Karen Dixon, Ph.D., P.E., Senior Research Engineer, TTI, is the recipient of the 2021 Safety Council Edmund R. Ricker Award. This award is given to a person who is recognized as a leader in the field of traffic safety through his/her safety activities in professional organizations, in the community, or in the performance of traffic engineering.

Karen is a nationally recognized roadway safety expert with many years of experience associated with transportation safety, engineering, and design with an ability to understand and interpret high-level statistical techniques and distill them into easier-to-use, practitioner-focused methodologies and tools.

After completing her bachelor’s degree in civil engineering, she worked as a site development, roadway, and interchange designer. Her interest in exploring ways to improve the design process, along with helping to train the next generation, grew. She continued her educational pursuits and eventually become a professor at Georgia Institute of Technology and Oregon State University. When her alma mater called, she decided to return to Texas A&M and the Texas A&M Transportation Institute.

Karen is a key contributor to the AASHTO Highway Safety Manual (HSM), the premier guidance document for incorporating quantitative safety analysis in the highway transportation project planning and development processes. She served as chair of the Research Subcommittee during the development of the first edition. She then served as chair of the Crash Modification Factor Subcommittee and then chair of the full committee (TRB Highway Safety Performance). She is currently the co-chair for TRB Safety Performance and Analysis Committee and is a member of the team leading the NCHRP project to produce the second edition.

Karen’s research focuses on finding ways to improve the design, operation, and safety of transportation facilities for all road users. In her role as the principal investigator for developing national training for the HSM, she created a series of “smart spreadsheets” to help practitioners learn the HSM predictive methods for rural two-lane and multilane highways as well as for urban and suburban arterial facilities. These “smart spreadsheets” are widely used for practical safety evaluations and are frequently cited as the most straightforward way to learn the safety predictive methods introduced in the HSM. Her work on the Safety Scoring Tool developed for TxDOT allows project developers and designers to evaluate the safety effects of design parameter decisions for rural roadways.

She is the author or co-author of over 100 technical papers/research reports including a highway design textbook and the Access Management Manual.