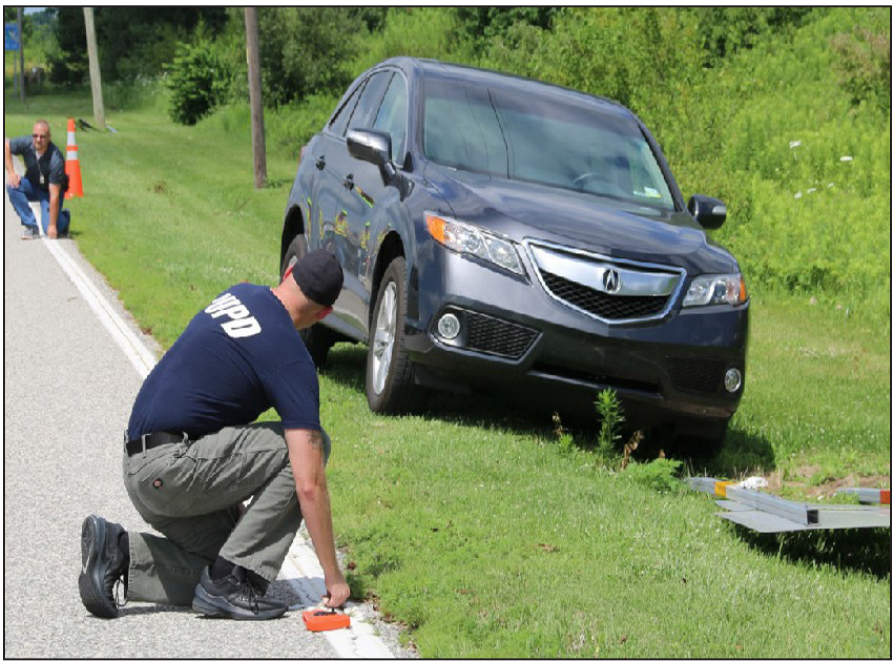
MOUNTAIN-PLAINS CONSORTIUM

RESEARCH BRIEF | MPC 24-521 (project 660) | May 2024

State of the Practice of Crash Reporting in the U.S. and Implications for CAV Safety Assessment



the ISSUE

With the rapid advancement of connected automated vehicle (CAV) technology, there is a growing need for standardized crash reporting and legislative frameworks to ensure accurate data collection and safe CAV deployment on public roads.

the RESEARCH

This research focuses on evaluating current CAV crash reporting practices across the United States, identifying inconsistencies and gaps, and proposing recommendations for standardized reporting and legislation to ensure safe and effective deployment of CAVs on public roads.

Researchers assessed CAV crash reporting practices across the United States through a mixed-methods approach. A questionnaire survey was distributed to state transportation officials to gather detailed information on current crash reporting practices. In parallel with the survey, an extensive review of existing state legislation and definitions related to CAVs was conducted, focusing on aspects such as reporting requirements, definitions of automation levels, and the role of manufacturers and operators.

The survey targeted leading personnel in crash reporting and CAVs from each state's department of transportation and safety departments. The data collected from the survey responses and the legislative review provided insight into existing practices, challenges, and areas for improvement. Additionally, each state's crash report form and manual were reviewed to understand the level of alignment with national standards such as the model minimum uniform crash criteria (MMUCC). The analysis aimed to gauge the preparedness of states and identify opportunities for standardizing CAV crash reporting protocols.

MOUNTAIN-PLAINS CONSORTIUM REGION 8

A University Transportation Center sponsored by the U.S. Department of Transportation serving the Mountain-Plains Region. Consortium members:

Colorado State University
North Dakota State University
South Dakota State University
University of Colorado Denver
University of Denver
University of Utah
Utah State University
University of Wyoming

Lead Investigator(s)

Michelle Mekker
michelle.mekker@usu.edu

Research Assistant(s)

Sailesh Acharya, GRA, PhD
Ashikur Rahman, GRA, MS

Project Title

State of the Practice of Crash Reporting in the US and Implications for CAV Safety Assessment

Sponsors | Partners

USDOT, Research and Innovative Technology Administration

the FINDINGS

The research revealed significant variability in CAV crash reporting practices across the United States. While some states have established CAV crash reporting systems, there is inconsistency in how automation levels and system engagement during crashes are recorded. Many states lack standard practices for reporting CAV crashes, leading to challenges in comparing data across jurisdictions. The legislative frameworks also primarily focus on CAV definitions and deployment rather than crash reporting policies. These findings highlight the need for standardized crash reporting forms and protocols to enhance data collection and comparability. Most states have plans to update crash report forms, but there is variation in the timing and extent of these updates. Overall, the research underscores the necessity of uniform practices and legislative updates to ensure effective CAV crash reporting and safety.

the IMPACT

This research provides a roadmap for standardizing CAV crash reporting practices across the United States. By implementing recommendations such as uniform reporting forms, enhanced legislative frameworks, and targeted education and training programs, states can achieve consistent data collection and improve safety assessments. This standardization facilitates accurate comparisons of CAV performance across jurisdictions to inform future policies and regulations. Ultimately, the research contributes to the safe and effective deployment of CAVs on public roads, fostering trust in CAV technology and enhancing road safety for all users.

For more information on this project, download the Main report at https://www.ugpti.org/resources/reports/details.php?id=1167

For more information or additional copies, visit the Web site at www.mountain-plains.org, call (701) 231-7767 or write to Mountain-Plains Consortium, Upper Great Plains Transportation Institute, North Dakota State University, Dept. 2880, PO Box 6050, Fargo, ND 58108-6050.

This publication was produced by the Mountain-Plains Consortium at North Dakota State University. The contents of this brief reflect the views of the authors, who are responsible for facts and the accuracy of the information presented herein. This document is disseminated under the program management of the USDOT, Office of Research and Innovative Technology Administration in the interest of information exchange. The U.S. Government assumes no liability for the contents or use thereof.

NDSU does not discriminate in its programs and activities on the basis of age, color, gender expression/identity, genetic information, marital status, national origin, participation in lawful off-campus activity, physical or mental disability, pregnancy, public assistance status, race, religion, sex, sexual orientation, spousal relationship to current employee, or veteran status, as applicable. Direct inquiries to Vice Provost, Title IX/ADA Coordinator, Old Main 201, 701-231-7708, ndsu.eoaa@ndsu.edu.