Jonathan Wood, PhD	
Assistant Professor in Civil, Construction and Environmental Engineering Iowa State University 354 Town Engineering Building 813 Bissell Rd Ames, IA 50010	435-760-2781 jwood2@iastate.edu IOWA STATE UNIVERSITY Institute for Transportation

EDUCATION

- PhD, Civil and Environmental Engineering, Penn State University, University Park, PA, 2016
- MS, Civil and Environmental Engineering, University of Utah, Salt Lake City, UT, 2012
- BS, Civil and Environmental Engineering, University of Utah, Salt Lake City, UT, 2011

SELECTED PROFESSIONAL EXPERIENCE

- Assistant Professor, Department of Civil, Construction, and Environmental Engineering, Iowa State University, July 2020–present
- Traffic Commissioner, City of Livonia, Michigan, 2019–2020
- Safety and Sustainability Data Scientist, Ford Motor Company, 2017–2020
- Assistant Professor, Civil and Env. Engineering, South Dakota State University, 2016–2017

SELECTED RESEARCH PROJECTS

- J.S. Wood, Z. Hans. In-Service Performance Evaluation of Roadside Hardware, Iowa DOT, June 2023 – June 2024. [PI]
- J.S. Wood, A. Sharma. Investigating Teleoperated Equipment for Use in CALTRANS Operations, CALTRANS, December 2021 – December 2023. [PI]
- S. Hallmark, J.S. Wood, Z. Hans, N. Oneyear. Determining the Effectiveness of Combined High Visibility Enforcement (HVE), BTSCRP, August 2021 – July 2023. [Co-PI]
- D. Veneziano, J.S. Wood, J. Shaw. Designing and Implementing Maintainable Pedestrian Safety Countermeasures. MnDOT, July 2021 – April 2023. [Co-PI]
- J. Shaw, D. Veneziano, J.S. Wood, C. Day. J. Shaw Pedestrian Hybrid Beacon Guide. Nevada DOT, May 2021 – February 2023. [Co-PI]

SELECTED JOURNAL PUBLICATIONS

- M. Mumtarin, S. Knickerbocker, T. Litteral, and J.S. Wood. 2023. “Traffic Incident Management Performance Measures: Ranking Agencies on Roadway Clearance Time.” Journal of Transportation Technologies, 13, 353-368. doi: 10.4236/jtts.2023.133017.
- Zhou, D., J.S. Wood, and V. Gayah. 2023. “Integration of Machine Learning and Statistical Models for Crash Frequency Modeling,” Transportation Letters: The International Journal of Transportation Research, In Press. https://doi.org/10.1080/19427867.2022.2158257
- Wood, J.S., Z. Yu, and V. Gayah. “Development And Evaluation of Frameworks for Real-Time Bus

Passenger Occupancy Prediction," International Journal of Transportation Science and Technology, 2022. https://doi.org/10.1016/j.ijtst.2022.03.005

- Wood, J.S., and S. Zhang. "Evaluating Relationships between Perception-Reaction Times, Emergency Deceleration Rates, and Crash Outcomes using Naturalistic Driving Data," Transportation Research Record, Journal of the Transportation Research Board, 2020, pp.1213-223. https://doi.org/10.1177/0361198120966602
- Wood, J.S, E.T. Donnell. "Empirical Bayes Before-After Evaluation of Horizontal Curve Warning Pavement Markings on Two-Lane Rural Highways in Pennsylvania," Accident Analysis & Prevention, 146, 2020. https://doi.org/10.1016/j.aap.2020.105734
- Wood, J.S., and S. Zhang. "Identification and Calculation of Horizontal Curves for Low-Volume Roadways Using Smartphone Sensors," Transportation Research Record, Journal of the Transportation Research Board, 2018, pp. 1-10. https://doi.org/10.1177/0361198118759005
- Butsick, A.J., J.S. Wood, and P.P. Jovanis. "Using Network Screening Methods to Determine Locations with Specific Safety Issues: A Design Consistency Case Study," Accident Analysis & Prevention, 106, 2017, pp. 223-233. https://doi.org/10.1016/j.aap.2017.06.006
- Wood, J.S., and E.T. Donnell. "Relationship Between Roadside Hazard Rating and Crash Occurrence," Transportation Research Circular E-C220, 2017, pp. 34-51. http://onlinepubs.trb.org/onlinepubs/circulars/ec220.pdf
- Wood, J.S., and E.T. Donnell. "Causal Inference Framework for Generalizable Safety Effect Estimates," Accident Analysis & Prevention, 104, 2017, pp. 74-87. https://doi.org/10.1016/j.aap.2017.05.001
- Shaaban, K., J.S. Wood, and V. Gayah. "Investigating Driver Behavior at Two-Way Stop Sign Intersections in Qatar," Transportation Research Record, Journal of the Transportation Research Board, No. 2663, 2017, pp. 109-116. https://doi.org/10.3141/2663-14
- Wood, J.S., and E.T. Donnell. "Stopping Sight Distance and Available Sight Distance: New Model and Comparison Using Reliability Theory," Transportation Research Record, Journal of the Transportation Research Board No. 2638, 2017, pp. 1-9. https://doi.org/10.3141/2638-01
- Yu, Z., J.S. Wood, and V. Gayah. "Using Survival Models to Estimate Bus Travel Times and Associated Uncertainties," Transportation Research Part C, 74, 2017, pp. 366-382. https://doi.org/10.1016/j.trc.2016.11.013
- Wood, J.S., and E.T. Donnell. "Safety Evaluation of Continuous Green T Intersections: A Propensity Scores-Genetic Matching-Potential Outcomes Approach," Accident Analysis & Prevention, 93, 2016, pp. 1-13. https://doi.org/10.1016/j.aap.2016.04.015
- Wood, J.S., E.T. Donnell, and R.J. Porter. "Comparison of Safety Effect Estimates Obtained from Empirical Bayes Before–After Study, Propensity Scores-Potential Outcomes Framework, and Regression Model with Cross-Sectional Data," Accident Analysis & Prevention, 75, 2015, pp. 144-154. https://doi.org/10.1016/j.aap.2014.11.019
- Wood, J.S., and R.J. Porter. "Safety Impacts of Design Exceptions on Non-Freeway Segments," Transportation Research Record, Journal of the Transportation Research Board No. 2358, 2013, pp. 29-37. https://doi.org/10.3141/2358-04
- Porter, R.J., and J.S. Wood. "Exploring the Endogeneity of Macroscopic Speed Parameters: Empirical

Study During Low Volume Conditions in Construction Work Zones," Transportation Letters: The International Journal of Transportation Research, 5(1), 2013, pp. 27-37. https://doi.org/10.1179/1942786712Z.0000000004

SELECTED PROFESSIONAL AFFILIATIONS, HONORS, AND SERVICE

- Member, Society of Automotive Engineers (SAE)
- Member, TRB Standing Committee on Safety Performance and Analysis (ACS20)
- Panel Member, NCHRP 22-49: The Effect of Vehicle Mix on Crash Frequency and Crash Severity
- Panel Member, NCHRP 22-45: Informing the Selection of Countermeasures by Evaluating, Analyzing, and Diagnosing Contributing Factors that Lead to Crashes