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| **UTC Project Information** | |
| Project Title | MPC-438 – Calibration of HSM Predictive Methods on Rural State and Local Highways |
| University | South Dakota State University |
| Principal Investigator | Xiao Qin |
| PI Contact Information | Department of Civil and Environmental Engineering  South Dakota State University  Phone: (605) 688-6355  Email: xiao.qin@sdstate.edu |
| Funding Agencies | USDOT, Research and Innovative Technology Administration |
| Agency ID or Contract Number | DTRT12-G-UTC08, Modification No. 1 |
| Project Cost | $100,000 |
| Start and End Dates | January 1, 2013 - December 31, 2013 |
| Project Duration | 1 Year |
| Brief Description of Research Project | The South Dakota Department of Transportation (SDDOT) has implemented Highway Safety Manual (HSM) guidelines in its project development and planning process. Specifically, HSM safety performance functions (SPFs) and crash modification factors (CMFs) are used to screen South Dakota (SD) roadways in order to find problem areas for further safety review. The SDDOT also uses HSM models to compare safety design alternatives, evaluate site-specific safety issues, and program and plan future safety projects. Although calibration procedures are available in HSM Appendix A, they need to be refined or modified to accommodate SD’s data availability and roadway, traffic, and crash characteristics. It is imperative to develop a SD version of HSM models using proper calibration methods and to provide guidance for future calibration activities. |
| Describe Implementation of Research Outcomes (or why not implemented)  Place Any Photos Here | The implementation recommendations have been detailed in the report. |
| Impacts/Benefits of Implementation  (actual, not anticipated) | The appropriate and more accurate SPFs and CMFs will be used by the South Dakota Department of Transportation to screen South Dakota (SD) roadways to find problem areas for further safety review, to compare safety design alternatives, evaluate site-specific safety issues, and program and plan future safety projects. |
| Web Links   * Reports * Project Website | https://www.ugpti.org/resources/reports/details.php?id=992 |