David A. Noyce, Ph.D., P.E.

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TRAFFIC OPERATIONS & SAFETY LABORATORY

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Education

	M.S Civil and Environmental Engineering, University of Wisconsin – Madison, 1995 B.S Civil and Environmental Engineering, University of Wisconsin – Madison, 1984 Graduate Studies - MBA Program, University of Wisconsin – Whitewater, 1990-1994
Positions	2003 – present co-Director, Traffic Operations and Safety Laboratory, UW-Madison
Held	2002 – present Assistant Professor, Civil and Environmental Engineering, UW-Madison 1999 – 2002 Assistant Professor, Civil and Environmental Engineering, UMass-Amherst 1998 – 1999 Assistant Lecturer, Civil Engineering, Texas A&M University 1995 – 1998 Research Assistant, Civil Engineering, Texas A&M University 1995 – 1999 Researcher, Texas Transportation Institute, Texas A&M University 1994 – 1995 Research Assistant, Civil and Environmental Engineering, UW-Madison 1992 – 1994 Barrientos & Associates, Transportation Group Manager, Madison, WI 1989 – 1992 Warzyn/EWI/Woodward-Clyde, Transportation Engineer, Madison, WI 1986 – 1989 Crispell-Synder, Transportation Engineer, Elkhorn, WI
	1984 – 1986 Illinois Department of Transportation, Civil Engineer II, Ottawa, IL
D	Transportation Safety; Traffic Signal Operations; Geometric Design; Traffic Control
Research	Devices: Highway Pailroad Grade Crossings: Human Factors/Driver Rehavior: Crash

Ph.D. - Civil Engineering (Transportation), Texas A&M University, 1999

Interests Devices; Highway-Railroad Grade Crossings; Human Factors/Driver Behavior; Crash Reconstruction; Transportation Public Policy; Driving Simulation; Bicycle/Pedestrian Facilities; Parking Facilities; Intelligent Transportation Systems (ITS); Construction Work Zone/Management

Selected Current Projects

Road Weather Safety Audit Development and Research is Weather Countermeasures. Federal Highway Administration (FHWA) and Wisconsin Department of Transportation (WisDOT).

The Effectiveness of the Flashing Yellow Arrow in Protected/Permissive Left-Turn Operations. National Cooperative Highway Research Program (NCHRP), National Academy of Sciences.

Roadside Safety Countermeasure Evaluation - The Safety Effects of Turn Down Guardrail Ends, Trees, and Fences on Wisconsin Freeways. Federal Highway Administration (FHWA) and Wisconsin Department of Transportation (WisDOT).

Run-Off-Road Safety Countermeasure Development - Cross-Over-The-Median Crashes in Wisconsin. Federal Highway Administration (FHWA) and Wisconsin Department of Transportation (WisDOT).

Evaluation of Work Zone Management and Safety Methodologies. Federal Highway Administration (FHWA) and Wisconsin Department of Transportation (WisDOT).

Selected Publications

- 1. Gates, Tim J., David A. Noyce, Andrea Bill and Nathanael VanEe. The Effect of Traffic Control Devices and Pedestrian Characteristics on Walking Speeds. Accepted for publication in *Transportation Research Record*, TRB, National Research Council, Washington, D.C., 2006.
- 2. Gates, Tim J., David A. Noyce, and Paul H. Stine. The Safety and Cost-Effectiveness of Bridge Approach Guardrail for Low Traffic Volume Highway Bridges. Accepted for publication in *Transportation Research Record*, TRB, National Research Council, Washington, D.C., 2006.
- 3. Knodler, Michael A. Jr., David A. Noyce, Kent C. Kacir and Christopher L. Brehmer. An Analysis of Driver and Pedestrian Comprehension of Requirements for Permissive Left-Turn Applications. Accepted for publication in *Transportation Research Record*, TRB, National Research Council, Washington, D.C., 2006.
- 4. Knodler, Michael A. Jr., David A. Noyce, Kent C. Kacir and Christopher L. Brehmer. Potential Application of the Flashing Yellow Arrow Permissive Indication in Separated Left-Turn Lanes. Accepted for publication in *Transportation Research Record*, TRB, National Research Council, Washington, D.C., 2006.
- 5. Qin, Xiao, David A. Noyce, and Chanyoung Lee. Snowstorm Event-Based Crash Analysis. Accepted for publication in *Transportation Research Record*, TRB, National Research Council, Washington, D.C., 2006.
- 6. Noyce, David A. and Billie Louise Bentzen. Determination of Pedestrian Pushbutton Activation Duration at Typical Signalized Intersections. In *Transportation Research Record* 1939, TRB, National Research Council, Washington, D.C., 2005, pp. 63-68.
- 7. Noyce, David A., Arunkumar Gajendran, and Raghuram Dharmaraju. Development of A Bicycle and Pedestrian Detection and Classification Algorithm for Active-Infrared Overhead Vehicle Imaging Sensors. Accepted for publication in *Transportation Research Record*, TRB, National Research Council, Washington, D.C., 2006.
- 8. Pradhan, Anuj K., Kim R. Hammel, Rosa DeRamus, Alexander Pollatsek, David A. Noyce, and Donald L. Fisher. The Use of Eye Movements to Evaluate the Effects of Driver Age on Risk Perception in an Advanced Driving Simulator. Accepted for publication in *Human Factors*, Journal of the Human Factors and Ergonomics Society, 2005.
- 9. Noyce, David A. and Vetri Venthan Elango. Safety Evaluation of Centerline Rumble Strips: A Crash And Driver Behavior Analysis. In *Transportation Research Record 1862*, TRB, National Research Council, Washington, D.C., 2004, pp. 44-53.
- 10. Dutta, Arup, Donald L. Fisher, and David A. Noyce. Use of a Driving Simulator to Evaluate and Optimize Factors Affecting Understandability of Variable Message Signs. In *Transportation Research*, Part F Traffic Psychology and Behavior, Volume 7, 2004, pp. 209-227.
- 11. Noyce, David A. and Kent C. Kacir. Drivers' Understanding of Simultaneous Traffic Signal Indications in Protected Left-Turns. *Transportation Research Record 1801*, TRB, National Research Council, Washington, D.C., 2002, pp. 18 26. **Winner of the D. Grant Mickle Award for best paper at TRB.**

Professional Service

Institute of Transportation Engineers – Member

Chair, Pedestrian and Bicycle Council

2001 – 2004

Member, Transportation Education Council Executive Committee 1997 – 2002 Member, Annual Meeting Paper Selection Committee 1999 – 2002

1999 – 2002 2002 – pres.

American Society for Engineering Education - Member American Society of Civil Engineers - Member

University of Wisconsin Student Chapter Advisor

Transportation Research Board

Panel Member – NCHRP 17-21

Panel Chair – NCHRP 03-61

Member – Traffic Control Devices Committee (A3A02)

University Representative

National Committee on Uniform Traffic Control Devices

Member – Signals Technical Committee

ITS America

Eno Transportation Foundation