

<b>UTC Project Information</b>	
Project Title	MPC-380 – Investigation of interactions between traffic safety, environment and driving behavior on rural highways in Colorado
University	Colorado State University
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Funding Agencies	USDOT, Research and Innovative Technology Administration
Agency ID or Contract Number	DTRT12-G-UTC08
Project Cost	\$100,000
Start and End Dates	January 1, 2012 – December 31, 2013
Project Duration	2 Years
Brief Description of Research Project	<p>Highways witness thousands of traffic crashes, injury and fatalities every day around the country. Traffic accidents, despite common, are actually very complex in nature, which are influenced by driving behavior and driving conditions. Although a lot of efforts have been put forward on investigating the traffic safety in various driving conditions, the studies related to the driving behavior, especially considering the influence from the environment and effective policing efforts was very rare. To effectively understand the risks of traffic crashes and injuries and the complex mechanisms with driving environment and behavior becomes critical.</p> <p><b>Research Objectives:</b> The objective of this study would be to characterize the basic interactions between traffic safety, environment and driving behavior on rural highways in Colorado. Colorado is well known for its complex terrain and adverse driving conditions. In the present study, the focus would be on evaluating how the driving behavior would be affected by different law enforcement solutions under different driving conditions. In order to do that, firstly, the historical accident data would be analyzed to find the relationship between the driving environment, behavior and crash risks. Secondly, the study will further identify those critical driving environments which could affect the model to be developed. Finally, the advanced data analysis will be conducted to establish the understanding of how changing the driving behavior and potential traffic law enforcement may potentially help reducing the crash risk and injury. This piece of information will not only help improving traffic safety in Colorado, but also other similar states. Given the significance of trucks getting involved into the accidents in Colorado, heavy and commercial trucks will be paid special attention.</p>

<p>Describe Implementation of Research Outcomes (or why not implemented)</p> <p>Place Any Photos Here</p>	<ol style="list-style-type: none"> <li>1. A series of advanced traffic accident frequency and injury severity prediction models are developed</li> <li>2. The different trends of two major interstate highways in Colorado are studied and compared</li> <li>3. Some findings about the big picture of traffic safety on the highways in the whole state are discussed</li> </ol>
<p>Impacts/Benefits of Implementation (actual, not anticipated)</p>	<ol style="list-style-type: none"> <li>1. More advanced models are provided for traffic safety prediction</li> <li>2. Some insights about the safety performance of highways in Colorado are made</li> <li>3. Some observations are helpful to improving the safety prediction, management and law enforcement of highways around the country</li> </ol>
<p>Web Links</p> <ul style="list-style-type: none"> <li>• Reports</li> <li>• Project Website</li> </ul>	<p><a href="http://www.ugpti.org/resources/reports/details.php?id=856">http://www.ugpti.org/resources/reports/details.php?id=856</a></p>