September 21, 2000

Memorandum

To: All NPS Curators

From: Leader, NPS Training and Development Team

Subject: Report on Results of Cultural Resources Stewardship Training Needs Assessment for Curators

From March through May of 2000, the National Park Service, in partnership with the Center for Recreation Resources Policy at George Mason University, Manassas, Virginia, conducted a Servicewide Training Needs Assessment for your occupational group. The survey questionnaire that you completed focused on the essential competencies for your performance level.

The attached report provides the results of the survey in both discussion and table format. It provides the project's background, the survey's methodology (including study population, survey instrument development, data collection, response rate, and data analyses), the demographic profile of the survey respondents, and the academic degrees held by the respondents. Most importantly, the report discusses:

- the essential competencies identified as most important
- the essential competencies identified as least important
- the gaps in essential competencies preparedness

Thank you for taking time to complete and submit the survey questionnaire. I encourage you to read this report. Please share it with your supervisor. The results of this survey will be used to develop and implement a training curriculum for your occupational group.

Please direct your questions or comments regarding this report to Dr. Brett Wright, George Mason University Project Director at (703) 993-2064, or Tony Knapp, Cultural Resources Stewardship Training Manager, Stephen T. Mather Training Center Project Coordinator at (304) 535-6178.

Edward D. Carlin

Attachment
NATIONAL PARK SERVICE
Cultural Resources Stewardship Training Needs Assessment

FINAL REPORT

CURATOR TRACK

Grant-Kohrs National Historic Site (NHS), Deer Lodge, Montana.
Lower yard from slough looking east, 1998.

STEPHEN T. MATHER TRAINING CENTER
National Park Service

CENTER FOR RECREATION RESOURCES POLICY
George Mason University
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NATIONAL PARK SERVICE

Cultural Resources Stewardship Career Field

FINAL REPORT

Training Needs Assessment

Curator Track

BACKGROUND

In 1993, the Government Performance and Results Act (GPRA, 1993) was passed and signed into law. This legislation mandated that the actions of federal agencies be guided through the establishment of concrete goals and measured by performance evaluation.

The following year, the National Leadership Council of the National Park Service (NPS), as its first formal action, approved and adopted the NPS Employee Training and Development Strategy. This Strategy, commensurate with the spirit of GPRA, implemented a competency-based approach to training for all employees Servicewide. Its stated mission is to provide for the professional growth and continuous learning of all NPS employees, by providing them with a comprehensive, mission-focused training and development program (NPS, 1995).

Furthermore, the Government Education and Training Act (GETA), enacted in 1958, requires agencies to conduct training needs assessments in order to provide a realistic basis upon which to plan, program and direct training and development activities toward the achievement of organizational and program goals. As a result, the NPS Stephen T. Mather Training Center entered into a cooperative agreement with the Center for Recreation Resources Policy at George Mason University in 1994 to conduct a training needs assessment for the Interpretation career field (Wright and Makay, 1995).

With the growing momentum of the Strategy, teams of employees and training managers, representing 17 different career fields, began the arduous task of compiling and documenting the "essential competencies" required to guide the professional development of NPS employees, in 225 occupational groups, for the next 10 years. The results of this effort are documented in the NPS Employee Training and Development Career Planning and Tracking Kit.

To begin establishing a baseline of data depicting needs and levels of current performance, the National Park Service, Stephen T. Mather Training Center, entered into an agreement with George Mason University, Center for Recreation Resources Policy, to conduct formal training needs assessments for employees in or associated with the Cultural Resources Stewardship Career Field.

The purpose of this report is to document the procedures and findings associated with the assessment of training needs for Curators. More specifically, this study was designed to accomplish the following objectives:
1. To determine the perceptions of Curators regarding the importance of each of the essential competencies outlined in the NPS Employee Training and Development Career Planning and Tracking Kit.

2. To determine the perceptions of Curators regarding their level of preparedness to perform each essential competency.

3. To diagnostically assess the gaps in existing training, given the importance assigned to competencies and the general level of preparedness to perform critical tasks.

4. To compare the perceptions of employees and their first-line supervisors regarding training needs.

METHODS

Study Population. Given the relatively small number of employees in the Cultural Resources Stewardship Career Field, particularly in some occupational fields (e.g., 15 Museum Conservators), a decision was made to include the total population of employees, rather than survey a proportional sample. Four Entry Level Curators, 74 Developmental Level Curators, and 50 Full Performance Level Curators, in NPS parks, offices, and centers were asked to participate in this study.

Development of the Survey Instrument. Essential competencies identified for Curators were integrated into a mail survey instrument. These competencies, in addition to demographic data pertinent to National Park Service employees, formed the basis for the questionnaire. Respondents were asked to indicate their perceptions of how important essential competencies were to the performance of their present jobs (1 = Not Important, 7 = Extremely Important). Then, given the same list of competencies, they were asked to rate their preparation to perform those tasks (1 = Unprepared, 7 = Fully Competent). A copy of each survey instrument is included as Appendix A-1, A-3, A-5, A-7, and A-9.

Data Collection. Following standard procedures of social science and survey research, a cover letter, questionnaire, and self-addressed, business reply envelope, were mailed to each of the Curators in March 2000. They were asked to complete the questionnaire during their workday, as part of their official duties. Approximately four weeks later, those persons who had not responded to the initial mailing were mailed a follow up letter and questionnaire requesting that they complete the questionnaire and return it as soon as possible.

Study participants also were sent a separate questionnaire and cover letter and asked to give it to their first-line supervisor to complete and return. Because some supervisors were responsible for supervising more than one employee, the total population of supervisors is not known. Therefore, no response rate for supervisors will be reported. Data collected from supervisors are reported as an aggregate and used for comparative purposes only.

Response Rates. At the end of the data collection period, a total of 4 questionnaires for Entry Level Curators, 58 questionnaires for Developmental Level Curators, and 43 questionnaires for Full Performance Level Curators had been returned. Unlike surveys of the general
population, there were no questionnaires returned as “undeliverable.” Therefore, the effective response rate for this study was as follows:

- Entry Level = 100%
- Developmental Level = 78%
- Full Performance Level = 86%

Data Analyses. Data were analyzed using the Statistical Package for the Social Sciences (SPSS), a popular software program utilized by social and behavioral scientists. Standard frequency distributions were computed for both the importance assigned to, and ability to perform each of the essential competencies.

Moreover, these statistics were combined to identify "training gaps" through a simple Importance-Performance, or gap analysis. For example, competencies in which employees perceived themselves to be unprepared to perform can be viewed relative to their perceived importance to the employees' successful job performance. Competencies experiencing the largest "gaps" (i.e., Competency minus Importance) should receive greater emphasis when planning training. Treatment of the importance and competency (performance) data using Importance-Compeency (I-C), or gap analysis, is similar to procedures reported first by Martilla and James (1977). The results are presented in the discussion, table, and figure below.

RESULTS AND DISCUSSION

CURATORS – ENTRY LEVEL

Profile of Respondents. Two respondents were male and two respondents were female. The average age of respondents was 44 years of age. On average, respondents had completed 17.3 years of formal education. See Appendix A-2 for information pertaining to academic degrees held by Entry Level Curators.

Most respondents were White (75%) and a majority held the rank of GS-7; however, one respondent was a GS-5 and one was a GS-9. They had been employed by the National Park Service for 11.5 years; but they had been in their current positions for only 4 years.

Importance of Competencies. As can be seen in Table 1, respondents rated 15 different competencies as having the greatest importance to them in their current positions. Each of these competencies received a mean importance rating of 5.75 or higher on the 7-point scale. They were:

(Q1) Thorough knowledge of principles, practices, and philosophy of the museum profession.

(Q6) Knowledge of the mission and objectives of the museum management program of the NPS.

(Q8) Intermediate knowledge of NPS cultural and natural resource management policies and the Secretary of the Interior's Standards.
(Q9) Knowledge of NPS cultural and natural resource inventories and their use in the management of cultural and natural resources.

(Q10) Knowledge of museum collecting policies.

(Q11) Ability to implement an approved collecting policy by evaluating museum collections.

(Q24) Advanced knowledge of computerized cataloging and other museum recordkeeping systems and techniques.

(Q25) Advanced computer skills, including use of database management systems and NPS collections documentation systems.

(Q27) Thorough knowledge of collections preservation principles and techniques (e.g., agents of deterioration and housekeeping techniques).

(Q29) Thorough knowledge of museum collection storage techniques and practices.

(Q30) Ability to safely pack and ship museum collections.

(Q31) Ability to recognize objects needing conservation treatment and to recommend and refer treatment to the appropriate facility.

(Q32) Thorough knowledge of museum protection systems, procedures, and practices.

(Q33) Ability to manage a museum program and to solve problems in innovative as well as traditional ways.

(Q37) Ability to prepare clear, concise reports documenting and evaluating collections management issues and making recommendations for the resolution of issues.

Four items were rated as being relatively unimportant (i.e., less than 4.0). They were:

(Q13) Ability to produce finding aids and other access tools to aid researchers.

(Q14) Working knowledge of exhibit development and production.

(Q15) Ability to review concept plans, specifications, and plans for exhibit production.

(Q16) Knowledge of museum education practices.
Perceived Level of Competency. Overall, respondents did not appear to feel highly competent in the competencies posed to them. None of the 42 competencies was rated as 5.75 or higher on the 7-point scale. On the other hand, respondents indicated they were not well prepared to address seven competencies, rating them less than 4.0 on the 7-point scale. They were:

(Q7) Intermediate knowledge of historic preservation and natural resource stewardship history and philosophy.

(Q12) Basic knowledge of intellectual property legislation and NPS policies relating to museum collections (e.g., copyright).

(Q14) Working knowledge of exhibit development and production.

(Q15) Ability to review concept plans, specifications, and plans for exhibit production.

(Q34) Knowledge of basic supervisory practices, including personnel management policies and procedures, and skill in motivating a professional and technical staff.

(Q35) Ability to prepare scopes of work for procurement of professional services.

(Q36) Ability to prepare scopes of work for cooperative agreements to accomplish collections management goals.

Gaps in Cultural Resource Stewardship Training. Table 1 provides a ranking of essential competencies producing the largest “I-C gaps” within this occupational group. They were, in order of magnitude:

(Q1) Thorough knowledge of principles, practices, and philosophy of the museum profession.

(Q7) Intermediate knowledge of historic preservation and natural resource stewardship history and philosophy.

(Q29) Thorough knowledge of museum collection storage techniques and practices.

(Q35) Ability to prepare scopes of work for procurement of professional services.

(Q36) Ability to prepare scopes of work for cooperative agreements to accomplish collections management goals.

(Q37) Ability to prepare clear, concise reports documenting and evaluating collections management issues and making recommendations for the resolution of issues.
(Q27) Thorough knowledge of collections preservation principles and techniques (e.g. agents of deterioration and housekeeping techniques).

(Q30) Ability to safely pack and ship museum collections.

(Q31) Ability to recognize objects needing conservation treatment and to recommend and refer treatment to the appropriate facility.

(Q34) Knowledge of basic supervisory practices, including personnel management policies and procedures, and skill in motivating a professional and technical staff.

(Q8) Intermediate knowledge of NPS cultural and natural resource management policies and the Secretary of the Interior’s Standards.

(Q38) Ability to write analytical documentation on a variety of aspects of the collection.

Each of these competencies produced a gap in excess of 1.0.

Only seven competencies produced positive gaps where the relative importance was exceeded by the perceived level of preparedness. They were:

(Q21) Good working knowledge of legal standards for documentation of collections.

(Q22) Ability to develop scopes of work for appraisal, cataloging, and other documentation activities.

(Q23) Ability to develop and conduct inventory control procedures.

(Q5) Knowledge of North American material culture, American history, or natural resources.

(Q16) Knowledge of museum education practices.

(Q20) Thorough knowledge of full range of museum documentation practices and procedures, including registration, cataloging, loans, and inventory control.

(Q13) Ability to produce finding aids and other access tools to aid researchers.

Figure 1 presents a graphic depiction of the gaps between importance and competency assigned to each item.

Perceptions of First-Line Supervisors. There was very little agreement between employees and first-line supervisors regarding the magnitude of training needs of this occupational group. First-
line supervisors rated 38 of the 42 competencies as having gaps of 1.0 or greater; 18 competencies produced gaps of 2.0 or greater. It would appear that supervisors believe that Entry Level Curators need substantial training in almost all competencies.
<table>
<thead>
<tr>
<th>ITEMS RATED/QUESTIONS</th>
<th>MEAN IMPORTANCE</th>
<th>STANDARD DEVIATION</th>
<th>MEAN COMPETENCY</th>
<th>STANDARD DEVIATION</th>
<th>(I - C) GAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1. Thorough knowledge of principles, practices, and philosophy of the museum profession.</td>
<td>6.000</td>
<td>0.817</td>
<td>4.250</td>
<td>1.500</td>
<td>-1.750</td>
</tr>
<tr>
<td>Q7. Intermediate knowledge of historic preservation and natural resource stewardship history and philosophy.</td>
<td>5.250</td>
<td>0.500</td>
<td>3.500</td>
<td>1.732</td>
<td>-1.750</td>
</tr>
<tr>
<td>Q29. Thorough knowledge of museum collection storage techniques and practices.</td>
<td>5.750</td>
<td>1.500</td>
<td>4.250</td>
<td>2.217</td>
<td>-1.500</td>
</tr>
<tr>
<td>Q35. Ability to prepare scopes of work for procurement of professional services.</td>
<td>5.250</td>
<td>2.062</td>
<td>3.750</td>
<td>2.754</td>
<td>-1.500</td>
</tr>
<tr>
<td>Q36. Ability to prepare scopes of work for cooperative agreements to accomplish collections management goals.</td>
<td>5.250</td>
<td>2.062</td>
<td>3.750</td>
<td>2.754</td>
<td>-1.500</td>
</tr>
<tr>
<td>Q37. Ability to prepare clear, concise reports documenting and evaluating collections management issues and making recommendations for the resolution of issues.</td>
<td>5.750</td>
<td>1.500</td>
<td>4.250</td>
<td>2.217</td>
<td>-1.500</td>
</tr>
<tr>
<td>Q27. Thorough knowledge of collections preservation principles and techniques (e.g. agents of deterioration and housekeeping techniques).</td>
<td>5.750</td>
<td>1.500</td>
<td>4.500</td>
<td>1.000</td>
<td>-1.250</td>
</tr>
<tr>
<td>Q30. Ability to safely pack and ship museum collections.</td>
<td>5.750</td>
<td>1.500</td>
<td>4.500</td>
<td>2.517</td>
<td>-1.250</td>
</tr>
<tr>
<td>Q31. Ability to recognize objects needing conservation treatment and to recommend and refer treatment to the appropriate facility.</td>
<td>5.750</td>
<td>1.500</td>
<td>4.500</td>
<td>1.732</td>
<td>-1.250</td>
</tr>
<tr>
<td>Q34. Knowledge of basic supervisory practices, including personnel management policies and procedures, and skill in motivating a professional and technical staff.</td>
<td>5.250</td>
<td>1.500</td>
<td>4.000</td>
<td>2.450</td>
<td>-1.250</td>
</tr>
<tr>
<td>Q8. Intermediate knowledge of NPS cultural and natural resource management policies and the Secretary of the Interior’s Standards.</td>
<td>5.750</td>
<td>0.957</td>
<td>4.750</td>
<td>2.062</td>
<td>-1.000</td>
</tr>
<tr>
<td>Q38. Ability to write analytical documentation on a variety of aspects of the collection.</td>
<td>5.500</td>
<td>1.915</td>
<td>4.500</td>
<td>2.082</td>
<td>-1.000</td>
</tr>
<tr>
<td>ITEMS RATED/QUESTIONS</td>
<td>MEAN IMPORTANCE</td>
<td>STANDARD DEVIATION</td>
<td>MEAN COMPETENCY</td>
<td>STANDARD DEVIATION</td>
<td>(I - C) GAP</td>
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</tr>
<tr>
<td>Q4. Knowledge of history and philosophy of museums; standards and ethics of museum</td>
<td>5.500</td>
<td>1.291</td>
<td>4.750</td>
<td>0.500</td>
<td>-0.750</td>
</tr>
<tr>
<td>profession; standard museum policies and procedures; theories and practice of museums.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q6. Knowledge of the mission and objectives of the museum management program of the NPS.</td>
<td>6.000</td>
<td>1.155</td>
<td>5.250</td>
<td>1.268</td>
<td>-0.750</td>
</tr>
<tr>
<td>Q12. Basic knowledge of intellectual property legislation and NPS policies relating to museum collections (e.g., copyright).</td>
<td>4.750</td>
<td>2.630</td>
<td>4.000</td>
<td>2.160</td>
<td>-0.750</td>
</tr>
<tr>
<td>Q19. Ability to research collections for a variety of uses, including exhibits, publications, and studies.</td>
<td>5.500</td>
<td>1.291</td>
<td>4.750</td>
<td>0.500</td>
<td>-0.750</td>
</tr>
<tr>
<td>Q32. Thorough knowledge of museum protection systems, procedures, and practices. Thorough knowledge of museum protection systems, procedures, and practices.</td>
<td>5.750</td>
<td>1.500</td>
<td>5.000</td>
<td>0.817</td>
<td>-0.750</td>
</tr>
<tr>
<td>Q33. Ability to manage a museum program and to solve problems in innovative as well as traditional ways.</td>
<td>5.750</td>
<td>1.500</td>
<td>5.000</td>
<td>1.633</td>
<td>-0.750</td>
</tr>
<tr>
<td>Q41. Skill in training employees in NPS collections management principles, standards and procedures.</td>
<td>5.500</td>
<td>1.915</td>
<td>4.750</td>
<td>0.957</td>
<td>-0.750</td>
</tr>
<tr>
<td>Q2. Ability to develop and implement solutions to specific collections management issues.</td>
<td>5.500</td>
<td>1.291</td>
<td>5.000</td>
<td>2.160</td>
<td>-0.500</td>
</tr>
<tr>
<td>Q3. Thorough knowledge of NPS standards and procedures regarding collections management.</td>
<td>5.500</td>
<td>1.000</td>
<td>5.000</td>
<td>1.633</td>
<td>-0.500</td>
</tr>
<tr>
<td>Q24. Advanced knowledge of computerized cataloging and other museum recordkeeping systems and techniques.</td>
<td>5.750</td>
<td>1.500</td>
<td>5.250</td>
<td>1.708</td>
<td>-0.500</td>
</tr>
<tr>
<td>Q25. Advanced computer skills, including use of database management systems and NPS collections documentation systems.</td>
<td>5.750</td>
<td>1.500</td>
<td>5.250</td>
<td>1.708</td>
<td>-0.500</td>
</tr>
<tr>
<td>Q26. Ability to manipulate data, design and produce access systems applications for analysis of monitoring data.</td>
<td>5.250</td>
<td>2.062</td>
<td>4.750</td>
<td>1.708</td>
<td>-0.500</td>
</tr>
<tr>
<td>ITEMS RATED/QUESTIONS</td>
<td>MEAN IMPORTANCE</td>
<td>STANDARD DEVIATION</td>
<td>MEAN COMPETENCY</td>
<td>STANDARD DEVIATION</td>
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</tr>
<tr>
<td>Q40. Skill in writing technical documents.</td>
<td>5.500</td>
<td>1.915</td>
<td>5.000</td>
<td>1.414</td>
<td>-0.500</td>
</tr>
<tr>
<td>Q42. Knowledge of health and safety issues and appropriate protection procedures related to working with museum collections.</td>
<td>5.000</td>
<td>1.633</td>
<td>4.600</td>
<td>0.577</td>
<td>-0.500</td>
</tr>
<tr>
<td>Q9. Knowledge of NPS cultural and natural resource inventories and their use in the management of cultural and natural resources.</td>
<td>5.750</td>
<td>0.957</td>
<td>5.500</td>
<td>1.000</td>
<td>-0.250</td>
</tr>
<tr>
<td>Q10. Knowledge of museum collecting policies.</td>
<td>5.750</td>
<td>0.957</td>
<td>5.500</td>
<td>1.000</td>
<td>-0.250</td>
</tr>
<tr>
<td>Q11. Ability to implement an approved collecting policy by evaluating museum collections.</td>
<td>5.750</td>
<td>0.957</td>
<td>5.500</td>
<td>1.000</td>
<td>-0.250</td>
</tr>
<tr>
<td>Q14. Working knowledge of exhibit development and production.</td>
<td>3.000</td>
<td>1.826</td>
<td>2.750</td>
<td>2.062</td>
<td>-0.250</td>
</tr>
<tr>
<td>Q17. Thorough working knowledge of research tools, techniques, and methods for the documentation of cultural or natural resource collections.</td>
<td>5.500</td>
<td>1.291</td>
<td>5.250</td>
<td>1.258</td>
<td>-0.250</td>
</tr>
<tr>
<td>Q28. Ability to develop environmental and pest monitoring plans and to analyze environmental and other monitoring data.</td>
<td>5.500</td>
<td>1.915</td>
<td>5.250</td>
<td>0.957</td>
<td>-0.250</td>
</tr>
<tr>
<td>Q39. Ability to critically evaluate studies, planning documents, proposals, and other documents.</td>
<td>5.500</td>
<td>1.915</td>
<td>5.250</td>
<td>1.255</td>
<td>-0.250</td>
</tr>
<tr>
<td>Q18. Knowledge of specific types of cultural or natural resource collections with specialized knowledge of cultural and natural resource collections related to the resources of the park.</td>
<td>5.600</td>
<td>1.291</td>
<td>5.400</td>
<td>1.414</td>
<td>-0.100</td>
</tr>
<tr>
<td>Q15. Ability to review concept plans, specifications, and plans for exhibit production.</td>
<td>3.250</td>
<td>1.500</td>
<td>3.250</td>
<td>1.708</td>
<td>0.000</td>
</tr>
<tr>
<td>Q21. Good working knowledge of legal standards for documentation of collections.</td>
<td>5.250</td>
<td>1.708</td>
<td>5.400</td>
<td>0.817</td>
<td>0.150</td>
</tr>
<tr>
<td>Q22. Ability to develop scopes of work for appraisal, cataloging, and other documentation activities.</td>
<td>5.250</td>
<td>1.258</td>
<td>5.400</td>
<td>1.633</td>
<td>0.150</td>
</tr>
<tr>
<td>ITEMS RATED/QUESTIONS</td>
<td>MEAN IMPORTANCE</td>
<td>STANDARD DEVIATION</td>
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</tr>
<tr>
<td>-----------------------------------------------------------</td>
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<td>-------------</td>
</tr>
<tr>
<td>Q23. Ability to develop and conduct inventory control procedures.</td>
<td>5.250</td>
<td>1.256</td>
<td>5.500</td>
<td>1.291</td>
<td>0.250</td>
</tr>
<tr>
<td>Q5. Knowledge of North American material culture, American history, or natural resources.</td>
<td>4.750</td>
<td>1.708</td>
<td>5.250</td>
<td>1.258</td>
<td>0.500</td>
</tr>
<tr>
<td>Q16. Knowledge of museum education practices.</td>
<td>3.500</td>
<td>1.291</td>
<td>4.250</td>
<td>0.500</td>
<td>0.750</td>
</tr>
<tr>
<td>Q20. Thorough knowledge of full range of museum documentation practices and procedures, including registration, cataloging, loans, and inventory control.</td>
<td>4.750</td>
<td>1.708</td>
<td>5.500</td>
<td>1.291</td>
<td>0.750</td>
</tr>
<tr>
<td>Q13. Ability to produce finding aids and other access tools to aid researchers.</td>
<td>3.750</td>
<td>2.754</td>
<td>5.000</td>
<td>1.633</td>
<td>1.250</td>
</tr>
</tbody>
</table>
Figure 1. Cultural Resources Stewardship Training Gap Analysis
Curator – Entry Level
CURATORS – DEVELOPMENTAL LEVEL

Profile of Respondents. Of the 58 Developmental Level Curators who responded to the survey, almost 75 percent were female ( \( \bar{x} = 73.7\% \) ). The average age of respondents was slightly more than 44 years of age ( \( \bar{x} = 44.5 \) years). They had completed slightly over 17 years of formal education. See Appendix A-4 for information pertaining to academic degrees held by Developmental Level Curators.

Almost 95 percent of the respondents were White. Most held the rank of GS-11 (66.7\%) even though 28 percent were GS-9’s. They had been employed by the National Park Service for slightly over 13 years. They had been in their current positions for slightly more than seven years.

Importance of Competencies. As can be seen in Table 2, respondents rated 12 different competencies as having the greatest importance to them in their current positions. Each of these competencies received a mean importance rating of 6.0 or higher on the 7-point scale. They were:

1. Ability to develop and implement a comprehensive, systematic collections management program.
2. Thorough knowledge of the NPS museum management program, and the laws, policies, and regulations governing its conduct.
3. Through knowledge of NPS museum management standards, guidelines, and procedures.
4. Mastery of museum management principles and practices, and comprehensive and current knowledge of collections management and museum registration, documentation and information systems, and conservation, with demonstrated skill in applying this professional knowledge to the development of new policies, procedures, and approaches. Knowledge of museum ethical standards.
5. Current knowledge of professional standards and techniques for collections and information management of museum collections.
6. Extensive knowledge of museum collection management and NPS procedures for museum accessioning, cataloging, packing, shipping, loans, protection, environmental requirements, and property management.
7. Ability to identify and evaluate museum collections necessary for fulfillment of park’s mission.
8. Ability to determine the adequacy of environmental conditions, to detect signs of deterioration and wear, to perform as well as supervise routine preservation maintenance of objects, and to recognize conditions that
require more extensive conservation treatment.

(Q43) Ability to develop and manage a comprehensive, sustainable, long-term collections management program.

(Q44) Ability to plan, design, and implement assigned projects independently.

(Q46) Knowledge of planning and programming activities and of potential sources of funding for curatorial programs.

(Q49) Ability to prepare clear, concise reports documenting and evaluating collections management issues, and making recommendations for resolution of issues.

Perceived Level of Competency. Overall, respondents did not appear to feel highly competent in the competencies posed to them. None of the 55 competencies was rated as 6.0 or higher on the 7-point scale. On the other hand, respondents indicated they were not well prepared to address 10 competencies, rating them less than 4.0 on the 7-point scale. They were:

(Q9) Thorough knowledge of historic preservation and natural resource stewardship history and philosophy.

(Q11) Knowledge of NPS cultural and natural resource inventories and their use in the management of cultural and natural resources.

(Q17) Ability to integrate collection information management needs into a cohesive multi-disciplinary access system.

(Q18) Comprehensive and up-to-date knowledge of museum information management systems in use by the museum profession.

(Q21) Working knowledge of development and production of electronic exhibits, including digital and Internet features.

(Q31) Knowledge of advanced computer skills.

(Q32) Skill in managing the development and operation of large information management systems.

(Q33) Thorough knowledge of hardware operating systems and the principles of automated database management systems and applications for use in NPS collections management.

(Q34) Good working knowledge of NPS cultural and natural resource management databases.

(Q47) Ability to develop contracting documents and cooperative agreements.
Gaps in Cultural Resource Stewardship Training. Table 2 provides a ranking of essential competencies producing the largest “I-C gaps” within this occupational group. They were, in order of magnitude:

(Q15) Working knowledge of intellectual property legislation and NPS policies relating to museum collections.

(Q33) Thorough knowledge of hardware operating systems and the principles of automated database management systems and applications for use in NPS collections management.

(Q34) Good working knowledge of NPS cultural and natural resource management databases.

(Q21) Working knowledge of development and production of electronic exhibits, including digital and Internet features.

(Q46) Knowledge of planning and programming activities and of potential sources of funding for curatorial programs.

(Q55) Skill in identifying risks and implementing a program to prevent health and safety emergencies according to Occupational Health and Safety Administration (OSHA) laws and regulations and NPS policies and guidelines.

(Q32) Skill in managing the development and operation of large information management systems.

(Q31) Knowledge of advanced computer skills.

(Q2) Thorough knowledge of the NPS museum management program, and the laws, policies, and regulations governing its conduct.

(Q1) Ability to develop and implement a comprehensive, systematic collections management program.

(Q10) Thorough knowledge of NPS cultural and natural resource management policies and the Secretary of the Interior's Standards.

(Q47) Ability to develop contracting documents and cooperative agreements.

(Q17) Ability to integrate collection information management needs into a cohesive multi-disciplinary access system.

(Q54) Thorough knowledge of health and safety issues and how to mitigate hazards related to working with museum collections, including the use of personal protection equipment.
(Q18) Comprehensive and up-to-date knowledge of museum information management systems in use by the museum profession.

(Q45) Thorough knowledge of supervisory practices, including personnel management policies and procedures, and skill in motivating a staff of professional and technical staff.

(Q9) Thorough knowledge of historic preservation and natural resource stewardship history and philosophy.

(Q42) Thorough knowledge of emergency preparedness procedures and practices for museum collections.

(Q11) Knowledge of NPS cultural and natural resource inventories and their use in the management of cultural and natural resources.

(Q4) Mastery of museum management principles and practices, and comprehensive and current knowledge of collections management and museum registration, documentation and information systems, and conservation, with demonstrated skill in applying this professional knowledge to the development of new policies, procedures, and approaches. Knowledge of museum ethical standards.

(Q37) Ability to contract for conservation surveys, conservation treatment, and other preservation work.

(Q5) Current knowledge of professional standards and techniques for collections and information management of museum collections.

(Q3) Thorough knowledge of NPS museum management standards, guidelines, and procedures.

(Q48) Ability to manage contracts and cooperative agreements.

(Q39) Ability to contract for conservation surveys, conservation treatment, and other preservation work.

(Q6) Thorough knowledge of NPS museum management standards, guidelines, and procedures.

Each of these competencies produced a gap in excess of 1.0. Only one competency produced a positive gap where the relative importance was exceeded by the perceived level of preparedness. It was:

(Q53) Ability to coordinate training courses and workshops.

Figure 2 presents a graphic depiction of the gaps between importance and competency assigned to each item.
Perceptions of First-Line Supervisors. While there appears to be little agreement between employees and first-line supervisors regarding the content and magnitude of training needs of this occupational group, ironically, it was the employees, not the supervisors, who reported the greatest gaps in training. First-line supervisors rated only six of the 55 competencies as having gaps of 1.0 or greater. It would appear that supervisors believe that Developmental Level Curators are relatively well prepared for most competencies. Supervisors reported the following competencies as having gaps of 1.0 or greater:

(Q1) Ability to develop and implement a comprehensive, systematic collections management program.

(Q54) Thorough knowledge of health and safety issues and how to mitigate hazards related to working with museum collections, including the use of personal protection equipment.

(Q3) Thorough knowledge of NPS museum management standards, guidelines, and procedures.

(Q46) Knowledge of planning and programming activities and of potential sources of funding for curatorial programs.

(Q6) Thorough knowledge of NPS curatorial programs and activities, the laws, policies, and regulations governing their conduct, and the procedures and processes followed in their operation.

(Q10) Thorough knowledge of NPS cultural and natural resource management policies and the Secretary of the Interior's Standards.
Table 2. Cultural Resources Stewardship Training Gap Analysis in Descending Order of Need Curator – Developmental Level

<table>
<thead>
<tr>
<th>ITEMS RATED/QUESTIONS</th>
<th>MEAN IMPORTANCE</th>
<th>STANDARD DEVIATION</th>
<th>MEAN COMPETENCY</th>
<th>STANDARD DEVIATION</th>
<th>(I - C) GAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q15. Working knowledge of intellectual property legislation and NPS policies relating to museum collections.</td>
<td>5.754</td>
<td>1.138</td>
<td>4.086</td>
<td>1.454</td>
<td>-1.668</td>
</tr>
<tr>
<td>Q33. Thorough knowledge of hardware operating systems and the principles of automated database management systems and applications for use in NPS collections management.</td>
<td>4.954</td>
<td>1.572</td>
<td>3.328</td>
<td>1.906</td>
<td>-1.637</td>
</tr>
<tr>
<td>Q34. Good working knowledge of NPS cultural and natural resource management databases.</td>
<td>5.339</td>
<td>1.541</td>
<td>3.914</td>
<td>1.809</td>
<td>-1.426</td>
</tr>
<tr>
<td>Q21. Working knowledge of development and production of electronic exhibits, including digital and Internet features.</td>
<td>4.386</td>
<td>1.509</td>
<td>2.906</td>
<td>1.747</td>
<td>-1.421</td>
</tr>
<tr>
<td>Q46. Knowledge of planning and programming activities and of potential sources of funding for curatorial programs.</td>
<td>6.088</td>
<td>1.214</td>
<td>4.690</td>
<td>1.729</td>
<td>-1.398</td>
</tr>
<tr>
<td>Q55. Skill in identifying risks and implementing a program to prevent health and safety emergencies according to Occupational Health and Safety Administration (OSHA) laws and regulations and NPS policies and guidelines.</td>
<td>5.517</td>
<td>1.328</td>
<td>4.121</td>
<td>1.645</td>
<td>-1.357</td>
</tr>
<tr>
<td>Q32. Skill in managing the development and operation of large information management systems.</td>
<td>5.143</td>
<td>1.519</td>
<td>3.754</td>
<td>1.806</td>
<td>-1.389</td>
</tr>
<tr>
<td>Q31. Knowledge of advanced computer skills.</td>
<td>5.232</td>
<td>1.348</td>
<td>3.897</td>
<td>1.553</td>
<td>-1.336</td>
</tr>
<tr>
<td>Q2. Thorough knowledge of the NPS museum management program, and the laws, policies, and regulations governing its conduct.</td>
<td>6.103</td>
<td>1.021</td>
<td>4.810</td>
<td>1.444</td>
<td>-1.293</td>
</tr>
<tr>
<td>Q1. Ability to develop and implement a comprehensive, systematic collections management program.</td>
<td>6.259</td>
<td>1.446</td>
<td>4.983</td>
<td>1.773</td>
<td>-1.276</td>
</tr>
<tr>
<td>Q10. Thorough knowledge of NPS cultural and natural resource management policies and the Secretary of the Interior’s Standards.</td>
<td>5.310</td>
<td>1.173</td>
<td>4.035</td>
<td>1.696</td>
<td>-1.276</td>
</tr>
<tr>
<td>Q47. Ability to develop contracting documents and cooperative agreements.</td>
<td>4.912</td>
<td>1.534</td>
<td>3.667</td>
<td>2.124</td>
<td>-1.246</td>
</tr>
</tbody>
</table>
Table 2. Cultural Resources Stewardship
Training Gap Analysis in Descending Order of Need
Curator – Developmental Level

<table>
<thead>
<tr>
<th>ITEMS RATED/QUESTIONS</th>
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<th>STANDARD DEVIATION</th>
<th>(I - C) GAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q17. Ability to integrate collection information management needs into a cohesive multi-disciplinary access system.</td>
<td>5.211</td>
<td>1.346</td>
<td>3.983</td>
<td>1.798</td>
<td>-1.228</td>
</tr>
<tr>
<td>Q54. Thorough knowledge of health and safety issues and how to mitigate hazards related to working with museum collections, including the use of personal protection equipment.</td>
<td>5.379</td>
<td>1.326</td>
<td>4.672</td>
<td>1.276</td>
<td>-1.207</td>
</tr>
<tr>
<td>Q18. Comprehensive and up-to-date knowledge of museum information management systems in use by the museum profession.</td>
<td>5.155</td>
<td>1.449</td>
<td>3.948</td>
<td>1.594</td>
<td>-1.207</td>
</tr>
<tr>
<td>Q45. Thorough knowledge of supervisory practices, including personnel management policies and procedures, and skill in motivating a staff of professional and technical staff.</td>
<td>5.386</td>
<td>1.485</td>
<td>4.190</td>
<td>1.711</td>
<td>-1.196</td>
</tr>
<tr>
<td>Q9. Thorough knowledge of historic preservation and natural resource stewardship history and philosophy.</td>
<td>4.931</td>
<td>1.282</td>
<td>3.759</td>
<td>1.857</td>
<td>-1.172</td>
</tr>
<tr>
<td>Q42. Thorough knowledge of emergency preparedness procedures and practices for museum collections.</td>
<td>5.947</td>
<td>0.971</td>
<td>4.776</td>
<td>1.402</td>
<td>-1.172</td>
</tr>
<tr>
<td>Q11. Knowledge of NPS cultural and natural resource inventories and their use in the management of cultural and natural resources.</td>
<td>4.948</td>
<td>1.330</td>
<td>3.793</td>
<td>1.725</td>
<td>-1.155</td>
</tr>
<tr>
<td>Q4. Mastery of museum management principles and practices, and comprehensive and current knowledge of collections management and museum registration, documentation and information systems, and conservation, with demonstrated skill in applying this professional knowledge to the development of new policies, procedures, and approaches. Knowledge of museum ethical standards.</td>
<td>6.345</td>
<td>1.035</td>
<td>5.190</td>
<td>1.444</td>
<td>-1.155</td>
</tr>
<tr>
<td>Q37. Ability to contract for conservation surveys, conservation treatment, and other preservation work.</td>
<td>5.667</td>
<td>1.354</td>
<td>4.517</td>
<td>1.931</td>
<td>-1.150</td>
</tr>
<tr>
<td>Q5. Current knowledge of professional standards and techniques for collections and information management of museum collections.</td>
<td>6.103</td>
<td>1.196</td>
<td>4.983</td>
<td>1.445</td>
<td>-1.121</td>
</tr>
<tr>
<td>ITEMS RATED/QUESTIONS</td>
<td>MEAN IMPORTANCE</td>
<td>STANDARD DEVIATION</td>
<td>MEAN COMPETENCY</td>
<td>STANDARD DEVIATION</td>
<td>(I - C) GAP</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>Q3. Thorough knowledge of NPS museum management standards, guidelines, and procedures.</td>
<td>6.293</td>
<td>1.026</td>
<td>5.190</td>
<td>1.504</td>
<td>-1.103</td>
</tr>
<tr>
<td>Q48. Ability to manage contracts and cooperative agreements.</td>
<td>5.088</td>
<td>1.515</td>
<td>4.000</td>
<td>1.936</td>
<td>-1.088</td>
</tr>
<tr>
<td>Q39. Ability to develop a park-wide collections protection program.</td>
<td>5.804</td>
<td>1.182</td>
<td>4.776</td>
<td>2.018</td>
<td>-1.028</td>
</tr>
<tr>
<td>Q6. Thorough knowledge of NPS curatorial programs and activities, the laws, policies, and regulations governing their conduct, and the procedures and processes followed in their operation.</td>
<td>5.862</td>
<td>1.146</td>
<td>4.845</td>
<td>1.399</td>
<td>-1.017</td>
</tr>
<tr>
<td>Q7. Extensive knowledge of museum collection management and NPS procedures for museum accessioning, cataloging, packing, shipping, loans, protection, environmental requirements, and property management.</td>
<td>6.328</td>
<td>0.980</td>
<td>5.379</td>
<td>1.449</td>
<td>-0.948</td>
</tr>
<tr>
<td>Q43. Ability to develop and manage a comprehensive, sustainable, long-term collections management program.</td>
<td>6.070</td>
<td>1.147</td>
<td>5.172</td>
<td>1.546</td>
<td>-0.898</td>
</tr>
<tr>
<td>Q41. Ability to determine the adequacy of environmental conditions, to detect signs of deterioration and wear, to perform as well as supervise routine preservation maintenance of objects, and to recognize conditions that require more extensive conservation treatment.</td>
<td>6.286</td>
<td>0.868</td>
<td>5.414</td>
<td>1.298</td>
<td>-0.872</td>
</tr>
<tr>
<td>Q16. Functional knowledge of all natural and cultural resource disciplines represented in NPS museum collections.</td>
<td>5.172</td>
<td>1.416</td>
<td>4.310</td>
<td>1.729</td>
<td>-0.862</td>
</tr>
<tr>
<td>Q36. Ability to develop an integrated collections preservation plan.</td>
<td>5.366</td>
<td>1.360</td>
<td>4.552</td>
<td>1.808</td>
<td>-0.834</td>
</tr>
<tr>
<td>Q22. Excellent working knowledge of research tools, techniques, and methods for the documentation of cultural or natural resource collections.</td>
<td>5.842</td>
<td>1.043</td>
<td>5.052</td>
<td>1.609</td>
<td>-0.790</td>
</tr>
</tbody>
</table>
Table 2. Cultural Resources Stewardship
Training Gap Analysis in Descending Order of Need
Curator – Developmental Level

<table>
<thead>
<tr>
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<th>(I - C) GAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q49. Ability to prepare clear, concise reports documenting and evaluating collections management issues, and making recommendations for resolution of issues.</td>
<td>6.053</td>
<td>0.963</td>
<td>5.345</td>
<td>1.753</td>
<td>-0.708</td>
</tr>
<tr>
<td>Q12. Ability to identify and evaluate museum collections necessary for fulfillment of park’s mission.</td>
<td>6.138</td>
<td>1.131</td>
<td>5.431</td>
<td>1.798</td>
<td>-0.707</td>
</tr>
<tr>
<td>Q51. Ability to critically evaluate studies, planning documents, proposals, and other documents.</td>
<td>5.947</td>
<td>1.042</td>
<td>5.241</td>
<td>1.560</td>
<td>-0.706</td>
</tr>
<tr>
<td>Q13. Ability to write collecting policies based upon thorough knowledge of resources and needs of the park.</td>
<td>5.845</td>
<td>1.182</td>
<td>5.156</td>
<td>1.899</td>
<td>-0.690</td>
</tr>
<tr>
<td>Q30. Comprehensive and current knowledge of professional standards and techniques for collections and information management of museum collections.</td>
<td>5.544</td>
<td>1.297</td>
<td>4.879</td>
<td>1.511</td>
<td>-0.665</td>
</tr>
<tr>
<td>Q8. Professional knowledge of the policies, standards, guidelines, and management principles established by the NPS and museum professions to govern operation and development of museum collections and records systems.</td>
<td>5.759</td>
<td>1.233</td>
<td>5.103</td>
<td>1.784</td>
<td>-0.655</td>
</tr>
<tr>
<td>Q19. Ability to comprehensively review exhibit plans for collections management issues and to recommend creative, responsible solutions to these issues.</td>
<td>5.655</td>
<td>1.264</td>
<td>5.017</td>
<td>1.573</td>
<td>-0.638</td>
</tr>
<tr>
<td>Q26. Ability to develop a park-wide collections documentation program.</td>
<td>5.857</td>
<td>1.137</td>
<td>5.228</td>
<td>1.793</td>
<td>-0.629</td>
</tr>
<tr>
<td>Q24. Specialized knowledge of cultural and natural resource collections related to the resources of the park.</td>
<td>5.526</td>
<td>1.441</td>
<td>4.931</td>
<td>1.815</td>
<td>-0.595</td>
</tr>
<tr>
<td>Q20. Ability to work creatively with exhibit planning, interpretive planning, and educational programming teams to provide access to and use of collections.</td>
<td>5.862</td>
<td>1.263</td>
<td>5.293</td>
<td>1.644</td>
<td>-0.569</td>
</tr>
<tr>
<td>Q14. Ability to evaluate museum collections to determine weaknesses and strengths and to plan a strategy for eliminating weaknesses.</td>
<td>5.759</td>
<td>1.144</td>
<td>5.276</td>
<td>1.824</td>
<td>-0.483</td>
</tr>
<tr>
<td>ITEMS RATED/QUESTIONS</td>
<td>MEAN IMPORTANCE</td>
<td>STANDARD DEVIATION</td>
<td>MEAN COMPETENCY</td>
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<tr>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>Q29. Demonstrated ability to plan and conduct complex analyses of and resolve complex problems related to museum documentation and records management, assuring appropriate coordination, input, and review.</td>
<td>5.482</td>
<td>1.348</td>
<td>5.035</td>
<td>1.721</td>
<td>-0.447</td>
</tr>
<tr>
<td>Q50. Ability to write analytical documentation on a variety of aspects of the collection.</td>
<td>5.632</td>
<td>1.128</td>
<td>5.190</td>
<td>1.649</td>
<td>-0.442</td>
</tr>
<tr>
<td>Q38. Ability to review plans and identify collections management issues and recommend solutions.</td>
<td>5.983</td>
<td>1.203</td>
<td>5.552</td>
<td>1.314</td>
<td>-0.431</td>
</tr>
<tr>
<td>Q35. Ability to develop a collection storage plan.</td>
<td>5.351</td>
<td>1.369</td>
<td>4.931</td>
<td>1.786</td>
<td>-0.420</td>
</tr>
<tr>
<td>Q28. Ability to develop a park-wide collections inventory control program.</td>
<td>5.702</td>
<td>1.295</td>
<td>5.310</td>
<td>1.966</td>
<td>-0.392</td>
</tr>
<tr>
<td>Q52. Ability to train employees in NPS curatorial procedures.</td>
<td>5.298</td>
<td>1.523</td>
<td>4.983</td>
<td>1.481</td>
<td>-0.315</td>
</tr>
<tr>
<td>Q44. Ability to plan, design, and implement assigned projects independently.</td>
<td>6.368</td>
<td>0.771</td>
<td>6.086</td>
<td>1.064</td>
<td>-0.282</td>
</tr>
<tr>
<td>Q40. Ability to develop housekeeping plans.</td>
<td>5.772</td>
<td>1.268</td>
<td>5.500</td>
<td>1.301</td>
<td>-0.272</td>
</tr>
<tr>
<td>Q27. Ability to develop loan documentation and tracking procedures and systems.</td>
<td>5.702</td>
<td>1.401</td>
<td>5.466</td>
<td>1.799</td>
<td>-0.236</td>
</tr>
<tr>
<td>Q23. Ability to synthesize sometimes conflicting information from a complex variety of historical evidence.</td>
<td>5.632</td>
<td>1.190</td>
<td>5.397</td>
<td>1.686</td>
<td>-0.235</td>
</tr>
<tr>
<td>Q25. Ability to determine the need for research and develop the scope and objectives of the study.</td>
<td>5.281</td>
<td>1.386</td>
<td>5.207</td>
<td>1.714</td>
<td>-0.074</td>
</tr>
<tr>
<td>Q53. Ability to coordinate training courses and workshops.</td>
<td>4.068</td>
<td>1.745</td>
<td>4.263</td>
<td>2.049</td>
<td>0.176</td>
</tr>
</tbody>
</table>
Figure 2. Cultural Resources Stewardship Training Gap Analysis
Curator – Developmental Level

Mean Importance  Mean Competency

Question Number
CURATORS – FULL PERFORMANCE LEVEL (Subject Matter Track)

Profile of Respondents. Of the 19 Full Performance Curators (Subject Matter Track) who responded to the survey, almost 56 percent were female. The average age of respondents was slightly more than 48 years of age (\(\bar{x} = 48.61\) years). They had completed 18 years of formal education. See Appendix A-6 for information pertaining to academic degrees held by Full Performance Curators (Subject Matter Track).

All of the respondents were White. Most held the rank of GS-12 (66.7%) even though 22 percent were GS-13’s. They had been employed by the National Park Service for 13.6 years. They had been in their current positions for slightly more than six years.

Importance of Competencies. As can be seen in Table 3, respondents rated 25 different competencies as having the greatest importance to them in their current positions. They were:

(Q1) Sound knowledge of the philosophy and procedures required for the proper organization, accessioning, cataloging, and maintenance of records pertaining to a large and diverse museum collection of natural and cultural resources.

(Q2) Sound and thorough knowledge of the NPS museum recordkeeping process in order to assure a professional job of accessioning, deaccessioning, cataloging, inventory, and tracking of objects through the exhibit, storage, and treatment phases of handling to ensure accountability and preservation of objects and specimens.

(Q5) Knowledge of the policies, standards, guidelines, and management principles established by the NPS and by the museum profession nationally and internationally to govern the operation and development of museums and museum collections.

(Q6) Thorough knowledge of museum ethical standards.

(Q7) Comprehensive knowledge of the full range of NPS planning and programming activities, so as to review program and planning documents and to effectively program for curatorial projects.

(Q8) Ability to conceptualize, develop, and manage complex programs and to create innovative solutions to problems considered insoluble through the application of traditional solutions.

(Q9) Thorough knowledge of the mission and objectives of the NPS.

(Q13) Ability to recognize the interrelationship of all resource management disciplines such as museum services, archeology, cultural landscapes, building preservation, ethnography, natural resource stewardship, and maintenance, and work within this divisional/disciplinary framework
towards the joint accomplishment of cultural and natural resource projects and goals.

(Q14) Ability to identify and evaluate museum collections necessary for fulfillment of park's mission.

(Q15) Ability to write collecting policies based upon thorough knowledge of resources and needs of the park.

(Q16) Ability to evaluate museum collections to determine weaknesses and strengths and to plan a strategy for eliminating weaknesses.

(Q17) Ability to analyze the museum collection, identify needs, and develop strategies for acquisition of needed objects or specimens.

(Q25) Knowledge of research techniques and methods in the area of the park's resources in order to conduct primary and secondary research aimed at expanding the existing knowledge base in support of park management objectives and policies as this relates to documenting and exhibiting items in the park collections.

(Q26) Ability to produce management documents, including historical background studies, collection management plans, and furnishings studies and plans.

(Q27) Mastery of the research methodologies necessary to conduct complex research required to identify and authenticate objects, or develop new techniques for collection management, preservation, or conservation.

(Q28) Extensive knowledge of cultural or natural resource related to the resources of the park, including a wide variety of types of materials.

(Q29) Extensive knowledge of professional museum operation, including classification, cataloging, and detailed familiarity with the care and conservation of museum objects.

(Q30) Ability to direct the cataloging of museum objects related to field of expertise and provides authentication and appraisal of the collection.

(Q32) Knowledge of accepted museum conservation, storage, and exhibit techniques; of approved preparation techniques for all types of objects in storage and exhibit conditions; of approved procedures required for maintenance of collection in storage, museum exhibit, or on exhibit in historic structures; of required museum security measures; of the proper methods of monitoring and recording the deterioration of objects; and of cleaning, repairing, and preventive maintenance treatment techniques.
(Q33) Mastery of the professionally accepted museum storage materials and methods, and the ability to adapt these to the challenging conditions found in NPS collections.

(Q34) Knowledge of museum protection measures as well as knowledge of proper methods of monitoring, recording, and interpreting environmental data as it relates to the preservation of collections, and knowledge of procedures necessary to limit deterioration of objects through the use of environmental controls.

(Q35) Knowledge of the budgetary process used by the NPS and the procurement system in order to request and obligate funds. Knowledge of the planning and development procedures required for initiating projects for curatorial management.

(Q37) Skills to budget annual needs; to conceptualize, organize and program required work elements; to exercise sound fiscal management of assigned programs and funds.

(Q38) Ability to work with a wide range of people in complex work and/or social groups, often holding opposing or conflicting attitudes that must be considered, negotiated, and/or altered.

(Q39) Ability to compose clear, concise reports, and deliver them both orally and in writing, and the ability to work with diverse groups.

Each of these competencies received a mean importance rating of 6.0 or higher on the 7-point Importance Scale. Conversely, only one competency was perceived to be relatively unimportant (i.e., less than 4.0). It was:

(Q24) Ability to compose clear, concise reports, and deliver them both orally and in writing, and the ability to work with diverse groups.

*Perceived Level of Competency.* Respondents reported feeling highly competent regarding seven of the 41 competencies, rating these items as 6.0 or higher on the 7-point scale. They were:

(Q1) Sound knowledge of the philosophy and procedures required for the proper organization, accessioning, cataloging, and maintenance of records pertaining to a large and diverse museum collection of natural and cultural resources.

(Q6) Thorough knowledge of museum ethical standards.

(Q8) Ability to conceptualize, develop, and manage complex programs and to create innovative solutions to problems considered insoluble through the application of traditional solutions.
(Q14) Ability to identify and evaluate museum collections necessary for fulfillment of park's mission.

(Q25) Knowledge of research techniques and methods in the area of the park's resources in order to conduct primary and secondary research aimed at expanding the existing knowledge base in support of park management objectives and policies as this relates to documenting and exhibiting items in the park collections.

(Q29) Extensive knowledge of professional museum operation, including classification, cataloging, and detailed familiarity with the care and conservation of museum objects.

(Q39) Ability to compose clear, concise reports, and deliver them both orally and in writing, and the ability to work with diverse groups.

However, respondents reported feeling less competent regarding their “[Advanced] working knowledge of intellectual property legislation/policies....” (Q20), their “[Comprehensive] knowledge of NPS interpretive concepts, methods, programs and policies” (Q22), their “[Advanced] ability to develop and produce electronic exhibits...” (Q24), and their “[Thorough] knowledge and understanding of personal computers....” (Q31). As can be seen in the third column of Table 3, each of these competencies received a mean competency rating of less than 4.5 on the 7-point scale.

Gaps in Cultural Resource Stewardship Training. When analyzed together, the relative ratings of importance and competency provide a diagnostic assessment of training “gaps” in this occupational group. Table 3 provides a ranking of essential competencies producing the largest “L-C gaps.” But, in general, Full Performance Curators (Subject Matter Track) were relatively satisfied with their level of training and preparation to perform their jobs. Only four competencies produced a gap in excess of 1.0. They were, in order of magnitude:

(Q24) Advanced ability to develop and produce electronic exhibits, including digital and Internet features.

(Q20) Advanced ability to develop and produce electronic exhibits, including digital and Internet features.

(Q31) Thorough knowledge and understanding of personal computers and expertise in the use of a number of types of programs, including word processing, desktop publishing, computer-assisted design, and database management.

(Q7) Comprehensive knowledge of the full range of NPS planning and programming activities, so as to review program and planning documents and to effectively program for curatorial projects.

However, one must note that the competency producing the greatest gap (Q24) also was perceived to be the lowest in importance of all competencies.
Figure 3 presents a graphic depiction of the gaps between importance and competency assigned to each item.

Perceptions of First-Line Supervisors. While the first-line supervisors of Full Performance Curators (Subject Matter Track) did not perceive significant training deficiencies among this occupational group, the two competencies perceived to have gaps greater than 1.0 were different from the employees. They were, in order of magnitude:

(Q35) Knowledge of the budgetary process used by the NPS and the procurement system in order to request and obligate funds. Knowledge of the planning and development procedures required for initiating projects for curatorial management.
<table>
<thead>
<tr>
<th>ITEMS RATED/QUESTIONS</th>
<th>MEAN IMPORTANCE</th>
<th>STANDARD DEVIATION</th>
<th>MEAN COMPETENCY</th>
<th>STANDARD DEVIATION</th>
<th>(I - C) GAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q24. Advanced ability to develop and produce electronic exhibits, including digital and Internet features.</td>
<td>3.632</td>
<td>1.832</td>
<td>2.368</td>
<td>2.033</td>
<td>-1.263</td>
</tr>
<tr>
<td>Q20. Advanced working knowledge of intellectual property legislation and NPS policies relating to museum collections (e.g., copyright, privacy and publicity).</td>
<td>5.474</td>
<td>1.339</td>
<td>4.263</td>
<td>1.408</td>
<td>-1.211</td>
</tr>
<tr>
<td>Q31. Thorough knowledge and understanding of personal computers and expertise in the use of a number of types of programs, including word processing, desktop publishing, computer-assisted design, and database management.</td>
<td>5.474</td>
<td>1.577</td>
<td>4.368</td>
<td>1.771</td>
<td>-1.106</td>
</tr>
<tr>
<td>Q7. Comprehensive knowledge of the full range of NPS planning and programming activities, so as to review program and planning documents and to effectively program for curatorial projects.</td>
<td>6.053</td>
<td>1.079</td>
<td>5.053</td>
<td>1.471</td>
<td>-1.000</td>
</tr>
<tr>
<td>Q11. Knowledge of NPS cultural and natural resource management policies and the Secretary of the Interior’s Standards and their interrelationship with the museum program.</td>
<td>5.947</td>
<td>1.129</td>
<td>5.000</td>
<td>1.054</td>
<td>-0.947</td>
</tr>
<tr>
<td>Q18. Skill in making connections with collectors, dealers, and other people in order to enhance the museum collection with items that should be acquired.</td>
<td>5.684</td>
<td>1.416</td>
<td>4.737</td>
<td>2.469</td>
<td>-0.947</td>
</tr>
<tr>
<td>Q22. Comprehensive knowledge of NPS interpretive concepts, methods, programs, and policies.</td>
<td>5.105</td>
<td>1.595</td>
<td>4.158</td>
<td>1.864</td>
<td>-0.947</td>
</tr>
<tr>
<td>Q36. Knowledge of NPS planning and programming activities and of NPS and a variety of potential non-NPS sources of funding for curatorial programs.</td>
<td>5.947</td>
<td>1.580</td>
<td>5.000</td>
<td>1.764</td>
<td>-0.947</td>
</tr>
<tr>
<td>Q19. Ability to negotiate with potential donors of museum collections.</td>
<td>5.737</td>
<td>1.284</td>
<td>4.790</td>
<td>2.250</td>
<td>-0.947</td>
</tr>
<tr>
<td>ITEMS RATED/QUESTIONS</td>
<td>MEAN IMPORTANCE</td>
<td>STANDARD DEVIATION</td>
<td>MEAN COMPETENCY</td>
<td>STANDARD DEVIATION</td>
<td>(I - C) GAP</td>
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<tr>
<td>Q21. Comprehensive knowledge of professionally acceptable exhibit planning, design</td>
<td>5.526</td>
<td>1.646</td>
<td>4.632</td>
<td>2.033</td>
<td>-0.895</td>
</tr>
<tr>
<td>and installation, particularly as relates to the integrity and security of museum</td>
<td></td>
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<tr>
<td>objects, and the ability to provide alternative suggestions to complex exhibit</td>
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<td>problems.</td>
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<tr>
<td>Q26. Ability to produce management documents, including historical background</td>
<td>6.316</td>
<td>0.946</td>
<td>5.526</td>
<td>2.144</td>
<td>-0.790</td>
</tr>
<tr>
<td>studies, collection management plans, and furnishing studies and plans.</td>
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<tr>
<td>Q23. Knowledge and ability to read, comprehend, and evaluate complex action plans</td>
<td>5.790</td>
<td>1.512</td>
<td>5.053</td>
<td>2.094</td>
<td>-0.737</td>
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<tr>
<td>and/or specifications for building, exhibit and systems design and construction,</td>
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<td>and to provide necessary technical comment concerning the same to management.</td>
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<tr>
<td>Q38. Ability to work with a wide range of people in complex work and/or social</td>
<td>6.368</td>
<td>1.012</td>
<td>5.632</td>
<td>1.535</td>
<td>-0.737</td>
</tr>
<tr>
<td>groups, often holding opposing or conflicting attitudes that must be considered,</td>
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<td>negotiated, and/or altered.</td>
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</tr>
<tr>
<td>Q35. Knowledge of the budgetary process used by the NPS and the procurement system</td>
<td>6.053</td>
<td>1.508</td>
<td>5.316</td>
<td>1.734</td>
<td>-0.737</td>
</tr>
<tr>
<td>in order to request and obligate funds. Knowledge of the planning and development</td>
<td></td>
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<tr>
<td>procedures required for initiating projects for curatorial management.</td>
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<tr>
<td>Q41. Ability to identify and correct on-the-job safety and health hazards related</td>
<td>5.611</td>
<td>1.451</td>
<td>4.895</td>
<td>1.629</td>
<td>-0.716</td>
</tr>
<tr>
<td>to working with museum collections, instruct employees on health and safety</td>
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<td>requirements for job assignments and report loss incidents in accordance with NPS</td>
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<tr>
<td>policies and guidelines.</td>
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</tr>
<tr>
<td>Q12. Knowledge and understanding of NPS cultural and natural resource inventories</td>
<td>5.684</td>
<td>1.108</td>
<td>5.000</td>
<td>1.333</td>
<td>-0.684</td>
</tr>
<tr>
<td>and their use in the management of cultural and natural resources.</td>
<td></td>
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<tr>
<td>Q28. Extensive knowledge of cultural or natural resource related to the resources of</td>
<td>6.474</td>
<td>0.841</td>
<td>5.790</td>
<td>1.398</td>
<td>-0.684</td>
</tr>
<tr>
<td>the park, including a wide variety of types of materials.</td>
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<tr>
<td>ITEMS RATED/QUESTIONS</td>
<td>MEAN IMPORTANCE</td>
<td>STANDARD DEVIATION</td>
<td>MEAN COMPETENCY</td>
<td>STANDARD DEVIATION</td>
<td>(I - C) GAP</td>
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<tr>
<td>Q5. Knowledge of the policies, standards, guidelines, and management principles</td>
<td>6.316</td>
<td>0.749</td>
<td>5.684</td>
<td>1.157</td>
<td>-0.632</td>
</tr>
<tr>
<td>established by the NPS and by the museum profession nationally and internationally to govern the operation and development of museums and museum collections.</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Q16. Ability to evaluate museum collections to determine weaknesses and strengths and to plan a strategy for eliminating weaknesses.</td>
<td>0.316</td>
<td>1.057</td>
<td>5.684</td>
<td>1.974</td>
<td>-0.632</td>
</tr>
<tr>
<td>Q17. Ability to analyze the museum collection, identify needs, and develop strategies for acquisition of needed objects or specimens.</td>
<td>6.053</td>
<td>1.177</td>
<td>5.474</td>
<td>2.216</td>
<td>-0.579</td>
</tr>
<tr>
<td>Q29. Extensive knowledge of professional museum operation, including classification, cataloging, and detailed familiarity with the care and conservation of museum objects.</td>
<td>6.579</td>
<td>0.693</td>
<td>6.000</td>
<td>1.106</td>
<td>-0.579</td>
</tr>
<tr>
<td>Q30. Ability to direct the cataloging of museum objects related to field of expertise and provides authentication and appraisal of the collection.</td>
<td>6.368</td>
<td>1.065</td>
<td>5.790</td>
<td>1.584</td>
<td>-0.579</td>
</tr>
<tr>
<td>Q2. Sound and thorough knowledge of the NPS museum recordkeeping process in order to assure a professional job of accessioning, deaccessioning, cataloging, inventory, and tracking of objects through the exhibit, storage, and treatment phases of handling to ensure accountability and preservation of objects and specimens.</td>
<td>6.105</td>
<td>1.150</td>
<td>5.579</td>
<td>1.305</td>
<td>-0.526</td>
</tr>
<tr>
<td>Q1. Sound knowledge of the philosophy and procedures required for the proper organization, accessioning, cataloging, and maintenance of records pertaining to a large and diverse museum collection of natural and cultural resources.</td>
<td>6.684</td>
<td>0.820</td>
<td>6.158</td>
<td>1.119</td>
<td>-0.526</td>
</tr>
</tbody>
</table>
ITEMS RATED/QUESTIONS

<table>
<thead>
<tr>
<th>ITEM</th>
<th>MEAN IMPORTANCE</th>
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<th>MEAN COMPETENCY</th>
<th>STANDARD DEVIATION</th>
<th>(I - C) GAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q32. Knowledge of accepted museum conservation, storage, and exhibit techniques; of approved preparation techniques for all types of objects in storage and exhibit conditions; of approved procedures required for maintenance of collection in storage, museum exhibit, or on exhibit in historic structures; of required museum security measures; of the proper methods of monitoring and recording the deterioration of objects; and of cleaning, repairing, and preventive maintenance treatment techniques.</td>
<td>6.211</td>
<td>1.084</td>
<td>5.684</td>
<td>1.416</td>
<td>-0.526</td>
</tr>
<tr>
<td>Q9. Thorough knowledge of the mission and objectives of the NPS.</td>
<td>6.158</td>
<td>1.015</td>
<td>5.684</td>
<td>1.377</td>
<td>-0.474</td>
</tr>
<tr>
<td>Q15. Ability to write collecting policies based upon thorough knowledge of resources and needs of the park.</td>
<td>6.316</td>
<td>1.336</td>
<td>6.805</td>
<td>1.722</td>
<td>-0.421</td>
</tr>
<tr>
<td>Q37. Skills to budget annual needs; to conceptualize, organize and program required work elements; to exercise sound fiscal management of assigned programs and funds.</td>
<td>6.000</td>
<td>1.732</td>
<td>5.579</td>
<td>1.710</td>
<td>-0.421</td>
</tr>
<tr>
<td>Q27. Mastery of the research methodologies necessary to conduct complex research required to identify and authenticate objects, or develop new techniques for collection management, preservation, or conservation.</td>
<td>6.368</td>
<td>0.955</td>
<td>5.947</td>
<td>1.682</td>
<td>-0.421</td>
</tr>
<tr>
<td>Q14. Ability to identify and evaluate museum collections necessary for fulfillment of park's mission.</td>
<td>6.632</td>
<td>0.761</td>
<td>6.263</td>
<td>1.046</td>
<td>-0.368</td>
</tr>
<tr>
<td>Q25. Knowledge of research techniques and methods in the area of the park's resources in order to conduct primary and secondary research aimed at expanding the existing knowledge base in support of park management objectives and policies as this relates to documenting and exhibiting items in the park collections.</td>
<td>6.316</td>
<td>0.946</td>
<td>6.000</td>
<td>1.732</td>
<td>-0.316</td>
</tr>
<tr>
<td>ITEMS RATED/QUESTIONS</td>
<td>MEAN IMPORTANCE</td>
<td>STANDARD DEVIATION</td>
<td>MEAN COMPETENCY</td>
<td>STANDARD DEVIATION</td>
<td>(I - C) GAP</td>
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<tr>
<td>Q8. Ability to conceptualize, develop, and manage complex programs and to create innovative solutions to problems considered insoluble through the application of traditional solutions.</td>
<td>6.263</td>
<td>0.901</td>
<td>6.000</td>
<td>0.943</td>
<td>-0.263</td>
</tr>
<tr>
<td>Q6. Thorough knowledge of museum ethical standards.</td>
<td>6.632</td>
<td>0.761</td>
<td>6.368</td>
<td>0.895</td>
<td>-0.263</td>
</tr>
<tr>
<td>Q33. Mastery of the professionally accepted museum storage materials and methods, and the ability to adapt these to the challenging conditions found in NPS collections.</td>
<td>6.105</td>
<td>1.150</td>
<td>5.842</td>
<td>1.537</td>
<td>-0.263</td>
</tr>
<tr>
<td>Q4. Knowledge of the literature and reference sources of museum methods and theories and information concerning the collections of the park.</td>
<td>5.790</td>
<td>1.084</td>
<td>5.579</td>
<td>1.539</td>
<td>-0.211</td>
</tr>
<tr>
<td>Q13. Ability to recognize the interrelationship of all resource management disciplines such as museum services, archeology, cultural landscapes, building preservation, ethnography, natural resource stewardship, and maintenance, and work within this divisional/disciplinary framework towards the joint accomplishment of cultural and natural resource projects and goals.</td>
<td>6.158</td>
<td>1.068</td>
<td>5.947</td>
<td>1.393</td>
<td>-0.211</td>
</tr>
<tr>
<td>Q10. Thorough knowledge of historic preservation and natural resource stewardship history and philosophy.</td>
<td>5.528</td>
<td>1.307</td>
<td>5.368</td>
<td>1.383</td>
<td>-0.158</td>
</tr>
<tr>
<td>Q34. Knowledge of museum protection measures as well as knowledge of proper methods of monitoring, recording, and interpreting environmental data as it relates to the preservation of collections, and knowledge of procedures necessary to limit deterioration of objects through the use of environmental controls.</td>
<td>5.000</td>
<td>1.247</td>
<td>5.842</td>
<td>1.214</td>
<td>-0.158</td>
</tr>
<tr>
<td>Q39. Ability to compose clear, concise reports, and deliver them both orally and in writing, and the ability to work with diverse groups.</td>
<td>6.474</td>
<td>0.964</td>
<td>6.368</td>
<td>0.831</td>
<td>-0.105</td>
</tr>
</tbody>
</table>
Table 3. Cultural Resources Stewardship
Training Gap Analysis in Descending Order of Need
Curator – Full Performance Level (Subject Matter Track)

ITEMS RATED/QUESTIONS

<table>
<thead>
<tr>
<th>MEAN IMPORTANCE</th>
<th>STANDARD DEVIATION</th>
<th>MEAN COMPETENCY</th>
<th>STANDARD DEVIATION</th>
<th>(I - C) GAP</th>
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<tr>
<td>4.737</td>
<td>2.182</td>
<td>4.884</td>
<td>2.647</td>
<td>-0.053</td>
</tr>
<tr>
<td>5.211</td>
<td>1.512</td>
<td>5.579</td>
<td>1.805</td>
<td>0.368</td>
</tr>
</tbody>
</table>

Q3. Comprehensive knowledge of the various museum related professional organizations and the ability to directly influence these groups or individuals to assist in the resolution of NFS museum concerns and problems.

Q40. Ability to provide training on specialized subject matter as well as collection management and exhibits.
Figure 3: Cultural Resources Stewardship Training Gap Analysis
Curator – Full Performance Level (Subject Matter Track)
CURATORS – FULL PERFORMANCE LEVEL (Exhibit Development Track)

Profile of Respondents. Of the nine Full Performance Curators (Exhibit Development Track) who responded to the survey, two-thirds (66.7%) were male. The average age of respondents was slightly more than 47 years of age ($\bar{x} = 47.4$ years). They had completed 17.5 years of formal education. See Appendix A-8 for information pertaining to academic degrees held by Full Performance Curators (Exhibit Development Track).

Most respondents (88.9%) were White; one respondent was American Indian or Alaska Native. Most held the rank of GS-12 (88.9%) even though one respondent was a GS-13. They had been employed by the National Park Service for almost 20 years ($\bar{x} = 19.55$ years). They had been in their current positions for over 11 years.

Importance of Competencies. As can be seen in Table 4, respondents rated 14 different competencies as having the greatest importance to them in their current positions. They were:

(Q1) Sound knowledge of the philosophy and procedures required for an extensive and active museum exhibition program including knowledge of NPS and museum interpretive and education standards and policies.

(Q4) Knowledge of the policies, standards, guidelines, and management principles established by the NPS and by the museum profession nationally and internationally to govern the operation and development of museums and museum collections. Thorough knowledge of museum ethical standards.

(Q7) Thorough knowledge and understanding of the mission and objectives of the NPS.

(Q12) Ability, as part of writing an exhibit plan, to review a park collection for objects or specimens needed to complete a museum exhibit.

(Q13) Ability to identify objects or specimens to be acquired and establish a strategy for their acquisition.

(Q14) Ability to develop concepts, design, text, construction specifications, and oversee production of museum exhibits.

(Q16) Ability to work with contractors, including fabricators, conservators, designers, and researchers for the development and production of exhibits, including the development of contracting documents.

(Q17) Ability to conduct advanced research into subject matter related to park mission in order to develop exhibits.

(Q18) Skill in presenting accurate information to the public based upon available museum records.
(Q23) Ability to design or ensure that the design of all exhibits meet NPS and professional museum standards for the preservation and protection of all museum collections.

(Q24) Ability to develop and manage an interdisciplinary team or work within a team for development of exhibits. Team may include collections manager, conservator, historian, other subject matter experts, and designers.

(Q25) Ability to manage contracts and ensure quality of products delivered.

(Q26) Ability to write exhibit plans that meet NPS and museum standards.

(Q27) Ability to write exhibit label copy.

Each of these competencies received a mean importance rating of 6.0 or higher on the 7-point Importance Scale. Conversely, two competencies were perceived to be relatively unimportant (i.e., less than 4.0). They were:

(Q21) Advanced skill in the use of computers to design exhibits.

(Q29) Ability to provide training to users of interactive or other computers in exhibits

Perceived Level of Competency. Respondents reported feeling highly competent regarding seven of the 30 competencies, rating these items as 6.0 or higher on the 7-point scale. They were:

(Q12) Ability, as part of writing an exhibit plan, to review a park collection for objects or specimens needed to complete a museum exhibit.

(Q13) Ability to identify objects or specimens to be acquired and establish a strategy for their acquisition.

(Q17) Ability to conduct advanced research into subject matter related to park mission in order to develop exhibits.

(Q24) Ability to develop and manage an interdisciplinary team or work within a team for development of exhibits. Team may include collections manager, conservator, historian, other subject matter experts, and designers.

(Q25) Ability to manage contracts and ensure quality of products delivered.

(Q26) Ability to write exhibit plans that meet NPS and museum standards.

(Q27) Ability to write exhibit label copy

On the other hand, respondents reported feeling significantly less competent regarding six competencies. They were:
(Q2) Comprehensive knowledge of the various museum related professional organizations and the ability to directly influence these groups or individuals to assist in the resolution of NPS museum concerns and problems.

(Q10) Knowledge and understanding of NPS cultural and natural resource inventories and their use in the management of cultural and natural resources.

(Q20) Thorough knowledge of a variety of computer uses in exhibits, including interactive programs.

(Q21) Advanced skill in the use of computers to design exhibits.

(Q22) Advanced skill in the use of computers to produce labels, publications, and posters.

(Q29) Ability to provide training to users of interactive or other computers in exhibits.

As can be seen in the third column of Table 4, each of these competencies received a mean competency rating of less than 4.0 on the 7-point scale.

Gaps in Cultural Resource Stewardship Training. When analyzed together, the relative ratings of importance and competency provide a diagnostic assessment of training "gaps" in this occupational group. Table 4 provides a ranking of essential competencies producing the largest "I-C gaps." Seven competencies produced gaps in excess of 1.0. They were, in order of magnitude:

(Q4) Knowledge of the policies, standards, guidelines, and management principles established by the NPS and by the museum profession nationally and internationally to govern the operation and development of museums and museum collections. Thorough knowledge of museum ethical standards.

(Q15) Working knowledge of intellectual property legislation and NPS policies relating to museum collections (e.g., copyright, privacy and publicity).

(Q23) Ability to design or ensure that the design of all exhibits meet NPS and professional museum standards for the preservation and protection of all museum collections.

(Q29) Ability to provide training to users of interactive or other computers in exhibits.

(Q20) Thorough knowledge of a variety of computer uses in exhibits, including interactive programs.
(Q9) Knowledge of NPS cultural and natural resource management policies and the Secretary of the Interior's Standards and their interrelationship with the museum program.

(Q10) Knowledge and understanding of NPS cultural and natural resource inventories and their use in the management of cultural and natural resources.

However, one of the competencies producing the greatest gap (Q29) also was perceived to be the lowest in importance of all competencies.

Figure 4 presents a graphic depiction of the gaps between importance and competency assigned to each item.

Perceptions of First-Line Supervisors. Due to the extremely small number of first line supervisors assigned to this occupational group, and, as a result, the small number of respondents (n=2), no comparative analyses are reported here. Data have been reported to the Training Manager, Cultural Resources Stewardship Career Field for information purposes only.
Table 4. Cultural Resources Stewardship
Training Gap Analysis in Descending Order of Need
Curator – Full Performance Level (Exhibit Development Track)

<table>
<thead>
<tr>
<th>ITEMS RATED/QUESTIONS</th>
<th>MEAN IMPORTANCE</th>
<th>STANDARD DEVIATION</th>
<th>MEAN COMPETENCY</th>
<th>STANDARD DEVIATION</th>
<th>(I - C) GAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q23. Ability to design or ensure that the design of all exhibits meet NPS and professional museum standards for the preservation and protection of all museum collections.</td>
<td>6.333</td>
<td>0.707</td>
<td>5.222</td>
<td>1.202</td>
<td>-1.111</td>
</tr>
<tr>
<td>Q29. Ability to provide training to users of interactive or other computers in exhibits.</td>
<td>3.444</td>
<td>2.351</td>
<td>2.333</td>
<td>2.550</td>
<td>-1.111</td>
</tr>
<tr>
<td>Q20. Thorough knowledge of a variety of computer uses in exhibits, including interactive programs.</td>
<td>4.333</td>
<td>1.937</td>
<td>3.333</td>
<td>2.062</td>
<td>-1.000</td>
</tr>
<tr>
<td>Q9. Knowledge of NPS cultural and natural resource management policies and the Secretary of the Interior's Standards and their interrelationship with the museum program.</td>
<td>5.111</td>
<td>1.167</td>
<td>4.111</td>
<td>1.616</td>
<td>-1.000</td>
</tr>
<tr>
<td>Q10. Knowledge and understanding of NPS cultural and natural resource inventories and their use in the management of cultural and natural resources.</td>
<td>4.556</td>
<td>1.424</td>
<td>3.556</td>
<td>1.590</td>
<td>-1.000</td>
</tr>
<tr>
<td>Q7. Thorough knowledge and understanding of the mission and objectives of the NPS.</td>
<td>6.111</td>
<td>0.782</td>
<td>5.222</td>
<td>1.394</td>
<td>-0.889</td>
</tr>
<tr>
<td>Q5. Comprehensive knowledge of the full range of NPS planning and programming activities, so as to review program and planning documents and to effectively program for curatorial projects.</td>
<td>5.222</td>
<td>1.394</td>
<td>4.333</td>
<td>1.585</td>
<td>-0.889</td>
</tr>
<tr>
<td>Q8. Thorough knowledge of historic preservation and natural resource stewardship history and philosophy.</td>
<td>5.111</td>
<td>1.537</td>
<td>4.333</td>
<td>2.121</td>
<td>-0.778</td>
</tr>
<tr>
<td>ITEM RATED/QUESTIONS</td>
<td>MEAN IMPORTANCE</td>
<td>STANDARD DEVIATION</td>
<td>MEAN COMPETENCY</td>
<td>STANDARD DEVIATION</td>
<td>(I - C) GAP</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>Q14. Ability to develop concepts, design, text, construction specifications, and oversee production of museum exhibits.</td>
<td>6.667</td>
<td>0.500</td>
<td>5.889</td>
<td>1.054</td>
<td>-0.778</td>
</tr>
<tr>
<td>Q16. Ability to work with contractors, including fabricators, conservators, designers, and researchers for the development and production of exhibits, including the development of contracting documents.</td>
<td>6.556</td>
<td>0.527</td>
<td>5.778</td>
<td>0.972</td>
<td>-0.778</td>
</tr>
<tr>
<td>Q21. Advanced skill in the use of computers to design exhibits.</td>
<td>3.889</td>
<td>1.900</td>
<td>3.111</td>
<td>2.476</td>
<td>-0.778</td>
</tr>
<tr>
<td>Q12. Ability, as part of writing an exhibit plan, to review a park collection for objects or specimens needed to complete a museum exhibit.</td>
<td>6.689</td>
<td>0.333</td>
<td>6.111</td>
<td>0.601</td>
<td>-0.778</td>
</tr>
<tr>
<td>Q1. Sound knowledge of the philosophy and procedures required for an extensive and active museum exhibition program including knowledge of NPS and museum interpretive and education standards and policies.</td>
<td>6.111</td>
<td>0.782</td>
<td>5.400</td>
<td>0.500</td>
<td>-0.711</td>
</tr>
<tr>
<td>Q18. Skill in presenting accurate information to the public based upon available museum records.</td>
<td>6.556</td>
<td>0.527</td>
<td>5.889</td>
<td>0.782</td>
<td>-0.667</td>
</tr>
<tr>
<td>Q11. Ability to recognize the interrelationship of all resource management disciplines such as museum services, archeology, cultural landscapes, building preservation, ethnography, natural resource stewardship, and maintenance, and work within this divisional/disciplinary framework towards the joint accomplishment of cultural and natural resource projects and goals.</td>
<td>5.778</td>
<td>1.481</td>
<td>5.111</td>
<td>1.364</td>
<td>-0.667</td>
</tr>
<tr>
<td>Q13. Ability to identify objects or specimens to be acquired and establish a strategy for their acquisition.</td>
<td>6.889</td>
<td>0.333</td>
<td>6.222</td>
<td>0.833</td>
<td>-0.667</td>
</tr>
<tr>
<td>Q3. Knowledge of the literature and reference sources of museum methods and theories and information concerning the collections and exhibition programs of the park.</td>
<td>5.444</td>
<td>1.667</td>
<td>4.778</td>
<td>2.224</td>
<td>-0.667</td>
</tr>
<tr>
<td>ITEMS RATED/QUESTIONS</td>
<td>MEAN IMPORTANCE</td>
<td>STANDARD DEVIATION</td>
<td>MEAN COMPETENCY</td>
<td>STANDARD DEVIATION</td>
<td>(I - C) GAP</td>
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<td>-------------------------------------------------------------------------------------</td>
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<tr>
<td>Q6. Ability to conceptualize, develop, and manage complex programs and to create</td>
<td>5.778</td>
<td>1.302</td>
<td>5.222</td>
<td>1.394</td>
<td>-0.556</td>
</tr>
<tr>
<td>innovative solutions to problems considered insoluble through the application of</td>
<td></td>
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<td>traditional solutions.</td>
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</tr>
<tr>
<td>Q25. Ability to manage contracts and ensure quality of products delivered.</td>
<td>6.556</td>
<td>0.527</td>
<td>6.000</td>
<td>1.000</td>
<td>-0.556</td>
</tr>
<tr>
<td>Q2. Comprehensive knowledge of the various museum related professional organizations and</td>
<td>4.444</td>
<td>1.509</td>
<td>3.889</td>
<td>2.147</td>
<td>-0.556</td>
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<tr>
<td>the ability to directly influence these groups or individuals to assist in the</td>
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<tr>
<td>resolution of NPS museum concerns and problems.</td>
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<tr>
<td>Q19. Ability to maintain accurate records on location, condition, and use of all</td>
<td>5.444</td>
<td>1.590</td>
<td>5.000</td>
<td>2.000</td>
<td>-0.444</td>
</tr>
<tr>
<td>museum collection items used in exhibits.</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Q24. Ability to develop and manage an interdisciplinary team or work within a team</td>
<td>6.444</td>
<td>0.527</td>
<td>6.000</td>
<td>1.225</td>
<td>-0.444</td>
</tr>
<tr>
<td>for development of exhibits. Team may include collections manager, conservator,</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>historian, other subject matter experts, and designers.</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q22. Advanced skill in the use of computers to produce labels, publications, and</td>
<td>4.111</td>
<td>1.965</td>
<td>3.778</td>
<td>2.108</td>
<td>-0.333</td>
</tr>
<tr>
<td>posters.</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Q26. Ability to write exhibit plans that meet NPS and museum standards.</td>
<td>6.667</td>
<td>0.707</td>
<td>6.566</td>
<td>0.527</td>
<td>-0.111</td>
</tr>
<tr>
<td>Q30. Thorough knowledge of health and safety issues and how to mitigate hazards</td>
<td>4.222</td>
<td>1.986</td>
<td>4.444</td>
<td>2.063</td>
<td>0.222</td>
</tr>
<tr>
<td>related to museum collections and exhibit fabrication materials.</td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Q28. Ability to provide training in the theory and practice of exhibit planning and</td>
<td>4.333</td>
<td>2.291</td>
<td>4.566</td>
<td>2.877</td>
<td>0.222</td>
</tr>
<tr>
<td>design.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q27. Ability to write exhibit label copy.</td>
<td>6.111</td>
<td>0.269</td>
<td>6.444</td>
<td>0.527</td>
<td>0.333</td>
</tr>
</tbody>
</table>
Figure 4. Cultural Stewardship Training Gap Analysis
Curator – Full Performance Level (Exhibit Development Track)
CURATORS – FULL PERFORMANCE LEVEL (Museum Management Track)

Profile of Respondents. Of the 15 Full Performance Curators (Museum Management Track) who responded to the survey, almost 54 percent were female. The average age of respondents was 52 years of age. They had completed almost 18 years of formal education. See Appendix A-10 for information pertaining to academic degrees held by Full Performance Curators (Museum Management Track).

All of the respondents were White. Forty percent of respondents held the rank of GS-12; an equal number were GS-13’s. Slightly over 13 percent were GS-14’s. They had been employed by the National Park Service for slightly over 20 years. They had been in their current positions for slightly over seven years.

Importance of Competencies. As can be seen in Table 5, respondents rated 34 different competencies as having great importance to them in their current positions. They were:

(Q1) Full professional knowledge of museum management principles and techniques, including museum operation, museum administration, collections management, exhibition, and museum education.

(Q2) Full professional knowledge of museum collections activities for natural, historic, archival and archeological collections, including registration, cataloging, storage, inventorying, preservation, and access as demonstrated by extensive experience managing large and significant museum collections.

(Q3) Knowledge of the policies, standards, guidelines, and management principles established by the NPS and by the museum profession nationally and internationally to govern the operation and development of museums and museum collections.

(Q4) Thorough knowledge of museum ethical standards.

(Q5) Sound knowledge of the philosophy and professionally established and widely accepted standards and procedures for curating and conserving both natural and cultural museum objects, archival collections, including maintenance, exhibition, use, storage and preservation of, museum materials, museum security, and environmental controls.

(Q6) Ability to manage a comprehensive museum program, including exhibits, collections management, archives management, collections preservation, collections development, etc.

(Q7) Thorough knowledge of historic preservation and natural resource stewardship history and philosophy.

(Q8) Thorough knowledge of NPS cultural and natural resource management policies and the Secretary of the Interior's Standards.
(Q9) Professional knowledge of the interdisciplinary process of resource management policies and programs.

(Q10) Ability to recognize the interrelationship of all resource management disciplines such as museum services, archaeology, cultural landscapes, building preservation, ethnography, natural resource stewardship, and maintenance, and work within this divisional/disciplinary framework towards the joint accomplishment of cultural and natural resource projects and goals.

(Q11) Skill in evaluating the museum collections to identify those items necessary to fulfill the park's mission.

(Q12) Ability to direct the writing of collecting policies based upon thorough knowledge of resources and needs of the park.

(Q13) Skill in evaluating the museum collection to determine weaknesses and strengths and to plan a strategy for eliminating weaknesses.

(Q14) Advanced working knowledge of intellectual property legislation and NPS policies relating to museum collections (e.g., copyright, privacy and publicity).

(Q16) Skill in integrating collection information management needs into a cohesive access system.

(Q17) Knowledge of museum information management systems in use by the museum profession.

(Q18) Ability to review, direct the review, and synthesize comments and concerns of exhibit plans.

(Q19) Ability to be a key team member in exhibit planning, interpretive planning, and educational programming to provide access to and use of collections.

(Q21) Expert knowledge of research tools, techniques, and methods for the documentation of cultural or natural resource collections.

(Q22) Ability to synthesize conflicting information from a complex variety of evidence and makes decisions affecting museum collections.

(Q24) Ability to develop scope and objectives of studies and research needed to enhance the collection.

(Q25) Ability to develop and implement a park-wide collections documentation program.
(Q28) Ability to plan and conduct complex analyses of and resolves complex problems related to museum documentation and records management.

(Q33) Knowledge of how museum materials deteriorate, how to recognize the signs of deterioration, and how deterioration can be stopped or minimized; the ability to recognize when natural and cultural objects require the attention of a professional conservator or how to forestall further deterioration.

(Q34) Ability to establish comprehensive conservation and preventive maintenance programs to plan for the full preservation of the museum collection.

(Q35) Thorough working knowledge of the NPS budget process and financial systems and the ability to manage expenditures of funds in a correct and efficient manner.

(Q36) Extensive knowledge of project management, particularly the integration of museum projects with other disciplines.

(Q37) Knowledge of the full range of NPS planning and programming activities and of potential sources of funding for curatorial activities and object/archival/documentary preservation.

(Q38) Ability to direct the preparation of reports documenting and evaluating collections management issues and resolving issues affecting collections.

(Q39) Ability to direct the documentation of analytical reports on a variety of aspects of the collection.

(Q40) Skill in critically evaluating studies, planning documents, proposals, and other documents.

(Q41) Skill in evaluating training needs of park staff.

(Q42) Ability to develop training for employees in curatorial procedures.

(Q43) Ability to identify and correct on-the-job safety and health hazards related to working with museum collections, instruct employees on health and safety requirements for job assignments, and report loss incidents in accordance with NPS policies and guidelines.

Each of these competencies received a mean importance rating of 6.0 or higher on the 7-point Importance Scale.

Perceived Level of Competency. Respondents reported feeling highly competent regarding 22 of the 43 competencies, rating these items as 6.0 or higher on the 7-point scale. They were:
(Q1) Full professional knowledge of museum management principles and techniques, including museum operation, museum administration, collections management, exhibition, and museum education.

(Q3) Knowledge of the policies, standards, guidelines, and management principles established by the NPS and by the museum profession nationally and internationally to govern the operation and development of museums and museum collections.

(Q4) Thorough knowledge of museum ethical standards.

(Q5) Sound knowledge of the philosophy and professionally established and widely accepted standards and procedures for curating and conserving both natural and cultural museum objects, archival collections, including maintenance, exhibition, use, storage and preservation of, museum materials, museum security, and environmental controls.

(Q6) Ability to manage a comprehensive museum program, including exhibits, collections management, archives management, collections preservation, collections development, etc.

(Q7) Thorough knowledge of historic preservation and natural resource stewardship history and philosophy.

(Q9) Professional knowledge of the interdisciplinary process of resource management policies and programs.

(Q10) Ability to recognize the interrelationship of all resource management disciplines such as museum services, archeology, cultural landscapes, building preservation, ethnography, natural resource stewardship, and maintenance, and work within this divisional/disciplinary framework towards the joint accomplishment of cultural and natural resource projects and goals.

(Q11) Skill in evaluating the museum collections to identify those items necessary to fulfill the park's mission.

(Q12) Ability to direct the writing of collecting policies based upon thorough knowledge of resources and needs of the park.

(Q13) Skill in evaluating the museum collection to determine weaknesses and strengths and to plan a strategy for eliminating weaknesses.

(Q19) Ability to be a key team member in exhibit planning, interpretive planning, and educational programming to provide access to and use of collections.
(Q22) Ability to synthesize conflicting information from a complex variety of evidence and makes decisions affecting museum collections.

(Q25) Ability to develop and implement a park-wide collections documentation program.

(Q26) Ability to develop and implement loan documentation and tracking procedures and systems.

(Q27) Ability to develop and implement a park-wide collections inventory control program.

(Q28) Ability to plan and conduct complex analyses of and resolves complex problems related to museum documentation and records management.

(Q33) Knowledge of how museum materials deteriorate, how to recognize the signs of deterioration, and how deterioration can be stopped or minimized; the ability to recognize when natural and cultural objects require the attention of a professional conservator or how to forestall further deterioration.

(Q36) Extensive knowledge of project management, particularly the integration of museum projects with other disciplines.

(Q38) Ability to direct the preparation of reports documenting and evaluating collections management issues and resolving issues affecting collections.

(Q39) Ability to direct the documentation of analytical reports on a variety of aspects of the collection.

(Q40) Skill in critically evaluating studies, planning documents, proposals, and other documents.

However, respondents reported feeling significantly less competent regarding their “[Advanced] ability to develop and produce electronic exhibits....” (Q20), and their “Ability to manage the development and operation of large information and image digitization, migration and access protocols” (Q31). As can be seen in the third column of Table 5, each of these competencies received a mean competency rating of less than 4.0 on the 7-point scale.

Gaps in Cultural Resource Stewardship Training. When analyzed together, the relative ratings of importance and competency provide a diagnostic assessment of training “gaps” in this occupational group. Table 5 provides a ranking of essential competencies producing the largest “I-C gaps.” But, in general, Full Performance Curators (Museum Management Track) were relatively satisfied with their level of training and preparation to perform their jobs. Only two competencies produced a gap in excess of 1.0. They were, in order of magnitude:
(Q20) Advanced ability to develop and produce electronic exhibits, including
digital and Internet features.

(Q31) Ability to manage the development and operation of large information and image
management systems, including image digitization, migration, and access
protocols.

Five other competencies produced gaps in excess of 0.75. They were:

(Q2) Full professional knowledge of museum collections activities for natural,
historic, archival and archeological collections, including registration,
cataloging, storage, inventoring, preservation, and access as
demonstrated by extensive experience managing large and significant
museum collections.

(Q35) Thorough working knowledge of the NPS budget process and financial
systems and the ability to manage expenditures of funds in a correct and
efficient manner.

(Q30) Knowledge of advanced computer skills.

(Q3) Knowledge of the policies, standards, guidelines, and management
principles established by the NPS and by the museum profession
nationally and internationally to govern the operation and development of
museums and museum collections.

(Q17) Knowledge of museum information management systems in use by the
museum profession.

Figure 5 presents a graphic depiction of the gaps between importance and competency
assigned to each item.

Perceptions of First-Line Supervisors. While the first-line supervisors of Full Performance
Curators (Museum Management Track) did not perceive significant training deficiencies
among this occupational group (no competencies were produced gaps > 1.0), two competencies
were commonly perceived to have gaps greater than 0.5. They were:

(Q30) Knowledge of advanced computer skills.

(Q20) Advanced ability to develop and produce electronic exhibits, including digital and
Internet features.
### Table 5. Cultural Resources Stewardship
Training Gap Analysis in Descending Order of Need
Curator – Full Performance Level (Museum Management Track)

<table>
<thead>
<tr>
<th>ITEMS RATED/QUESTIONS</th>
<th>MEAN IMPORTANCE</th>
<th>STANDARD DEVIATION</th>
<th>MEAN COMPETENCY</th>
<th>STANDARD DEVIATION</th>
<th>(I - C) GAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q20. Advanced ability to develop and produce electronic exhibits, including digital and Internet features.</td>
<td>4.800</td>
<td>1.656</td>
<td>3.133</td>
<td>1.807</td>
<td>-1.667</td>
</tr>
<tr>
<td>Q31. Ability to manage the development and operation of large information and image management systems, including image digitization, migration, and access protocols.</td>
<td>5.000</td>
<td>1.852</td>
<td>3.600</td>
<td>1.920</td>
<td>-1.400</td>
</tr>
<tr>
<td>Q2. Full professional knowledge of museum collections activities for natural, historic, archival and archeological collections, including registration, cataloging, storage, inventorying, preservation, and access as demonstrated by extensive experience managing large and significant museum collections.</td>
<td>6.600</td>
<td>0.910</td>
<td>5.733</td>
<td>1.223</td>
<td>-0.867</td>
</tr>
<tr>
<td>Q35. Thorough working knowledge of the NPS budget process and financial systems and the ability to manage expenditures of funds in a correct and efficient manner.</td>
<td>6.733</td>
<td>0.694</td>
<td>5.867</td>
<td>1.408</td>
<td>-0.867</td>
</tr>
<tr>
<td>Q30. Knowledge of advanced computer skills.</td>
<td>5.467</td>
<td>1.302</td>
<td>4.667</td>
<td>1.234</td>
<td>-0.800</td>
</tr>
<tr>
<td>Q3. Knowledge of the policies, standards, guidelines, and management principles established by the NPS and by the museum profession nationally and internationally to govern the operation and development of museums and museum collections.</td>
<td>6.933</td>
<td>0.258</td>
<td>6.133</td>
<td>0.990</td>
<td>-0.800</td>
</tr>
<tr>
<td>Q17. Knowledge of museum information management systems in use by the museum profession.</td>
<td>6.000</td>
<td>0.756</td>
<td>5.200</td>
<td>1.320</td>
<td>-0.800</td>
</tr>
<tr>
<td>Q16. Skill in integrating collection information management needs into a cohesive access system.</td>
<td>6.067</td>
<td>0.799</td>
<td>5.333</td>
<td>1.113</td>
<td>-0.733</td>
</tr>
<tr>
<td>Q32. Knowledge of NPS cultural and natural resource management databases and inventories and their use and relationship to museum collections.</td>
<td>5.667</td>
<td>1.633</td>
<td>4.933</td>
<td>2.067</td>
<td>-0.733</td>
</tr>
<tr>
<td>Q37. Knowledge of the full range of NPS planning and programming activities and of potential sources of funding for curatorial activities and object/archival/documentary preservation.</td>
<td>6.067</td>
<td>1.047</td>
<td>5.933</td>
<td>1.280</td>
<td>-0.733</td>
</tr>
<tr>
<td>ITEMS RATED/QUESTIONS</td>
<td>MEAN IMPORTANCE</td>
<td>STANDARD DEVIATION</td>
<td>MEAN COMPETENCY</td>
<td>STANDARD DEVIATION</td>
<td>(I - C) GAP</td>
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</tr>
<tr>
<td>Q43. Ability to identify and correct on-the-job safety and health hazards related to working with museum collections, instruct employees on health and safety requirements for job assignments, and report loss incidents in accordance with NPS policies and guidelines.</td>
<td>6.333</td>
<td>1.234</td>
<td>5.600</td>
<td>1.056</td>
<td>-0.733</td>
</tr>
<tr>
<td>Q14. Advanced working knowledge of intellectual property legislation and NPS policies relating to museum collections (e.g., copyright, privacy and publicity).</td>
<td>6.200</td>
<td>1.265</td>
<td>5.600</td>
<td>1.352</td>
<td>-0.000</td>
</tr>
<tr>
<td>Q1. Full professional knowledge of museum management principles and techniques, including museum operation, museum administration, collections management, exhibition, and museum education.</td>
<td>6.733</td>
<td>0.704</td>
<td>6.133</td>
<td>1.302</td>
<td>-0.600</td>
</tr>
<tr>
<td>Q8. Thorough knowledge of NPS cultural and natural resource management policies and the Secretary of the Interior’s Standards.</td>
<td>6.533</td>
<td>0.640</td>
<td>5.933</td>
<td>1.163</td>
<td>-0.600</td>
</tr>
<tr>
<td>Q5. Sound knowledge of the philosophy and professionally established and widely accepted standards and procedures for curating and conserving both natural and cultural museum objects, archival collections, including maintenance, exhibition, use, storage and preservation of, museum materials, museum security, and environmental controls.</td>
<td>6.600</td>
<td>0.737</td>
<td>6.007</td>
<td>1.223</td>
<td>-0.533</td>
</tr>
<tr>
<td>Q41. Skill in evaluating training needs of park staff.</td>
<td>6.200</td>
<td>1.424</td>
<td>5.733</td>
<td>1.223</td>
<td>-0.467</td>
</tr>
<tr>
<td>Q6. Ability to manage a comprehensive museum program, including exhibits, collections management, archives management, collections preservation, collections development, etc.</td>
<td>6.600</td>
<td>0.633</td>
<td>6.133</td>
<td>1.246</td>
<td>-0.467</td>
</tr>
<tr>
<td>Q12. Ability to direct the writing of collecting policies based upon thorough knowledge of resources and needs of the park.</td>
<td>6.733</td>
<td>0.458</td>
<td>6.257</td>
<td>0.961</td>
<td>-0.467</td>
</tr>
</tbody>
</table>
Table 5. Cultural Resources Stewardship  
Training Gap Analysis in Descending Order of Need  
Curator – Full Performance Level (Museum Management Track)

<table>
<thead>
<tr>
<th>ITEMS RATED/QUESTIONS</th>
<th>MEAN IMPORTANCE</th>
<th>STANDARD DEVIATION</th>
<th>MEAN COMPETENCY</th>
<th>STANDARD DEVIATION</th>
<th>(I - C) GAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q33. Knowledge of how museum materials deteriorate, how to recognize the signs of deterioration, and how deterioration can be stopped or minimized; the ability to recognize when natural and cultural objects require the attention of a professional conservator or how to forestall further deterioration.</td>
<td>6.533</td>
<td>1.061</td>
<td>5.067</td>
<td>1.335</td>
<td>-0.467</td>
</tr>
<tr>
<td>Q21. Expert knowledge of research tools, techniques, and methods for the documentation of cultural or natural resource collections.</td>
<td>6.067</td>
<td>1.668</td>
<td>5.667</td>
<td>1.345</td>
<td>-0.400</td>
</tr>
<tr>
<td>Q42. Ability to develop training for employees in curatorial procedures.</td>
<td>6.000</td>
<td>1.558</td>
<td>5.600</td>
<td>1.404</td>
<td>-0.400</td>
</tr>
<tr>
<td>Q18. Ability to review, direct the review, and synthesize comments and concerns of exhibit plans.</td>
<td>6.133</td>
<td>1.356</td>
<td>5.733</td>
<td>1.580</td>
<td>-0.400</td>
</tr>
<tr>
<td>Q36. Extensive knowledge of project management, particularly the integration of museum projects with other disciplines.</td>
<td>6.467</td>
<td>1.126</td>
<td>6.133</td>
<td>1.356</td>
<td>-0.333</td>
</tr>
<tr>
<td>Q40. Skill in critically evaluating studies, planning documents, proposals, and other documents.</td>
<td>6.457</td>
<td>1.060</td>
<td>6.133</td>
<td>1.060</td>
<td>-0.333</td>
</tr>
<tr>
<td>Q22. Ability to synthesize conflicting information from a complex variety of evidence and makes decisions affecting museum collections.</td>
<td>6.333</td>
<td>0.976</td>
<td>6.000</td>
<td>1.363</td>
<td>-0.333</td>
</tr>
<tr>
<td>Q38. Ability to direct the preparation of reports documenting and evaluating collections management issues and resolving issues affecting collections.</td>
<td>6.600</td>
<td>1.056</td>
<td>6.267</td>
<td>1.033</td>
<td>-0.333</td>
</tr>
<tr>
<td>Q4. Thorough knowledge of museum ethical standards.</td>
<td>6.733</td>
<td>0.594</td>
<td>6.429</td>
<td>0.938</td>
<td>-0.305</td>
</tr>
<tr>
<td>Q9. Professional knowledge of the interdisciplinary process of resource management policies and programs.</td>
<td>6.333</td>
<td>0.817</td>
<td>6.067</td>
<td>1.223</td>
<td>-0.267</td>
</tr>
<tr>
<td>Q34. Ability to establish comprehensive conservation and preventive maintenance programs to plan for the full preservation of the museum collection.</td>
<td>6.133</td>
<td>1.457</td>
<td>5.867</td>
<td>1.060</td>
<td>-0.267</td>
</tr>
<tr>
<td>ITEMS RATED/QUESTIONS</td>
<td>MEAN IMPORTANCE</td>
<td>STANDARD DEVIATION</td>
<td>MEAN COMPETENCY</td>
<td>STANDARD DEVIATION</td>
<td>(I-C) GAP</td>
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</tr>
<tr>
<td>Q39. Ability to direct the documentation of analytical reports on a variety of aspects of the collection.</td>
<td>6.333</td>
<td>1.047</td>
<td>6.067</td>
<td>1.033</td>
<td>-0.267</td>
</tr>
<tr>
<td>Q11. Skill in evaluating the museum collections to identify those items necessary to fulfill the park’s mission.</td>
<td>6.467</td>
<td>0.916</td>
<td>6.267</td>
<td>1.033</td>
<td>-0.200</td>
</tr>
<tr>
<td>Q19. Ability to be a key team member in exhibit planning, interpretive planning, and educational programming to provide access to and use of collections.</td>
<td>6.200</td>
<td>1.373</td>
<td>6.000</td>
<td>1.558</td>
<td>-0.200</td>
</tr>
<tr>
<td>Q13. Skill in evaluating the museum collection to determine weaknesses and strengths and to plan a strategy for eliminating weaknesses.</td>
<td>6.600</td>
<td>0.633</td>
<td>6.400</td>
<td>0.986</td>
<td>-0.200</td>
</tr>
<tr>
<td>Q24. Ability to develop scope and objectives of studies and research needed to enhance the collection.</td>
<td>6.067</td>
<td>1.100</td>
<td>5.933</td>
<td>1.280</td>
<td>-0.133</td>
</tr>
<tr>
<td>Q10. Ability to recognize the interrelationship of all resource management disciplines such as museum services, archeology, cultural landscapes, building preservation, ethnography, natural resource stewardship, and maintenance, and work within this divisional/disciplinary framework towards the joint accomplishment of cultural and natural resource projects and goals.</td>
<td>6.333</td>
<td>1.291</td>
<td>6.267</td>
<td>1.100</td>
<td>-0.067</td>
</tr>
<tr>
<td>Q29. Skill in coordinating input and review of documentation and records management systems.</td>
<td>5.733</td>
<td>1.666</td>
<td>5.667</td>
<td>1.234</td>
<td>-0.067</td>
</tr>
<tr>
<td>Q7. Thorough knowledge of historic preservation and natural resource stewardship history and philosophy.</td>
<td>6.200</td>
<td>1.014</td>
<td>6.200</td>
<td>1.207</td>
<td>0.000</td>
</tr>
<tr>
<td>Q23. Knowledge of specific types of cultural or natural resource collections. Specialized knowledge of cultural and natural resource collections related to the resources of the park.</td>
<td>5.800</td>
<td>1.568</td>
<td>5.800</td>
<td>1.265</td>
<td>0.000</td>
</tr>
<tr>
<td>Q28. Ability to plan and conduct complex analyses of and resolve complex problems related to museum documentation and records management.</td>
<td>6.000</td>
<td>1.732</td>
<td>6.000</td>
<td>1.309</td>
<td>0.000</td>
</tr>
</tbody>
</table>
### Table 5. Cultural Resources Stewardship
Training Gap Analysis in Descending Order of Need
Curator – Full Performance Level (Museum Management Track)

<table>
<thead>
<tr>
<th>ITEMS RATED/QUESTIONS</th>
<th>MEAN IMPORTANCE</th>
<th>STANDARD DEVIATION</th>
<th>MEAN COMPETENCY</th>
<th>STANDARD DEVIATION</th>
<th>(I - C) GAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q15. Knowledge of all natural and cultural resource disciplines represented in museum collections.</td>
<td>5.533</td>
<td>1.246</td>
<td>5.600</td>
<td>1.121</td>
<td>0.067</td>
</tr>
<tr>
<td>Q26. Ability to develop and implement loan documentation and tracking procedures and systems.</td>
<td>5.933</td>
<td>1.668</td>
<td>6.067</td>
<td>1.223</td>
<td>0.133</td>
</tr>
<tr>
<td>Q25. Ability to develop and implement a park-wide collections documentation program.</td>
<td>6.000</td>
<td>1.648</td>
<td>6.200</td>
<td>1.265</td>
<td>0.200</td>
</tr>
<tr>
<td>Q27. Ability to develop and implement a park-wide collections inventory control program.</td>
<td>5.887</td>
<td>1.727</td>
<td>6.133</td>
<td>1.187</td>
<td>0.267</td>
</tr>
</tbody>
</table>
Figure 5. Cultural Stewardship Training Gap Analysis
Curator – Full Performance Level (Museum Management Track)
National Park Service  
Cultural Resources Stewardship Needs Assessment  
Museum Management  
Curator - Entry Level

In the performance of your present job as a curator, how important are the following professional competencies? The essential competencies for curator can be found in the NPS Tracking Kit at the "Learning Place" web site:  
www.nps.gov/training/npsonly/npsescom.htm. Please check the most appropriate response for each item.

### Professional Discipline (Museology)

1. Thorough knowledge of principles, practices, and philosophy of the museum profession.  

<table>
<thead>
<tr>
<th>Not Important</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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</thead>
</table>

2. Ability to develop and implement solutions to specific collections management issues.  

<table>
<thead>
<tr>
<th>Not Important</th>
<th>1</th>
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</table>

3. Thorough knowledge of NPS standards and procedures regarding collections management.  

<table>
<thead>
<tr>
<th>Not Important</th>
<th>1</th>
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<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
</table>

4. Knowledge of history and philosophy of museums; standards and ethics of museum profession; standard museum policies and procedures; theories and practice of museums.  

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<tr>
<th>Not Important</th>
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</table>

5. Knowledge of North American material culture, American history, or natural resources.  

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<tr>
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<th>3</th>
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</tr>
</thead>
</table>

6. Knowledge of the mission and objectives of the museum management program of the NPS.  

<table>
<thead>
<tr>
<th>Not Important</th>
<th>1</th>
<th>2</th>
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</table>

### Preservation Law, Philosophy, and Practice

7. Intermediate knowledge of historic preservation and natural resource stewardship history and philosophy.  

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<thead>
<tr>
<th>Not Important</th>
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<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
</table>
8. Intermediate knowledge of NPS cultural and natural resource management policies and the Secretary of the Interior's Standards.


Research and Inventory

- Collections Development -

10. Knowledge of museum collecting policies.

11. Ability to implement an approved collecting policy by evaluating museum collections.

- Collections Use -

12. Basic knowledge of intellectual property legislation and NPS policies relating to museum collections.

13. Ability to produce finding aids and other access tools to aid researchers.

14. Working knowledge of exhibit development and production.

15. Ability to review concept plans, specifications, and plans for exhibit production.

- Research -

17. Thorough working knowledge of research tools, techniques, and methods for the documentation of cultural or natural resource collections.

18. Knowledge of specific types of cultural or natural resource collections with specialized knowledge of cultural and natural resource collections related to the resources of the park.

19. Ability to research collections for a variety of uses, including exhibits, publications, and studies.

- Collections Documentation -

20. Thorough knowledge of full range of museum documentation practices and procedures, including registration, cataloging, loans, and inventory control.

21. Good working knowledge of legal standards for documentation of collections.

22. Ability to develop scopes of work for appraisal, cataloging, and other documentation activities.

23. Ability to develop and conduct inventory control procedures.

24. Advanced knowledge of computerized cataloging and other museum recordkeeping systems and techniques.
- Computer Skills -

25. Advanced computer skills, including use of database management systems and NPS collections documentation systems.

26. Ability to manipulate data, design and produce access systems applications for analysis of monitoring data.

Collections Preservation and Protection

27. Thorough knowledge of collections preservation principles and techniques (e.g. agents of deterioration and housekeeping techniques).

28. Ability to develop environmental and pest monitoring plans and to analyze environmental and other monitoring data.

29. Thorough knowledge of museum collection storage techniques and practices.

30. Ability to safely pack and ship museum collections.

31. Ability to recognize objects needing conservation treatment and to recommend and refer treatment to the appropriate facility.

32. Thorough knowledge of museum protection systems, procedures, and practices.

Program Management

33. Ability to manage a museum program and to solve problems in innovative as well as traditional ways.
<table>
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<th>Appendix A-1</th>
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</table>

34. Knowledge of basic supervisory practices, including personnel management policies and procedures, and skill in motivating a professional and technical staff.

| Not Important | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

35. Ability to prepare scopes of work for procurement of professional services.

| Not Important | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

36. Ability to prepare scopes of work for cooperative agreements to accomplish collections management goals.

| Not Important | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

### Writing and Communications

37. Ability to prepare clear, concise reports documenting and evaluating collections management issues and making recommendations for the resolution of issues.

| Not Important | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

38. Ability to write analytical documentation on a variety of aspects of the collection.

| Not Important | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

39. Ability to critically evaluate studies, planning documents, proposals, and other documents.

| Not Important | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

40. Skill in writing technical documents.

| Not Important | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

### Training

41. Skill in training employees in NPS collections management principles, standards and procedures.

| Not Important | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

### Safety

42. Knowledge of health and safety issues and appropriate protection procedures related to working with museum collections.

| Not Important | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
Cultural Resources Stewardship Needs Assessment
Museum Management
Curator - Entry Level

The National Park Service has the responsibility of providing meaningful training and education for its employees. The purpose of this training is to ensure the basic missions of the Service and its individual units are met, while allowing employees to reach their personal career goals.

Please look at the same list again. This time consider how you rate your overall preparation (all sources) for these aspects of being a curator. Please check the most appropriate response for each item. If the training competency does not apply to your present position, check the first box - N/A.

**Professional Discipline (Museology)**

<table>
<thead>
<tr>
<th></th>
<th>N/A</th>
<th>1</th>
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<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>43.</td>
<td>Thorough knowledge of principles, practices, and philosophy of the museum profession.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>44.</td>
<td>Ability to develop and implement solutions to specific collections management issues.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>45.</td>
<td>Thorough knowledge of NPS standards and procedures regarding collections management.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>46.</td>
<td>Knowledge of history and philosophy of museums; standards and ethics of museum profession; standard museum policies and procedures; theories and practice of museums.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>47.</td>
<td>Knowledge of North American material culture, American history, or natural resources.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>48.</td>
<td>Knowledge of the mission and objectives of the museum management program of the NPS.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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</tbody>
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**Preservation Law, Philosophy, and Practice**

<table>
<thead>
<tr>
<th></th>
<th>N/A</th>
<th>1</th>
<th>2</th>
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<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>49.</td>
<td>Intermediate knowledge of historic preservation and natural resource stewardship history and philosophy.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>
50. Intermediate knowledge of NPS cultural and natural resource management policies and the Secretary of the Interior's Standards.

51. Knowledge of NPS cultural and natural resource inventories and their use in the management of cultural and natural resources.

Research and Inventory

- Collections Development -

52. Knowledge of museum collecting policies.

53. Ability to implement an approved collecting policy by evaluating museum collections.

- Collections Use -

54. Basic knowledge of intellectual property legislation and NPS policies relating to museum collections.

55. Ability to produce finding aids and other access tools to aid researchers.

56. Working knowledge of exhibit development and production.

57. Ability to review concept plans, specifications, and plans for exhibit production.

58. Knowledge of museum education practices.
### APPENDIX A-1

#### - Research -

59. Thorough working knowledge of research tools, techniques, and methods for the documentation of cultural or natural resource collections.

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<tr>
<th>0</th>
<th>1</th>
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<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
</table>

60. Knowledge of specific types of cultural or natural resource collections with specialized knowledge of cultural and natural resource collections related to the resources of the park.

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</table>

61. Ability to research collections for a variety of uses, including exhibits, publications, and studies.

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<th>0</th>
<th>1</th>
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<th>3</th>
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</tr>
</thead>
</table>

#### - Collections Documentation -

62. Thorough knowledge of full range of museum documentation practices and procedures, including registration, cataloging, loans, and inventory control.

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<tr>
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<th>7</th>
</tr>
</thead>
</table>

63. Good working knowledge of legal standards for documentation of collections.

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<th>4</th>
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<th>7</th>
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</table>

64. Ability to develop scopes of work for appraisal, cataloging, and other documentation activities.

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<tr>
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<th>7</th>
</tr>
</thead>
</table>

65. Ability to develop and conduct inventory control procedures.

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<tr>
<th>0</th>
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<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
</table>

66. Advanced knowledge of computerized cataloging and other museum recordkeeping systems and techniques.

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
- Computer Skills -

67. Advanced computer skills, including use of database management systems and NPS collections documentation systems.

68. Ability to manipulate data, design and produce access systems applications for analysis of monitoring data.

Collections Preservation and Protection

69. Thorough knowledge of collections preservation principles and techniques (e.g. agents of deterioration and housekeeping techniques).

70. Ability to develop environmental and pest monitoring plans and to analyze environmental and other monitoring data.

71. Thorough knowledge of museum collection storage techniques and practices.

72. Ability to safely pack and ship museum collections.

73. Ability to recognize objects needing conservation treatment and to recommend and refer treatment to the appropriate facility.

74. Thorough knowledge of museum protection systems, procedures, and practices.

Program Management

75. Ability to manage a museum program and to solve problems in innovative as well as traditional ways.
76. Knowledge of basic supervisory practices, including personnel management policies and procedures, and skill in motivating a professional and technical staff.

77. Ability to prepare scopes of work for procurement of professional services.

78. Ability to prepare scopes of work for cooperative agreements to accomplish collections management goals.

**Writing and Communications**

79. Ability to prepare clear, concise reports documenting and evaluating collections management issues and making recommendations for the resolution of issues.

80. Ability to write analytical documentation on a variety of aspects of the collection.

81. Ability to critically evaluate studies, planning documents, proposals, and other documents.

82. Skill in writing technical documents.

**Training**

83. Skill in training employees in NPS collections management principles, standards and procedures.

**Safety**

84. Knowledge of health and safety issues and appropriate protection procedures related to working with museum collections.
Demographics

85. Age (years):_____

86. Gender:  1 Female  2 Male

87. Race/National Origin:
   1 American Indian or Alaskan Native
   2 Hispanic
   3 Black (Not of Hispanic Origin)
   4 Asian or Pacific Islander
   5 White (Not of Hispanic Origin)
   6 Other (Please Specify):

88. Do you have a disability?  1 Yes  2 No

89. Current GS level_____

90. Number of years served in the National Park Service?_____

91. Number of years in current position?_____

92. Education (Circle the highest number of years of formal education completed)
   <12  12  13  14  15  16  17  18  18+

93. If you hold a college degree(s), please complete the following questions regarding
the type of degree(s) and major field(s) of study:

Bachelor's:
Type of Degree (i.e., B.S., B.A., etc.)________________________
Major Field of Study______________________________________

Master's:
Type of Degree (i.e., M.S., M.A., etc.)_____________________
Major Field of Study______________________________________

Doctorate:
Type of Degree (i.e., Ph.D., Ed.D., etc.)____________________
Major Field of Study______________________________________
ACADEMIC DEGREES AS REPORTED BY RESPONDENTS
CURATOR - ENTRY LEVEL

UNDERGRADUATE [A.S., B.S. & B.A.]

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<tr>
<td>Historic Preservation</td>
<td>01</td>
</tr>
<tr>
<td>Sociology</td>
<td>02</td>
</tr>
<tr>
<td>Theatre Arts</td>
<td>01</td>
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</tbody>
</table>

GRADUATE [M.S. & M.A.]

<table>
<thead>
<tr>
<th>Subject</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthropology</td>
<td>01</td>
</tr>
</tbody>
</table>
National Park Service
Cultural Resources Stewardship Needs Assessment
Museum Management
Curator Track - Developmental Level

In the performance of your present job as a curator, how important are the following professional competencies? The essential competencies for curator can be found in the NPS Tracking Kit at the “Learning Place” web site: www.nps.gov/training/npsonly/npsescom.htm. Please check the most appropriate response for each item.

Professional Discipline (Museology)

1. Ability to develop and implement a comprehensive, systematic collections management program.

2. Thorough knowledge of the NPS museum management program, and the laws, policies, and regulations governing its conduct.

3. Thorough knowledge of NPS museum management standards, guidelines, and procedures.

4. Mastery of museum management principles and practices, and comprehensive and current knowledge of collections management and museum registration, documentation and information systems, and conservation, with demonstrated skill in applying this professional knowledge to the development of new policies, procedures, and approaches. Knowledge of museum ethical standards.

5. Current knowledge of professional standards and techniques for collections and information management of museum collections.
6. Thorough knowledge of NPS curatorial programs and activities, the laws, policies, and regulations governing their conduct, and the procedures and processes followed in their operation.

7. Extensive knowledge of museum collection management and NPS procedures for museum accessioning, cataloging, packing, shipping, loans, protection, environmental requirements, and property management.

8. Professional knowledge of the policies, standards, guidelines, and management principles established by the NPS and museum professions to govern operation and development of museum collections and records systems.

Preservation Law, Philosophy, and Practice

9. Thorough knowledge of historic preservation and natural resource stewardship history and philosophy.

10. Thorough knowledge of NPS cultural and natural resource management policies and the Secretary of the Interior’s Standards.

11. Knowledge of NPS cultural and natural resource inventories and their use in the management of cultural and natural resources.

Research and Inventory

- Collections Development -

12. Ability to identify and evaluate museum collections necessary for fulfillment of park’s mission.
APPENDIX A-3

13. Ability to write collecting policies based upon thorough knowledge of resources and needs of the park.

14. Ability to evaluate museum collections to determine weaknesses and strengths and to plan a strategy for eliminating weaknesses.

- Collections Use -

15. Working knowledge of intellectual property legislation and NPS policies relating to museum collections.

16. Functional knowledge of all natural and cultural resource disciplines represented in NPS museum collections.

17. Ability to integrate collection information management needs into a cohesive multi-disciplinary access system.

18. Comprehensive and up-to-date knowledge of museum information management systems in use by the museum profession.

19. Ability to comprehensively review exhibit plans for collections management issues and to recommend creative, responsible solutions to these issues.

20. Ability to work creatively with exhibit planning, interpretive planning, and educational programming teams to provide access to and use of collections.
21. Working knowledge of development and production of electronic exhibits, including digital and Internet features.

- Research -

22. Excellent working knowledge of research tools, techniques, and methods for the documentation of cultural or natural resource collections.

23. Ability to synthesize sometimes conflicting information from a complex variety of historical evidence.

24. Specialized knowledge of cultural and natural resource collections related to the resources of the park.

25. Ability to determine the need for research and develop the scope and objectives of the study.

- Collections Documentation -

26. Ability to develop a park-wide collections documentation program.

27. Ability to develop loan documentation and tracking procedures and systems.

28. Ability to develop a park-wide collections inventory control program.
29. Demonstrated ability to plan and conduct complex analyses of and resolve complex problems related to museum documentation and records management, assuring appropriate coordination, input, and review.

30. Comprehensive and current knowledge of professional standards and techniques for collections and information management of museum collections.

- Computer Skills -

31. Knowledge of advanced computer skills.

32. Skill in managing the development and operation of large information management systems.

33. Thorough knowledge of hardware operating systems and the principles of automated database management systems and applications for use in NPS collections management.

34. Good working knowledge of NPS cultural and natural resource management databases.

**Collections Preservation and Protection**

35. Ability to develop a collection storage plan.

36. Ability to develop an integrated collections preservation plan.

37. Ability to contract for conservation surveys, conservation treatment, and other preservation work.
38. Ability to review plans and identify collections management issues and recommend solutions.

39. Ability to develop a park-wide collections protection program.

40. Ability to develop housekeeping plans.

41. Ability to determine the adequacy of environmental conditions, to detect signs of deterioration and wear, to perform as well as supervise routine preservation maintenance of objects, and to recognize conditions that require more extensive conservation treatment.

42. Thorough knowledge of emergency preparedness procedures and practices for museum collections.

**Program Management**

43. Ability to develop and manage a comprehensive, sustainable, long-term collections management program.

44. Ability to plan, design, and implement assigned projects independently.

45. Thorough knowledge of supervisory practices, including personnel management policies and procedures, and skill in motivating a staff of professional and technical staff.

46. Knowledge of planning and programming activities and of potential sources of funding for curatorial programs.
47. Ability to develop contracting documents and cooperative agreements.

48. Ability to manage contracts and cooperative agreements.

49. Knowledge of planning and programming activities and of potential sources of funding for curatorial programs.

**Writing and Communications**

50. Ability to prepare clear, concise reports documenting and evaluating collections management issues, and making recommendations for resolution of issues.

51. Ability to write analytical documentation on a variety of aspects of the collection.

52. Ability to critically evaluate studies, planning documents, proposals, and other documents.

**Training**

53. Ability to train employees in NPS curatorial procedures.

54. Ability to coordinate training courses and workshops.
Safety

55. Thorough knowledge of health and safety issues and how to mitigate hazards related to working with museum collections, including the use of personal protection equipment.

56. Skill in identifying risks and implementing a program to prevent health and safety emergencies according to Occupational Health and Safety Administration (OSHA) laws and regulations and NPS policies and guidelines.
Cultural Resources Stewardship Needs Assessment
Museum Management
Curator Track - Developmental Level

The National Park Service has the responsibility of providing meaningful training and education for its employees. The purpose of this training is to ensure the basic missions of the Service and its individual units are met, while allowing employees to reach their personal career goals.

Please look at the same list again. This time consider how you rate your overall preparation (all sources) for these aspects of being a curator. Please check the most appropriate response for each item. If the training competency does not apply to your present position, check the first box - N/A.

Professional Discipline (Museology)

57. Ability to develop and implement a comprehensive, systematic collections management program.

58. Thorough knowledge of the NPS museum management program, and the laws, policies, and regulations governing its conduct.

59. Thorough knowledge of NPS museum management standards, guidelines, and procedures.

60. Mastery of museum management principles and practices, and comprehensive and current knowledge of collections management and museum registration, documentation and information systems, and conservation, with demonstrated skill in applying this professional knowledge to the development of new policies, procedures, and approaches. Knowledge of museum ethical standards.

61. Current knowledge of professional standards and techniques for collections and information management of museum collections.
62. Thorough knowledge of NPS curatorial programs and activities, the laws, policies, and regulations governing their conduct, and the procedures and processes followed in their operation.

63. Extensive knowledge of museum collection management and NPS procedures for museum accessioning, cataloging, packing, shipping, loans, protection, environmental requirements, and property management.

64. Professional knowledge of the policies, standards, guidelines, and management principles established by the NPS and museum professions to govern operation and development of museum collections and records systems.

**Preservation Law, Philosophy, and Practice**

65. Thorough knowledge of historic preservation and natural resource stewardship history and philosophy.

66. Thorough knowledge of NPS cultural and natural resource management policies and the Secretary of the Interior's Standards.

67. Knowledge of NPS cultural and natural resource inventories and their use in the management of cultural and natural resources.

**Research and Inventory**

- Collections Development -

68. Ability to identify and evaluate museum collections necessary for fulfillment of park's mission.
69. Ability to write collecting policies based upon thorough knowledge of resources and needs of the park.

70. Ability to evaluate museum collections to determine weaknesses and strengths and to plan a strategy for eliminating weaknesses.

- Collections Use -

71. Working knowledge of intellectual property legislation and NPS policies relating to museum collections.

72. Functional knowledge of all natural and cultural resource disciplines represented in NPS museum collections.

73. Ability to integrate collection information management needs into a cohesive multi-disciplinary access system.

74. Comprehensive and up-to-date knowledge of museum information management systems in use by the museum profession.

75. Ability to comprehensively review exhibit plans for collections management issues and to recommend creative, responsible solutions to these issues.

76. Ability to work creatively with exhibit planning, interpretive planning, and educational programming teams to provide access to and use of collections.

77. Working knowledge of development and production of electronic exhibits, including digital and Internet features.
- Research -

78. Excellent working knowledge of research tools, techniques, and methods for the documentation of cultural or natural resource collections.

79. Ability to synthesize sometimes conflicting information from a complex variety of historical evidence.

80. Specialized knowledge of cultural and natural resource collections related to the resources of the park.

81. Ability to determine the need for research and develop the scope and objectives of the study.

- Collections Documentation -

82. Ability to develop a park-wide collections documentation program.

83. Ability to develop loan documentation and tracking procedures and systems.

84. Ability to develop a park-wide collections inventory control program.

85. Demonstrated ability to plan and conduct complex analyses of and resolve complex problems related to museum documentation and records management, assuring appropriate coordination, input, and review.

86. Comprehensive and current knowledge of professional standards and techniques for collections and information management of museum collections.
- Computer Skills -

87. Knowledge of advanced computer skills.  

88. Skill in managing the development and operation of large information management systems.  

89. Thorough knowledge of hardware operating systems and the principles of automated database management systems and applications for use in NPS collections management.  

90. Good working knowledge of NPS cultural and natural resource management databases.  

Collections Preservation and Protection

91. Ability to develop a collection storage plan.  

92. Ability to develop an integrated collections preservation plan.  

93. Ability to contract for conservation surveys, conservation treatment, and other preservation work.  

94. Ability to review plans and identify collections management issues and recommend solutions.  

95. Ability to develop a park-wide collections protection program.  

96. Ability to develop housekeeping plans.
97. Ability to determine the adequacy of environmental conditions, to detect signs of deterioration and wear, to perform as well as supervise routine preservation maintenance of objects, and to recognize conditions that require more extensive conservation treatment.

98. Thorough knowledge of emergency preparedness procedures and practices for museum collections.

Program Management

99. Ability to develop and manage a comprehensive, sustainable, long-term collections management program.

100. Ability to plan, design, and implement assigned projects independently.

101. Thorough knowledge of supervisory practices, including personnel management policies and procedures, and skill in motivating a staff of professional and technical staff.

102. Knowledge of planning and programming activities and of potential sources of funding for curatorial programs.

103. Ability to develop contracting documents and cooperative agreements.

104. Ability to manage contracts and cooperative agreements.

105. Knowledge of planning and programming activities and of potential sources of funding for curatorial programs.
Writing and Communications

106. Ability to prepare clear, concise reports documenting and evaluating collections management issues, and making recommendations for resolution of issues.

107. Ability to write analytical documentation on a variety of aspects of the collection.

108. Ability to critically evaluate studies, planning documents, proposals, and other documents.

Training

109. Ability to train employees in NPS curatorial procedures.

110. Ability to coordinate training courses and workshops.

Safety

111. Thorough knowledge of health and safety issues and how to mitigate hazards related to working with museum collections, including the use of personal protection equipment.

112. Skill in identifying risks and implementing a program to prevent health and safety emergencies according to Occupational Health and Safety Administration (OSHA) laws and regulations and NPS policies and guidelines.
Demographics

113. Age (years):_____

114. Gender:  □ Female  □ Male

115. Race/National Origin:
   □ American Indian or Alaskan Native  □ Hispanic
   □ Black (Not of Hispanic Origin)  □ Asian or Pacific Islander
   □ White (Not of Hispanic Origin)  □ Other (Please Specify):

116. Do you have a disability?  □ Yes □ No

117. Current GS level ______

118. Number of years served in the National Park Service?_____

119. Number of years in current position?_____

120. Education (Circle the highest number of years of formal education completed)
   <12  12  13  14  15  16  17  18  18+

121. If you hold a college degree(s), please complete the following questions regarding the type of degree(s) and major field(s) of study:

   Bachelor’s:
   Type of Degree (i.e., B.S., B.A., etc.)_____________________
   Major Field of Study_____________________________________

   Master’s:
   Type of Degree (i.e., M.S., M.A., etc.)_______________________
   Major Field of Study_____________________________________

   Doctorate:
   Type of Degree (i.e., Ph.D., Ed.D., etc.)______________________
   Major Field of Study_____________________________________

A3-16
# Academic Degrees as Reported by Respondents

Curator - Developmental Level

The following list of degrees, as reported by the respondents, has been condensed for the ease of compilation. Some specific degree titles do not appear due to categorization under a more general term.

## Undergraduate [A.A., B.S., B.A. & B.F.A.]

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<tr>
<td>Anthropology</td>
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<tr>
<td>Art History/Arts Management</td>
<td>07</td>
</tr>
<tr>
<td>Botany/Biology/Zoology</td>
<td>05</td>
</tr>
<tr>
<td>Business Administration</td>
<td>01</td>
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<td>Chemistry</td>
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<td>Communications Education</td>
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<td>Economics</td>
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<td>Environmental Interpretation</td>
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<td>Geography</td>
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<td>History</td>
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<td>Historic Preservation</td>
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<tr>
<td>Liberal Arts</td>
<td>01</td>
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<tr>
<td>Maritime Resources Studies</td>
<td>01</td>
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<tr>
<td>Museum Studies</td>
<td>02</td>
</tr>
<tr>
<td>Outdoor Recreation</td>
<td>01</td>
</tr>
<tr>
<td>Psychology</td>
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<td>Resource Management</td>
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<td>Studio Art</td>
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<tr>
<td>Theatre</td>
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## Graduate [M.S., M.A., M.F.A. & Ph.D.]

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<td>Museum Studies</td>
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National Park Service
Cultural Resources Stewardship Needs Assessment
Museum Management
Curator - Subject Matter Track
Full Performance Level

In the performance of your present job as a curator, how important are the following professional competencies? The essential competencies for curator can be found in the NPS Tracking Kit at the “Learning Place” web site: www.nps.gov/training/npsonly/npsescom.htm. Please check the most appropriate response for each item.

Professional Discipline (Museology)

1. Sound knowledge of the philosophy and procedures required for the proper organization, accessioning, cataloging, and maintenance of records pertaining to a large and diverse museum collection of natural and cultural resources.

2. Sound and thorough knowledge of the NPS museum recordkeeping process in order to assure a professional job of accessioning, deaccessioning, cataloging, inventory, and tracking of objects through the exhibit, storage, and treatment phases of handling to ensure accountability and preservation of objects and specimens.

3. Comprehensive knowledge of the various museum related professional organizations and the ability to directly influence these groups or individuals to assist in the resolution of NPS museum concerns and problems.

4. Knowledge of the literature and reference sources of museum methods and theories and information concerning the collections of the park.
5. Knowledge of the policies, standards, guidelines, and management principles established by the NPS and by the museum profession rationally and internationally to govern the operation and development of museums and museum collections.

6. Thorough knowledge of museum ethical standards.

7. Comprehensive knowledge of the full range of NPS planning and programming activities, so as to review program and planning documents and to effectively program for curatorial projects.

8. Ability to conceptualize, develop, and manage complex programs and to create innovative solutions to problems considered insoluble through the application of traditional solutions.

**Preservation Law, Philosophy, and Practice**

9. Thorough knowledge of the mission and objectives of the NPS.

10. Thorough knowledge of historic preservation and natural resource stewardship history and philosophy.

11. Knowledge of NPS cultural and natural resource management policies and the Secretary of the Interior's Standards and their interrelationship with the museum program.

12. Knowledge and understanding of NPS cultural and natural resource inventories and their use in the management of cultural and natural resources.
13. Ability to recognize the interrelationship of all resource management disciplines such as museum services, archeology, cultural landscapes, building preservation, ethnography, natural resource stewardship, and maintenance, and work within this divisional/disciplinary framework towards the joint accomplishment of cultural and natural resource projects and goals.

Research and Inventory

- Collections Development -


15. Ability to write collecting policies based upon thorough knowledge of resources and needs of the park.

16. Ability to evaluate museum collections to determine weaknesses and strengths and to plan a strategy for eliminating weaknesses.

17. Ability to analyze the museum collection, identify needs, and develop strategies for acquisition of needed objects or specimens.

18. Skill in making connections with collectors, dealers, and other people in order to enhance the museum collection with items that should be acquired.

19. Ability to negotiate with potential donors of museum collections.
- Collections Use -

20. Advanced working knowledge of intellectual property legislation and NPS policies relating to museum collections.

21. Comprehensive knowledge of professionally acceptable exhibit planning, design and installation, particularly as relates to the integrity and security of museum objects, and the ability to provide alternative suggestions to complex exhibit problems.

22. Comprehensive knowledge of NPS interpretive concepts, methods, programs, and policies.

23. Knowledge and ability to read, comprehend, and evaluate complex action plans and/or specifications for building, exhibit and systems design and construction, and to provide necessary technical comment concerning the same to management.

24. Advanced ability to develop and produce electronic exhibits, including digital and Internet features.

- Research -

25. Knowledge of research techniques and methods in the area of the park's resources in order to conduct primary and secondary research aimed at expanding the existing knowledge base in support of park management objectives and policies as this relates to documenting and exhibiting items in the park collections.
26. Ability to produce management documents, including historical background studies, collection management plans, and furnishings studies and plans.

27. Mastery of the research methodologies necessary to conduct complex research required to identify and authenticate objects, or develop new techniques for collection management, preservation, or conservation.

28. Extensive knowledge of cultural or natural resource related to the resources of the park, including a wide variety of types of materials.

- Collections Documentation -

29. Extensive knowledge of professional museum operation, including classification, cataloging, and detailed familiarity with the care and conservation of museum objects.

30. Ability to direct the cataloging of museum objects related to field of expertise and provides authentication and appraisal of the collection.

- Computer Skills -

31. Thorough knowledge and understanding of personal computers and expertise in the use of a number of types of programs, including word processing, desktop publishing, computer-assisted design, and database management.
Collections Preservation and Protection

32. Knowledge of accepted museum conservation, storage, and exhibit techniques; of approved preparation techniques for all types of objects in storage and exhibit conditions; of approved procedures required for maintenance of collection in storage, museum exhibit, or on exhibit in historic structures; of required museum security measures; of the proper methods of monitoring and recording the deterioration of objects; and of cleaning, repairing, and preventive maintenance treatment techniques.

33. Mastery of the professionally accepted museum storage materials and methods, and the ability to adapt these to the challenging conditions found in NPS collections.

34. Knowledge of museum protection measures as well as knowledge of proper methods of monitoring, recording, and interpreting environmental data as it relates to the preservation of collections, and knowledge of procedures necessary to limit deterioration of objects through the use of environmental controls.

Program Management

35. Knowledge of the budgetary process used by the NPS and the procurement system in order to request and obligate funds. Knowledge of the planning and development procedures required for initiating projects for curatorial management.

36. Knowledge of NPS planning and programming activities and of NPS and a variety of potential non-NPS sources of funding for curatorial programs.
37. Skills to budget annual needs; to conceptualize, organize and program required work elements; and to exercise sound fiscal management of assigned programs and funds.

**Writing and Communications**

38. Ability to work with a wide range of people in complex work and/or social groups, often holding opposing or conflicting attitudes that must be considered, negotiated, and/or altered.

39. Ability to compose clear, concise reports, and deliver them both orally and in writing, and the ability to work with diverse groups.

**Training**

40. Ability to provide training on specialized subject matter as well as collection management and exhibits.

**Safety**

41. Ability to identify and correct on-the-job safety and health hazards related to working with museum collections, instruct employees on health and safety requirements for job assignments, and report loss incidents in accordance with NPS policies and guidelines.
Cultural Resources Stewardship Needs Assessment
Museum Management
Curator - Subject Matter Track
Full Performance Level

The National Park Service has the responsibility of providing meaningful training and education for its employees. The purpose of this training is to ensure the basic missions of the Service and its individual units are met, while allowing employees to reach their personal career goals.

Please look at the same list again. This time consider how you rate your overall preparation (all sources) for these aspects of being a curator. Please check the most appropriate response for each item. If the training competency does not apply to your present position, check the first box - N/A.

Professional Discipline (Museology)

42. Sound knowledge of the philosophy and procedures required for the proper organization, accessioning, cataloging, and maintenance of records pertaining to a large and diverse museum collection of natural and cultural resources.

43. Sound and thorough knowledge of the NPS museum recordkeeping process in order to assure a professional job of accessioning, deaccessioning, cataloging, inventory, and tracking of objects through the exhibit, storage, and treatment phases of handling to ensure accountability and preservation of objects and specimens.

44. Comprehensive knowledge of the various museum related professional organizations and the ability to directly influence these groups or individuals to assist in the resolution of NPS museum concerns and problems.

45. Knowledge of the literature and reference sources of museum methods and theories and information concerning the collections of the park.
<table>
<thead>
<tr>
<th></th>
<th>Unprepared</th>
<th>Fully Competent</th>
</tr>
</thead>
<tbody>
<tr>
<td>46. Knowledge of the policies, standards, guidelines, and management principles established by the NPS and by the museum profession nationally and internationally to govern the operation and development of museums and museum collections.</td>
<td><img src="image" alt="Rating" /></td>
<td><img src="image" alt="Rating" /></td>
</tr>
<tr>
<td>47. Thorough knowledge of museum ethical standards.</td>
<td><img src="image" alt="Rating" /></td>
<td><img src="image" alt="Rating" /></td>
</tr>
<tr>
<td>48. Comprehensive knowledge of the full range of NPS planning and programming activities, so as to review program and planning documents and to effectively program for curatorial projects.</td>
<td><img src="image" alt="Rating" /></td>
<td><img src="image" alt="Rating" /></td>
</tr>
<tr>
<td>49. Ability to conceptualize, develop, and manage complex programs and to create innovative solutions to problems considered insoluble through the application of traditional solutions.</td>
<td><img src="image" alt="Rating" /></td>
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</table>

**Preservation Law, Philosophy, and Practice**

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<thead>
<tr>
<th></th>
<th>Unprepared</th>
<th>Fully Competent</th>
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</thead>
<tbody>
<tr>
<td>50. Thorough knowledge of the mission and objectives of the NPS.</td>
<td><img src="image" alt="Rating" /></td>
<td><img src="image" alt="Rating" /></td>
</tr>
<tr>
<td>51. Thorough knowledge of historic preservation and natural resource stewardship history and philosophy.</td>
<td><img src="image" alt="Rating" /></td>
<td><img src="image" alt="Rating" /></td>
</tr>
<tr>
<td>52. Knowledge of NPS cultural and natural resource management policies and the Secretary of the Interior's Standards and their interrelationship with the museum program.</td>
<td><img src="image" alt="Rating" /></td>
<td><img src="image" alt="Rating" /></td>
</tr>
<tr>
<td>53. Knowledge and understanding of NPS cultural and natural resource inventories and their use in the management of cultural and natural resources.</td>
<td><img src="image" alt="Rating" /></td>
<td><img src="image" alt="Rating" /></td>
</tr>
</tbody>
</table>
54. Ability to recognize the interrelationship of all resource management disciplines such as museum services, archeology, cultural landscapes, building preservation, ethnography, natural resource stewardship, and maintenance, and work within this divisional/disciplinary framework towards the joint accomplishment of cultural and natural resource projects and goals.

Research and Inventory

- Collections Development -

55. Ability to identify and evaluate museum collections necessary for fulfillment of park’s mission.

56. Ability to write collecting policies based upon thorough knowledge of resources and needs of the park.

57. Ability to evaluate museum collections to determine weaknesses and strengths and to plan a strategy for eliminating weaknesses.

58. Ability to analyze the museum collection, identify needs, and develop strategies for acquisition of needed objects or specimens.

59. Skill in making connections with collectors, dealers, and other people in order to enhance the museum collection with items that should be acquired.

60. Ability to negotiate with potential donors of museum collections.
**APPENDIX A-5**

- **Collections Use** -

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<tbody>
<tr>
<td><strong>61. Advanced working knowledge of intellectual property legislation and NPS policies relating to museum collections.</strong></td>
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<tr>
<td><strong>62. Comprehensive knowledge of professionally acceptable exhibit planning, design and installation, particularly as relates to the integrity and security of museum objects, and the ability to provide alternative suggestions to complex exhibit problems.</strong></td>
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<tr>
<td><strong>63. Comprehensive knowledge of NPS interpretive concepts, methods, programs, and policies.</strong></td>
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<td><strong>64. Knowledge and ability to read, comprehend, and evaluate complex action plans and/or specifications for building, exhibit and systems design and construction, and to provide necessary technical comment concerning the same to management.</strong></td>
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<td><strong>64. Advanced ability to develop and produce electronic exhibits, including digital and Internet features.</strong></td>
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- **Research** -

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<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>66. Knowledge of research techniques and methods in the area of the park's resources in order to conduct primary and secondary research aimed at expanding the existing knowledge base in support of park management objectives and policies as this relates to documenting and exhibiting items in the park collections.</strong></td>
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</table>
67. Ability to produce management documents, including historical background studies, collection management plans, and furnishings studies and plans.

68. Mastery of the research methodologies necessary to conduct complex research required to identify and authenticate objects, or develop new techniques for collection management, preservation, or conservation.

69. Extensive knowledge of cultural or natural resource related to the resources of the park, including a wide variety of types of materials.

- Collections Documentation -

70. Extensive knowledge of professional museum operation, including classification, cataloging, and detailed familiarity with the care and conservation of museum objects.

71. Ability to direct the cataloging of museum objects related to field of expertise and provides authentication and appraisal of the collection.

- Computer Skills -

72. Thorough knowledge and understanding of personal computers and expertise in the use of a number of types of programs, including word processing, desktop publishing, computer-assisted design, and database management.
Collections Preservation and Protection

73. Knowledge of accepted museum conservation, storage, and exhibit techniques; of approved preparation techniques for all types of objects in storage and exhibit conditions; of approved procedures required for maintenance of collection in storage, museum exhibit, or on exhibit in historic structures; of required museum security measures; of the proper methods of monitoring and recording the deterioration of objects; and of cleaning, repairing, and preventive maintenance treatment techniques.

74. Mastery of the professionally accepted museum storage materials and methods, and the ability to adapt these to the challenging conditions found in NPS collections.

75. Knowledge of museum protection measures as well as knowledge of proper methods of monitoring, recording, and interpreting environmental data as it relates to the preservation of collections, and knowledge of procedures necessary to limit deterioration of objects through the use of environmental controls.

Program Management

76. Knowledge of the budgetary process used by the NPS and the procurement system in order to request and obligate funds. Knowledge of the planning and development procedures required for initiating projects for curatorial management.

77. Knowledge of NPS planning and programming activities and of NPS and a variety of potential non-NPS sources of funding for curatorial programs.
78. Skills to budget annual needs; to conceptualize, organize and program required work elements; and to exercise sound fiscal management of assigned programs and funds.

**Writing and Communications**

79. Ability to work with a wide range of people in complex work and/or social groups, often holding opposing or conflicting attitudes that must be considered, negotiated, and/or altered.

80. Ability to compose clear, concise reports, and deliver them both orally and in writing, and the ability to work with diverse groups.

**Training**

81. Ability to provide training on specialized subject matter as well as collection management and exhibits.

**Safety**

82. Ability to identify and correct on-the-job safety and health hazards related to working with museum collections, instruct employees on health and safety requirements for job assignments, and report loss incidents in accordance with NPS policies and guidelines.
Demographics

83. Age (years):_____

84. Gender:  

85. Race/National Origin:

- [ ] American Indian or Alaskan Native  
- [ ] Black (Not of Hispanic Origin)  
- [ ] White (Not of Hispanic Origin)  
- [ ] Hispanic  
- [ ] Asian or Pacific Islander  
- [ ] Other (Please Specify):_____

86. Do you have a disability?  

87. Current GS level_____

88. Number of years served in the National Park Service?_____

89. Number of years in current position?_____

90. Education (Circle the highest number of years of formal education completed)

<12 12 13 14 15 16 17 18 18+

91. If you hold a college degree(s), please complete the following questions regarding the type of degree(s) and major field(s) of study:

**Bachelor's:**

Type of Degree (i.e., B.S., B.A., etc.)_________________________

Major Field of Study_____________________________________

**Master's:**

Type of Degree (i.e., M.S., M.A., etc.)_________________________

Major Field of Study_____________________________________

**Doctorate:**

Type of Degree (i.e., Ph.D., Ed.D., etc.)_________________________

Major Field of Study_____________________________________

A5-15
APPENDIX A-6

ACADEMIC DEGREES AS REPORTED BY RESPONDENTS
CURATOR - FULL PERFORMANCE LEVEL (SUBJECT MATTER TRACK)

The following list of degrees, as reported by the respondents, has been condensed for the ease of compilation. Some specific degree titles do not appear due to categorization under a more general term.

UNDERGRADUATE [B.S. & B.A.]

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<tr>
<th>Degree</th>
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<td>American Studies</td>
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<tr>
<td>Anthropology</td>
<td>02</td>
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<td>Geography</td>
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<tr>
<td>History</td>
<td>07</td>
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<tr>
<td>Industrial Technology</td>
<td>01</td>
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<tr>
<td>Paleontology</td>
<td>01</td>
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<tr>
<td>Wildlife Conservation</td>
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GRADUATE [M.S., M.A., Ed.D. & Ph.D.]

<table>
<thead>
<tr>
<th>Degree</th>
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<tr>
<td>American Studies</td>
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<tr>
<td>Anthropology</td>
<td>01</td>
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<tr>
<td>Art History</td>
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<tr>
<td>Historic Preservation</td>
<td>02</td>
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<tr>
<td>History</td>
<td>05</td>
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<tr>
<td>History of Technology</td>
<td>02</td>
</tr>
<tr>
<td>Museum Science/Studies</td>
<td>03</td>
</tr>
<tr>
<td>Technology Education</td>
<td>02</td>
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</tbody>
</table>
National Park Service  
Cultural Resources Stewardship Needs Assessment  
Museum Management  
Curator - Exhibit Development Track  
Full Performance Level

In the performance of your present job as a curator, how important are the following professional competencies? The essential competencies for curator can be found in the NPS Tracking Kit at the “Learning Place” web site:  
[www.nps.gov/training/npsonly/npsescom.htm](http://www.nps.gov/training/npsonly/npsescom.htm). Please check the most appropriate response for each item.

### Professional Discipline (Museology)

1. Sound knowledge of the philosophy and procedures required for an extensive and active museum exhibition program including knowledge of NPS and museum interpretive and education standards and policies.

2. Comprehensive knowledge of the various museum related professional organizations and the ability to directly influence these groups or individuals to assist in the resolution of NPS museum concerns and problems.

3. Knowledge of the literature and reference sources of museum methods and theories and information concerning the collections and exhibition programs of the park.

4. Knowledge of the policies, standards, guidelines, and management principles established by the NPS and by the museum profession nationally and internationally to govern the operation and development of museums and museum collections. Thorough knowledge of museum ethical standards.

<table>
<thead>
<tr>
<th>Competency</th>
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<th>Somewhat Not Important</th>
<th>Somewhat Important</th>
<th>Important</th>
<th>Extremly Important</th>
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</table>
5. Comprehensive knowledge of the full range of NPS planning and programming activities, so as to review program and planning documents and to effectively program for curatorial projects.

6. Ability to conceptualize, develop, and manage complex programs and to create innovative solutions to problems considered insoluble through the application of traditional solutions.

**Preservation Law, Philosophy, and Practice**

7. Thorough knowledge and understanding of the mission and objectives of the NPS.

8. Thorough knowledge of historic preservation and natural resource stewardship history and philosophy.

9. Knowledge of NPS cultural and natural resource management policies and the Secretary of the Interior's Standards and their interrelationship with the museum program.

10. Knowledge and understanding of NPS cultural and natural resource inventories and their use in the management of cultural and natural resources.

11. Ability to recognize the interrelationship of all resource management disciplines such as museum services, archeology, cultural landscapes, building preservation, ethnography, natural resource stewardship, and maintenance, and work within this divisional/disciplinary framework towards the joint accomplishment of cultural and natural resource projects and goals.
Research and Inventory

- Collections Development -

12. Ability, as part of writing an exhibit plan, to review a park collection for objects or specimens needed to complete a museum exhibit. ☐ ☐ ☐ ☐ ☐ ☐ ☐

13. Ability to identify objects or specimens to be acquired and establish a strategy for their acquisition. ☐ ☐ ☐ ☐ ☐ ☐ ☐

- Collections Use -

14. Ability to develop concepts, design, text, construction specifications, and oversee production of museum exhibits. ☐ ☐ ☐ ☐ ☐ ☐ ☐

15. Advanced working knowledge of intellectual property legislation and NPS policies relating to museum collections. ☐ ☐ ☐ ☐ ☐ ☐ ☐

16. Ability to work with contractors, including fabricators, conservators, designers, and researchers for the development and production of exhibits, including the development of contracting documents. ☐ ☐ ☐ ☐ ☐ ☐ ☐

- Research -

17. Ability to conduct advanced research into subject matter related to park mission in order to develop exhibits. ☐ ☐ ☐ ☐ ☐ ☐ ☐

- Collections Documentation -

18. Skill in presenting accurate information to the public based upon available museum records. ☐ ☐ ☐ ☐ ☐ ☐ ☐
<table>
<thead>
<tr>
<th>No Important</th>
<th>Extremely Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>19. Ability to maintain accurate records on location, condition, and use of all museum collection items used in exhibits.</td>
<td></td>
</tr>
</tbody>
</table>

- **Computer Skills** -

  20. Thorough knowledge of a variety of computer uses in exhibits, including interactive programs.

  21. Advanced skill in the use of computers to design exhibits.

  22. Advanced skill in the use of computers to produce labels, publications, and posters.

- **Collections Preservation and Protection**

  23. Ability to design or ensure that the design of all exhibits meet NPS and professional museum standards for the preservation and protection of all museum collections.

- **Program Management**

  24. Ability to develop and manage an interdisciplinary team or work within a team for development of exhibits. Team may include collections manager, conservator, historian, other subject matter experts, and designers.

  25. Ability to manage contracts and ensure quality of products delivered.
Writing and Communications

26. Ability to write exhibit plans that meet NPS and museum standards. 

27. Ability to write exhibit label copy.

Training

28. Ability to provide training in the theory and practice of exhibit planning and design.

29. Ability to provide training to users of interactive or other computers in exhibits.

Safety

30. Thorough knowledge of health and safety issues and how to mitigate hazards related to museum collections and exhibit fabrication materials.
Cultural Resources Stewardship Needs Assessment
Museum Management
Curator - Exhibit Development Track
Full Performance Level

The National Park Service has the responsibility of providing meaningful training and education for its employees. The purpose of this training is to ensure the basic missions of the Service and its individual units are met, while allowing employees to reach their personal career goals.

Please look at the same list again. This time consider how you rate your overall preparation (all sources) for these aspects of being a curator. Please check the most appropriate response for each item. If the training competency does not apply to your present position, check the first box - N/A.

**Professional Discipline (Museology)**

31. Sound knowledge of the philosophy and procedures required for an extensive and active museum exhibition program including knowledge of NPS and museum interpretive and education standards and policies.

32. Comprehensive knowledge of the various museum related professional organizations and the ability to directly influence these groups or individuals to assist in the resolution of NPS museum concerns and problems.

33. Knowledge of the literature and reference sources of museum methods and theories and information concerning the collections and exhibition programs of the park.

34. Knowledge of the policies, standards, guidelines, and management principles established by the NPS and by the museum profession nationally and internationally to govern the operation and development of museums and museum collections. Thorough knowledge of museum ethical standards.
35. Comprehensive knowledge of the full range of NPS planning and programming activities, so as to review program and planning documents and to effectively program for curatorial projects.

36. Ability to conceptualize, develop, and manage complex programs and to create innovative solutions to problems considered insoluble through the application of traditional solutions.

Preservation Law, Philosophy, and Practice

37. Thorough knowledge and understanding of the mission and objectives of the NPS.

38. Thorough knowledge of historic preservation and natural resource stewardship history and philosophy.

39. Knowledge of NPS cultural and natural resource management policies and the Secretary of the Interior's Standards and their interrelationship with the museum program.

40. Knowledge and understanding of NPS cultural and natural resource inventories and their use in the management of cultural and natural resources.

41. Ability to recognize the interrelationship of all resource management disciplines such as museum services, archeology, cultural landscapes, building preservation, ethnography, natural resource stewardship, and maintenance, and work within this divisional/disciplinary framework towards the joint accomplishment of cultural and natural resource projects and goals.
Research and Inventory

- Collections Development -

42. Ability, as part of writing an exhibit plan, to review a park collection for objects or specimens needed to complete a museum exhibit.

43. Ability to identify objects or specimens to be acquired and establish a strategy for their acquisition.

- Collections Use -

44. Ability to develop concepts, design, text, construction specifications, and oversee production of museum exhibits.

45. Advanced working knowledge of intellectual property legislation and NPS policies relating to museum collections.

46. Ability to work with contractors, including fabricators, conservators, designers, and researchers for the development and production of exhibits, including the development of contracting documents.

- Research -

47. Ability to conduct advanced research into subject matter related to park mission in order to develop exhibits.

- Collections Documentation -

48. Skill in presenting accurate information to the public based upon available museum records.

49. Ability to maintain accurate records on location, condition, and use of all museum collection items used in exhibits.
APPENDIX A-7

- Computer Skills -

<table>
<thead>
<tr>
<th>Skill Description</th>
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<tbody>
<tr>
<td>50. Thorough knowledge of a variety of computer uses in exhibits, including interactive programs.</td>
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<tr>
<td>51. Advanced skill in the use of computers to design exhibits.</td>
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<tr>
<td>52. Advanced skill in the use of computers to produce labels, publications, and posters.</td>
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**Collections Preservation and Protection**

<table>
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<th>Skill Description</th>
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<tbody>
<tr>
<td>53. Ability to design or ensure that the design of all exhibits meet NPS and professional museum standards for the preservation and protection of all museum collections.</td>
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**Program Management**

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<tr>
<td>54. Ability to develop and manage an interdisciplinary team or work within a team for development of exhibits. Team may include collections manager, conservator, historian, other subject matter experts, and designers.</td>
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<tr>
<td>55. Ability to manage contracts and ensure quality of products delivered.</td>
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**Writing and Communications**

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<tr>
<td>56. Ability to write exhibit plans that meet NPS and museum standards.</td>
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<tr>
<td>57. Ability to write exhibit label copy.</td>
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**Training**

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<tbody>
<tr>
<td>58. Ability to provide training in the theory and practice of exhibit planning and design.</td>
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</tbody>
</table>
59. Ability to provide training to users of interactive or other computers in exhibits.

Safety

60. Thorough knowledge of health and safety issues and how to mitigate hazards related to museum collections and exhibit fabrication materials.
Demographics

61. Age (years): ______

62. Gender:  □ Female  □ Male

63. Race/National Origin:
   □ American Indian or Alaskan Native  □ Hispanic
   □ Black (Not of Hispanic Origin)       □ Asian or Pacific Islander
   □ White (Not of Hispanic Origin)      □ Other (Please Specify):

64. Do you have a disability?  □ Yes  □ No

65. Current GS level ______

66. Number of years served in the National Park Service? ______

67. Number of years in current position? ______

68. Education (Circle the highest number of years of formal education completed)
   <12  12  13  14  15  16  17  18  18+

69. If you hold a college degree(s), please complete the following questions regarding
   the type of degree(s) and major field(s) of study:

   Bachelor’s:
   Type of Degree (i.e., B.S., B.A., etc.)________________________
   Major Field of Study_______________________________________

   Master’s:
   Type of Degree (i.e., M.S., M.A., etc.)________________________
   Major Field of Study_______________________________________

   Doctorate:
   Type of Degree (i.e., Ph.D., Ed.D., etc.)_______________________
   Major Field of Study_______________________________________
APPENDIX A-8

ACADEMIC DEGREES AS REPORTED BY RESPONDENTS CURATOR - FULL PERFORMANCE LEVEL (EXHIBIT DEVELOPMENT TRACK)

The following list of degrees, as reported by the respondents, has been condensed for the ease of compilation. Some specific degree titles do not appear due to categorization under a more general term.

**UNDERGRADUATE [B.A.]**

<table>
<thead>
<tr>
<th>Degree</th>
<th>Code</th>
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<tr>
<td>Anthropology/Archeology</td>
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<tr>
<td>Art History/Fine Art</td>
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<td>English</td>
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<td>History</td>
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<td>Sociology</td>
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**GRADUATE [M.A.]**

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<tr>
<td>Anthropology/Archeology</td>
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<td>Early American Culture</td>
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<td>History</td>
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<td>Museum Studies</td>
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National Park Service
Cultural Resources Stewardship Needs Assessment
Museum Management
Curator - Museum Management Track
Full Performance Level

In the performance of your present job as a curator, how important are the following professional competencies? The essential competencies for curator can be found in the NPS Tracking Kit at the “Learning Place” web site: www.nps.gov/training/npsonly/npsescom.htm. Please check the most appropriate response for each item.

Professional Discipline (Museology)

1. Full professional knowledge of museum management principles and techniques, including museum operation, museum administration, collections management, exhibition, and museum education.

2. Full professional knowledge of museum collections activities for natural, historic, archival and archeological collections, including registration, cataloging, storage, inventorying, preservation, and access as demonstrated by extensive experience managing large and significant museum collections.

3. Knowledge of the policies, standards, guidelines, and management principles established by the NPS and by the museum profession nationally and internationally to govern the operation and development of museums and museum collections.

4. Thorough knowledge of museum ethical standards.
5. Sound knowledge of the philosophy and professionally established and widely accepted standards and procedures for curating and conserving both natural and cultural museum objects, archival collections, including maintenance, exhibition, use, storage and preservation of, museum materials, museum security, and environmental controls.

6. Ability to manage a comprehensive museum program, including exhibits, collections management, archives management, collections preservation, collections development, etc.

**Preservation Law, Philosophy, and Practice**

7. Thorough knowledge of historic preservation and natural resource stewardship history and philosophy.

8. Thorough knowledge of NPS cultural and natural resource management policies and the Secretary of the Interior's Standards.

9. Professional knowledge of the interdisciplinary process of resource management policies and programs.

10. Ability to recognize the interrelationship of all resource management disciplines such as museum services, archeology, cultural landscapes, building preservation, ethnography, natural resource stewardship, and maintenance, and work within this divisional/disciplinary framework towards the joint accomplishment of cultural and natural resource projects and goals.
## Research and Inventory

- Collections Development -

11. Skill in evaluating the museum collections to identify those items necessary to fulfill the park's mission.

12. Ability to direct the writing of collecting policies based upon thorough knowledge of resources and needs of the park.

13. Skill in evaluating the museum collection to determine weaknesses and strengths and to plan a strategy for eliminating weaknesses.

- Collections Use -

14. Advanced working knowledge of intellectual property legislation and NPS policies relating to museum collections.

15. Knowledge of all natural and cultural resource disciplines represented in museum collections.

16. Skill in integrating collection information management needs into a cohesive access system.

17. Knowledge of museum information management systems in use by the museum profession.

18. Ability to review, direct the review, and synthesize comments and concerns of exhibit plans.

19. Ability to be a key team member in exhibit planning, interpretive planning, and educational programming to provide access to and use of collections.

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20. Ability to develop and produce electronic exhibits, including digital and Internet features.

- Research -

21. Expert knowledge of research tools, techniques, and methods for the documentation of cultural or natural resource collections.

22. Ability to synthesize conflicting information from a complex variety of evidence and makes decisions affecting museum collections.

23. Knowledge of specific types of cultural or natural resource collections. Specialized knowledge of cultural and natural resource collections related to the resources of the park.

24. Ability to develop scope and objectives of studies and research needed to enhance the collection.

- Collections Documentation -

25. Ability to develop and implement a park-wide collections documentation program.

26. Ability to develop and implement loan documentation and tracking procedures and systems.

27. Ability to develop and implement a park-wide collections inventory control program.
28. Ability to plan and conduct complex analyses of and resolves complex problems related to museum documentation and records management.

29. Skill in coordinating input and review of documentation and records management systems.

- Computer Skills -

30. Knowledge of advanced computer skills.

31. Ability to manage the development and operation of large information and image management systems, including image digitization, migration, and access protocols.

32. Knowledge of NPS cultural and natural resource management databases and inventories and their use and relationship to museum collections.

Collections Preservation and Protection

33. Knowledge of how museum materials deteriorate, how to recognize the signs of deterioration, and how deterioration can be stopped or minimized; the ability to recognize when natural and cultural objects require the attention of a professional conservator or how to forestall further deterioration.

34. Ability to establish comprehensive conservation and preventive maintenance programs to plan for the full preservation of the museum collection.
Program Management

35. Thorough working knowledge of the NPS budget process and financial systems and the ability to manage expenditures of funds in a correct and efficient manner.

36. Extensive knowledge of project management, particularly the integration of museum projects with other disciplines.

37. Knowledge of the full range of NPS planning and programming activities and of potential sources of funding for curatorial activities and object/archival/documentary preservation.

Writing and Communication

38. Ability to direct the preparation of reports documenting and evaluating collections management issues and resolving issues affecting collections.

39. Ability to direct the documentation of analytical reports on a variety of aspects of the collection.

40. Skill in critically evaluating studies, planning documents, proposals, and other documents.

Training

41. Skill in evaluating training needs of park staff.

42. Ability to develop training for employees in curatorial procedures.
Safety

43. Ability to identify and correct on-the-job safety and health hazards related to working with museum collections, instruct employees on health and safety requirements for job assignments, and report loss incidents in accordance with NPS policies and guidelines.
Cultural Resources Stewardship Needs Assessment
Museum Management
Curator - Museum Management Track
Full Performance Level

The National Park Service has the responsibility of providing meaningful training and education for its employees. The purpose of this training is to ensure the basic missions of the Service and its individual units are met, while allowing employees to reach their personal career goals.

Please look at the same list again. This time consider how you rate your overall preparation (all sources) for these aspects of being a curator. Please check the most appropriate response for each item. If the training competency does not apply to your present position, check the first box - N/A.

Professional Discipline (Museology)

44. Full professional knowledge of museum management principles and techniques, including museum operation, museum administration, collections management, exhibition, and museum education.

45. Full professional knowledge of museum collections activities for natural, historic, archival and archeological collections, including registration, cataloging, storage, inventorying, preservation, and access as demonstrated by extensive experience managing large and significant museum collections.

46. Knowledge of the policies, standards, guidelines, and management principles established by the NPS and by the museum profession nationally and internationally to govern the operation and development of museums and museum collections.

47. Thorough knowledge of museum ethical standards.
48. Sound knowledge of the philosophy and professionally established and widely accepted standards and procedures for curating and conserving both natural and cultural museum objects, archival collections, including maintenance, exhibition, use, storage and preservation of, museum materials, museum security, and environmental controls.

49. Ability to manage a comprehensive museum program, including exhibits, collections management, archives management, collections preservation, collections development, etc.

Preservation Law, Philosophy, and Practice

50. Thorough knowledge of historic preservation and natural resource stewardship history and philosophy.

51. Thorough knowledge of NPS cultural and natural resource management policies and the Secretary of the Interior's Standards.

52. Professional knowledge of the interdisciplinary process of resource management policies and programs.

53. Ability to recognize the interrelationship of all resource management disciplines such as museum services, archeology, cultural landscapes, building preservation, ethnography, natural resource stewardship, and maintenance, and work within this divisional/disciplinary framework towards the joint accomplishment of cultural and natural resource projects and goals.
### Research and Inventory

#### Collections Development

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<tr>
<td>54.</td>
<td>Skill in evaluating the museum collections to identify those items necessary to fulfill the park's mission.</td>
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<td>55.</td>
<td>Ability to direct the writing of collecting policies based upon thorough knowledge of resources and needs of the park.</td>
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<td>56.</td>
<td>Skill in evaluating the museum collection to determine weaknesses and strengths and to plan a strategy for eliminating weaknesses.</td>
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#### Collections Use

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<td>57.</td>
<td>Advanced working knowledge of intellectual property legislation and NPS policies relating to museum collections.</td>
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<td>58.</td>
<td>Knowledge of all natural and cultural resource disciplines represented in museum collections.</td>
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<td>59.</td>
<td>Skill in integrating collection information management needs into a cohesive access system.</td>
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<td>60.</td>
<td>Knowledge of museum information management systems in use by the museum profession.</td>
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<td>Ability to review, direct the review, and synthesize comments and concerns of exhibit plans.</td>
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<td>62.</td>
<td>Ability to be a key team member in exhibit planning, interpretive planning, and educational programming to provide access to and use of collections.</td>
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- Research -

64. Expert knowledge of research tools, techniques, and methods for the documentation of cultural or natural resource collections.

65. Ability to synthesize conflicting information from a complex variety of evidence and makes decisions affecting museum collections.

66. Knowledge of specific types of cultural or natural resource collections. Specialized knowledge of cultural and natural resource collections related to the resources of the park.

67. Ability to develop scope and objectives of studies and research needed to enhance the collection.

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68. Ability to develop and implement a park-wide collections documentation program.

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71. Ability to plan and conduct complex analyses of and resolves complex problems related to museum documentation and records management.

72. Skill in coordinating input and review of documentation and records management systems.

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Safety

86. Ability to identify and correct on-the-job safety and health hazards related to working with museum collections, instruct employees on health and safety requirements for job assignments, and report loss incidents in accordance with NPS policies and guidelines.
Demographics

87. Age (years):_____

88. Gender:  
   □ Female  
   □ Male

89. Race/National Origin:
   □ American Indian or Alaskan Native
   □ Black (Not of Hispanic Origin)
   □ White (Not of Hispanic Origin)
   □ Hispanic
   □ Asian or Pacific Islander
   □ Other (Please Specify):

90. Do you have a disability?  
   □ Yes  
   □ No

91. Current GS level_____

92. Number of years served in the National Park Service?_____

93. Number of years in current position?_____

94. Education (Circle the highest number of years of formal education completed)
   <12  12  13  14  15  16  17  18  18+

95. If you hold a college degree(s), please complete the following questions regarding the type of degree(s) and major field(s) of study:

   Bachelor’s:
   Type of Degree (i.e., B.S., B.A., etc.)_________________________
   Major Field of Study______________________________________

   Master’s:
   Type of Degree (i.e., M.S., M.A., etc.)_______________________
   Major Field of Study______________________________________

   Doctorate:
   Type of Degree (i.e., Ph.D., Ed.D., etc.)_______________________
   Major Field of Study______________________________________
Academic Degrees as Reported by Respondents
Curator - Full Performance Level
(Museum Management Track)

The following list of degrees, as reported by the respondents, has been condensed for the ease of compilation. Some specific degree titles do not appear due to categorization under a more general term.

Undergraduate [B.A. & B.S.]

- Anthropology 04
- Art History 01
- Biology 02
- Environmental Resources 01
- History 04
- Library Science 01
- Public Relations 01
- Textile Design 01

Graduate [M.A., M.S., Ab.D., Ph.D.]

- Anthropology/Archaeology 04
- Early American Culture 01
- Ethnohistory 01
- Folklore 01
- History 01
- Latin American Studies 01
- Museum Administration 01
- Museum Science/Studies 05
- Textiles and Clothing 01
REFERENCES


