TRANSPORTATION POOLED FUND PROGRAM
QUARTERLY PROGRESS REPORT

Lead Agency (FHWA or State DOT): Iowa DOT

INSTRUCTIONS:
Project Managers and/or research project investigators should complete a quarterly progress report for each calendar quarter during which the projects are active. Please provide a project schedule status of the research activities tied to each task that is defined in the proposal; a percentage completion of each task; a concise discussion (2 or 3 sentences) of the current status, including accomplishments and problems encountered, if any. List all tasks, even if no work was done during this period.

Transportation Pooled Fund Program Project # *(i.e, SPR-2(XXX), SPR-3(XXX) or TPF-5(XXX)* SPR-TPF5(505)-8H-00	**Transportation Pooled Fund Program - Report Period:** ☐ Quarter 1 (January 1 – March 31) ☐ Quarter 2 (April 1 – June 30) ☑ Quarter 3 (July 1 – September 30) ☐ Quarter 4 (October 1 – December 31)	
Project Title: An Investigation of the Factors Surrounding Crashes of ADAS-Equipped Vehicles		
Name of Project Manager(s): Cheryl Roe	**Phone Number:** 319-335-6803	**E-Mail** cheryl-roe@uiowa.edu
Lead Agency Project ID: University of Iowa Driving Safety Research Ins	**Other Project ID (i.e., contract #):** L230100-CG	**Project Start Date:** January 1, 2023
Original Project End Date: December 31, 2023	**Current Project End Date:** December 31, 2023	**Number of Extensions:**

Project schedule status:

☐ On schedule ☐ On revised schedule ☐ Ahead of schedule ☑ Behind schedule

Overall Project Statistics:

Total Project Budget	Total Cost to Date for Project	Percentage of Work Completed to Date
$150,000	$90,250.05 (incl. prelim for Sept)	40%

Quarterly Project Statistics:

Total Project Expenses and Percentage This Quarter	Total Amount of Funds Expended This Quarter	Total Percentage of Time Used to Date
19%	$29,105.63 (incl. prelim for Sept)	69%

Project Description:

This research aims to help fill the gaps in knowledge about the impact of ADAS features in real-world crashes occurring in Iowa and Colorado, including whether the driver had an accurate mental model of the vehicle's ADAS feature(s), crash characteristics such as the environmental and traffic conditions, and whether the feature(s) potentially contributed to or mitigated the crash.

Interview guides to facilitate the gathering of information from motorists operating vehicles likely to be equipped with ADAS features that have been involved in crashes will be developed. Another guide will be developed in order to interview officers who have investigated crashes of ADAS-equipped vehicles.

Qualitative analysis will be conducted and a final report will present findings and recommendations for various stakeholders, including infrastructure owners/operators, law enforcement, crash reporting agencies, departments of transportation, and original equipment manufacturers (OEMs). The summary of the tasks is as follows. Tasks 1 - 3 and tasks 4 - 7 will occur concurrently.

Task 1: IRB approval, TAC formation, Data usage agreements
Task 2: Develop motorist interview guide
Task 3: Develop officer interview guide
Task 4: Identify respondents
Task 5: Interview motorists
Task 6: Interview officers
Task 7: Conduct analysis
Task 8: Prepare deliverables
Task 9: Progress meetings and reports

Progress this Quarter (includes meetings, work plan status, contract status, significant progress, etc.):

Meetings with Iowa and Colorado DOT liaisons were held on July 27, August 24, and September 28. At the August 24th meeting, Sina Lewis informed the team that she was leaving CDOT and that a new liaison would take over. Heather Pickering-Hilgers, the new CDOT liaison, attended the meeting held on September 28.

A TAC meeting was held on September 12. TAC members in attendance included Andy Lewis, Josh Halterman, Dennis Klein and Larry Grant from the IDOT; Mara Strother from CDOT; Matt Struve from Plymouth County Sheriff's Office; Mike Messerich from the Iowa State Patrol; and Johnathon Wood from Iowa State University. An update on the motorist data collection was provided. A discussion of the officer survey and interview questions was the focus. TAC feedback was used to update the officer data collection materials.

Motorist update
-IRB approval was obtained on July 6. Additional IRB modifications were submitted and approved to add a recruitment option for Colorado motorists and another option for Iowa Motorists.
-Data collection began on August 1.
-On Sept. 12, the UI provided IDOT liaison (Andy Lewis) with 500 stamped envelopes (each containing an informational letter from IDOT and study postcard) and a list of unit identifiers (identified from crash data). IDOT will use the list of units to identify names and mailing address to place labels on envelopes and mail out.
-UI completed two practice interviews with internal DSRI staff. Protocol for verifying interview transcripts was finalized.
-As of September 29, 136 respondents accessed the survey. 32 have completed the entire survey and 28 have expressed interest in doing an interview. Two interview invitations have been sent to candidate interviewees, but neither has responded. UI will follow-up and re-issue the survey 2 weeks after initial invitation.

Anticipated work next quarter:

Research team will continue to meet weekly to discuss study progress.

UI will host virtual monthly meetings with IDOT and CDOT liaisons to discuss study progress.

Submit IRB modifications to add recruitment methods for law enforcement in IA and CO. A modification to recruit CO motorists is being considered. UI is waiting on feedback from CO DOT liaison.

Start interviews with motorists and if possible, officers. Interviews will be recorded with two methods. Teams with audio and video (when possible) and with audio recording software provided by UI. The Teams recording will also create a real-time transcription. Recordings will be stored on UI protected server. After the transcriptions are reviewed for accuracy, one of the recordings (Teams if video is recorded) will be deleted. If no video is collected, the recording with the best audio quality will be kept. Interviews will be coded for key terms.

Continue to develop protocol for conducting qualitative analyses and conduct preliminary analyses

Significant Results:

A total of 136 respondents accessed the motorist survey. Seventeen were not eligible to participate. 27% of eligible respondents completed the survey.

Of the 32 respondents who completed the motorist survey, 28 (88%) expressed interest in the interview.

Of the 28 interview candidates, 16 reported involvement in a crash and 12 in a near-crash. The most common crash configuration is front-to-rear (n=10).

Circumstance affecting project or budget. (Please describe any challenges encountered or anticipated that might affect the completion of the project within the time, scope and fiscal constraints set forth in the agreement, along with recommended solutions to those problems).

As mentioned in the previous progress report (Q2), the UI has encountered a substantial delay (approximately 3 months) with getting IRB approvals for the project. In addition, to improve the quality of the project outcomes, we have also expanded the scope of work from the proposal, adding data collection through surveys and conducting general (rather than targeted) recruitment of law enforcement officers. For these reasons, we are formally asking for a 6-month no-cost extension for the project.

The above-mentioned circumstances have also impacted the budget for the project. The original proposal and budget included funds for travel to visit partners in Colorado during the first half of the project. Since those funds have not been used for travel, they can be reallocated to personnel to help offset the impact to the budget. In addition, we are exploring ways to re-scope the project work (while minimizing the impacts to the quality of our work products) to better correspond to the remaining budget. That being said, if there is any opportunity for us to access additional funding, please advise.

Potential Implementation:

None at this time.