



**Project Information Form #5 (January 2015)**

Project Title	Evidence-Based Design Applications in Transportation Asset Management
University	Georgia Institute of Technology
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Funding Source(s) and Amounts Provided (by each agency or organization)	NCTSPM - \$37,689   GDOT - \$89,676
Total Project Cost	\$127,365
Agency ID or Contract Number	DTRT12GUTC12   NCTSPM 2013-004   RP 12-18
Start and End Dates	Start: Jan 1, 2012 (Official); August 13, 2012 (Actual) End: December 31, 2013
Brief Description of Research Project	The purpose of this research is to develop an evidence-based planning tool and database that will help agencies to strategically plan the development of their asset management programs using accumulated experience to achieve higher-performance output. Specifically, the research will: (1) Conduct a literature review to determine best practices in evidence-based design, planning and programming that can be applied to Transportation. It will also draw from existing key literature on performance management; (2) Work with AASHTO, TRB and other relevant professional organizations to determine and refine key performance indicators for tracking asset management program performance; (3) Design and conduct multiple case studies to collect best practices and lessons learned in asset management program development (both network-level and project-level asset management); (4) Develop procedures to evaluate program maturity levels against performance as indicated by key performance indicators; and (5) Develop prototype evidence-based database and planning tool for performance-based planning of asset management program development
Describe Implementation of Research Outcomes (or why not implemented)  (Attach Any Photos)	A documentation framework: PICMO (Problem, Intervention, Context, Mechanism, Outcome) has been developed for organizing information to extract evidence, and a prototype evidence-based database and planning tool have been implemented in Excel. The draft final report was submitted to GDOT on March 6, 2014. Review and feedback on draft final pending.



<p>Impacts/Benefits of Implementation (actual, not anticipated)</p>	<p>Research paper on evidence-based transportation asset management (presented at the 2014 Transportation Research Board Annual Meeting and in press for publication in the Transportation Research Record) has been selected as the best paper on transportation organization and policy for the 2015 TRB <i>Charlie V. Wootan Award</i>.</p> <p>Reference: Smith-Colin, J., Fischer, J. M., Akofio-Sowah, M., and A. A. Amekudzi. Evidence-Based Decision Making for Transportation Asset Management: Enhancing the Practice with Quality Evidence and Systematic Documentation. <i>Transportation Research Record, Journal of the Transportation Research Board</i>, Transportation Research Board, Washington, D.C., <i>In Press</i>. [Expected publication: March 2015]</p> <p>Discussions are continuing with GDOT to implement an evidence-based database and planning tool for research asset management.</p>
<p>Web Links</p> <ul style="list-style-type: none"> <li>• Reports</li> <li>• Project website</li> </ul>	<p>Project information at <a href="http://www.irg.ce.gatech.edu">www.irg.ce.gatech.edu</a></p>
<p>Names of students who are financially supported by this grant</p>	<p>Janille Smith-Collins          Jamie Fischer          Margaret Akofio-Sowah          Richard Boadi          Stephanie Brodie</p>
<p>Names of students who are participating (but not financially supported) by this project</p>	<p>--</p>