



Project Information Form #6 (February 2016)

Project Title	Evidence-Based Design Applications in Transportation Asset Management
University	Georgia Institute of Technology
Principal Investigator	Adjo Amekudzi-Kennedy
PI Contact Information	adjo.amekudzi@ce.gatech.edu 404-894-0404
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 in March 2014. The final report was submitted to GDOT in December 2015.



<p>Impacts/Benefits of Implementation (actual, not anticipated)</p>	<p>The following paper was published in the Transportation Research Record of the Transportation Research Board and received the 2015 Charley V. Wootan Award for the best paper in transportation organization and policy:</p> <p>Reference: Smith-Colin, J., Fischer, J. M., Akofio-Sowah, M., and A. A. Amekudzi-Kennedy. 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>, Issue No. 2460. Transportation Research Board, Washington, D.C., 2014, pp. 146 – 153.</p> <p>A second paper on the development of the Evidence-Based Transportation Asset Management prototype database tool has been completed to be submitted to the ASCE Journal of Transportation Engineering for review for publication.</p> <p>GDOT has expressed interest in applying the prototype EBD database to research project/asset management.</p>
<p>Web Links</p> <ul style="list-style-type: none"> • Reports • Project website 	<p>Project information at www.irg.ce.gatech.edu</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>