

GAO Highlights

Highlights of [GAO-14-333](#), a report to congressional committees

Why GAO Did This Study

AOC is responsible for the maintenance, renovation, and new construction of the U.S. Capitol complex, which comprises more than four dozen facilities. Reliable cost estimates for projects are crucial to AOC's capital-planning and construction processes. The House Appropriations Committee report accompanying the fiscal year 2014 Legislative Branch Appropriations bill mandated that GAO review AOC's cost-estimating methodology.

This report addresses the extent to which AOC's policies and guidance for developing cost estimates adheres to leading practices. GAO analyzed AOC's cost-estimating guidance, interviewed AOC officials, and compared AOC's cost-estimating guidance and documentation and two projects' cost estimates to leading practices in GAO's *Cost Guide*. When most or all of the practices associated with each characteristic of a high-quality, reliable estimate are followed, GAO considers the characteristic to be "fully" or "substantially" met. When, in turn, all four characteristics are at least "fully" or "substantially" met, GAO considers a cost estimate to be reliable.

What GAO Recommends

GAO recommends that AOC incorporate additional leading practices into its cost-estimating guidance and submit the confidence levels of project estimates to Congress. AOC concurred with the recommendations and provided context and clarification on its cost-estimating guidance and policies.

View [GAO-14-333](#). For more information, contact Lorelei St. James at (202) 512-2834 or stjamesl@gao.gov

March 2014

ARCHITECT OF THE CAPITOL

Incorporating All Leading Practices Could Improve Accuracy and Credibility of Projects' Cost Estimates

What GAO Found

GAO's *Cost Estimating and Assessment Guide (Cost Guide)* defines 12 leading practices that are associated with four characteristics—*comprehensive*, *well documented*, *accurate*, and *credible*—that are important to developing high-quality, reliable project-cost estimates. Using the *Cost Guide*, GAO determined that the Architect of the Capitol's (AOC) cost-estimating guidance conforms to leading practices for developing estimates that are, in general, *comprehensive* and *well-documented*. However, AOC's guidance does not substantially conform to leading practices related to developing cost estimates that are *accurate* and *credible*. For example, pertaining to the *credible* characteristic, AOC's guidance does not require determining the confidence level of estimates or quantifying the extent to which a project's costs could vary due to changes in key assumptions. GAO found the strengths and weaknesses of AOC's guidance generally reflected in the cost estimates for AOC's Cannon House Office Building's (Cannon Building) renewal project (\$753 million) and Capitol Dome's restoration project (\$125 million).

- Cannon Building renewal—GAO found the estimate is substantially comprehensive, well documented, and accurate, but several factors that affect its *credibility* are lacking. For example, AOC's risk analysis does not allow for determination of which risks have the greatest influence on project costs and may overstate the effect of the risks.
- Capitol Dome restoration—GAO found the estimate is substantially comprehensive and well documented, but lacking key analysis that support accurate and credible estimates. For example, AOC did not use actual costs from completed phases to update its estimates and did not complete a risk and uncertainty analysis.

Overall, AOC's cost-estimating guidance may not enable fully reliable estimates because it incorporates some, but not all, leading practices. Without reliable cost estimates that convey their confidence levels, AOC's projects risk experiencing cost overruns or budget surpluses, missed deadlines, and performance shortfalls. Potential limitations in the reliability of AOC's estimates may make it difficult for Congress to make well-informed funding decisions and affect how AOC allocates resources across competing projects in its capital portfolio.

GAO's Assessment of AOC's Cost-Estimating Characteristics in Its Guidance for Two Project Cost Estimates

Characteristic	AOC's guidance	Cannon Office Building	Capitol Dome
Comprehensive	●	●	●
Well documented	●	●	●
Accurate	◐	●	◐
Credible	◑	◐	◑

Source: GAO analysis of AOC documents and data.

●= Fully Meets ◐=Substantially Meets ◑=Partially Meets ◒=Minimally Meets ○= Does Not Meet

Note: A characteristic is fully met when the associated tasks of underlying leading practices are completely satisfied; substantially met when a large portion of the associated tasks are satisfied; partially met when about half of the associated tasks are satisfied; minimally met when a small portion of the associated tasks are satisfied; and not met when none of the associated tasks are satisfied.