

# ROADWAY SAFETY INSTITUTE

Advancing roadway safety with user-centered solutions

UTC Project Information	
Project Title	Evaluation of the Effectiveness of ATM Messages Used During Incidents
University	University of Minnesota
Principal Investigator	John Hourdos
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Funding Source(s) and Amounts Provided (by each agency or organization)	Minnesota Department of Transportation: \$147,280
Total Project Cost	\$147,280
Agency ID or Contract Number	UTC Grant Number: DTRT13-G-UTC35 MnDOT contract 99008 work order 98 CTS# 2014029
Start and End Dates	09/12/2013 – 02/28/2016
Brief Description of Research Project	<p><i>Final report abstract:</i></p> <p>This project investigated the use of Intelligent Lane Control Signs based Active Traffic Management for Incident Management on a heavily traveled urban freeway. The subject of the research was the ILCS system on I-94 westbound in downtown Minneapolis. This location was selected because of the frequency of capacity reducing incidents occurring in this freeway segment. This research aimed to evaluate and quantify the effect the system has on drivers, specifically on inducing/directing a desirable lane selection behavior. The strength of various uses of the tool in managing traffic during incidents is explored instead of a general level of success in improving traffic. To achieve this goal, the centerpiece of this research was the comparison and modeling of the lane change rates under different strategies. This was a difficult task because all lane changes in the target freeway section had to be detected and geolocated. The research followed two main thrusts. The first was a detailed analysis of 28 incident events selected among approximately 481 events on record between 2012 and 2013. The second thrust was a statistical analysis testing a number of hypotheses prompted by questions proposed by the project Technical Advisory Panel. In general, it can be concluded that the use of ILCS for incident management has a significant effect on driver behavior and specifically in prompting proper lane selection under capacity reducing incidents.</p>
Describe Implementation of Research Outcomes (or why not implemented)	Nothing to report at this time.
Place Any Photos Here	

Last updated (9/30/2019)



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Impacts/Benefits of Implementation (actual, not anticipated)	Nothing to report at this time.
Web Links <ul style="list-style-type: none"><li>• Reports</li><li>• Project website</li></ul>	<a href="http://www.cts.umn.edu/Research/ProjectDetail.html?id=2014029">http://www.cts.umn.edu/Research/ProjectDetail.html?id=2014029</a> <a href="http://www.cts.umn.edu/Publications/ResearchReports/reportdetail.html?id=2498">http://www.cts.umn.edu/Publications/ResearchReports/reportdetail.html?id=2498</a>

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