



# INNOVATIVE TRANSPORTATION SOLUTIONS

*Tangible Result Driver – Mara Campbell, Organizational Results Director*

MoDOT values innovation. The department empowers employees and seeks input from stakeholders to generate innovative ideas. Collaboration with staff, academia and industry makes unique concepts come to life so MoDOT can serve its customers better, faster and at less expense to the taxpayer.

## Number and percent of research recommendations implemented-8a

**Result Driver:** Mara Campbell, Organizational Results Director

**Measurement Driver:** Bill Stone, Organizational Performance Administrator

### **Purpose of the Measure:**

This measure tracks the number of completed research projects, and the percentage of implemented research recommendations, whether ideas, methods, or tools that MoDOT implements as a result of research efforts. MoDOT realizes the importance of supporting innovation and research and is driven to provide the department with the latest ideas, technologies, and solutions needed to deliver the most efficient, safe, and economical transportation system.

### **Measurement and Data Collection:**

Research projects implemented include any new ideas, methods, policies, processes, standards, equipment or tools introduced for the purpose of improving the department's operation, services, or products. For this measure, research projects are categorized into two areas: 1) Information and policy guidance research, and 2) Technical, product-focused research. Both categories are reported as the number of completed activities and percent of recommendations implemented. Examples of information and policy guidance research products include determining the economic impact of highway construction or smoother pavements, or development of freight planning agendas. Technical, product-focused research projects examples include developing passing lane alternatives, or concrete curing specifications.

For these research products, the definition of implemented includes all solutions that have been or are being applied. "Percent of research recommendations implemented" is determined by dividing the number of research projects producing implementable results by the total number of research projects completed during the reporting period.

For both categories of research projects, the information and policy oriented, as well as the technical, MoDOT's elevated emphasis on strategically focused research and its implementation

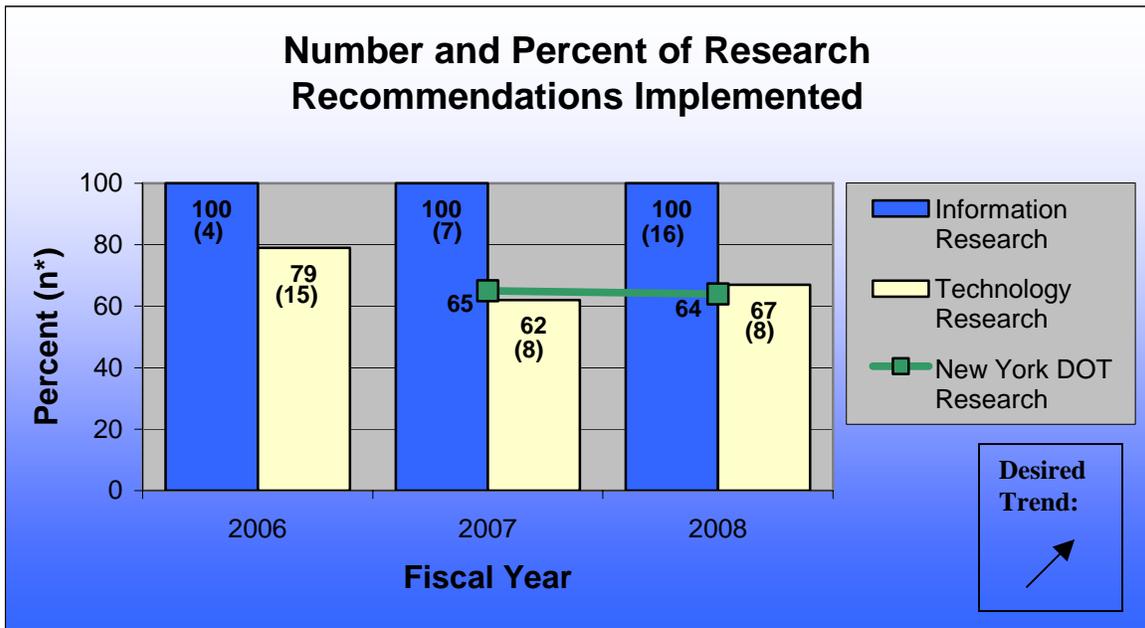
should result in better and more economical transportation products and services delivered. Data for this measure is collected and analyzed annually with updates in the July Tracker edition.

### **Improvement Status:**

During fiscal year 2008, MoDOT's research program completed 28 total research projects. Sixteen projects were categorized as information and policy guidance reports and are considered implemented. Twelve projects were categorized as technical, product-focused reports. Of the twelve technical reports, eight projects produced implemented results within the department. This represents a 67 percent implementation rate for the technical report recommendations.

MoDOT's implementation rate for technical projects is slightly ahead of the New York implementation rate of 64 percent. MoDOT's Organizational Results continues to aggressively pursue research and innovations focused on addressing pertinent department needs that are closely tied to the 18 Tangible Results. This focus will lead to more usable solutions and better value. While not all research results or solutions can be implemented, MoDOT recognizes the importance and value of conducting a research program driven to make a difference.

Organizational Results worked with the Performance Advisory Teams (PAT), Division and District Leaders, Senior Management and outside researchers to identify research and performance needs for the department. The research projects were then prioritized and compared to budget constraints to outline the research program for the Department that will be administered through Organizational Results. The research program has outlined both the contract and in-house research projects for fiscal year 2009. The 2009 research program was approved on June 30, 2008.



\*(n) Indicates the number of research recommendations implemented

## Number of external awards received-8b

**Result Driver:** Mara Campbell, Organizational Results Director

**Measurement Driver:** Bill Stone, Organizational Performance Administrator

### Purpose of the Measure:

This measure tracks the number of external awards received by the department. These awards display the department's dedication and efforts towards efficiency, innovation and quality throughout the organization. This information enables the department to measure progress and encourage further participation in award programs. It also provides opportunities for the department to increase public awareness of department activities.

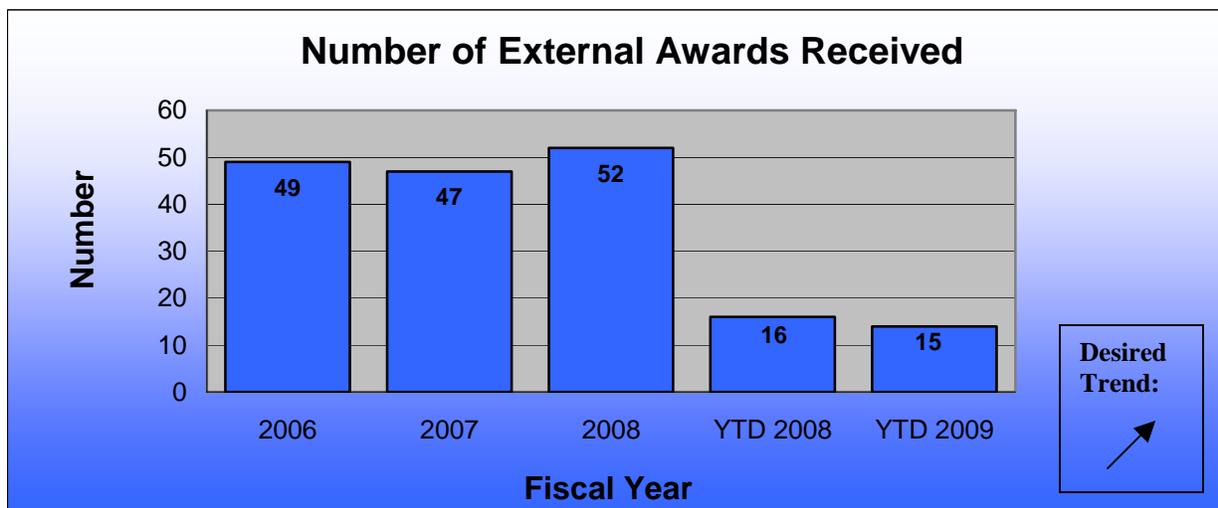
### Measurement and Data Collection:

Each district and division office tracks the awards presented to the department by external organizations. This includes all awards presented to individuals, teams, districts, divisions and MoDOT as a whole. Data for this measure is updated quarterly.

### Improvement Status:

In the second quarter of fiscal year 2009, MoDOT received six awards. A highlight from this quarter, World Congress on Intelligent Transport Systems (ITS) presented MoDOT and NAVTEQ, a leading global provider of digital map data for location-based solutions and vehicle navigation, with the "Best of ITS" award. This recognizes achievements in providing real-time flow and volume updates to drivers. The NAVTEQ-MoDOT project in the St. Louis area is touted as a model for other public-private collaborations to effectively manage road closures and other congestion-causing events.

MoDOT continues to enter various competitions to have its work judged against the efforts of other organizations.



## Percent of best practices by implementation status-8c

**Result Driver:** Mara Campbell, Organizational Results Director

**Measurement Driver:** Bill Stone, Organizational Performance Administrator

**Purpose of the Measure:**

This measure tracks the percent of best practices implemented within MoDOT. Best practices show how MoDOT employees are applying innovation to improve daily operations.

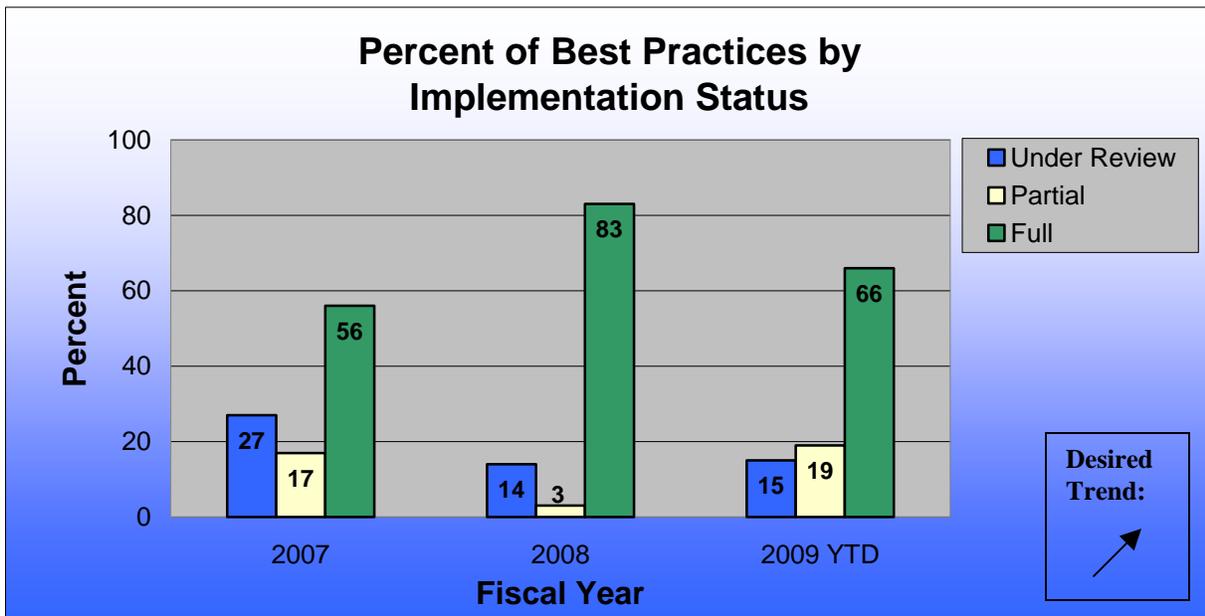
**Measurement and Data Collection:**

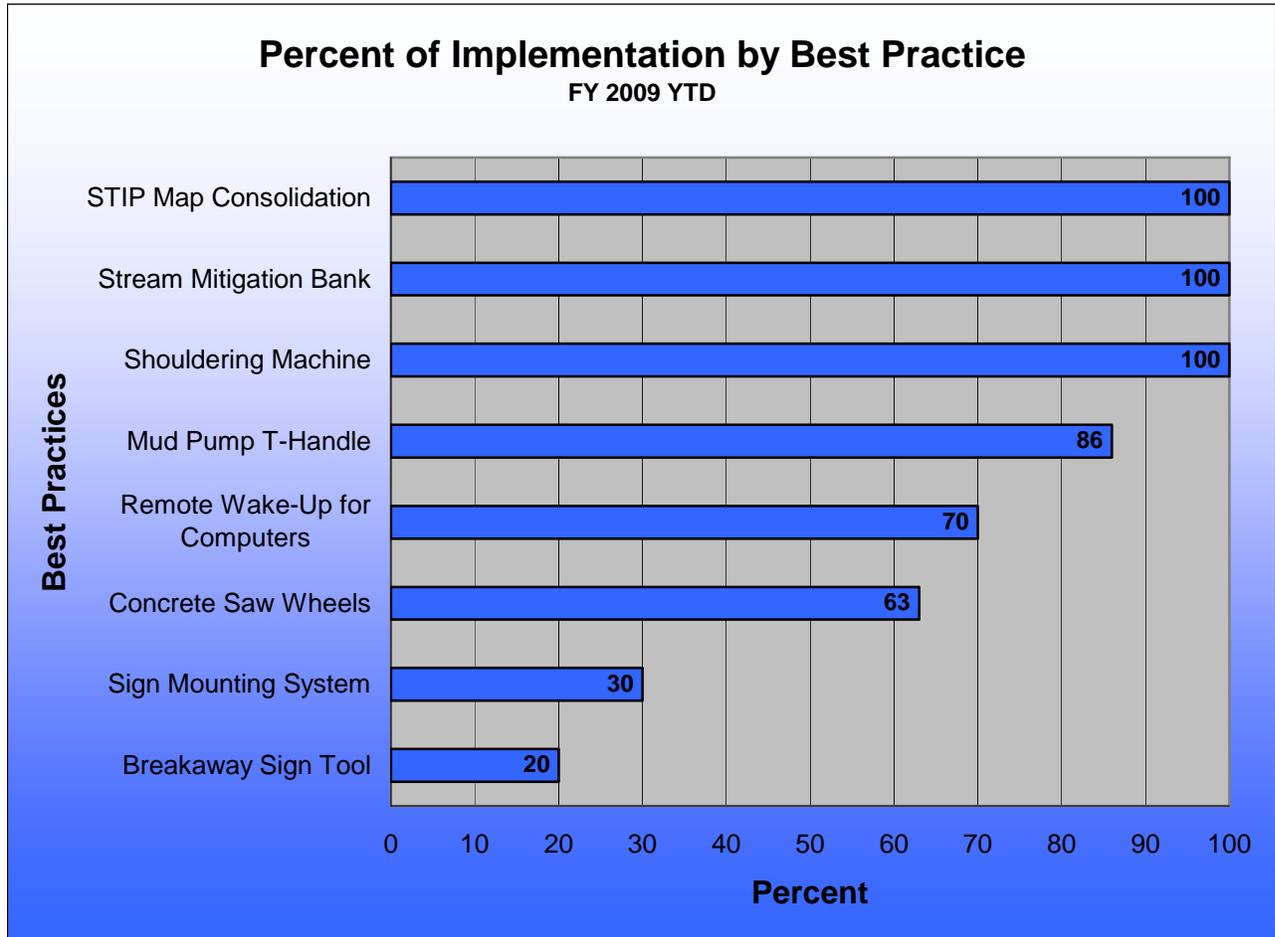
MoDOT uses a simple five-question submission form for employees to share how they have improved the ways of accomplishing daily work. Submissions are evaluated and verified by managerial and technical staff. Those submissions approved as best practices are shared with MoDOT employees through online and printed publications. Every six months, division and district managers report best practice implementation status. This measure will have updates in the July and January Tracker editions.

**Improvement Status:**

During the first six months of fiscal year 2009, MoDOT's Solutions at Work has verified and shared two best practices with department employees.

However, another six best practices from the FY 2008 were too new to include in the previous survey cycle and will be reported at this time. Overall, 66 percent of the best practices have been fully implemented with 19 percent partially implemented and 15 percent still under review. With 85 percent of best practices partially or fully implemented, MoDOT is aggressively taking advantage of best practices. The 15 percent still under review is primarily due to limited staff time to fabricate several of the best practices. Staff availability during the winter months and a new statewide fabrication service will help with overall implementation numbers by the end of the fiscal year. While many of these eight best practices are tools and equipment modifications to make work faster and safer, some actual savings were realized. Most notably the department saved more than \$2 million through a process to modify low-water crossings and bank the stream mitigation credits for other projects.





## Number of dollars saved by increasing MoDOT’s productivity-8d

**Result Driver:** Mara Campbell, Organizational Results Director

**Measurement Driver:** Jen Harper, Organizational Performance Engineer

**Purpose of the Measure:**

This measure enables MoDOT to assess its productivity by tracking cost savings indicative of practical design, value engineering, Performance Plus and good engineering judgment.

**Measurement and Data Collection:**

The cost-saving methods used by MoDOT are so broad that this measure focuses on savings measured through the Performance Plus program. The Construction Cost Savings and the Project Scoping and Estimating incentives are verified quarterly, while the Injury Reduction incentive is verified on a semi-annual basis. The number of dollars saved as well as the amount paid out to eligible employees is calculated for each of the incentives. Note that in the Construction Cost Savings incentive, the savings are calculated based only on those project offices that qualified for the incentive, while Project Scoping and Estimating and the Injury Reduction calculations are based on all of the districts whether or not they qualified. For each of the incentives, the amount paid out is then subtracted from the amount saved to get a final savings. These savings are reported in the

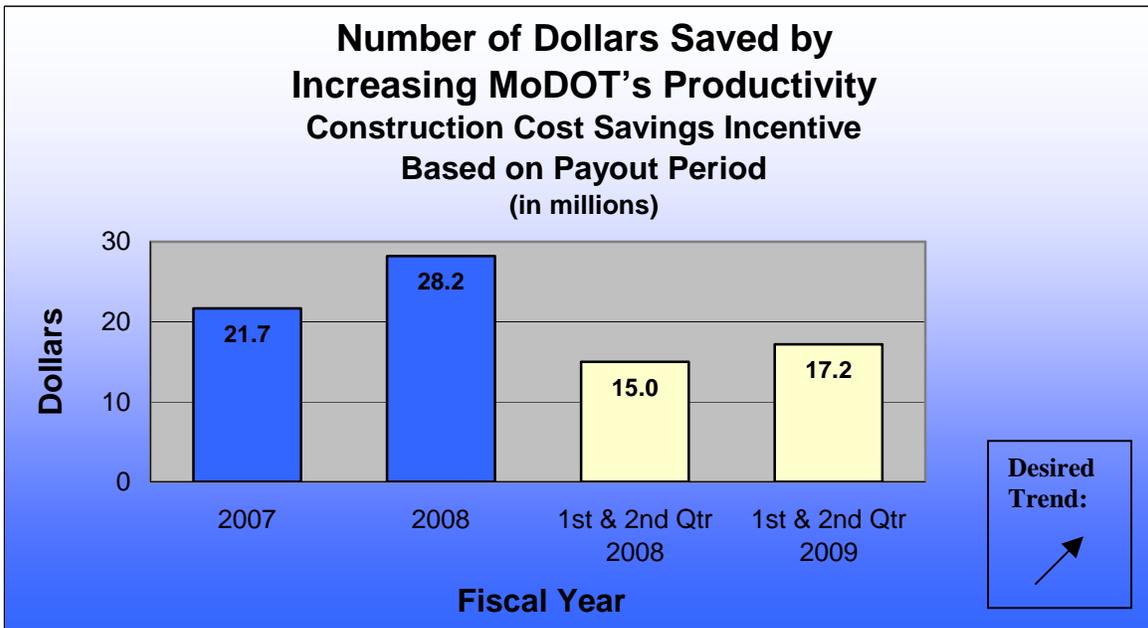
quarter that the incentives are paid out to the employees. For the Construction and Project Scoping incentives, the measurement data reflects April through September 2009. For the Injury Reduction incentive, the data reflects January through June 2008. Data for this measure is updated quarterly.

**Improvement Status:**

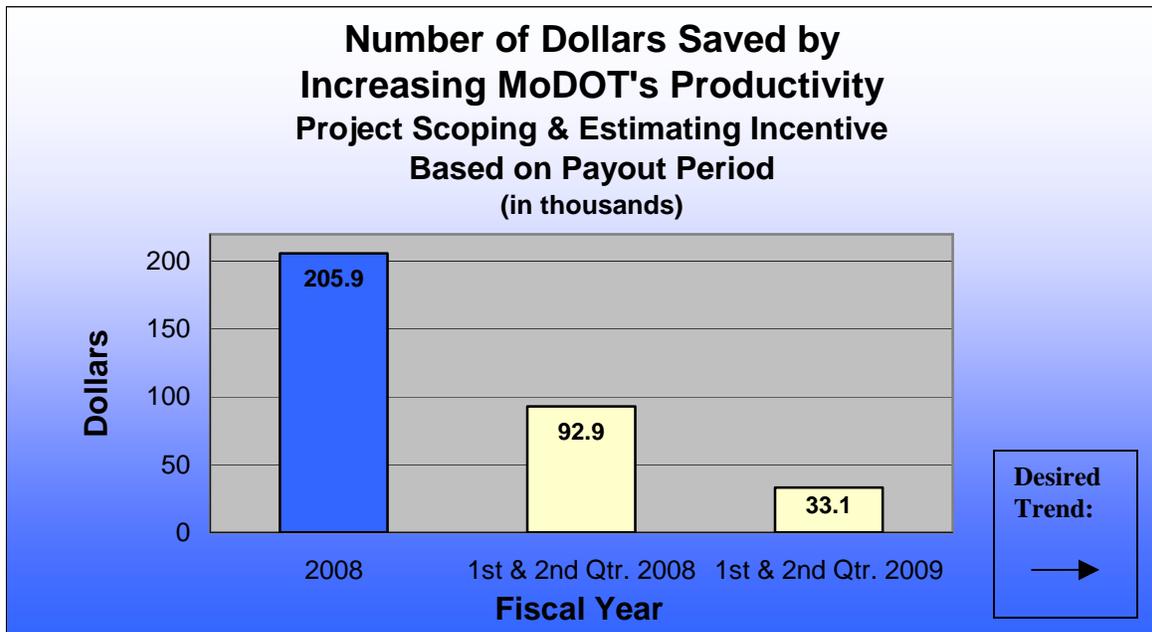
In the second quarter of fiscal year 2009, MoDOT saved an additional \$8.9 million through the construction cost savings incentive. For the first two quarters in fiscal year 2009, \$17.2 million was saved.

In the second quarter of fiscal year 2009, an additional \$3.4 million was saved through the project scoping and estimating incentive. For the first two quarters in fiscal year 2009, \$33.1 million was saved.

The Injury Reduction Incentive did not have a payout this quarter.



Note: In the Construction Cost Savings, the savings are calculated based only on those project offices that qualified for the incentive.



Note: The desired trend in the Project Scoping and Estimating Incentive is to keep the variance between the STIP estimate and low bid amount to 0 percent.

