



JUSTIN P. SCHORR, Ph.D.

EDUCATION

The George Washington University – Washington, DC
Ph.D. – Civil and Environmental (Transportation) Engineering (August 2015)
Dissertation Title: Bridging the Gap between Social and Transportation Networks: An Integrated, Dynamic Evacuation Decision Making Model

The George Washington University – Washington, DC
Master of Science (M.S.) – Civil and Environmental (Transportation) Engineering (May 2010)

Northwestern University – Evanston, Illinois
Bachelor of Science (B.S.) – Civil and Environmental Engineering (June 2008)

CONTINUING EDUCATION

Event Data Recorder Use in Traffic Crash Reconstruction – Update, Abington PA, October 2016
Traffic Crash Reconstruction 2, Northwestern University Center for Public Safety, May 2016
Traffic Crash Reconstruction 1, Northwestern University Center for Public Safety, April 2016

EXPERIENCE

September 2015 – Present
DJS Associates, Inc., Abington, PA, Collision Reconstruction / Transportation Engineer- Consulting engineer in the areas of Highway Safety, Traffic and Transportation Engineering and Collision Reconstruction. Most cases terminate with written reports and/or court appearances for the presentation of expert testimony.

August 2015 – Present
The George Washington University, Washington, DC
Center for Intelligent Systems Research
Adjunct Professor / Post-Doctorial Research Associate
Lead Researcher, Vehicle Instrumentation and Driver Simulator Laboratory

September 2010 –
August 2015 The George Washington University, Washington, DC
Center for Intelligent Systems Research
Graduate Research and Teaching Assistant
Senior Doctorial Researcher

September 2008 –
September 2012 DJS Associates, Inc., Abington, PA (Summer Position)
Engineering Assistant – Engineering analysis to aid in the evaluation of
collision reconstruction matters.

May 2003 –
September 2008 DJS Associates, Inc., Abington, PA (Summer Position)
Field Crew – Utilization of Total Station Survey equipment and High-
Definition Surveying (HDS) laser scanners to collect accurate
measurements from vehicles and collision sites.

HONORS, MEMBERSHIPS AND CERTIFICATIONS

One on one presentations given at the request of:

Ed Gillespie – Candidate for Governor of Virginia (June 2016)
Major John Bell – Delegate, 87th District, Virginia (January 2016)
David Birtwistle – CEO, Northern Virginia Transportation Alliance (October 2015)
Barbara Comstock – Congresswoman, 10th District, Virginia (October 2015)

PC-Crash (v9.1): Essentials - Latest Features, Abington, PA, November 2015

Traffic Crash Investigation, Northwestern University Center for Public Safety, October 2015

Engineering-In-Training (EIT) Certified, December 2010 (National Council of Examiners for
Engineering and Surveying, Fairfax VA)

Traffic Flow Theory Committee at the Transportation Research Board (TRB): Member
(2012 – current); Newsletter Administrator (2014 – current)

Leica High Definition Laser Scan Surveying Training Including Deployment/Use of Cyrax
Scanner and Cyclone Point Cloud 3-D Modeling Software, June 2004 (DJS Associates, Inc.,
Abington PA)

Captain of Northwestern Men's Ice Hockey Team (2006-2008); President of Northwestern
Men's Ice Hockey Team (2006-2007); Captain Abington High School Varsity Ice Hockey Team
(2002-2004)

RELEVANT COURSEWORK

Transportation Engineering: Advanced Transportation Demand Modeling; Regional
Transportation Planning; Traffic Engineering and Highway Safety; Intelligent Transportation
Systems; Vehicle Dynamics; Real World Crash Investigation; Crash Investigation and Analysis;
Vehicle Standards and Crash Test Analysis.

Applied Mathematics: Analytical Methods in Engineering II; Analytical Methods in Engineering III; Analytical Mechanics; Introduction to Finite Element Analysis; Non-Linear Finite Element Analysis and Simulation.

Engineering Intelligent Systems: Control Systems; Intelligent Control Systems; Discrete Systems Simulation; Stochastic Foundations of Operations Research; Stochastic Processes in Engineering.

PROFICIENCY AREAS

Transportation Safety; Evacuation Modeling and Disaster Management; Highway Design; Transportation System Analysis; Driver Behavior Modeling; Traffic Demand Modeling; Transportation Planning and Evaluation; Traffic Flow Theory; Intelligent Transportation Systems (ITS); Vehicular Collision Investigation and Reconstruction; Control Systems; Intelligent Control Systems; Discrete Systems; Operations Research; Applied Mathematics.

COMMUNITY SERVICE AND MENTORING

Community Service: “Science and Technology Engineering Day” Keynote presentation for high school students: 2013, 2014, 2015; Presentation for The George Washington University School of Nursing: 2014; “Schools Without Walls” presentation for high school students: 2013; McConnell Public Safety and Transportation Operation Center undergraduate field trip – Assistant organizer: 2012, 2013; Youth hockey and Golf coaching experience.

Mentoring: Mentor for graduate students: 2011–2016; Mentor for summer undergraduate interns: 2011–2016; Teaching Assistant (Introduction to Transportation Engineering; Engineering Computations – 6 total classes): 2010–2015.

COMPUTER SKILLS

Excellent Knowledge: MS Office (MS Word, MS Excel, MS PowerPoint); MS Visual Basic; AutoCAD (Drawing Software); LISREL (Statistical Analysis Software); LIMDEP (Statistical Analysis Software); SAS (Statistical Analysis Software); CYCLONE (3-D Point Cloud Modeling Software); MATLAB.

Working Knowledge: Visual C++, Visual C#, and Python Programming Languages; DYNASMART-P (Dynamic Traffic Assignment/Simulator); NX3 (3-D Modeling Software); Hypermesh (3-D Modeling Software); LS Dyna (Implicit/Explicit Solving Software), PC Crash

PUBLICATIONS

Refereed Archival Journal Publications:

Schorr, J.P., Hamdar, S.H., and Silverstein, C., “Measuring the Safety Impact of Road Infrastructure Systems on Driver Behavior: Vehicle Instrumentation and Exploratory Analysis”. The Journal of Intelligent Transportation Systems, June 2016, doi: 10.1080/15472450.2016.1198699.

Silverstein, C., Schorr, J.P., and Hamdar, S.H., "Work Zones Versus Non-Work Zones: Risk Factors Leading to Rear-End and Sideswipe Collisions". *Journal of Transportation Safety and Security*, 2015, doi: 10.1080/19439962.2015.1036332.

Schorr, J.P. and Hamdar, S.H., "Safety Propensity Index for Signalized and Unsignalized Intersections: Exploration and Assessment". *Accident Analysis and Prevention*, June 2014, Volume 71, pages 93 – 105.

Hamdar, S. H. and Schorr, J.P., "Interrupted Versus Uninterrupted Flow: A Safety Propensity Index for Driver Behavior". *Accident Analysis and Prevention*, June 2013, Volume 55, pages 22 – 33.

Schorr, J.P. and Hamdar, S.H., "An Integrated, Dynamic Demand Simulation Estimating Individual Level Decision Making During a Hurricane Evacuation". Submitted for publication in *Transportation Research Part C*, 2016.

Refereed Conference Proceedings:

Al Hajj Hassan, L., Schorr, J., Hamdar, S.H., and Arhin, S., "Structural Equation Modeling: Application to Pedestrian Safety in Washington, D.C., and Exploration of the Impact of Variable Scaling Procedures". Presented at the Transportation Research Board 96th annual meeting, January 2017.

Schorr, J.P., Hamdar, S.H., Kang, S., Jang, K., and Kachouch, H., "From Structural Equation Modeling to Macroscopic Fundamental Diagrams: Investigating the Impact of Road Segment Safety on Network Level Efficiency." Presented at the 17th International Conference of Road Safety on Five Continents, Rio de Janeiro, Brazil, 17-19 May 2016.

Schorr, J.P., "Bridging the Gap between Social Networks and Transportation Networks: An Integrated Comprehensive Evacuation Decision Making Model". Presented at the TRB Dissertation Workshop at the Transportation Research Board 94th annual meeting, January 2015.

Porter, E., and Schorr, J.P., "Built Environment Factors Contributing to Pedestrian Collisions: A Structural Equation Modeling Approach". Presented at the Transportation Research Board 94th annual meeting, January 2015.

Schorr, J.P., Hamdar, S.H., and Silverstein, C., "Measuring the Safety Impact of Road Infrastructure Systems on Driver Behavior: Vehicle Instrumentation and Exploratory Analysis". Presented at The Conference Celebrating 50 Years in Traffic Flow Theory, August 2014. Included in the Transportation Research Circular, No. E-C197, September, 2015.

Schorr, J.P., and Hamdar, S.H., "From Census Data to Social Networks: An Agent-Based Model for Hurricane Evacuation Departure Time Choice". Presented at the Conference on Agent-Based Modeling in Transportation Planning, September 2013.

Schorr, J.P., Hamdar, S.H., and Vassallo, T., "Collision Propensity Index for Un-Signalized Intersections: A Structural Equation Modeling Approach". Presented at the Transportation Research Board 92nd annual meeting, January 2013.

Schorr, J.P., Hamdar, S.H., and Robertson, J., "From Social Networks to Evacuation Traveler Decision Making: Exploratory Departure Time Choice Modeling and Simulation". Presented at the Transportation Research Board 91st annual Meeting, January 2012.

PRESENTATIONS:

"An Overview of Forensic Engineering in 2018: New Technology and Ethical Considerations", American Society of Highway Engineers, Cherry Hill, NJ, January 2018

"Applied Forensics: Collision Reconstruction", Philadelphia University, Philadelphia, PA, January 2018

"Autonomous Vehicle Technology", New York State Bar Association, Nashville, TN, November 2017

"Autonomous Vehicle Technology", National Association Subrogation Professionals, Austin, TX, 2017

"Applications of Transportation Engineering in the World of Tort Litigation", Texas A&M Engineering Program, Houston, TX, November 2017

"Autonomous Vehicle Technology Symposium", NAIOP, Fairfax, VA, Moderator of Panel, October 2017

"Epidemic of Distracted Driving", Philadelphia Association of Paralegals 2017 Educational Conference, Philadelphia, PA, September 2017

"Using the Monte Carlo Method for a Crush Analysis", 2017 Joint Annual Conference hosted by NATARI, Glassboro, NJ, August 2017

"Accuracy of the DriveCam Event Data Recorder", 2017 Joint Annual Conference hosted by NATARI, Glassboro, NJ, August 2017

"The Road to Autonomous Vehicles: The Hundred Year Journey", NJICLE Webinar, Abington, PA, July 2017

"The Role of Physics in Collision Reconstruction", AP Physics Class, Abington High School, Abington, PA, May 2017

"Collision Reconstruction and New Technology", Truck / Bus Boot Camp, National Interstate Insurance Company, Richfield, OH. April 2017

"The Science Behind Vehicle Collisions", 2017 Abington Township Police Department Symposium, Abington, PA, April 2017

"Event Data to Autonomous Vehicle Technology- Where we are... Where we're Going", National Association of Subrogation Professionals Webinar, Abington, PA, April 2017

"Where are you and What are you doing: Automotive and Truck Electronic Data "Black Box" and GPS Technology", Philadelphia University, Philadelphia, PA, March 2017

“Things Keep Changing: Update on Automotive and Truck Electronic Data, “Black Box” and GPS Technology”, Central Jersey Claims Association, Hamilton, NJ, March 2017

TEACHING:

Current Courses Offered: Engineering Computations; Sustainable Urban Dynamics; Intelligent Transportation Systems, The George Washington University, Washington, DC

Past Courses Offered: Highway Design; Advanced Demand Modeling; Introduction to Transportation Engineering, The George Washington University, Washington, DC

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