

Evaluation of the Accuracy of Capital Project Cost Estimates

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JOINT LEGISLATIVE AUDIT AND REVIEW COMMITTEE

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REPORT SUMMARY

Why a JLARC review of the accuracy of state agency capital project cost estimates?

Washington's capital budget provides funds to construct facilities that enable state agencies to perform the responsibilities assigned by law. The facilities range from prisons to office buildings to classrooms and represent long-term public investment. During fiscal years 2002 through 2009, the Legislature appropriated \$5.8 billion for state agency capital projects. Accurate project cost estimates are essential to the capital budget process. Reliable, consistent cost estimates for capital projects enable the Legislature and Executive Branch officials to make informed decisions when considering agency capital project requests. Accurate cost estimates are also critical to project managers responsible for constructing facilities within appropriations.

In the 2008 Supplemental Capital Budget (ESHB 2765), the Legislature directed the Joint Legislative Audit and Review Committee (JLARC) to "conduct an evaluation of the accuracy of capital project cost estimates prepared by state agencies for their budget requests." The Legislature further directed JLARC to focus on state agencies with large capital programs.

JLARC reviewed development of cost estimates for **all major projects** (over \$5 million) at ten agencies that account for over 80 percent of state capital projects constructed since 2002. For these ten state agencies, JLARC **measured the accuracy of capital project cost estimates by comparing estimates prepared at three major phases of project development to final project costs.** As part of this evaluation, JLARC also **reviewed the processes the agencies use to develop capital project cost estimates.**

A large majority of capital project cost estimates reviewed meet professional expectations for accuracy

Compared to final project costs, between 71 and 74 percent of the state agency capital project cost estimates reviewed by JLARC fell within the expected cost accuracy ranges identified by the Association for the Advancement of Cost Engineering International. This result was consistent for estimates at each phase of project development (concept, pre-design, and design), even though the expected range of accuracy narrows at each successive phase of development.

For those projects that fell outside the expected cost accuracy ranges, JLARC analyzed project characteristics to identify possible causes but found no systemic relationships between those characteristics and differences between estimates and final costs. Agencies cite various reasons for differences including changes in project scope and unfavorable market conditions.

The processes state agencies use to develop capital project cost estimates are consistent with professional practices

JLARC identified 11 critical steps in developing project cost estimates based on the work of the U.S. Government Accountability Office and professional societies involved in estimating project costs. The project development processes at all ten state agencies incorporate these 11 steps. State agencies accomplish these 11 steps through a combination of professional expertise, long-range planning, and technical guidance. Specific procedures vary among agencies, but the intent and purpose are the same; JLARC did not identify any significant gaps or omissions in agency procedures.

Improved reporting will enhance future evaluations of accuracy of cost estimates

Assembling the data necessary to compare project cost estimates to final costs proved to be a significant challenge in performing this evaluation. Part Three of this report describes those challenges and offers two solutions that would aid future evaluations. Responsibility for these two proposed solutions is directed to the Office of Financial Management as the agency that provides directions and other guidance to the state agencies on capital budgeting and as the agency responsible for the state's centralized accounting system. The following two recommendations would facilitate future evaluations of the accuracy of capital project cost estimates:

Recommendation 1

The Office of Financial Management should issue accounting directions that require state agencies to report capital project expenditures under the project number where they are actually used. These directions should address formally transferring funds among projects where appropriate and reporting all local funds used on each project so that the Agency Financial Reporting System provides a complete summary of all final project expenditures.

Recommendation 2

The Office of Financial Management should develop a template for a final project close out report that records all information needed to compare completed projects with cost and scope estimates submitted in requests for capital budget appropriations. The final report should include: 1) total cost and fund sources for all expenditures, 2) transfers to and from other projects, where applicable, 3) final square footage, 4) changes to project scope, and 5) major milestone achievement dates.