



RESEARCH PROJECT CAPSULE [19-3PF]

March 2019

TECHNOLOGY TRANSFER PROGRAM

Synthesis on the Best Practices for State DOTs to Determine Project Delivery Time, Project Management, and Ratio of Consultant to In-House Design

JUST THE FACTS:

Start Date:

January 1, 2019

Duration:

9 months

End Date:

September 30, 2019

Funding:

SPR: Pooled Fund: TT-Fed

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POINTS OF INTEREST:

Problem Addressed / Objective of
Research / Methodology Used /
Implementation Potential

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The RAC Region II has initiated a collaborative research program consortium through the Transportation Pooled Fund (TPF) Program called the Southeast Transportation Consortium (STC), which is intended to encourage coordination among member states and provide resources and management of collaborative studies. The consortium intends to address high priority transportation research topics of common interest to the southeastern and adjoining states. Louisiana serves as the lead agency in the STC.



PROBLEM

Transportation agencies are experiencing unprecedented pressure to deliver projects. One response to this pressure is to contract out the work to private sector companies. Contracting out is not new: many state DOTs have been engaged in it for years.

A main concern of project managers is delivering project outcomes on time and within budget. When a project is delayed, it either must be accelerated or have its duration extended beyond the scheduled completion date. Consequently, cost overruns occur.

Comparing project success and performance management of in-house services to those of outside suppliers can produce important information, but it is still necessary to further investigate best practices in terms of in-house or contracted-consultant design and delivery.

OBJECTIVE

This study aims to identify effective strategies and best practices to accurately estimate cost and schedule of transportation projects during the planning, scoping, and design phases of the project. This study will focus on tools, techniques, and processes required to effectively deliver a transportation project, and will investigate the impact of design outsourcing on project quality, schedule, and cost.

METHODOLOGY

The research team will initially perform an in-depth literature review using various scholarly and other online resources. The results of the first task will be used to develop a comprehensive online survey of transportation agencies, focusing on significant factors for successful design and delivery of transportation projects.

To pilot test the survey and ensure completeness, a preliminary questionnaire will be sent out to selected subject-matter-experts who are active in transportation agencies across the nation. The survey will then be finalized and distributed among potential participants (e.g., state DOTs, FHWA, AASHTO committees). The collected survey responses will be analyzed both quantitatively and qualitatively.

Follow-up interviews will be conducted and performed to cover areas that need more in-depth investigation. The findings and outcome of this study will be documented in a final report, technical summary, and presentation to the project review committee.

IMPLEMENTATION POTENTIAL

The project synthesis will be a useful reference document for identification of successful project management practices and design outsourcing options.