

REQUEST FOR PROPOSALS
Development of a Guidebook for Determining the Value of Research Results
LTRC Project No. 16-1PF, SIO No. DOTLT1000090

PROBLEM STATEMENT

As part of the synthesis projects funded by the Southeast Transportation Consortium, Final Report 512 titled, “STC Synthesis of Best Practices for Determining Value of Research Results” was produced. The object of the synthesis was to identify the best practices for determining the value of research results, and to summarize how other states have quantified the value. Research program surveys were completed and various publications reviewed. Based on these surveys and reviews, some general findings include, but are not limited to:

- There are no formal guidelines for assessing benefits of research results.
- Evaluation methodology should not be too long or too complex.
- Collection and distribution of good evaluation examples is helpful.
- Flexibility is key.
- Communication of research benefits is important.
- Data scarcity for evaluation of research benefits is a significant challenge.
- Few attempted to quantify benefits since they are hard to place a dollar value on.
- Multiple methods exist for determining value.
- Multiple measures were identified for determining value.
- Multiple data sources exist for determining value
- Systematic approaches for assessment of transportation research by the states of Florida, Ohio, Kentucky, Utah and Minnesota.
- Publications from government sources, including:
 - NCHRP Project 20-63
 - NCHRP Report 610
 - “Research Pays Off,” Transportation Research Board
 - “Research Impacts: Better-Cheaper-Faster,” AASHTO
- A training program needs to be developed.

The synthesis concluded that the need exists to develop a systematic and transparent approach to determining the value of transportation research. The approach should be scalable, flexible and easy to understand. A guidebook will be required to address and evaluate the value of research on multiple types of projects. The guidebook needs to develop a systematic process, when possible, and present results that are easily interpreted and applied.

Research is very diverse with multiple research categories and subcategories. This research project will develop a format for measuring and documenting the value of research, knowing that it cannot cover all possible types of research projects and all possible measures. The goal will be to develop a set of measures in an easily understandable format that will enable the research sections to evaluate the majority of the research typically conducted in state transportation research programs. The process for determining the measures will be done in a

format that permits maximum coverage of the most researched categories and be universally accepted between categories. Because of the uniqueness of this project, multiple steps will be taken that allow the STC to evaluate selected phases before moving on to the next phase. All the preliminary steps lead into the development of a guidebook that provides guidelines and worked examples for use of the STC members.

OBJECTIVE

The primary objective of this project is the development of a guidebook to be used by STC research sections which allows a consistent approach to be used by all members for measuring and documenting the value of completed research.

RESEARCH APPROACH

Louisiana Transportation Research Center (LTRC) is seeking the insight of proposers on how best to achieve the research objectives. Proposers are expected to describe research plans that can be realistically accomplished within the constraints of available funds and contract time as allowed in this RFP. Proposals must present the candidate's current thinking in sufficient detail to demonstrate their understanding of the problem and the soundness of their approach. Task descriptions are intended to provide a framework for conducting the research. The proposal shall address, at a minimum, the following tasks:

Task 1 Perform Literature and Discovery Search

Perform literature and discovery search for completed and ongoing studies being conducted by state DOT's, NCHRP or other Federal agencies, and private research institutions that relate to determining the value of research. The search may include a survey of states to determine where examples of quantification of research value exist. The task summary will provide a format for discussion and will determine if any trends in recording measures used by other agencies currently exist or are anticipated in the future. Contacts shall include TRB Conduct of Research Committee and AASHTO RAC Value of Research Task Force.

Task 2 Development of Research Project Categories

Develop a recommended list of research project categories based on the types of research projects conducted by state DOT's. The STC database categories may be used as a reference. The basic outline of the guideline document will be developed from these categories.

Task 3 Development of Value of Research Measures

Using results of Task 1, develop a list of measures, ratings and parameters that may be used to evaluate any project in the research categories provided in Task 2. Measures in context of this study are a reference standard that is used for comparison of properties. For example, measures may include "benefit/cost", "lives saved", "time saved", etc."

Task 4 Develop Gap Analysis on Existing Quantification Processes

Using results in Task 1-3, compare project categories, value measures with existing quantification processes and examples. Provide a list of research categories that have well-established value of research quantification processes and examples. Also provide a list of research categories that do not have formal guidelines developed to determine the value of results.

Task 5 Interim Report

Provide an interim report to include results from the previous tasks and recommended list of research categories to be included in the guideline document. The list shall include both well-developed processes and proposed categories for processes to be developed by the research team. It is not expected that all categories will be included in the guidebook. The list of categories to be included shall avoid a duplication of effort from the results found in Task 1. The list shall include the amount of time and effort required to develop/reproduce the recommended measures for each category. For underdeveloped categories, the report shall include project data required to perform a value of research quantification. The interim report shall include a work plan and schedule for the completion of remaining tasks. The proposed list of research categories to be included in the guidebook shall be approved by the TAC prior to commencing with work. Interim report is due 6 months after notice to proceed is issued. A six week delay shall be built into schedule for TAC approval.

Task 6 Develop measurement processes for the under-developed research categories

Develop measurement processes for the under-developed research categories approved by the TAC using actual project information provided by an STC member state.

Task 7 Development and Review of Quantification Measures

As measures are developed for research categories, (both well-established and under-developed categories) submit to TAC for review and distribution to VoR Task Force for feedback on practitioner acceptance of recommended process.

Task 8 Development of Guideline Document

Upon final approval from the TAC of each research category quantification measure process, develop the guideline document. The guidebook will contain, at a minimum:

- Explanation in detail of each of the measures.
- Research categories with appropriated quantification measures and processes.
- Worked examples for at least one completed research project in each research category. Projects should be summarized for the guidebook and all parameters developed and shown.
- Section on how to approach the evaluation of projects which have no clearly identifiable measures.
- Suggested measures for research categories where case histories or project examples are unavailable.
- For each project example provided in the guidebook, a one page summary document shall be developed to present the benefit measures. One side shall show the benefit results and the back side should give sufficient detail and parameters.

Task 9 Final Report & Guideline Document

Prepare a final report to document the entire research effort. The Guideline Document is the primary deliverable of the project. The final report shall be an executive summary of the entire research effort formatted in accordance with the LTRC publication guidelines. The draft final report and guideline document will be submitted to the TAC 18 months after the notice to proceed is issued.

Task 10 Presentation and Training

Develop a webinar training presentation on “Determining the Value of Research Results”. A webinar series of 1-3 sessions shall be developed and presented with a minimum of four hours of total training time. The pilot presentation shall be given at the STC Annual Meeting at a location to be held in the STC region. The proposal shall contain travel funds to attend this meeting. A presentation of a training webinar will be delivered to a national audience. Webinar arrangements to be provided by STC.

DELIVERABLES

The proposal shall include project deliverables for appropriate tasks. Deliverables shall be due as defined in the proposal. The proposal shall include at a minimum the following deliverables:

- Task 1: Results of Literature/Discovery efforts to include existing value of research quantification processes and examples
- Task 2: Recommended list of research project categories
- Task 3: List of value of research measures.
- Task 4: Results of gap analysis to include detailed list of well-established and under-developed measures.
- Task 5: Interim report.
- Task 6/7: Delivery of quantification measures for STC timely review.
- Task 8/9: Draft Final Report & Guideline Document
- Task 9: Delivery of pilot presentation & final webinar

SPECIAL NOTES

- A. LTRC research projects will be conducted in accordance with the LTRC Manual of Research Procedures, 2003 edition. (http://www.ltrc.lsu.edu/pdf/research_man03.pdf)
- B. Any work that is anticipated to be required from LTRC or the STC shall be specifically detailed in the proposal.
- C. LTRC projects are intended to produce results that will be applied in practice. It is expected that the implementation of the results of this research into practice will evolve as a concerted effort during this project. The final report must contain an implementation plan to include, as a minimum, the following:
 - a. The “product” expected from the research;
 - b. A realistic assessment of impediments to successful implementation;
 - c. The activities necessary for successful implementation; and
 - d. The criteria for judging the progress and consequences of implementation.
- D. The proposal should include travel to meet with the STC for presentation of the final report at a minimum. Funds budgeted for travel shall be limited to what is necessary for the conduct of the research. Funds shall not be budgeted for conference travel. Funding for technology transfer of research results is available upon request subject to LTRC approval and available funds.
- E. Graduate assistance stipends are allowed. Tuition reimbursement or tuition remission rates applied to stipends are not allowed.
- F. To equitably answer any questions regarding this Request for Proposals, the Louisiana Department of Transportation and Development (LA DOTD) website will

be updated with questions and answers and related documents regarding the project.

<http://webmail.dotd.louisiana.gov/agrestat.nsf/WebAdvertisements?OpenPage>

LA DOTD makes these documents available for informational purposes only to aid in the efficient dissemination of information to interested parties. LA DOTD does not warrant the documents against deficiencies of any kind. The data contained within this web site will be periodically updated. Interested parties are responsible to be aware of any updates. Questions regarding this RFP should be submitted in writing to the LTRC contact person. Questions must be received by close of business seven calendar days prior to deadline date.

- G. Consultants and business entities shall be registered with the Secretary of State in order to be able to work in Louisiana prior to award of contract.
<http://www.sos.la.gov/tabid/1011/Default.aspx>
- H. If Sub-Consultants/Entities are used, the Prime Consultant/Entity must perform a minimum of 51% of the work for the overall project.
- I. LTRC reserves the right to withhold invoice payments for delinquent deliverables as defined in the proposal.

ESTIMATED COST OF RESEARCH

\$150,000

ESTIMATED COMPLETION TIME

24 Months

LTRC PRIMARY CONTACT

Kirk Zeringue, P.E.

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Baton Rouge, LA 70808

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AUTHORIZATION TO BEGIN WORK:

September 1, 2015 (estimated)

PROPOSAL FORMAT

All proposals are required to be formatted according to LTRC Manual of Research Procedures. Chapter 2 provides guidance on proposal development. A copy of the Manual may be downloaded from our website (<http://www.ltrc.lsu.edu/publications.html>).

PROPOSAL SELECTION

The Project Review Committee selected for this project will review, evaluate and rank all proposals received using the criteria established on the attached proposal review form.

DEADLINE FOR RECEIPT OF PROPOSALS

Ten copies of the proposal must be received by LTRC by the close of business day of July 24, 2015

Proposals should be submitted to:

Mr. Harold Paul, P.E.

Director

Louisiana Transportation Research Center

4101 Gourrier Ave.

Baton Rouge, LA 70808