InnovationsShowcase

Productivity First-Round Winner
Innovations Challenge

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Crash Prediction Tool

Description

MoDOT has developed a new tool to perform safety evaluations of our rural two lane roadways. This new Crash Prediction Tool applies the methodologies from the Highway Safety Manual to roadway information already stored in TMS to automate the safety analysis. This provides the ability to perform a system wide network screening to identify where safety issues are occurring, aid in prioritizing safety projects, as well as, evaluate the impact of a particular safety countermeasure on a project level.

Benefit

This tool utilizes existing crash data and roadway features in TMS to evaluate the safety performance of every rural two-lane roadway in the state. It would take an enormous effort for a district to evaluate all of their rural roadways, but this tool can perform the analysis in a couple minutes. By performing this analysis, we are able to rank every section of roadway based on their potential for safety improvement (PSI). A roadway's PSI is an estimate of how much the long-term crash frequency could be reduced at a particular location. This ranking will provide districts additional guidance on where safety improvements may be most beneficial and maximize the return on our investment in reducing roadway fatalities and serious injuries.

Materials and Labor

The amount of staff time is yet to be determined.

For More Information Contact

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Additional information, photos or videos can be seen by accessing Innovations Challenge SharePoint page at: http://sharepoint/systemdelivery/TP/Documents/InnovationsChallenge.aspx