC- POP-RUR	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	1	4	1	N/A	N/A	6
M-REC- POP-SPE	N/A	1	0	0	0	0	N/A	0	0	0	0	0	0	0	0	2	9	1	N/A	N/A	13
M-REC- POP-TEA	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	4	2	1	N/A	N/A	7
M-REC- POP-UND	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	2	3	0	N/A	N/A	5
M-REC- POP-UNI	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	3	3	0	N/A	N/A	6
M-REC- POP-URB	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	1	3	1	N/A	N/A	5
M-TRK- EML	N/A	0	1	2	0	0	N/A	0	0	0	0	0	0	0	0	0	0	0	N/A	N/A	3
M-TRK-INF	N/A	0	3	7	0	0	N/A	0	0	0	0	0	0	0	0	0	0	0	N/A	N/A	10
M-TRK- SOC	N/A	0	1	0	0	0	N/A	0	0	0	0	0	0	0	0	0	0	0	N/A	N/A	1
M-TRK- SUR	N/A	0	0	1	0	0	N/A	0	0	0	0	0	0	0	0	0	0	0	N/A	N/A	1
ME-REC- POP-TEA	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	1	0	0	N/A	N/A	1
O-ACC	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	1	0	0	0	0	N/A	N/A	1
O-ADM	N/A	0	0	0	0	0	N/A	0	0	1	0	1	0	0	0	0	0	0	N/A	N/A	2
O-CAP- DEM-AFR	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	2	0	1	N/A	N/A	3



							1						1								
O-CAP- DEM-ASI	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	2	0	0	N/A	N/A	2
O-CAP- DEM-NAT	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	1	0	0	N/A	N/A	1
O-CAP- DEM-OTH	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	1	1	0	N/A	N/A	2
O-CAP- DEM-REG	N/A	0	1	0	0	0	N/A	0	0	0	0	0	0	0	0	0	1	0	N/A	N/A	2
O-CAP- DEM-RUR	N/A	0	1	0	0	0	N/A	1	0	0	0	0	0	0	0	0	0	0	N/A	N/A	2
O-CAP- DEM-URB	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	0	1	0	N/A	N/A	1
O-CAP- POP-KID	N/A	2	1	0	0	0	N/A	0	1	0	0	0	0	0	0	0	0	0	N/A	N/A	4
O-CAP- PRO-ACA	N/A	0	1	0	0	0	N/A	2	0	0	0	0	0	0	0	0	0	0	N/A	N/A	3
O-CAP- PRO-MAS	N/A	0	4	0	0	0	N/A	1	0	0	0	0	0	0	0	0	0	0	N/A	N/A	5
O-CAP- PRO-RPL	N/A	0	1	1	0	0	N/A	0	0	0	0	0	0	0	0	0	0	0	N/A	N/A	2
O-CAR	N/A	0	1	0	0	0	N/A	0	0	0	0	0	0	0	0	0	0	0	N/A	N/A	1
O-CAR- ADV	N/A	0	3	0	0	0	N/A	0	1	0	0	0	0	1	0	0	0	0	N/A	N/A	5
O-CAR- IMP	N/A	0	1	0	0	0	N/A	1	0	0	0	0	0	0	0	0	0	0	N/A	N/A	2
O-CAR- NEW	N/A	0	3	0	0	0	N/A	0	0	0	0	0	0	1	0	0	0	0	N/A	N/A	4
O-DIV	N/A	0	0	0	0	0	N/A	2	0	0	0	0	0	1	0	3	0	17	N/A	N/A	23
O-EFF-INF	N/A	0	1	0	0	0	N/A	0	0	0	0	0	0	0	0	0	0	0	N/A	N/A	1
O-EFF- PLA	N/A	0	0	1	0	0	N/A	0	0	0	0	0	0	0	1	0	0	0	N/A	N/A	2
O-EFF- STU	N/A	0	1	0	0	0	N/A	0	0	0	0	0	0	0	1	0	0	0	N/A	N/A	2



O-EFF- SUR	N/A	0	0	0	0	0	N/A	0	0	0	0	0	0	0	1	0	0	0	N/A	N/A	1
O-LIB	N/A	0	1	0	0	0	N/A	1	0	0	0	0	0	0	0	0	1	0	N/A	N/A	3
O-M-ETO- CNF	N/A	2	0	0	0	0	N/A	0	1	0	0	0	0	0	0	0	0	0	N/A	N/A	3
O-M-ETO- CRR	N/A	1	0	0	0	0	N/A	0	0	0	1	0	0	0	0	0	0	0	N/A	N/A	2
O-M-ETO- MEN	N/A	2	0	0	0	0	N/A	0	2	0	0	0	0	0	0	0	0	0	N/A	N/A	4
O-M-ETO- NTW	N/A	1	0	0	0	0	N/A	0	0	0	0	0	0	0	0	0	0	0	N/A	N/A	1
O-M-ETO- PRO	N/A	1	0	0	0	0	N/A	0	0	0	0	0	0	0	0	0	0	0	N/A	N/A	1
O-M-ETO- WOR	N/A	1	0	0	0	0	N/A	0	1	0	0	0	0	0	0	0	0	0	N/A	N/A	2
O-M-ND- WEB	N/A	1	0	0	0	0	N/A	0	0	0	0	0	0	0	0	0	0	0	N/A	N/A	1
O-M-REC- MET-WOM	N/A	1	0	0	0	0	N/A	0	0	0	0	0	0	0	0	1	0	0	N/A	N/A	2
O-REC	N/A	3	0	0	0	0	N/A	0	2	0	0	0	0	0	0	0	0	2	N/A	N/A	7
O-SKL	N/A	0	0	0	0	0	N/A	1	0	0	0	0	0	0	0	0	0	0	N/A	N/A	1
O-SKL-21L	N/A	0	0	0	0	0	N/A	1	0	0	0	0	0	0	0	0	0	0	N/A	N/A	1
O-SKL-DIG	N/A	0	0	0	0	0	N/A	1	0	0	0	0	0	0	0	0	0	0	N/A	N/A	1
O-SKL- EAR	N/A	1	0	0	0	0	N/A	0	1	0	0	0	0	0	0	0	0	0	N/A	N/A	2
O-SKL- LEA	N/A	0	0	0	0	0	N/A	0	1	0	0	0	0	0	0	0	0	0	N/A	N/A	1
O-SKL- LMS	N/A	0	2	0	0	0	N/A	1	1	0	0	0	0	0	0	0	0	0	N/A	N/A	4
O-SKL- REC	N/A	0	0	0	0	0	N/A	1	0	0	0	0	0	0	0	0	0	0	N/A	N/A	1
S-COH	N/A	0	0	0	0	0	N/A	4	0	0	0	0	0	1	0	0	0	1	N/A	N/A	6
S-FIN	N/A	0	0	0	0	0	N/A	10	0	0	0	0	0	0	0	0	0	1	N/A	N/A	11



S-FIN-FUL	N/A	3	0	1	0	0	N/A	1	2	0	0	0	0	0	0	0	0	0	N/A	N/A	7
S-FIN-PAR	N/A	1	0	0	0	0	N/A	0	0	0	0	0	0	0	0	0	0	0	N/A	N/A	1
S-FIN-STI	N/A	1	0	0	0	0	N/A	0	0	0	0	0	0	0	0	0	0	0	N/A	N/A	1
S-JOB	N/A	0	20	0	0	0	N/A	1	1	0	0	0	0	0	0	0	0	0	N/A	N/A	22
S-MEN	N/A	2	0	0	0	0	N/A	8	6	0	0	0	0	0	0	1	0	1	N/A	N/A	18
S-MEN- MTC	N/A	1	0	0	0	0	N/A	1	1	0	0	0	0	0	0	0	0	0	N/A	N/A	3
S-OJT	N/A	0	0	0	0	0	N/A	10	1	0	0	0	0	0	0	1	0	1	N/A	N/A	13
S-OTH	N/A	0	0	0	0	0	N/A	6	0	0	0	0	0	0	0	0	0	0	N/A	N/A	6
S-PAR	N/A	0	0	0	0	0	N/A	2	0	0	0	0	0	0	0	0	0	1	N/A	N/A	3
S-TEC	N/A	0	0	0	0	0	N/A	3	2	0	0	0	0	0	0	0	0	0	N/A	N/A	5
Total		204	54	18	1	5		89	163	19	10	5	0	18	3	147	127	106			969



Master's Ir	nnovati	on (14)																		
	Q1- 1	Q1- 2	Q1- 3	Q2- 1	Q2- 2	Q2- 3	Q2- 4	Q2- 5	Q2- 6	Q3- 2	Q3- 3	Q4- 2	Q5-5 int.	Q5-5 part.	Q5-5 part. eff	Q7- 1	Q7- 2	Q7- 3	Q8- 1	Q8- 2	Total
G-SKL- BRO	1	0	0	0	N/A	N/A	N/A	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1
G-SKL- RES	1	0	0	0	N/A	N/A	N/A	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1
M-ETO- CER	1	0	0	0	N/A	N/A	N/A	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1
M-ETO- CNF	11	1	0	0	N/A	N/A	N/A	0	5	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	17
M-ETO- COU	4	2	0	0	N/A	N/A	N/A	0	2	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	8
M-ETO- INT	6	4	0	0	N/A	N/A	N/A	1	1	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	13
M-ETO- MAT	5	2	0	0	N/A	N/A	N/A	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	7
M-ETO- MEM	2	0	0	0	N/A	N/A	N/A	1	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3
M-ETO- MEN	11	4	0	0	N/A	N/A	N/A	2	2	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	19
M-ETO- OTH	1	1	0	0	N/A	N/A	N/A	0	1	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3
M-ETO- PRO	3	0	0	0	N/A	N/A	N/A	1	6	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10
M-ETO- PUB	2	2	0	0	N/A	N/A	N/A	0	1	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5
M-ETO- WOR	6	5	0	0	N/A	N/A	N/A	0	3	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	14
M-FIN	0	0	0	0	N/A	N/A	N/A	1	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1
M-FIN- SAL	1	0	0	0	N/A	N/A	N/A	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1
M-FIN- SCH	14	0	1	0	N/A	N/A	N/A	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	15



CUR 2 3 0 0 N/A N/A N/A 0 0 0 N/A	r								1	r	r		r	1			r	1	1	r		
NMC 1 1 0 0 N/A N/A 0 0 0 N/A	M-ND- CUR	2	3	0	0	N/A	N/A	N/A	0	0	0	N/A	5									
NNC- NEW 0 0 0 0 N/A N/A N/A 0 0 1 N/A		1	1	0	0	N/A	N/A	N/A	0	0	0	N/A	2									
SHR 0 0 0 0 N/A	NMC-	0	0	0	0	N/A	N/A	N/A	0	0	1	N/A	1									
TLS 0 2 0 0 N/A N/A N/A 0 0 0 N/A		0	0	0	0	N/A	N/A	N/A	0	1	0	N/A	1									
WEB 1 2 0 0 N/A		0	2	0	0	N/A	N/A	N/A	0	0	0	N/A	2									
INF 0 0 0 1 N/A N/A N/A 0 0 0 N/A		1	2	0	0	N/A	N/A	N/A	0	0	0	N/A	3									
PRO- MAS 0 0 0 N/A N/A N/A 1 0 0 N/A		0	0	0	1	N/A	N/A	N/A	0	0	0	N/A	1									
O-CAR- NEW 0 0 0 1 N/A N/A N/A 0 0 0 N/A	PRO-	0	0	0	0	N/A	N/A	N/A	1	0	0	N/A	1									
NEW 0 0 0 1 N/A	O-CAR	0	0	1	0	N/A	N/A	N/A	0	0	0	N/A	1									
O-SKL- CIV 1 0 0 0 N/A N/A 0 0 0 N/A		0	0	0	1	N/A	N/A	N/A	0	0	0	N/A	1									
CIV 1 0 0 0 N/A N/A N/A 0 0 0 N/A	O-SKL	0	0	0	0	N/A	N/A	N/A	0	1	0	N/A	1									
DIG 0 0 0 0 N/A N/A N/A 0 1 0 N/A		1	0	0	0	N/A	N/A	N/A	0	0	0	N/A	1									
RES 0 0 0 0 0 N/A N/A N/A 0 1 0 N/A N/		0	0	0	0	N/A	N/A	N/A	0	1	0	N/A	1									
S-MEN 0 0 0 0 N/A N/A N/A 1 0 N/A N/A N/A N/A N/A N/A N/A N/A S-0 N/A Solution Soluti		0	0	0	0	N/A	N/A	N/A	0	1	0	N/A	1									
S-OJT 0 0 0 N/A N/A N/A 5 0 0 N/A	S-JOB	0	0	15	0	N/A	N/A	N/A	0	0	0	N/A	15									
S-OTH 0 0 0 0 N/A N/A N/A 4 0 0 N/A	S-MEN	0	0	0	0	N/A	N/A	N/A	4	1	0	N/A	5									
	S-OJT	0	0	0	0	N/A	N/A	N/A	5	0	0	N/A	5									
Total 74 29 17 2 20 26 2 17 17 170	S-OTH	0	0	0	0	N/A	N/A	N/A	4	0	0	N/A	4									
	Total	74	29	17	2				20	26	2											170



PhD Diver	sity (4)																				
	Q1- 1	Q1- 2	Q1- 3	Q2- 1	Q2- 2	Q2- 3	Q2- 4	Q2- 5	Q2- 6	Q3- 2	Q3- 3	Q4- 2	Q5-5 int.	Q5-5 part.	Q5-5 part. eff	Q7- 1	Q7- 2	Q7- 3	Q8- 1	Q8- 2	Total
F-FUT- GRA	0	1	0	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	N/A	N/A	1
G-CAP- DEM-DIV	1	0	0	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	N/A	N/A	1
G-CAP- POP- OTH	1	0	0	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	N/A	N/A	1
G-DIV	0	0	0	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	0	4	0	N/A	N/A	4
G-SKL- DIG	0	1	0	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	N/A	N/A	1
G-SKL- RES	4	0	0	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	N/A	N/A	4
M-ETO- CNF	4	0	0	N/A	N/A	N/A	N/A	3	1	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	N/A	N/A	8
M-ETO- INT	4	0	0	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	N/A	N/A	4
M-ETO- MEN	4	1	0	N/A	N/A	N/A	N/A	0	1	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	N/A	N/A	6
M-ETO- OTH	1	0	0	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	N/A	N/A	1
M-ETO- PRO	0	1	0	N/A	N/A	N/A	N/A	1	0	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	N/A	N/A	2
M-ETO- PUB	3	0	0	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	N/A	N/A	3
M-FIN- SCH	1	0	0	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	N/A	N/A	1
M-FIN- TRA	2	0	0	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	N/A	N/A	2
M-ND- CUR	0	1	0	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	N/A	N/A	1



M-ND- NMC	0	4	0	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	N/A	N/A	4
M-ND- SHR	0	1	0	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	N/A	N/A	1
M-ND- TLS	1	0	0	N/A	N/A	N/A	N/A	1	0	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	N/A	N/A	2
M-ND- WEB	1	2	0	N/A	N/A	N/A	N/A	1	0	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	N/A	N/A	4
M-REC- POP-AFR	0	0	0	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	2	2	0	N/A	N/A	4
M-REC- POP-MIN	0	0	0	N/A	N/A	N/A	N/A	1	1	N/A	N/A	N/A	N/A	N/A	N/A	4	3	0	N/A	N/A	9
M-REC- POP-SPE	0	0	0	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	0	1	0	N/A	N/A	1
M-REC- POP- UND	0	0	0	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	2	4	0	N/A	N/A	6
O-ACC	1	0	0	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	N/A	N/A	1
O-CAP- PRO- ACA	0	0	1	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	N/A	N/A	1
O-DIV	0	0	0	N/A	N/A	N/A	N/A	1	1	N/A	N/A	N/A	N/A	N/A	N/A	0	0	4	N/A	N/A	6
O-SKL	1	0	0	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	N/A	N/A	1
O-SKL- BRO	0	1	0	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	N/A	N/A	1
O-SKL- RES	0	0	0	N/A	N/A	N/A	N/A	1	2	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	N/A	N/A	3
S-MEN	0	0	0	N/A	N/A	N/A	N/A	2	0	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	N/A	N/A	2
S-OJT	0	0	0	N/A	N/A	N/A	N/A	2	1	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	N/A	N/A	3
Total	29	13	1					13	7							8	14	4			89



PhD Innov	vation (8)																			
	Q1- 1	Q1- 2	Q1- 3	Q2- 1	Q2- 2	Q2- 3	Q2- 4	Q2- 5	Q2- 6	Q3- 2	Q3- 3	Q4- 2	Q5-5 int.	Q5-5 part.	Q5-5 part. eff	Q7- 1	Q7- 2	Q7- 3	Q8- 1	Q8- 2	Total
G-SKL- CON	0	1	0	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1
G-SKL- DIG	1	0	0	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1
G-SKL- RES	5	0	0	N/A	N/A	N/A	N/A	0	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6
M-ETO- CNF	8	7	0	N/A	N/A	N/A	N/A	1	3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	19
M-ETO- INT	6	0	0	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6
M-ETO- MAT	1	0	0	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1
M-ETO- MEN	4	0	0	N/A	N/A	N/A	N/A	1	2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	7
M-ETO- PRO	1	0	0	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1
M-ETO- PUB	5	0	0	N/A	N/A	N/A	N/A	2	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	8
M-ETO- WOR	4	2	0	N/A	N/A	N/A	N/A	0	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	7
M-FIN	0	0	0	N/A	N/A	N/A	N/A	1	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1
M-FIN- MSC	1	0	0	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1
M-FIN- SAL	1	0	0	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1
M-FIN- SCH	3	0	0	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3
M-FIN- TRA	3	0	0	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3
M-ND- CUR	0	0	0	N/A	N/A	N/A	N/A	0	2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2



M-ND- NMC	1	6	0	N/A	N/A	N/A	N/A	0	0	N/A	7										
M-ND- SHR	1	2	0	N/A	N/A	N/A	N/A	1	0	N/A	4										
M-ND- TLS	1	2	0	N/A	N/A	N/A	N/A	0	0	N/A	3										
M-ND- WEB	0	1	0	N/A	N/A	N/A	N/A	0	1	N/A	2										
M-PRE- NEE	1	0	0	N/A	N/A	N/A	N/A	0	0	N/A	1										
O-CAP- POP- OTH	0	1	0	N/A	N/A	N/A	N/A	0	0	N/A	1										
O-CAP- POP- UND	0	3	0	N/A	N/A	N/A	N/A	0	0	N/A	3										
O-CAP- PRO- PHD	0	0	1	N/A	N/A	N/A	N/A	0	0	N/A	1										
O-SKL- DIG	1	0	0	N/A	N/A	N/A	N/A	0	0	N/A	1										
O-SKL- OTH	0	0	0	N/A	N/A	N/A	N/A	0	2	N/A	2										
O-SKL- RES	0	0	0	N/A	N/A	N/A	N/A	1	2	N/A	3										
S-FIN	0	0	0	N/A	N/A	N/A	N/A	2	1	N/A	3										
S-JOB	0	0	1	N/A	N/A	N/A	N/A	0	0	N/A	1										
S-MEN	0	0	0	N/A	N/A	N/A	N/A	1	0	N/A	1										
S-OJT	0	0	0	N/A	N/A	N/A	N/A	2	2	N/A	4										
Total	48	25	2					12	18												105



Research F	Project	s (8)																			
	Q1- 1	Q1- 2	Q1- 3	Q2- 1	Q2- 2	Q2- 3	Q2- 4	Q2- 5	Q2- 6	Q3- 2	Q3- 3	Q4- 2	Q5-5 int.	Q5-5 part	Q5-5 part eff	Q7- 1	Q7- 2	Q7- 3	Q8- 1	Q8- 2	Total
G-ACC	1	0	N/A	N/A	N/A	0	0	N/A	N/A	N/A	1										
G-CAP- DEM-DIV	0	0	N/A	N/A	N/A	1	0	N/A	N/A	N/A	1										
G-CAP- DEM- REG	1	1	N/A	N/A	N/A	0	0	N/A	N/A	N/A	2										
G-CAP- POP-KID	1	1	N/A	N/A	N/A	0	0	N/A	N/A	N/A	2										
G-CAP- PRO-CAS	2	1	N/A	N/A	N/A	0	0	N/A	N/A	N/A	3										
G-CAP- DEM- AFRI	0	0	N/A	N/A	N/A	1	0	N/A	N/A	N/A	1										
G-CAP- DEM-NAT	0	0	N/A	N/A	N/A	1	0	N/A	N/A	N/A	1										
G-DIV	0	0	N/A	N/A	N/A	1	1	N/A	N/A	N/A	2										
G-REC	0	1	N/A	N/A	N/A	0	0	N/A	N/A	N/A	1										
G-SKL- EAR	1	1	N/A	N/A	N/A	0	0	N/A	N/A	N/A	2										
G-SKL- RES	4	2	N/A	N/A	N/A	0	0	N/A	N/A	N/A	6										
M-ETO- COU	0	1	N/A	N/A	N/A	0	0	N/A	N/A	N/A	1										
M-ETO- PUB	1	0	N/A	N/A	N/A	0	0	N/A	N/A	N/A	1										
M-ETO- WOR	1	0	N/A	N/A	N/A	0	0	N/A	N/A	N/A	1										
M-FIN- SCH	0	1	N/A	N/A	N/A	0	0	N/A	N/A	N/A	1										
M-ND- CUR	2	1	N/A	N/A	N/A	0	0	N/A	N/A	N/A	3										



M-ND- NMC	0	1	N/A	0	0	N/A	N/A	N/A	1												
M-ND- SHR	1	1	N/A	0	0	N/A	N/A	N/A	2												
M-ND- TEC	1	0	N/A	0	0	N/A	N/A	N/A	1												
M-ND- TLS	4	4	N/A	0	0	N/A	N/A	N/A	8												
M-ND- WEB	1	0	N/A	0	0	N/A	N/A	N/A	1												
M-REC- POP-AFR	0	0	N/A	1	2	N/A	N/A	N/A	3												
M-REC- POP-HIS	0	0	N/A	0	1	N/A	N/A	N/A	1												
M-REC- POP-NAT	0	0	N/A	0	1	N/A	N/A	N/A	1												
M-REC- POP- UND	0	0	N/A	1	1	N/A	N/A	N/A	2												
Total	21	16														6	6				49