Transitioning Evidence-based Road Safety Research into Practice

Committee

Joseph L. Schofer

Chair

Joseph L. Schofer is Professor Emeritus of Civil and Environmental Engineering at the Robert R. McCormick School of Engineering and Applied Science at Northwestern University. His research interests are in policy planning, analysis, evaluation, and data-driven decision support for transportation and infrastructure systems. He is engaged with the Transportation Research Board (TRB) of the National Academies of Science, Engineering, & Medicine, chairing the Standing Committee on Data for Decision Making and several conference planning committees.

He recently chaired the Congressionally mandated TRB consensus study on Investing in Transportation Resilience: A Framework for Informed Choices. He chaired prior TRB consensus studies on federal transportation data programs and equity in transportation finance. Schofer won the TRB Roy Crum Award for research (2011); the Steinberg Award for Excellence in transportation education and research, American Road and Transportation Builders Association (2017); and the CUTC-HNTB Lifetime Achievement Award for Transportation Education and Research (2019). He is a fellow of the Institute of Transportation Engineers, a life Member of the American Society of Civil Engineers, and a member of the Sigma Xi and the American Association for the Advancement of Science. Since 2009, Dr. Schofer has hosted the Infrastructure Show, a monthly podcast exploring problems and achievements in civil infrastructure systems. Dr. Schofer earned his B.E. from Yale University and the M.S. and Ph.D. from Northwestern University, all in civil engineering.

Saeed D. Barbat

Member

Saeed Barbat has been the Executive Technical Leader for Safety, Policy and Vehicle Analytical Tool since 2011, overseeing overall vehicle safety in research, advanced product development, strategy, and regulatory, company-wide. He has 39 years of engineering experience: 31 in Automotive Safety, 2 in the aircraft engineering, and 6 in the academia. Internationally recognized safety leader who sustained a record of pioneering contributions to the automotive industry and societal benefits. His past 31 years have been with Ford involved in all aspects of automotive safety, e.g. structural crashworthiness, occupant protection, and biomechanics. At Ford, he served for more than 11 years as the technical group leader and a Manager for Passive Safety Research and Advanced Engineering. He served as a product development Safety Manager for about 120 engineers involved in the design, development, and safety sign-off for several platforms.
Dr. Barbat was elected to the NAE in 2020. He achieved SAE (2012) and ASME (2013) Fellow Grades. Chairman of ISO WG4 for Virtual Testing for 14 years; Member of the Safety Technical Leadership Council of the United State Council of Automotive Research (USCAR) since 2000; A member of the ISO United State Technical Advisory Group. Editorial Advisory Board member for numbers of national/international journals. He hold more than 115 issued/filed patents and wrote nearly 70 papers. He received a prestigious Henry Ford Technology Award; the SAE Arch T. Colwell Merit Award, 17 SAE/ASME Recognition Awards and 4 USCAR Awards. Received a 2017 prestigious ASME Barnett-Uzgiris Product Safety Societal award and a 2019 the Haren Gandhi Technical and Innovation Award (the highest award Ford ever gave).

Dr. Barbat holds an B.S., M.S., and Ph.D. degrees in mechanical and Mechanical Applied Mechanics Engineering.

Rachel A. Carpenter

Member

Rachel A. Carpenter was appointed the California Department of Transportation (Caltrans) first-ever Chief Safety Officer effective January 2020. She is the Department’s highest-level subject matter expert on safety practices and policies, and manages the day-to-day operations of the newly established Division of Safety Programs.

Prior to this position, Ms. Carpenter served as Caltrans' Pedestrian and Bicycle Safety Branch Chief, where she envisioned and established the Caltrans’ Pedestrian and Bicyclist Safety Program and also served as the project manager for the Zero Traffic Fatalities Task Force (pursuant to Assembly Bill 2363). As part of this role, she managed a 24-member task force of state and external agencies and led the development of the final report of findings for the California Legislature on strategies to reduce traffic fatalities to zero. Before joining Caltrans, Ms. Carpenter worked with the San Francisco Municipal Transportation Agency’s Livable Streets Subdivision where she was a project manager and design engineer for multiple bicyclist safety, pedestrian safety and traffic calming projects. She began her career as a staff engineer with TechLaw Inc. working on hazardous material remediation projects.

Ms. Carpenter is a past member of the Transportation Research Board (TRB) Committee on Bicycle Transportation and a current member of the TRB Committee on Transportation Safety Management Systems. She earned the Caltrans Superior Accomplishment Award in recognition of her nationally leading work on safety-related research. She was awarded the University of California Institute of Transportation Studies Davis Outstanding Master's Thesis Award and presented her research at the 2010 and 2011 TRB Annual Meetings in Washington D.C.

Ms. Carpenter holds Bachelors and Masters of science degrees in civil engineering (and a minor in music) and she is a licensed professional civil engineer in California. She volunteers as a city of Sacramento Active Transportation Commission member because she believes in the importance of being engaged in the community where she lives.

Grady T. Carrick

Member

Grady Carrick is a retired Florida Highway Patrol Chief, who distinguished himself as a champion for traffic operations and safety during his 30 years with the agency. Since his retirement in 2012, Dr. Carrick has worked with local, state, and Federal agencies to advance a safe and efficient transportation system in a consulting role as founder of Enforcement Engineering, Inc. Dr. Carrick is passionate about traffic safety and responder safety and he has a national reputation as an advocate for traffic incident management. Having an advanced degree in Transportation Engineering, Carrick is comfortable in academic, engineering, and public safety interactions where he often builds bridges between those disciplines. Dr. Carrick is Chair of the TRB Traffic Law Enforcement Committee, ACS30, and he has served on NCHRP and BTSCRP panels.

Janice Daniel

Member

Janice Daniel is a Professor in the Civil and Environmental Engineering Department in the Newark College of Engineering at New Jersey Institute of Technology. She has been a Professor at NJIT since 1999 teaching courses in Traffic Control and Capacity Analysis and performing research in the areas of Traffic Operations and Transportation Safety. Dr. Daniel began her career working in the Traffic Engineering Division of the Port Authority of NY and NJ. She has also worked as a Transportation Engineer for a transportation consulting firm. She began her academic career at Georgia Institute of Technology as an Assistant Professor in the Department of Civil and Environmental Engineering.

Dr. Daniel's research is focused in the areas of transportation safety and operations and has been sponsored by several agencies including the National Science Foundation, Federal Highway Administration and the New Jersey Department of Transportation. Her research has focused on freight movement, as well as on roadway safety, specifically within the areas of vehicle-occupant, pedestrian, bicyclists and truck safety. Dr. Daniel has been a member of the Transportation Research Board Highway Capacity and Quality of Service Committee (AHB40), the Task Force on Arterials and Public Health (ADD55T) and the Operational Effects of Geometrics Committee (AHB65).

Paul P. Jovanis

Member

Paul P. Jovanis is Professor Emeritus, Pennsylvania State University. Prior to retirement, Dr. Jovanis held faculty and transportation research appointments at UC Davis and Northwestern University. He conducted research for over 35 years in road safety, Intelligent Transportation Systems and traffic engineering. Paul's areas of particular interest were the development and implementation of statistical models using state-level road crash data and detailed truck driver hours of service records. He is recognized for his innovative research using time-dependent probabilistic models and incorporating spatial dependence in the estimation of road crash frequency.

During service to the Transportation Research Board he was Committee, Section and Group Chair all in the area of road safety. He was co-chair for over 10 years of the Safety Policy Special Interest Group of the World Conference on Transportation Research. Dr. Jovanis has twice testified before U.S. Congress Committees concerning road safety research. His M.S. and Ph.D. advisees hold senior positions in road safety at universities, governments and private companies throughout the world.

Franz Loewenherz

Member

Franz Loewenherz is the Mobility Planning and Solutions Manager for the City of Bellevue, Washington. Previously, Franz was with Community Transit in Everett, Washington as the High Capacity Transit Planner.

In his current position, Franz leads a team that advances transportation policies, programs, and projects. Franz has oversight responsibilities for the City of Bellevue's Vision Zero road safety, pedestrian and bicycle infrastructure implementation, municipal-transit collaborations, advancement of emerging mobility technologies, and data collection and analysis systems.

Mr. Loewenherz has a demonstrated track record of success establishing/managing partnerships with technology companies and researchers to develop proactive road safety solutions that leverage video and Lidar, artificial intelligence, and cloud/edge compute systems. Franz's work advancing safety solutions has been recognized with a 2021 FHWA National Roadway Safety Award, 2017 ITE Transportation Achievement Award for Safety, 2016 USDOT Safer People, Safer Streets Award, and a 2012 FHWA Transportation Planning Excellence Award. Mr Loewenherz holds a Master of Urban Planning degree from the University of Washington.

Jeevanjot Singh

Member

Jeevanjot Singh is the Section Chief, Engineering for New Jersey Department of Transportation's Bureau of Safety, Bicycle and Pedestrian Programs. The Bureau is responsible for the management of the federal Highway Safety Improvement Program (HSIP) and provides safety subject matter expertise on a wide variety of analyses, programs, projects and initiatives.

Ms. Singh holds a bachelor's in civil engineering from India, master's in environmental engineering, Master's in Highway Engineering, also, from India and a third Masters in Transportation Engineering from Rutgers University and a Master's Certificate in Project Management from Project Management Institute. She started as a structural engineer, moving on to highway design, IT, traffic engineering, TSMO, ITS, and Project Management prior to her role as Section Chief. She has 26 years of experience, including 13 years with NJDOT. She is also a graduate of the Freight Operations Academy and Regional Operations Forum.

Ms. Singh holds a Project Management Professional (PMP) license.

She is an active participant in ITSNJ, ITE and WTS. She has represented NJDOT as an NCHRP Panel member, at the Connected Vehicle Pooled Fund Study, AASHTO Subcommittees and Working Groups for Connected & Autonomous Vehicles and Safety, in addition to being on technical paper review committees for TRB.

Betty Smoot-Madison

Member

Betty Smoot-Madison is the Mobility Director with the City of Atlanta Department of Transportation, where she leads a growing team of planners and engineers and oversees multimodal safety initiatives and programs, such as Vision Zero, Safe Routes to Schools, neighborhood and corridor level planning, and pedestrian and bicycle project planning. Betty holds a bachelor’s degree in Sociology from Southern Connecticut State University and a master’s degree in City and Regional Planning from Morgan State University in Baltimore, MD. Betty is also a 2017 graduate of the WTS Mentoring Program and a 2020 Leadership NACTO Fellow.

Ms. Smoot-Madison began her planning career in Prince George's County, MD, one of the nation's wealthiest predominantly African-American counties, located just outside of the nation's Capital, where she gained experience in transit-oriented development, implementation strategies, neighborhood revitalization, and university-oriented development, amongst other planning principles. While working in Prince George’s County, Betty led the Pedestrian Safety Workgroup, which was established by the Prince George’s County Healthcare Action Coalition to create policies and strategies for improving pedestrian and bicycle safety in the built environment. Betty worked in Prince George’s County for 5 years, then moved on to work for Baltimore City Department of Transportation, where she advanced in several roles, including, Senior Transportation Planner, ADA Coordinator, and Ombudsman for the Automated Traffic Violation Enforcement System (ATVES), which she was a part of the management team for the city’s speed, red light, and illegal truck enforcement cameras. While working in Baltimore, Betty initiated and led the city’s first roadway safety program, Toward Zero Baltimore and secured multiple federal grant awards to fund major critical infrastructure projects. Ms. Smoot-Madison holds a Masters Degree in City and Regional Planning from Morgan State University.

Robert C. Wunderlich

Member

Robert Wunderlich is a Senior Research Engineer and the Director of the Center for Transportation Safety at the Texas A&M Transportation Institute., Previously, Mr. Wunderlich worked for three different municipalities in Texas and a consulting firm after beginning his career at TTI in 1982.

Mr. Wunderlich is responsible for leading the Center for Transportation Safety's efforts in traffic safety research, policy analysis, education, and outreach. Over the past few years, much of Mr. Wunderlich's work has focused on understanding the factors associated with traffic fatalities and injuries at the state and national levels, finding ways to lower them, and developing tools that allow practitioners to perform effective safety analyses.

In 2019, Mr. Wunderlich received the Burton W. Marsh award for distinguished service to the Institute of Transportation Engineers and the National Highway Traffic Safety Administration's Public Service Award for his dedication to saving lives on U.S highways by championing data-driven traffic safety initiatives. Mr. Wunderlich is a past president of ITE and was elected as an Honorary Member, ITE's highest honor, in 2021. He is a licensed professional engineer in Texas, a member of Transportation Research Board Transportation Safety Management Committee and helps edit the AASHTO Policy on the Geometric Design of Streets and Highways (the Green Book) as a member of the Technical Committee on Geometric Design.

Mr. Wunderlich earned Bachelor of Science and Master of Science degrees, both in Civil Engineering, from the University of Tennessee in 1980 and 1982, respectively.

C. Y. David Yang

Member

C. Y. David Yang is the Executive Director of the AAA Foundation for Traffic Safety. He oversees the day-to-day operations of this non-profit research and education organization. Previously, he was with the Federal Highway Administration, United States Department of Transportation.

Dr. Yang has co-authored numerous peer-reviewed journal articles, conference papers, and government reports on subjects related to vehicle technologies and automation, traffic safety, operations, and planning. An ITE Journal article he co-authored won Institute of Transportation Engineers' 2015 Traffic Engineering Council Best Paper Award. He is an associate editor for the Journal of Intelligent Transportation Systems: Technology, Planning, and Operations and a member of the editorial board for the International Journal of Transportation Science and Technology. Dr. Yang serves as an advisory board member on a number of university transportation research centers. Previously, Dr. Yang served as the Transportation Research Board's Users Performance Section Chair (2016-2019) and User Information Systems Committee Chair (2010-2016).

Dr. Yang attended Purdue University and received his Bachelor of Science, Master of Science, and Doctor of Philosophy degrees in the field of civil engineering. In 2018, he was honored with the Civil Engineering Alumni Achievement Award from Purdue University.

Jingzhen Yang

Member

Jingzhen (Ginger) Yang is a Principal Investigator (PI) at the Center for Injury Research and Policy, The Abigail Wexner Research Institute at Nationwide Children's Hospital. She is also a tenured Professor of Pediatrics and Epidemiology at The Ohio State University. Dr. Yang's primary research interest is injury prevention with an emphasis on injuries to children and adolescents. Much of her current research focuses on teen driving safety. Throughout her academic career, she has been the PI or a Co-investigator on over 50 grants and contracts. She currently leads three NIH-funded R01s, with two focused on improving safe driving practices among teenagers with traffic citations and one on driving performance after concussion. Dr. Yang has served as a board member, on the executive committee, and as treasurer of the Society for Advancement of Violence and Injury Research (SAVIR) and co-led SAVIR's Training and Infrastructure Committee. She was appointed to the Major League Baseball Injury Research Committee in 2010-2015. She received the American Public Health Association Injury Control and Emergency Health Services section's "Excellence in Science Award." Dr. Yang grew up in China and received her MPH from Indiana University Bloomington and PhD in Health Behavior and Health Education from the University of North Carolina, Chapel Hill.