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| Title: | Improving and Communicating Speed Management Practices |
| The Problem: | <p>The value that is selected as the posted speed limit for a roadway segment can generate extensive debate, questions, and criticism. TxDOT district personnel are regularly asked to explain and defend the selected posted speed limit value along with the process used to select the value. Similar to other states, TxDOT considers the 85th percentile speed for a sample of vehicles when recommending a posted speed limit. In 2017, the National Association of City Transportation Officials (NACTO) issued a policy calling for the repeal of any laws or rules that set speed limits at the 85th percentile speed. NACTO's action, as well as Vision Zero advocates, has already increased the frequency of requests for explanations why a posted speed limit was selected, especially in urban areas.</p> <p>Having materials that can be used to educate elected officials, other transportation professionals, and the public, would help with these explanations. To aid in the development of those materials, research is needed to gain a better understanding of the relationships of posted speed limits to operating speed, how the speed distribution curve changes when a new posted speed limit is installed, how long it takes before that change occurs and a new normal is established, and how these relationships vary for different functional classes of roads.</p> <p>Research is also needed to better understand the effectiveness of speed management practices and devices, such as increased enforcement, larger signs, overhead signs, rumble strips, driver feedback signs, flashing beacons, and speed reduction markings.</p> |
| Technical Objectives: | <p>The researchers shall address the following:</p> <ol style="list-style-type: none"> 1. Conduct a literature review to identify existing knowledge and available educational materials. 2. Conduct a critical review of identified knowledge and materials for relevance and value to this research. 3. Collect operating speed data before and after a posted speed limit change. 4. Identify a correlation between operating speed and posted speed. 5. Evaluate speed management practices and devices. 6. Develop educational materials. <p>The expectation of this project is that the end product will obtain a TRL level 8.</p> |
| Desired Deliverables: | <ol style="list-style-type: none"> 1. Technical memorandum for each task completed. 2. Monthly progress reports. 3. Value of Research (VoR) that includes both qualitative and economic benefits, to be included in the final research report. 4. Research report documenting the findings of the research, including updated educational materials (pamphlets and videos) and potential revisions to the Procedures for Establishing Speed Zones Manual. 5. Project Summary Report. |
| Proposal Requirements: | <ol style="list-style-type: none"> 1. Utilize the "Proj/Agre" and "PA_Form" templates located at the TxDOT RTI website. 2. Proposals will be considered non-responsive and will not be accepted for technical evaluation if they are not received by the deadline or do not meet the requirements stated in RTI's University Handbook, which is also located at the RTI website. 3. Proposals should be submitted in PDF format, 1 PDF file per proposal. File name should include project name and university abbreviation. 4. This project will be tracked during the life of the project using a Technology Readiness Level (TRL) scale. For more information about the use of a TRL, click. |