

Neal Hawkins	
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EDUCATION

- MS, Civil Engineering, Iowa State University, 1990
- BS, Civil Engineering, University of Oklahoma, 1988

PROFESSIONAL EXPERIENCE

- Associate Director, Institute for Transportation, Iowa State University, 2016–present
- Director, Center for Transportation Research and Education, Institute for Transportation, Iowa State University, 2010–2016
- Director, Center for Weather Impacts on Mobility and Safety, Institute for Transportation, Iowa State University, 2009–2016
- Pooled Fund Manager (Co-PI), FHWA Aurora RWIS, Institute for Transportation, Iowa State University, 2010–present
- Traffic Operations Engineer (25% appointment with the Iowa DOT), 2013–present
- Traffic Safety Engineer (25% appointment with the Iowa DOT), 2009–2013
- MTC Research Coordinator, Midwest Transportation Consortium, Institute for Transportation, Iowa State University, 2009–2012
- Associate Director, Traffic Operations at Center for Transportation Research and Education, Institute for Transportation, Iowa State University, 2003–2010
- Adjunct Lecturer, Department of Civil, Construction and Environmental Engineering, Iowa State University, 2003–present

SELECTED RESEARCH

- *Traffic Operations Research Program Support* (PI, Iowa DOT): Led the creation of the Iowa DOT/CTRE Transportation Operations Laboratory, which generates a significant quantity of research each year and includes a high-performance cluster of computers (Hadoop) as well as GPU clusters. This team alone includes 21 people (4 P&S, 4 faculty, 2 post-doc, 5 PhD candidates, 5 MS students, and 1 undergraduate student). This includes developing and supporting statewide pavement marking strategies and programs.
- *Connected and Autonomous Vehicle research* (PI, Iowa DOT): Multi-task effort that includes deploying/evaluating SPaT technology at 20 intersections; evaluating data communication standards for internal and external to DOT; improving work zone performance and data accuracy in near real-time; establishing an open data service.

- *National Science Foundation - A Smart Service System for Traffic Incident Management Enabled by Large-data Innovations (TIMELI)* (Co-PI, National Science Foundation): This project uses emerging, large-scale data analytics techniques to reduce the number of road incidents through proactive traffic control and to minimize the impact that individual incidents might have through early detection, response, traffic management, and control.
- *Evaluation of Intersection Collision Warning Systems* (Co-PI, Minnesota DOT): The project evaluated stopping behavior and gap acceptance before and after installation of ICWS in Minnesota.
- *Evaluation of Truck Behavior at Reduced Conflict Intersections* (PI, Minnesota DOT): The project evaluated truck behavior at RCI and regular intersections to assess safety impacts due to large truck movements.
- *FHWA Roadway Data Improvement Program (RDIP) Assistance Project*: Worked with states directly to discuss and recommend opportunities to improve data collection and safety analysis. Mr. Hawkins participated in eight one-week DOT reviews for the following states: NC, LA, RI, NH, NE, TN, and AK.
- *FHWA Evaluation of the Effectiveness of the Sequential Dynamic Curve Warning System*: Served as Co-PI and was involved in all aspects of this national field evaluation of a promising new technology for the Highways for Life program.
- *Iowa DOT Development of a Comprehensive Access Management Policy and Guidelines*: Served as Co-PI on all aspects of this research by developing guidance on the basis of a quantitative risk assessment related to crash rates and access management strategies.
- *Illinois DOT Evaluating All-Weather Pavement Markings & Laboratory Methods to Simulate Field Exposure*: Served as PI for a multi-university team documenting the wet performance of different marking materials across Illinois over a six-year study period.

SELECTED PUBLICATIONS

- Huang, T., S. Knickerbocker, A. Sharma, and N. Hawkins. 2018. Implementing Big Data Quality Assurance with Visualization Tools. *Proc., 97th Transportation Research Board Annual Meeting*, Washington DC, January 2018.
- Knickerbocker, S., V. K. Jagarlamudi, N. Hawkins, and A. Sharma. 2018. *Iowa DOT Traffic Operations Open Data Service*. Iowa Department of Transportation, Ames, IA.
- Hallmark, S., N. Hawkins, R. Thapa, S. Knickerbocker, and J. Gaspar. 2017. *Evaluation of Intersection Collision Warning Systems*. Minnesota Department of Transportation, St. Paul, MN.
- Hawkins, N., and S. Hallmark. 2018. *Speed Management ePrimer for Rural Transition Zones and Town Centers*. DTFH61-13-D-00026. Institute for Transportation Engineers, Federal Highway Administration, Washington, DC.

PROFESSIONAL AFFILIATIONS, HONORS, and AWARDS

- TRB Committee: AHD55 Member, AND40 Friend
- Institute for Transportation (ITE) Fellow
- MOVITE Past President

- Past Chair, ITE Ethics Task Force
- ITS Heartland, Past Academic Sector Director
- “Distinguished Member Award,” Missouri Valley Section of the Institute of Transportation
- “Melvin B. Meyer Transportation Professional of the Year,” Missouri Valley Section of the Institute of Transportation