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| **UTC Project Information** | |
| Project Title | MPC-398 – Selection of Discount Rates for Infrastructure Investment |
| University | South Dakota State University |
| Principal Investigator | Xiao Qin, Ph.D., PE  Zhiguang Wang, Ph.D. |
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| Funding Agencies | USDOT, Research and Innovative Technology Administration |
| Agency ID or Contract Number | DTRT12-G-UTC08 |
| Project Cost | $51,013 |
| Start and End Dates | 2012 - 2013 |
| Project Duration | 9 Months |
| Brief Description of Research Project | Transportation Infrastructure Investment (TII) is crucial to enhance economic competitiveness of South Dakota and the nation as a whole. The key to identify a financially feasible and socially rewarding TII project that spans over years is the determination of an appropriate discount rate. An overly optimistic (low) discount rate may lead the decision makers at SDDOT to accept a financially unsound project at the expenses of taxpayers and vice versa. The discount rates suggested by the Department of Transportation (USDOT) for projects with significant funding from the federal government may not be the most appropriate at the state level (Federal Register, 2012), because the opportunity cost of the funds for South Dakota and overall project risks in South Dakota differ from the national level. The need for determining optimal discount rates for TII projects become even more pronounced with both nation-wide and state-level budget constraints. There is a lack of study on the selection of discount rates for TII projects in the literature (Boscolo et al 1998) and by peer transportation agencies (see Iowa and other TIGER grants), which motivates the research.  The objective of the research project is to examine and evaluate methods for establishing sound and equitable discount rates used to plan and program transportation infrastructure investment in South Dakota. |
| Describe Implementation of Research Outcomes (or why not implemented)  Place Any Photos Here |  |
| Impacts/Benefits of Implementation  (actual, not anticipated) |  |
| Web Links   * Reports * Project Website | https://www.ugpti.org/resources/reports/details.php?id=784 |