

**Value of research-8d** New!

**Result Driver:** Dave Ahlvers, State Construction & Materials Engineer

**Measurement Driver:** Bill Stone, Research Administrator

**Purpose of the Measure:**

This measure tracks the organizational impact of research activities from the department’s research program. A strong research program supports innovative solutions where they can make the greatest impact on the department.

**Measurement and Data Collection:**

The data for this measure is collected each June for research activities conducted the previous fiscal year. The MoDOT research program touches many areas of the organization and the public. Research projects and activities include all research (internal and external) funded through the department’s research program. The evaluation of the value of research is compiled as it relates to crashes reduced and organizational savings and benefits. For this reason, each research project will be evaluated individually for its impact and value of anticipated annual savings to MoDOT.

As an example of how the savings is compiled, MoDOT completed research in Fiscal Year 2011 on drilled shafts in the geotechnical program and put the savings at approximately \$45,000 for a typical

bridge. Reviewing the STIP in Fiscal Year 2013, there are 18 bridges incorporating drilled shafts. This results in \$810,000 in annual savings (18 bridges times \$45,000 per bridge).

**Improvement Status:**

For Fiscal Year 2012, there were 10 research projects completed and evaluated which resulted in \$1.9 million anticipated annual savings to MoDOT. The St. Louis District implemented snow route logistics research, which resulted in a reduction on average of 10 minutes per cycle time. Using the cost of operation per truck (salt, fuel, equipment and labor) and calculating that for the fleet (238 trucks) during implementation, in a typical winter would result in savings of \$125,000.

The research section continues to work closely with researchers and MoDOT staff on research projects and activities during the implementation phase and also in the evaluation of the annual savings.

