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Office of Inspector General
Library of Congress
Memo

Date June 15, 2022
To Dr. Carla Hayden, Librarian of Congress
From Kimberly Byrd, Inspector General

Subject Final Evaluation Report— Library Collections Access Platform Project Cost Evaluation, Report No. 2021-SP-102

This transmits the final report of the Office of the Inspector General's evaluation of the cost estimate of the Library Collections Access Platform (L-CAP) project. Cotton and Company (Cotton) performed the evaluation to assess whether preliminary planning for the project was developed in accordance with Library policies for new and expanded program (NEPR) requests and key best practices in the Government Accountability Office's Cost Estimating and Assessment Guide. Cotton found opportunities for improvements in some key cost estimating policies and practices and made four recommendations.

Based on management's written responses to the draft report, we consider all of the recommendations resolved. Your responses provided an action plan for implementing the recommendations in accordance with LCR 9-160, Rights and Responsibilities of Employees to the Inspector General, section 6.A.

We appreciate the cooperation and courtesies extended by the Library Collections and Services Group and the Office of the Chief Information Officer during this evaluation.

cc Principal Deputy Librarian of Congress

Deputy Librarian Library Collections and Services Group

Chief Information Officer

Deputy Chief Information Officer

Chief Financial Officer

Comptroller

General Counsel

EVALUATION OF THE LIBRARY OF CONGRESS'S

LIBRARY COLLECTIONS ACCESS

PLATFORM PROJECT COST

LIBRARY OF CONGRESS

OFFICE OF THE INSPECTOR GENERAL

EVALUATION OF THE LIBRARY OF CONGRESS'S LIBRARY COLLECTIONS ACCESS PLATFORM PROJECT COST
Library of Congress

Office of Inspector General

Cotton - A SIKICH Company
June 7, 2022

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1. EXECUTIVE SUMMARY

The Library of Congress (Library) Office of the Inspector General (OIG) engaged Cotton & Company
Assurance and Advisory, LLC (Cotton) to determine:

1. Whether the Library's cost estimate to complete the Library Collections Access Platform (L-CAP),
which the Library submitted in its Fiscal Year (FY) 2022 Congressional Budget Justification (CBJ),
was prepared in accordance with key best practices in the Government Accountability Office's
(GAO's) Cost Estimating and Assessment Guide.

2. Whether the Library followed its policies for developing a New or Expanded Program Request (NEPR).

We conducted our evaluation in accordance with the Council of the Inspectors General on Integrity and
Efficiency (CIGIE) Quality Standards for Inspections and Evaluations, as well as the Statement on
Standards for Consulting Services promulgated by the American Institute of Certified Public
Accountants
(AICPA).

The Library requested $6.5 million for L-CAP in its FY 2022 CBJ. As support for this request, the
Library
Collections and Services Group (LCSG) and the Office of the Chief Information Officer (OCIO) prepared
a
NEPR, which the Library uses to submit budget requests above the current year baseline. The L-CAP
project is part of LCSG's Information Technology (IT) Modernization effort, which involves selecting
a
commercial off-the-shelf (COTS) product to serve as the "heart" of Library collections management
operations for the next generation. The project, which is managed jointly between LCSG and the OCIO,
will require extensive integration with a wide range of Library systems and will replace the Voyager
Integrated Library System (ILS), the Electronic Resource Management System (ERMS), and the Data
Management Tool (DMT).

Based on the procedures performed, we concluded that, although the Library completed a cost estimate
and NEPR for L-CAP, there are opportunities for improvements in some key policies and practices.

We communicated the results of our evaluation and the related findings and recommendations to OCIO, LCSG, the Financial Services Division (FSD), and the OIG.

2. OBJECTIVES, SCOPE, METHODOLOGY

The OIG engaged Cotton to evaluate the L-CAP project to determine whether the Library used best practices in developing the preliminary planning for the project. The performance objectives of our evaluation were to:

1. Determine whether the Library's cost estimate to complete the L-CAP, which the Library submitted in its FY 2022 CBJ, was prepared in accordance with key best practices in GAO's Cost Estimating and Assessment Guide.
2. Determine whether the Library followed its policies for developing a NEPR.

To meet these objectives, we:

Interviewed representatives of LCSG, OCIO, and FSD and inspected the policies and procedures around the cost estimation process to determine whether they meet the best practices defined in GAO's Cost Estimating and Assessment Guide.

Inspected the cost estimate the Library created in support of the NEPR to determine whether the Library completed the cost estimate in accordance with its internal policy and GAO's Cost Estimating and Assessment Guide.

Interviewed representatives of LCSG, OCIO, and FSD and reviewed the policies and procedures around the cost estimation process to determine whether the Library has developed policies for completing a NEPR. This included reviewing LOC's standard NEPR form (Please see Appendix A).

Reviewed the L-CAP NEPR to determine whether the Library completed it in accordance with its internal policy and with GAO's Cost Estimating and Assessment Guide.

We conducted our evaluation in accordance with the CIGIE Quality Standards for Inspections and Evaluations, as well as the Statement on Standards for Consulting Services promulgated by the AICPA.

3. BACKGROUND

The Library is the world's largest and most comprehensive library, maintaining a collection of more than
171 million items—many of them unique and irreplaceable—in more than 470 languages. The Library's central mission is to provide Congress, the federal government, and the American people with a rich, diverse, and enduring source of knowledge that can be relied upon to inform, inspire, and engage them,
and to support their intellectual and creative endeavors.

The Library's OIG was established in 1988 as a non-statutory office deriving its authority from the Librarian of Congress. The OIG became statutory with the passage of the Library of Congress Inspector General Act of 2005, as amended (2 U.S. Code U.S.C. section 185), with a mandate to:

Independently conduct and supervise audits and investigations of fraud, waste, and abuse relating to the Library.

Lead, coordinate, and recommend policies to promote economy, efficiency, and effectiveness.

Keep the Librarian of Congress and the Congress fully and currently informed about problems and deficiencies relating to the administration and operations of the Library.

The Library's Inspector General is a member of the CIGIE, a unified council of all federal statutory Inspectors General. The OIG Audits Division conducts in-depth reviews that address the efficiency, effectiveness, and economy of the Library's programs, activities, and functions; provides information to

responsible parties to improve public accountability; facilitates oversight and decision-making; and initiates corrective action as needed.

In its FY 2022 budget, the Library requested $6.5 million and nine full-time equivalent (FTE) positions to
replace its complex legacy ILS, which the Library originally implemented in 1999. The replacement system, L-CAP, is meant to seamlessly modernize and integrate multiple standalone systems and further support interfaces to dozens of non-ILS systems that involve collections management and access. L-CAP is a COTS product that will serve as the "heart" of Library collections management operations for the next generation. This major multi-year IT project is managed jointly between LCSG and OCIO and will require extensive integration with a wide range of Library systems.

The FY 2022 CBJ states that, to ensure L-CAP will meet the complex requirements for the system and remain viable as both demand and technology evolve, the Library will conduct a robust implementation program followed by a sustained "continuous delivery" approach using agile software development techniques to provide an ongoing stream of enhancements, updates, and bug fixes to keep the system up to date and adapt it to changing circumstances.

4. EVALUATION RESULTS

Based on the procedures performed, we identified two ways in which the Library could improve the NEPR process.

Finding 1: The Library did not rely on GAO's Cost Estimating and Assessment Guide when performing the L-CAP cost-estimate, which was included in the FY 2022 CBJ.

Background

GAO states that management minimizes the risk of cost overruns and unmet performance targets by ensuring cost estimates are comprehensive, well-documented, accurate, and credible. In support of this
goal, GAO has developed a 12-step cost-estimating process based on industry and government best practices, which the federal government can use to initiate, research, assess, analyze, and present a cost
estimate. By following a process of repeatable methods, agencies should be able to produce reliable estimates that they can clearly trace, replicate, and update to better manage their programs and inform
decision-makers of the risks involved.

The steps in GAO's cost-estimating process are as follows:

1. Define the estimate's purpose: the purpose of the cost estimate is determined by its intended use.
2. Develop the estimating plan: the estimating plan documents the members of the estimating team and the schedule for conducting the estimate.
3. Define the program: a technical baseline description identifies adequate technical and programmatic information on which to base the estimate.
4. Determine the estimating structure: a product-oriented work breakdown structure defines in detail the work necessary to meet program objectives.
5. Identify ground rules and assumptions: establish the estimate's boundaries using a common set of standards and judgments about past, present, or future conditions.
6. Obtain the data: collect and adjust data from existing programs to estimate the cost of a new program.
7. Develop the point estimate: develop the cost estimate for each element and compare the overall point estimate to an independent estimate.
8. Conduct sensitivity testing: examine the effect of changing one assumption or cost driver at a time.
9. Conduct a risk and uncertainty analysis: quantify risk and uncertainty to identify a level of confidence associated with the point estimate.
10. Document the estimate: thoroughly document the estimate such that someone unfamiliar with the estimate can update or recreate it.
11. Present the estimate to management for approval: present the estimate and its underlying methodologies so that management understands and is able to approve it.
12. Update the estimate to reflect actual costs and changes: update the estimate to reflect changes in conditions and report progress in meeting cost goals.

The Library developed the Library of Congress Fiscal 2022 NEPR Guidelines (NEPR Guidelines) to assist its
personnel in preparing and submitting NEPRs. The guidelines outline the information that Library
personnel must document in each section of the NEPR, from the top of the NEPR form through the
Project Management section.

Within the next few years, the Library plans to move to a next-generation system that the Library can
support within its technical environment and that will take advantage of technological advancements
made in the last 20 years. In anticipation of this move, LCSG worked with stakeholders across the
Library
to develop comprehensive business requirements for the L-CAP system, including working with OCIO to
develop technical requirements, and then conducted market research with vendors. Together with
OCIO, LCSG issued a Request for Information (RFI) in October 2019 and received five responses. The
responses indicated that there were viable products on the market that could support the scale and
diversity of the Library's collections and operations. LCSG reviewed the responses and determined
that a
few of the responses were valid, based on LCSG's previous experience implementing ILS and its
knowledge of the overall management of Library legacy systems. Additionally, LCSG noted that it used
internal information from previous Library system implementations to determine the number of staff
required to complete the project, as well as to calculate an estimate for the up-front implementation
costs.

L-CAP will replace ILS, ERMS, and DMT, as well as provide support for the Library's core library
operations across the institution. These legacy systems enable the Library to acquire materials for
the
collections, including via the Copyright Acquisitions Division. The systems (1) support the
description and
inventory of the Library's collections through the creation of metadata that are shared widely within
the
Library and with libraries across the nation and the world, (2) support access to the more than 1,000
electronic resources licensed annually, and (3) directly support patrons' access to the collections,
as well
as to researchers in the Congressional Research Service, the Law Library of Congress, and reference
staff.

LCSG and OCIO each prepared portions of the L-CAP NEPR cost estimate. In preparing its portion of the
cost estimate, OCIO followed the Library's Contracts and Grant Directives (CGD) instructions, rather
than
GAO's Cost Estimating and Assessment Guide. Additionally, OCIO noted that it had not yet formalized
the L-CAP project and that Congress had not yet approved the funding for the NEPR. As a result, OCIO
did not believe it was necessary to follow GAO's detailed guidance when creating the cost estimate to
support the NEPR. The Library maintains that, given its size and the typical scope of its projects,
it
cannot justify expending the funding required to perform extensive planning activities before it
receives
confirmation that Congress has approved funding for a project.

Condition

The Library did not prepare the L-CAP CBJ and the NEPR cost estimate in accordance with GAO's Cost
Estimating and Assessment Guide. For example, OCIO and LCSG did not develop a cost-estimating plan
or the related supporting documentation, which would define the cost-estimating team and the
schedule for conducting the cost estimate. We inquired with Library personnel regarding the L-CAP
Cost
Estimating Document (CED), and the personnel stated that the Library had not prepared a CED. OCIO
and LCSG did create a Project Charter for the L-CAP project, which contained details regarding key
personnel and an overview of the project schedule; however, the Project Charter did not include the
elements for a work breakdown structure, which would have defined the work necessary to meet the L-
CAP project objectives. Library personnel confirmed that the Library had not yet documented the work
breakdown structure for the L-CAP project. As a result, the Library will need to prepare a second
cost
estimate if it receives funding for the L-CAP project. Additionally, the Library does not have
assurance

that it requested sufficient funding for the L-CAP project.

Although the Library is not required to use GAO's Cost Estimating and Assessment Guide when preparing CBJs and NEPRs, we believe that the Library would benefit from doing so. Following GAO guidance at the
NEPR stage would ensure that the Library considers all of the necessary factors when seeking funding for an IT project. Additionally, congressional appropriators and Library executives could better rely on
the completeness and accuracy of the Library's funding requests. Further, by following GAO guidance at
the NEPR stage, the Library would not need to duplicate its efforts by subsequently creating a second cost estimate that does comply with GAO guidance.

Criteria

GAO's Cost Estimating and Assessment Guide: Best Practices for Developing and Managing Program Costs, Chapter 1: Why Government Programs Need Cost Estimates and the Challenges in Developing Them, states:

Cost estimates are necessary for government acquisition programs for many reasons: to support decisions about funding one program over another, to develop annual budget requests, to evaluate resource requirements at key decision points, and to develop performance measurement baselines. Moreover, having a realistic estimate of projected costs makes for effective resource allocation, and it increases the probability of a program's success.

GAO's Cost Estimating and Assessment Guide: Best Practices for Developing and Managing Program Costs, Chapter 2: Cost Analysis and Cost Estimates, states:

Cost estimating is a critical element in any acquisition process and helps decision-makers evaluate resource requirements at milestones and other important decision points. It is the basis for establishing and defending budgets and drives affordability analyses. Cost estimates are integral to determining and communicating a realistic view of likely cost and schedule outcomes that can be used to plan the work necessary to develop, produce, operate, maintain, and dispose of a program.

Cost estimating also provides valuable information to help determine whether a program is feasible, how it should be designed, and the resources needed to support it.

OCIO Project Management Office Cost Estimating Guidance states:

A cost estimate is the approximation of the expected total cost of an investment or project. Using a credible, reliable, and accurate cost estimate, project costs can be managed and controlled throughout the life cycle of the investment/project, thus avoiding the possibility of a cost overrun. Due to this advantage, development and tracking of cost estimates is a recommended industry best practice.

Cost Estimation Lead defines the scope of the estimate using the Cost Estimate Document. The scope of the estimate lays out the timeline as well as accuracy of the estimate depending on the phase the project is in. As the initial cost estimate is created at the on-set of a project when data is limited, the estimate is expected to be a rough order of magnitude (ROM) of -25% to +75%. Additional details can be provided in the updated estimate as more data is available throughout the life cycle of the project.

Cause

Although the NEPR Guidelines reference GAO's Cost Estimating and Assessment Guide in the Basis of Cost Estimate Computations section, they do not specifically require the preparer to follow all of the
GAO steps. The Deputy Chief Information Officer further stated that OCIO did not use the Library Project
Management Office (PMO) cost-estimating guidance in preparing its support for the initial cost estimate
because the Library had not yet formally determined that the L-CAP project would be an OCIO project. Additionally, we reviewed the NEPR Guidelines and noted that the guidelines referenced GAO-09-3SP, which is an outdated version of the GAO Cost Estimating and Assessment Guide. The applicable version

of the Cost Estimating and Assessment Guide is GAO-20-195G, updated in 2019.

FSD does not currently monitor or track the reasonableness and accuracy of specific supporting
documentation for cost estimates, to ensure that Library personnel have prepared and precisely
represented all of the required documentation. FSD further stated that it does not currently have
personnel who are capable of performing this type of technical review. FSD noted that it is in the
process of creating a data estimation office, which would increase its skillset and capabilities with
regard
to cost-estimation reviews.

Effect

Without preparing proper supporting documentation for its cost estimates, the Library risks
inaccurately
allocating costs. Because the Library performs the GAO cost-estimation process after it receives
funding
for the project, rather than prior to requesting the funding, the Library may misrepresent its costs
in the
funding request.

In addition, by performing one cost estimate during the NEPR stage of a project and a second cost
estimate after the funding has been awarded, the Library risks performing duplicative efforts, as
well as
potentially mismanaging resources and misallocating time. Potential issues may include requesting
insufficient funding for the project, causing disruption to the project, and being required to
reallocate
funds from alternate sources. Conversely, the Library might overstate the funds required for the
project,
which would result in a misappropriation of resources.

Without proper supporting documentation for the Library's cost estimates, those in charge of
governance may rely on skewed or incomplete information, which could lead to misguided decision-
making in areas such as budgets and business decisions. This skewed information could also
misrepresent resource requirements at key decision points in the project. Additionally, the program's
rate of success may decrease if the program costs increase as a result of the revised cost estimate.

Recommendations

We recommend that the Library:

1. Update its NEPR guidance to direct Library personnel to the most current version of the GAO
Cost Estimating and Assessment Guide.
2. Consider updating its NEPR guidance to require Library personnel to prepare cost estimates in
accordance with the GAO Cost Estimating and Assessment Guide, to the extent the Library
determines it applicable.
3. Obtain additional resources and personnel with technical knowledge to enhance its NEPR review
process and technical evaluations.

Finding 2: The Library did not complete the NEPR for the L-CAP project in accordance with all Library
guidelines and did not sufficiently complete the supporting cost estimate.

Background

As previously noted, the Library is currently undergoing LCSG's IT Modernization effort, which
involves
selecting a COTS product to serve as the "heart" of Library collections management operations for the
next generation. This project will enable the Library to take advantage of the latest technology to
manage the acquisition, description, and inventory of Library collections and facilitate access to
these
collections for Library employees, Congress, and the public. It will also enable the Library to
leverage its
investment in creating BIBFRAME, the new descriptive standard for Library resources, as well as to
phase out its investment in Machine Readable Cataloging (MARC), the 40-year old cataloging standard

on which the current legacy system runs. The system will have more advanced IT security controls and will be easily scalable to accommodate evolving technology and growing digital content.

The Library prepares NEPRs to support its CBJs requesting funding for projects. In addition, the Library
prepares cost estimates to support the amounts listed in the NEPRs. The OCIO portion of the FY 2022 CBJ included a 2.221 million dollars request for L-CAP support, including five FTE positions. The LCSG portion
of the FY 2022 CBJ included a 4.279 million dollars request for L-CAP support, including four FTE positions. This
results in a total request of 6.5 million dollars for L-CAP support, including nine FTE positions, for the first year.

The Library developed the NEPR Guidelines to assist Library personnel in preparing and submitting NEPRs. The guidelines outline the information that must be documented in each section of the NEPR, from the top of the NEPR form through the Project Management section.

The Library's documentation for the L-CAP cost estimate divides the project into two phases: a one-year
planning and procurement phase and a subsequent execution phase. The NEPR covers the cost of implementing L-CAP and identifies a total implementation cost of 25 million dollars. As the project is
chartered, the PMO calculates the costs to implement the project. Once the PMO has calculated the costs for the first year, it begins to calculate the costs for the following year.

As a result of the divided portions of documentation, the length of time for the project is difficult to
quantify. The L-CAP program length has an indefinite duration after initial release, which is planned by
the end of the second year after NEPR funds are approved.

Condition

We determined that the Library did not complete the NEPR form in accordance with all of its guidelines.
Specifically:

The amount included in the Budget Profile section exceeds the total project cost included in the Project Total section. The Project Total section lists the total cost for the project as 25 million dollars,
while the Budget Profile section shows a total cost of 30.7 million dollars for FYs 2022 through 2027,
for a difference of 5.7 million dollars. The NEPR does not indicate the length of the project or identify
which years are included in the Project Total section. We inquired with Library personnel and determined that the Budget Profile section includes 5.8 million dollars of new money that is needed to
maintain L-CAP in the continuous delivery phase after implementation. The NEPR does not provide this context and does not provide a clear picture of the L-CAP project.

The Basis of Cost Estimate Computations section does not clearly document the assumptions and research that the Library relied upon in calculating the estimated totals. Rather than provide specific information regarding the RFIs referenced or the research performed to arrive at the estimated FTE count, the NEPR simply references generic "expert opinions" and "market research."

We also identified omissions, errors, and insufficient support for pricing within the cost estimate supporting the NEPR. Specifically:

The LCSG portion of the cost estimate omitted the transit subsidy, which is required per NEPR Guidelines. LCSG's cost estimate should have included a transit subsidy of 12,720 dollars (four FTEs at
3,180 dollars per FTE). Additionally, although management stated that the OCIO portion of the cost estimate included the transit subsidy, we were unable to confirm this statement. In particular, we noted that OCIO's estimated FTE costs were the same as LCSG's estimated FTE costs, even

though LCSG omitted the transit subsidy. OCIO's cost estimate should have included a transit subsidy of 15,900 dollars (five FTEs at 3,180 dollars per FTE).

The OCIO portion of the cost estimate omitted training costs, which are required per NEPR Guidelines. OCIO's cost estimate should have included training costs of 10,000 dollars (five FTEs at 2,000 dollars per FTE).

The cost estimate indicated that the "ITSO Contract Support – Infra. Integration/Planning" role was a half-time position and that the "Security Contract Support" role was a quarter-time; however, management indicated these were typos and should have been deleted.

We were unable to determine the basis for the contractor support pricing listed in the OCIO portion of the cost estimate. We requested that management provide documentation to support the funding amounts claimed and clarify the contractor roles and responsibilities on the project; however, management did not provide the requested information.

We were unable to determine what documentation management used to arrive at an annual cost of 750,000 dollars for the "Initial Fiscal Year (IFY)+2" and "IFY+3" for the LSP Contract - O&M Enhancements section.

Criteria

NEPR Guidelines, page 1, states, "Project Total should be the total cost of the initiative if it spans over a
number of years."

NEPR Guidelines, page 3, states, "In the Basis of Cost Estimate Computations section, please indicate all
assumptions that document and lead to the estimate totals included for both dollars and FTEs."

NEPR Guidelines, page 1, states, "If request includes FTEs, please enter the applicable GS level at a step
5, include $3,180 per FTE for transit ($265/month), and $2,000 per FTE for training."

GAO's Cost Estimating and Assessment Guide: Best Practices for Developing and Managing Program Costs, page 48, states, "The estimate contains few, if any, minor mistakes."

GAO's Cost Estimating and Assessment Guide: Best Practices for Developing and Managing Program Costs, page 48, states, "The cost estimate includes all life cycle costs."

GAO's Cost Estimating and Assessment Guide: Best Practices for Developing and Managing Program Costs, page 48, states, "The documentation shows the source data used, the reliability of the data, and
the estimating methodology used to derive each element's cost."

GAO's Cost Estimating and Assessment Guide: Best Practices for Developing and Managing Program Costs, page 48, states, "The documentation describes how the estimate was developed so that a cost analyst unfamiliar with the program could understand what was done and replicate it."

Cause

Management indicated that the discrepancy between the amount reported in the Budget Profile section and the amount reported in the Project Total section is likely due to the continuous development of the
project. The funding amount for the final year listed represents sustainment funding (i.e., an annual amount for the continuous expenses associated with the project).

Management further stated that the omission of funding for training costs and transit subsidies, as well
as the mislabeled contractor support, was an error caused by inadequate quality control review.

In addition, the NEPR Guidance does not provide sufficient guidance to help the cost estimators document their conclusions and rationale when preparing cost estimates for new funding requests.

Effect

Without a NEPR and a supporting cost estimate that are clear and representative of the L-CAP project, the Library is at risk of submitting inaccurate information in its CBJ. As a result, funds, personnel, and
information may not be sufficient to ensure the completion of the project.

Recommendations

We recommend that the Library:

4. Design and implement clearer guidance on completing the NEPR, including guidance addressing how to:
a) Specify what costs are included in the total costs and project profile sections.
b) Include all documentation supporting the cost estimate, including the cost estimate spreadsheet and the CED.

COTTON & COMPANY ASSURANCE AND ADVISORY, LLC
Jason Boberg, CPA, CFE
Partner

APPENDIX A: NEPR FORM (image)

Attachment 4
Library of Congress
Fiscal 2022 New and Expanded Program Request (NEPR) Form

Appropriation:
PPA/Office:
Funding Request: (First Year/Project Total in dollars.
FTEs:
Permanent Base Funding: (yes/no)
If no, Fiscal Year Funding will Non-Recur:
Service Unit Priority:
Capital Asset: (yes/no)
If Yes, New or Existing:
Subject Matter Expert (Name and Phone number):

Executive Summary (Submit a separate work document with a longer description of the resources requested.

Budget Profile
Fiscal 2022: dollars / FTE
Fiscal 2023: dollars / FTE
Fiscal 2024: dollars / FTE
Fiscal 2025: dollars / FTE

Personnel Cost Projections
Permanent or Temporary
Start and End Date (if Temporary)
Series
Grade/Step
New or Existing PD
Workstation Needed (yes or no)
Purpose of Position

Basis of Cost Estimate and Computations
(describe method of computation, source of cost data, and any assumptions included in developing the requirements, if needed provide
additional spreadsheets or documents of calculations including asset capitalization information.

Desired Outcome
(describe the tangible/intangible benefits of this initiative)

Risk Assessment
Impact if Funding is Received versus Not Received
Implementation Risks if Funding is Received:

Implementation if Funding is Not Received:

New Legislative Language to Implement Initiative
(if required, ensure that OGC and CRO concur and endorse any proposed language)

Service Unit(s) Stakeholders and Funding
(include all external resources that may be required in support of this initiative)
Service Unit/Stakeholder
Requirements Description
Cost
If this request includes IT, please contact your IT Partner Engagement liaison to help you complete
the form.

Strategic Plan Linkage
Strategic Goal
Directional Plan Initiative, Congressional Direction, Agency Performance Goal
Additional Narrative:

Major Milestones of Implementation
Major milestones
Fiscal 2022:
Fiscal 2023:
Fiscal 2024:
Fiscal 2025:

Project Management
Project Manager: (name, internal or external contractor?)
Does this project already exist on an Integrated Master Plan (yes / no) - If yes, please include plan
in submission.
If no, what is the timeline for integration?

Critical Path - Does this project already have a Critical Path implementation plan or timeline?
(yes/no)
If yes, please include plan in submission. If no, what is the timeline for developing the Critical
Path?

Appendix B: Management Response

Library of Congress

Office of the Librarian

Memorandum

Date May 31, 2022 date
To Kim Byrd, Inspector General
From J. Mark Sweeney, Principal Deputy Librarian of Congress
Subject Management Response to OIG report 2021-SP-102, Library Collections
Access Platform Project Cost Evaluation

We appreciate the Office of the Inspector General's (OIG) evaluation of the Library of
Congress' plans and estimates for a new Library Collections Access Platform system
(LCAP). The Library generally agrees planning and cost estimating are valuable and
necessary steps in generating budget requests and implementing projects and
programs. We observed the scope of this evaluation focused on the new and expanded
programming request (NEPR) process used by the Financial Services Directorate and,
by virtue of that focus, the Library's cost documentation in certain cases reflected
estimates used for budget requests distinguishing funds needed above the Library's

normal baseline operational budgets for the Library Collections and Services Group and
Office of the Chief Information Officer.

The LCAP project seeks to replace legacy systems that serve the heart of the Library's
collections management, including acquisition, description and inventory, access and
handling of collections. As discussed in the Library's FY2022 and 2023 budget
justifications, the Library is in the process of issuing a request for proposals for a next
generation LCAP that will modernize collections processes and access to physical and
digital collections. Given the significance of this project to the agency's core mission, the
Library has been researching potential solutions and developing requirements for
several years prior to submission of the budget requests and continues to adjust plans
and costing data as new information is received. This research has confirmed that
availability and functionality of commercial offerings dramatically change as time and
technology progresses. Accordingly, as the project advances, the Library will refine cost
estimates, which were initially challenging to calculate due to the Library's intent to seek
solutions that may push the boundaries of current industry offerings and have been
impacted by unanticipated external factors such as unprecedented inflation.

For information technology projects generally, the Library continues to explore relevant
factors and financial thresholds to determine appropriate planning documents and cost
estimating as unfunded program or project concepts are developed and to identify
additional processes and documents to detail schedules, adjust costing, and validate
assumptions as funded projects are formally initiated and through implementation and
monitoring. Government Accountability Office (GAO) best practices and executive
branch policies often exceed the scale and scope of most Library projects. Therefore,
the Library appreciates the opportunity to work with the GAO and OIG in assessing how
and at what stages such guidelines are useful and applicable to Library IT projects.

The attached chart provides responses to the individual recommendations.

Attachments

cc:
Robin Dale, Deputy Librarian for Library Collections and Services
Mary Klutts, Chief Financial Officer
Judith Conklin, Chief Information Officer
Elizabeth Pugh, General Counsel

Management Comments on Draft OIG Report No. 2021-SP-102
Library Collections Access Platform Project Cost Evaluation

Recommendation number 1
Recommendation:
Update its NEPR [New and Expanded Program Request]
guidance to direct Library personnel to the most current version
of the GAO Cost Estimating and Assessment Guide.
Responsible Office: FSD
Comments: FSD has updated the NEPR documents to cite to the current version of the GAO guidance.
Target completion: Completed

Recommendation number 2
Recommendation:
Consider updating its NEPR guidance to require Library
personnel to prepare cost estimates in accordance with the GAO
Cost Estimating and Assessment Guide, to the extent the Library
determines it applicable.
Responsible Office: FSD and OCIO
Comments:The Library continues to assess the appropriate scope, scale, and timing in applying GAO cost
estimating guidance to preliminary proposals and will update internal policies and guidance as necessary.
Target completion: FY23 Q4

Recommendation number 3
Recommendation: Obtain additional resources and personnel with technical
knowledge to enhance its NEPR review process and technical
evaluations.
Responsible Office: FSD and OCIO, all Service Units as applicable
Comments:
The Library has set in motion several initiatives already to increase capacity and capability for
developing and reviewing cost estimation efforts during the requirements development, pre-NEPR,
NEPR and execution phases. In 2017, OCIO established a Project Management Office (PMO). In
fiscal year (FY) 2022, the Library is moving forward with the Enterprise Planning and Management
(EPM) project to establish governance and pilot increased cost management and cost estimating
capabilities with four FTEs in FSD and 2 FTEs in OCIO to support IT cost analysis and estimating. In
addition, in the 2023 Congressional Budget Justification (CBJ), two NEPRs have been submitted that
will broaden these capabilities: Strengthening IT Planning & Project Management and EPM
Expansion. These two NEPRs add cost estimating, project management and planning capabilities and
capacity. The EPM Expansion will establish the Cost Management Center of Excellence (CMCE), a
data analytics team and the Data Transformation Office (DTO) with five additional FTEs to build upon
the pilot programs implementing an integrated planning process to support stakeholders in cost
estimation and cost accounting. The governance will endeavor to identify any large scale, complex
projects being planned and ensure proper and applicable GAO cost estimating techniques are being
utilized. The Strengthening Project and Program Management NEPR will add four FTEs, plus
contractor support, to mature and properly sustain IT project and program management life cycle
governance and IT project planning and execution. With the rapid pace of technological change, these
additional resources will expand capacity for IT project planning and management furthering the
Library's program management capabilities. If these efforts are approved for funding in 2023 these
resources will be integrated into the planning, pre-NEPR and NEPR phases and provide sufficient
capability for technical evaluations of cost estimates.
Target completion: FY24 Q2

Recommendation number 4
Recommendation: FY24 Q24 Design and implement clearer guidance on completing the
NEPR, including guidance addressing how to:
a) Specify what costs are included in the total costs and project profile sections.
b) Include all documentation supporting the cost estimate,
including the cost estimate spreadsheet and the CED [Cost Estimating Document].
Responsible Office: FSD in coordination with OCIO and other Service Units as applicable
Comments: See response to recommendation 3. Documentation regarding the NEPR process will be revised
as
necessary upon obtaining the resources and establishing processes noted above.
Target completion: FY24 Q2