

Update on MoDOT's Research Activities and Needs



Missouri Department Of Transportation
Bill Stone, MoDOT

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Research Overview

- **Organizational Results Division**
- **National Research Efforts**
- **MoDOT's Research Process**
- **MoDOT's Research Needs**





Organizational Results

- **Organizational Results Division**
 - **Structure**
 - **Roles and Responsibilities**
 - **Informational Exchanges**
 - **Website**
 - **Innovations Library**
 - **Performance Measures**





Informational Exchanges

- **Transportation Knowledge Networks**
 - **3 Regional Networks**
 - West
 - Midwest
 - East
 - **Comprise a National TKN led by RITA at USDOT**
 - **Reciprocal agreements allowing the free sharing of information**





Informational Exchanges

- **Transportation Library Connectivity Pooled Fund - TPF-5 (105)**
 - MoDOT is a sponsor of the Pooled Fund and member of the MTKN
 - Support the TKN concept and existing information organizations
 - Emphasis has been on pulling groups together, providing basic library sources, and running pilot projects





MoDOT Website Update

OR's Home Page - Internet Explorer provided by MoDOT

http://www.modot.org/services/OR/NewHomePage.htm

OR's Home Page



Our mission is to provide a world-class transportation experience that delights our customers and promotes a prosperous Missouri.

- Home
- About
- Business
- Plans & Projects
- Safety
- Services
- Other Transportation
- News & Information
- E-Update

HOME >> SERVICES >> OR >> OR'S HOME PAGE

Organizational Results.

Your Source for Success.

Opportunities to participate:

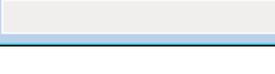
- [Requests for Proposals \(RFP\)](#), updated January 2010.
- [Solicitations by Others](#), new in February 2010.
- [How to propose research for OR](#), (*Word document, 47 kB, 2 pages*).
- [2010 Transportation Research Forum Invitation](#) (*pdf, 500kb, 2 pages*) Updated January 2010.
- [Submitting new products and information on current products and specifications.](#)
- [Technical assistance, classes for cities and counties, Missouri LTAP.](#) (*This website by others is currently unavailable.*)
- [Innovative Researcher Achievement Award](#), new page in February 2010.
- We are researching St Louis's I-270. If you travel there, let us know what you think with a quick survey: www.i-270survey.com

Informational Resources:

- [Current Newsletter, January 2010](#) (*pdf, 110 kB, 2 pages*).
- [Innovation Library](#), updated February 2010.
- [Market Research Library](#), new as of February 2010.
- See also [MoDOT Transportation Library with the Secretary of State's: Missouri State Library](#).
- [The Engineering Policy Guide](#) contains specifications for new products and other work with MoDOT.
- [OR Supports ARRA, Tracker, and Partnering for Innovative Efficiencies.](#)
- [Templates for Researchers: Starter files for RFPs and reports](#), new in February 2010.
- [OR's Research in Progress](#) new in February 2010.
- [Strategic Research Vision, 2006 - 2010](#), (*pdf, 330 kB, 11 pages*).
- [Previous Meetings: Information about past OR forums, workshops, and meetings.](#)
- [External Links and Partners.](#)

What's New:

- NEW** We are revising all our web pages and adding new pages including:
 - [Solicitations by Others](#),
 - [Market Research Library](#),
 - [Templates for Researchers](#),
 - [OR's Research in Progress](#),
 - [History of Previous Meetings](#), and
 - This "news" column.
- NEW** [Report: Evaluation of Freeway Motorist Assist Program](#) (*1.8 MB, 75 pages*). Posted in the [Innovation Library](#). February 2010.
- NEW** [Report: Development of the Framework for a Water Quality Monitoring System](#) (*1.8 MB, 75 pages*). Posted in the [Innovation Library](#). February 2010.
- NEW** [Fast Forward Newsletter](#) (*pdf, 110 kB, 2 pages*) posted in the [Innovation Library](#). January 2010.
- NEW** [Advancement: New LowP Bridge Overlays Performing Well in St. Louis Area](#) (*pdf, 130 kB, 3 pages*). Posted in the [Innovation Library](#). January 2010.
- NEW** [Staff Summary: Diverging Diamond Interchange](#) (*pdf, 82 kB, 3 pages*) posted in the [Innovation Library](#). January 2010.



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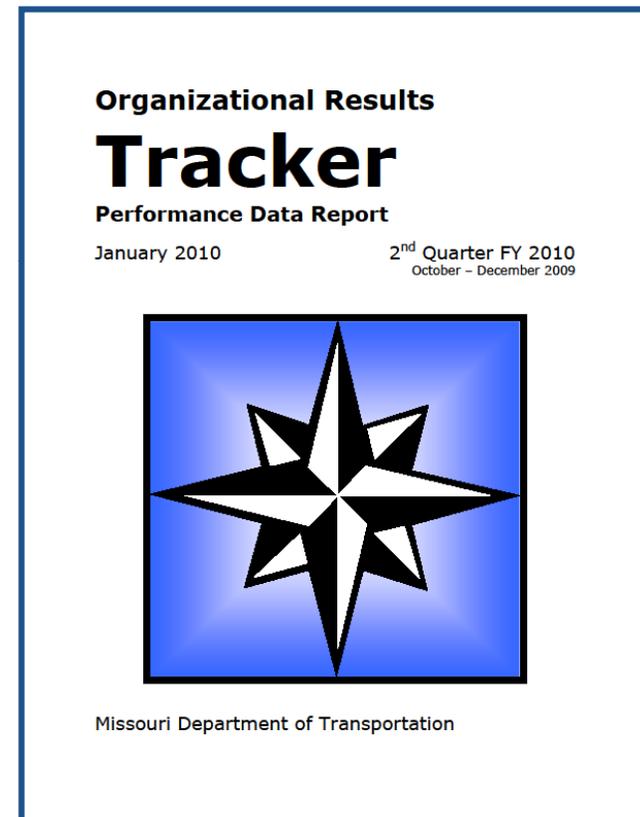
Innovation Library





Performance Measures

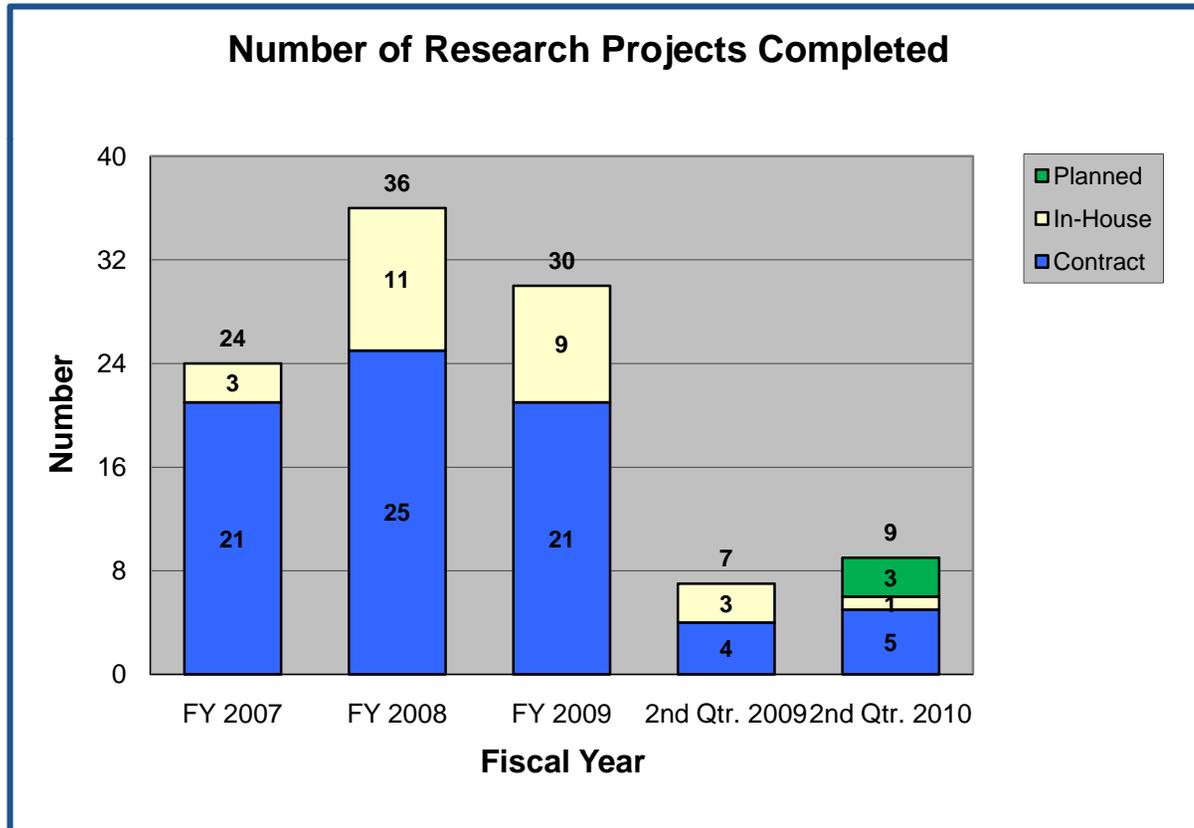
- **OR Division Tracker**
 - **Compilation of measures to evaluate Division performance**
 - **Compiled on a quarterly basis**
 - **Includes both Engineering and Business activities**





Performance Measures

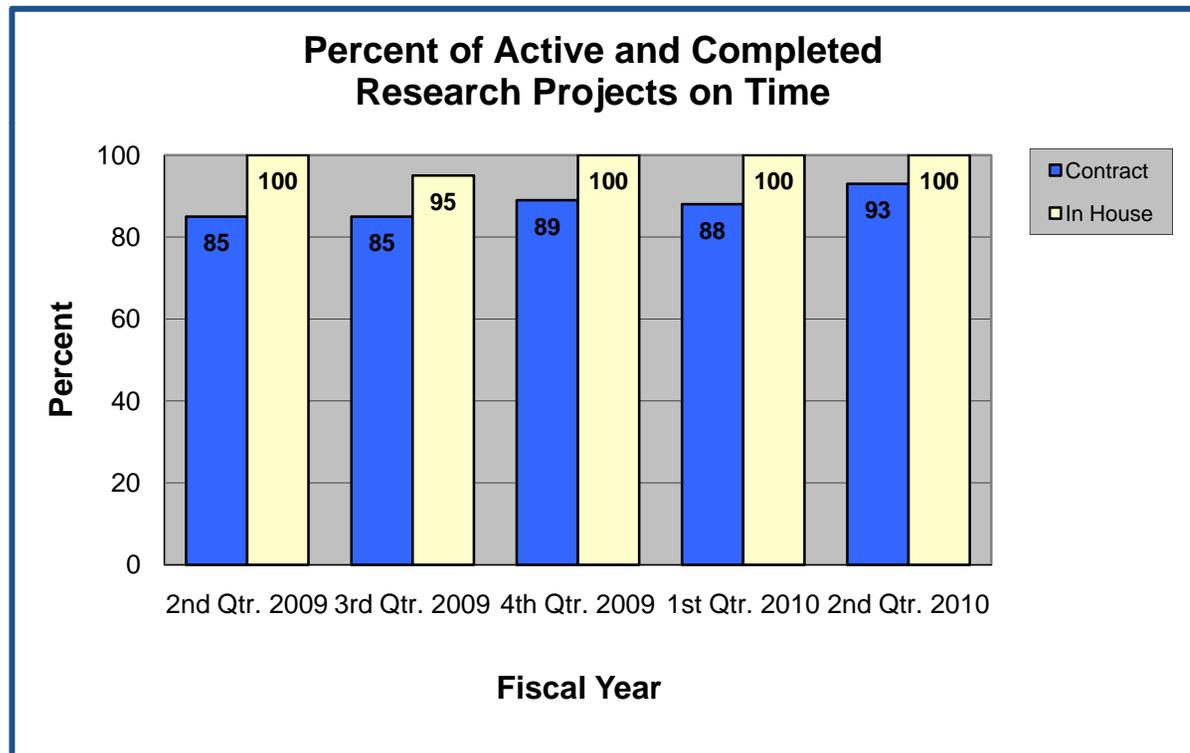
- **Research Projects Completed**





Performance Measures

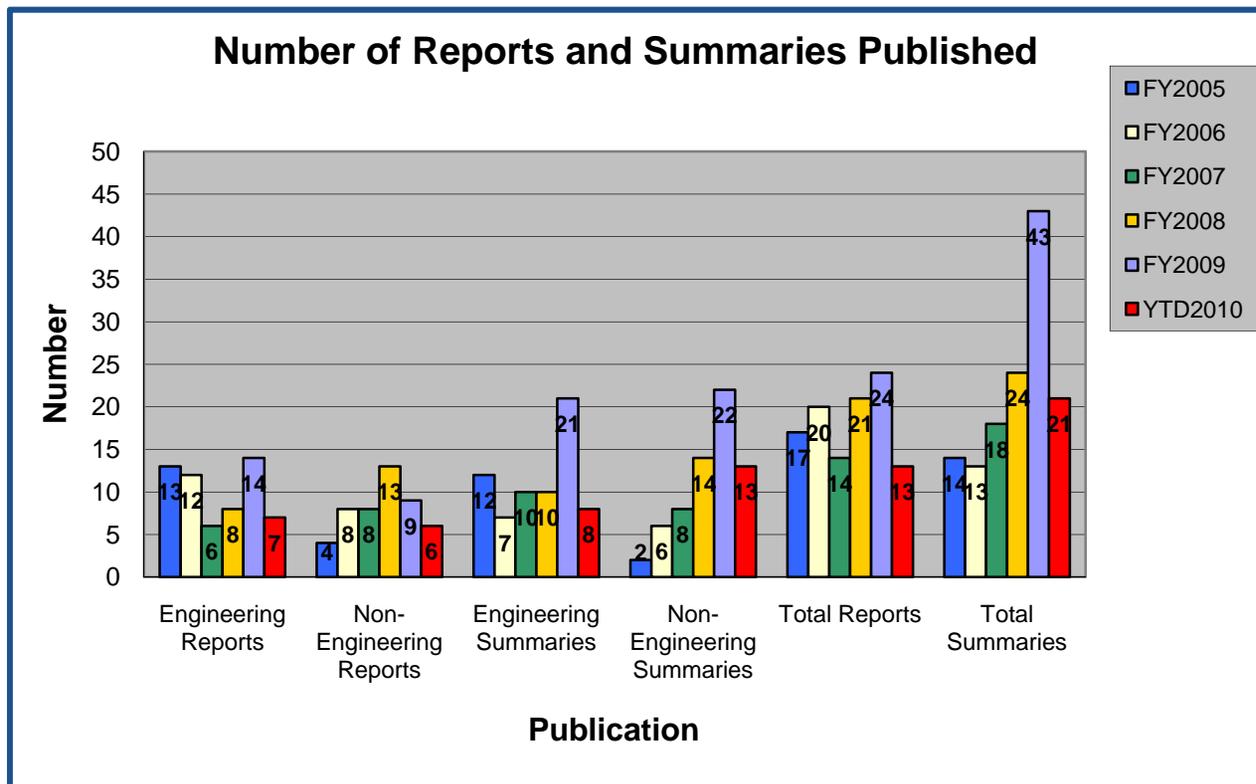
- Research Projects On-Time





Performance Measures

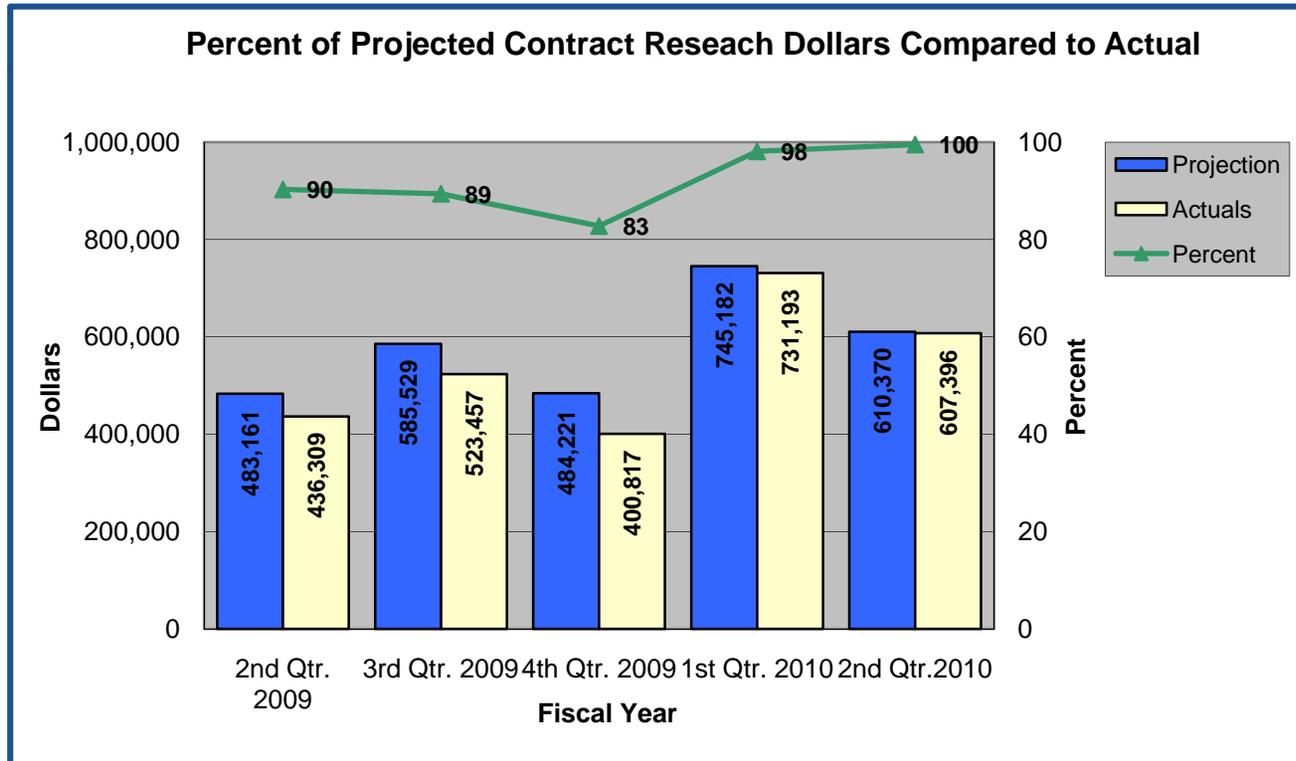
- Reports and Summaries Published





Performance Measures

- Projected Contract Research Dollars Compared to Actual





National Research Efforts

- **Federal Highway Administration**
- **Transportation Research Board**
- **AASHTO**
- **SHRP2**
- **Pooled Funds**





National Research Efforts

- **Federal Highway Administration**
 - Partnership Agreement
 - Development of Annual Work Program
 - Statewide Planning and Research Funds
 - Quarterly Status Reports
 - Meet with on Regular basis to discuss Research issues
 - Turner Fairbank Research





National Research Efforts

- **Transportation Research Board / AASHTO**
 - TRB / AASHTO Committees
 - Panel Nominations
 - National Research Problem Statement Development
 - National Project Prioritization





National Research Efforts

- **Pooled Fund Projects**
 - Opportunity to partner with other states to leverage research funds
 - Actively involved in 20 pooled funds
 - MoDOT lead on Recycled Asphalt Shingles pooled fund
 - J-Turn Research Study with Iowa
 - Low Cost Safety Improvements Pooled Fund Study





National Research Efforts

- **SHRP2 Overview**
 - Established by Congress - Managed by Transportation Research Board
 - Funded 4 year program (\$205 million)
 - Does not have direct opportunities to implement the advancement in technology and research

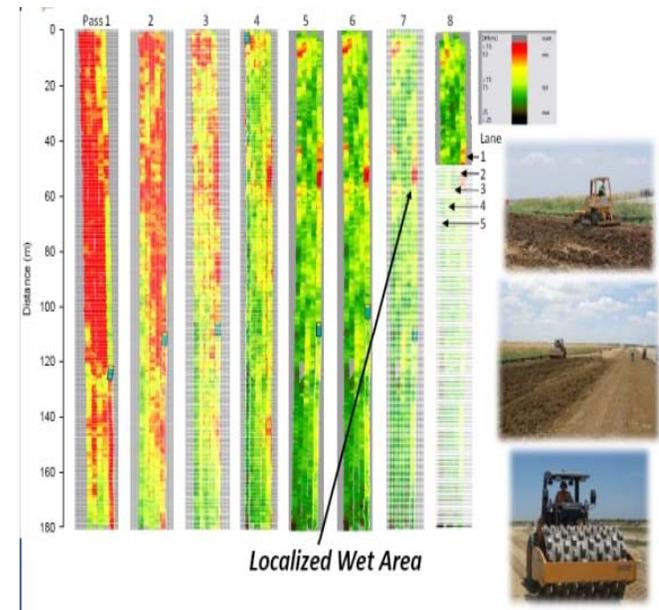
Participation by transportation agencies bring these advancements to the implementation stage.





SHRP2 Involvement by MoDOT

- **Project R07 – Performance Specifications**
 - Specifications are being drafted by consultant
 - Pilot project to utilize **Intelligent Compaction (IC)**
 - Project in District 6 along **Route 141** being discussed as pilot project





Research Process

- Research Statement Form and Instructions posted on Website:



**Organizational Results
Research Statement Form**

The *blue italic text* on the template provides additional guidance in completing the research statement form. Replace the *italic text* with your narrative. Research statements should be no more than two pages in length.

1. Title of research statement:
List the title of your research statement. The emphasis is on the idea or problem to be addressed

2. Goal and/or objectives:
What is the anticipated result or reason for the study? Define the change/impact your research statement will provide.

3. Deliverables: What specific deliverables will help MoDOT implement the findings/results from this project?
What will the product look like and how will MoDOT apply it?

4. Value to MoDOT and the residents of Missouri:
How will the deliverables defined above help the department provide a world-class transportation experience that delights our customers and promotes a prosperous Missouri?

5. Estimated project duration and cost:
To further define the project's scope, state estimated timeline and budgetary requirements.

6. Is there any additional information you feel MoDOT should know to help understand the critical nature of this topic?
What else would you like to share to elevate the importance of your research statement?

Name: _____ Date: _____
Title: _____ Phone: _____
Organization: _____ E-mail: _____
Address: _____

Please return the complete form to:
Mr. Bill Stone, PE
Organizational Results
2217 St Mary's Blvd.
PO Box 270
Jefferson City Missouri 65102
William.stone@modot.mo.gov





Research Process

- **Submittal Form**
 - Complete all six areas of the attached research statement form and submit via mail or electronically
 - Research statements should be limited to a maximum of two pages.
 - Deadline for Submittals is April 30,2010
 - All submittals will receive an e-mail acknowledgement within five business days after receipt





Research Process

- **Review Process**
 - MoDOT staff will review the research statement and determine its impact on MoDOT's Tangible Results
 - Seek MoDOT champion for research statement
 - Compile internal and external research statements
 - Research statements shared with MoDOT Senior Management





Research Process

- **Prioritization Process**
 - Determine which research statements to move to project level in consultation with MoDOT Senior Management
 - Compare research statements selected to available research budget
 - Organizational Results makes final recommendation to MoDOT Senior Management for RFPs





Research Needs

- **Research that improves MoDOT operations or processes**
 - Better, Faster, Cheaper
 - Provides Value
 - Implementable
- **Forward thinking – items that will affect MoDOT in the next 5 years**





Research Needs

- **Minor Roads**
- **Work Zone Improvements**
- **Traffic Management**
- **Missouri River Freight Corridor
Assessment and Development Plan**





Research Needs

- **More timely Customer Feedback**
- **Strategies to Reduce Energy Consumption**
- **Performance Specifications**





Questions

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