

Nicole Oneyear, PhD, RSP1

Research Scientist,
Center for Transportation Research and Education
Institute for Transportation
Iowa State University
2711 South Loop Dr. Suite 4700
Ames, IA 50010

(515) 294-7726
noneyear@iastate.edu

IOWA STATE UNIVERSITY
Institute for Transportation

EDUCATION

- PhD, Civil Engineering (Transportation), Iowa State University, Ames, IA, 2015
- MS, Civil Engineering (Transportation), Iowa State University, Ames, IA, 2011
- BS, Civil Engineering, Iowa State University, Ames, IA, 2009

PROFESSIONAL EXPERIENCE

- Research Scientist, Institute for Transportation, Iowa State University, 2015–present
- Post-Doctoral Researcher, Institute for Transportation, Iowa State University, 2015–2015

SUMMARY OF BACKGROUND QUALIFICATIONS

Dr. Nicole Oneyear is a research engineer at the Institute of Transportation (InTrans) at Iowa State University (ISU). She has conducted numerous safety-related research projects focusing on topics like teen driving, pedestrian behavior at intersections, rural intersections, work zones, and roadway departures. These projects have involved gathering data through a variety of means, including field data collection such as speeds, traffic volume, and stopping behaviors, as well as surveying the public and agencies. Her work with the Highway Safety Information System (HSIS) allows her to provide other researchers with insights on data needs for various safety analyses. Dr. Oneyear also works with the National Center for Rural Road Safety where she develops and provides training on a variety of safety-related issues.

SELECTED RESEARCH PROJECTS

- ***Aligning Iowa Driver Education Curriculum And Standards Toward A Zero Fatalities Vision. Co-PI.*** (Iowa Department of Transportation [DOT]). Using crash data, parent and instructor surveys, and focus groups to develop data-driven modules for Iowa's driver's education curriculum. (2021–present).
- ***Synthesis of Transverse Rumble Stripes at Rural Stop Controlled Intersections. PI.*** (Iowa DOT). This project performed a literature review on the effectiveness of transverse rumble strips as well as a synthesis of state DOT policies related to transverse rumble strips at rural stop-controlled intersections. An analysis was performed to determine benefit-cost ratios of various scenarios of transverse rumble strip implementation. (2021–2021).
- ***BTS-17: Determining the Effectiveness of Combined High Visibility Enforcement (HVE). Co-PI.*** (Behavioral Traffic Safety Cooperative Research Program [BTSCR]). Project is developing a safety

framework for evaluating high visibility enforcement efforts and will include a proof-of-concept analyses. A survey was developed and sent to state highway safety offices to gather information on data collection practices as part of high visibility enforcement efforts. (2021–present).

- **Highway Safety Information System (HSIS)** (Federal Highway Administration [FHWA] through VHB). Project involves providing insights on data needs for various safety analyses and fulfilling researcher data requests. (2020–present).
- **Transverse Rumble Strips at Rural Intersections. Co-PI.** (MnDOT). Evaluating various configurations of transverse rumble strips at rural intersections to determine those which have the largest safety impact. (2020–present).
- **Enhancing Conspicuity for Standard Signs and Retroreflectivity Strips on Posts** (FHWA through VHB). This project collected and analyzed before and after speed data to evaluate several low-cost treatments, including a curve warning beacon, stop sign beacon, and speed limit flags (2019–2021).
- **SHRP2 Safety Data to Support Highway Safety: Assessing Driver Behavior at Rural Intersections** (FHWA through the BAA). This project is evaluating how drivers negotiate rural high-speed intersections using roadway factors, environmental factors, and driver behaviors such as where they are focusing their attention, the role of distraction, and how age and gender may play a role (2015–2021).
- **National Center for Rural Road Safety** (WTI and FHWA). This project involved identifying gaps in training for state and local agencies related to rural safety and then creating, updating, or tailoring trainings for rural agencies and various audiences that met National Highway Institute (NHI) adult learning standards and were offered in a mix of in-person, virtual and train the trainer formats. (2015–present).

SELECTED PUBLICATIONS

- Oneyear, N., Hallmark, S., and Naraghi, H. 2021. *Iowa DOT Synthesis of Transverse Rumble Strips at Rural Stop-Controlled Intersections*. Iowa Department of Transportation, Ames, IA, 62p.
- Shaw, J. W, and Oneyear, N. L. 2021. *Pedestrian Accommodations in Work Zones: Systematic Literature Review and Research Needs*. Iowa Department of Transportation, Ames, IA, 144p.
- Thapa, R., Hallmark, S., and Oneyear, N. 2020. Braking Behavior of Major Approach Turning Vehicles at Rural Two-Way Stop Controlled Intersections: A Naturalistic Driving Study. *Traffic Injury Prevention*, Vol. 21, No. 5.
- Oneyear, N., Hallmark, S., and Wang, B. 2016. *Evaluating the Relationship between the Driver and Roadway to Address Rural Intersection Safety using the SHRP2 Naturalistic Driving Study Data*. Iowa Department of Transportation, Ames, IA, 38p.

PROFESSIONAL AFFILIATIONS, HONORS, AND SERVICE

- Student Chapter Liaison, MOVITE Section of the Institute for Transportation Engineers, 2018–2021
- Young Member on TRB Traffic Law Enforcement Committee, 2010–present
- Former Member of the TRB Expert Task Group for User Community Development for Safety Data