



Projects

April 2020

Prepared by Transportation Planning
Missouri Department of Transportation

Systemic Safety Improvement Estimators

[Video](#)

Description

In 2018, rural areas accounted for 56% of fatalities in Missouri as compared to urban areas, which accounted for 44%. Crashes on rural roads are typically spread over thousands of miles and are not as densely clustered as crashes in urban areas. Systemic improvements can address these crashes because they focus on high-risk roadway features, not specific locations. When examining fatal crash locations in Missouri from year to year, it demonstrates that fatal crashes are occurring at different locations across the system, rather than isolated high crash locations, especially in rural areas. However, this same data shows that the same type of fatal crashes consistently occurs from year to year. While it is not possible to predict where fatal crashes will occur, it is possible to use the roadway characteristics associated with severe crash types to predict the locations that are most likely to experience a fatal crash in the future using the systemic approach to safety. The Systemic Safety Improvement Estimators can be used by decision makers to determine the potential value of a systemic safety improvement and use this information for programming and prioritization purposes.

Benefit

The Systemic Safety Improvement Estimators do not require existing crash data to determine anticipated crash reductions due to a safety improvement. Instead, they use simple information associated with the roadway characteristics to determine the risk for a severe crash. This provides the ability to be proactive in treating higher risk locations prior to a severe crash occurring, thereby improving safety. The estimators calculate the expected number of lives saved and serious injuries reduced by deploying a systemic safety improvement. This information can be used to perform a benefit/cost analysis which can aid decisionmakers when prioritizing safety projects that maximize the number of lives saved and serious injuries reduced.

Materials and Labor

There are no material costs.

For More Information Contact

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Additional information, photos or videos can be seen by accessing Innovations Challenge SharePoint page at: <http://sp/sites/tp/planpol/SitePages/InnovationHome.aspx>