Transportation Center Seminar

“Advances in Data Collection and Analysis to Enhance Road Safety”

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4:00 - 5:00 pm
Location:
Transportation Center
Chambers Hall
600 Foster, Evanston
Lower level

Abstract

The study of transportation safety includes an examination of the user in different driving situations, recognizing their motivations for travel and their perceptions of safety. Crash data and surveys provide insights on actual and perceived safety risks, but other methods are needed for a more comprehensive understanding of the road user. For example, naturalistic driving data can provide information on driver interactions with existing technology and their potential impact on safety. However, they cannot be used to assess new technology that has yet to be deployed and their ability to establish crash causations are limited. Driving simulator studies can help guide the design of advanced driver support systems and the effectiveness of road improvements but they are limited in its ability to predict real-world crash risk. In summary, each data collection tool presents challenges and opportunities, but each also provides useful and complimentary insights on risk factors as they evolve over time and location. Several case studies are presented to demonstrate the value of using a triangulation of data sources to achieve a better understanding of the road user and the implications toward safety for all road users.

Bio

Linda Ng Boyle is the professor and chair of the Industrial & Systems Engineering Department at the University of Washington. She has a joint appointment in Civil & Environmental Engineering. Her BS degree is from the University of Buffalo and her MS and PhD are from the University of Washington. She is an associate editor for the journal Accident Analysis and Prevention, the chair of the TRB committee on Statistical Methods, and a recipient of the NSF Career Award.