This topic is "practice ready." ☐ **Yes** ☐ **No**

Operational Data to Assess Mobility and Crash Experience during Winter Conditions

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Abstract

Highway agencies spend millions of dollars annually to ensure safe and efficient winter travel. Historically, the relationships between winter weather maintenance practices on safety and mobility have been difficult to systematically quantify. However, recent expansion of fixed and mobile sensors as well as data collection and archive practices may make performance assessment more feasible, facilitating more refined and location specific analyses. The objective of this project was to investigate potential applications of these expanded maintenance, roadway, traffic and weather data in Iowa, with an emphasis on conditions during crash events.

Data sets investigated include crash history, INRIX-based crowdsourced vehicle speed data, snow plow-based automatic vehicle location (AVL) data, snow plow-based roadway images, RWIS data and maintenance crew-based operations and weather reports.

Keywords: winter weather — winter maintenance— AVL — traffic speed — crash analysis

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