

Dr. Christophen P.L. Barkan -- 2025 Recipient of the Robert E. Skinner, Jr. Award

Dr. Christopher P.L. Barkan, Professor and George Krambles Director of the Rail Transportation and Engineering Center (RailTEC) in the Department of Civil and Environmental Engineering, in the Grainger College of Engineering at the University of Illinois Urbana-Champaign, is the 2025 recipient of the Robert E. Skinner, Jr. Distinguished Transportation Research Management Award. He is recognized for his nearly four decades-long career advancing research, safety, and operational capacity in the nation's rail transportation industry.

Dr. Barkan teaches courses in railroad transportation engineering, railway signaling and operation, advances in rail technology, and graduate seminars on a wide range of rail transportation topics. Since joining the University of Illinois Urbana-Champaign, he and his colleagues expanded the rail curriculum from one course to ten—the most extensive rail program in North America. He also works with colleagues across the country to expand rail transportation and engineering academic programs and opportunities nationwide.

The Transportation Research Board's (TRB) Executive Committee established the Robert E. Skinner, Jr. Distinguished Transportation Research Management Award to recognize outstanding achievement in the management, administration, promotion, fostering, and implementation of transportation research. The award honors Robert E. Skinner, Jr., who served TRB for more than 30 years, including 21 years as its executive director from 1994 to 2015.

The award will be presented on Wednesday, January 14, 2026, during the Chair's Plenary Session of the TRB Annual Meeting, January 11–15, 2026, at the Walter E. Washington Convention Center in Washington, D.C.

Dr. Barkan is a leading figure in railway engineering. He received his B.A. in liberal arts from Goddard College and his M.S. and Ph.D. in biology, specializing in ecology, from the University at Albany, State University of New York. He held a postdoctoral fellowship at the Smithsonian Environmental Research Center before joining the Association of American Railroads (AAR) in 1988, where he worked for 10 years in the Research & Test and Safety & Operations departments in Washington, D.C. He joined the faculty at the University of Illinois Urbana-Champaign in 1998.

His research interests include railroad transportation safety and risk analysis, hazardous materials transport, energy efficiency, rail capacity, railroad infrastructure and operating economics, and the development and cost-effectiveness of new rail technologies. As Director of the University of Illinois Urbana-Champaign's rail program, he has primary responsibility for managing railroad engineering research and academic activities and for coordinating and supporting faculty and students engaged in research to improve rail safety, reliability, and efficiency. He led the university consortium that formed the National University Rail Center, the first ever US DOT University Transportation Center focused on rail, and now leads the Federal Railroad Administration (FRA) National University Rail Center of Excellence consortium.

Internationally recognized as an authoritative voice in rail safety, risk management, and engineering research, Dr. Barkan has provided his expertise to Congress, the Government

Accountability Office, the National Transportation Safety Board, the AAR, railroads, tank car companies, and hazardous materials shippers, providing expert guidance on rail safety and risk. His extensive scholarly contributions include more than 100 research papers on train and tank car safety, hazardous materials transportation risk management, and rail line capacity. He pioneered quantitative risk analysis models and optimization approaches for tank car safety design, supported by a proprietary tank car accident database. As Deputy Director of the Railway Supply Institute-AAR Tank Car Safety Research and Test Project, he has led collaborative industry efforts to improve rail safety, while maintaining close partnerships with the FRA, AAR, Railway Supply Institute, and major railroads and tank car companies.

Dr. Barkan's influence is evident not only in his own accomplishments but also in the success of his students, many of whom are active TRB members and leaders. His honors include multiple TRB Outstanding Paper Awards, and several prestigious international recognitions for best papers and young researcher contributions. His students' engagement in TRB and their professional achievements further highlight his mentorship and lasting impact. Collectively, these honors underscore his pioneering work in rail safety, hazardous materials transportation, and railway engineering education.

Dr. Barkan's relationship with TRB spans more than 35 years, during which he has been a key leader, advocate, and innovator. He helped in the creation of the TRB Rail Group during an earlier technical activities committee reorganization, unifying and strengthening rail-related committees and fostering collaboration among diverse stakeholders in rail transportation. He has served in leadership roles across at least five TRB committees and chaired the Rail Group for seven years. His oversight work has extended to the FRA's research programs, the USDOT's Strategic Research Plan, and cooperative research initiatives such as the Transit Cooperative Research Program and the former National Cooperative Rail Research Program. His deep commitment to TRB is evident in his leadership and enduring role in advancing the organization's mission in rail transportation.

Dr. Barkan's experience, expertise, leadership, and contributions to the field of transportation are deservedly recognized through his receipt of TRB's 2025 Robert E. Skinner, Jr. Distinguished Transportation Research Management Award.