



Project Information Form

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| Project Title | Evaluation of the Cost Effectiveness of Illumination as a Safety Treatment at Rural Intersections |
| University | Georgia Institute of Technology |
| Principal Investigator | Georgia Tech - Dr. Angshuman Guin (PI); Dr. Michael O. Rodgers (co-PI); Middle Georgia State College - Roger Purcell (co-PI) |
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| Funding Source(s) and Amounts Provided (by each agency or organization) | NCTSPM: \$75,000 GDOT: \$75,000 |
| Total Project Cost | \$150,000 |
| Agency ID or Contract Number | DTRT12GUTC12 NCTSPM 2013-022 |
| Start and End Dates | 11/1/2013 – 5/1/2015 |
| Brief Description of Research Project | <p>Late-night and early-morning driving periods have significantly higher incident and fatality rates than other periods of the day. Many of these crashes occur at rural intersections and intersection illumination provides a proven safety countermeasure to help ameliorate these risks. However, intersection illumination remains one of the main contributors to electrical power consumption in roadway maintenance and operations. This study seeks to provide a better understanding of the relationship between illumination and crash occurrence at rural intersections and to synthesize this understanding as guidance for transportation agencies to determine how and when illumination is cost effective.</p> <p>The findings from this research is expected to significantly aid GDOT and other State DOTs to objectively determine if a rural intersection should be illuminated or if safety objectives can be met with reduced illumination level. This knowledge will aid engineers in making effective design and operational decisions that are cost effective without compromising desired safety goals. Additionally, this study will provide summary of the best practices and provide recommendation for practitioners as to the most cost-effective approaches.</p> |



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| Describe Implementation of Research Outcomes (or why not implemented) (Attach Any Photos) | Nothing to report at this time |
| Impacts/Benefits of Implementation (actual, not anticipated) | Nothing to report at this time |
| Web Links <ul style="list-style-type: none">• Reports• Project website | |