

**Professor Robert F. Bordley has been selected to receive the 2021 Frank P. Ramsey Medal**

The Decision Analysis Society of INFORMS is pleased to recognize the outstanding career and work of **Robert F. Bordley** with the 2021 Frank P. Ramsey Medal for distinguished contributions in decision analysis. Professor Bordley has an exceptional record of accomplishment in decision analysis practice, research, and education; he has been a tireless champion of decision analysis in aligned fields, and a consistent and significant contributor to INFORMS and the Decision Analysis Society (DAS).

His application of decision analysis at General Motors for over 30 years and later at Booz Allen Hamilton has been outstanding. At GM, Bob served in numerous positions and roles: as Mission Analysis Group Leader, he developed a value-focused systems engineering approach to vehicle design; as Manager of GM's R&D Portfolio, he implemented the DA portfolio approach and received the GM Award of Excellence; as Technical Director in Strategic Planning, he led dialogue decision-process efforts, for which he received GM's President's Council Award; and as Technical Fellow, he used influence diagrams to identify cost drivers and increase profitability, and received the GM Chairman's Award. As a Booz Allen Hamilton Fellow, he worked on major trade studies and DA elicitation methods to help the Army make billion-dollar procurement and maintenance decisions.

Throughout his entire career, he maintained an enviable record of research publications, many of them (such as target-oriented utility) directly inspired by his industry experience. He has published widely, with over eighty peer-reviewed publications and many book chapters. His research includes a focus on incorporating important aspects of the decision-making environment (e.g., targets, expectations, suspicion, time delays, problem framing, etc.) into decision-analysis methods, and on expanding the traditional decision analysis "toolkit" by developing alternative, but theoretically equivalent, decision-analysis methods (e.g., visual decision trees, creation of hybrid solutions, dynamic morphing of communications such as ads to fit a user's cognitive style). As a Professor of Practice at the University of Michigan for the past four years, and an instructor there for many years prior, he has taught decision analysis and systems engineering to hundreds of students. More recently, he introduced two new courses and incorporated significant concepts from decision analysis into an updated introduction to Systems Engineering course. He has advised over 30 students on their capstone projects for the Masters of Engineering degree.

The Award Committee especially appreciates Bob's long and active dedication to the field of decision analysis, to INFORMS and to the Society. He took a "break" during the middle of his successful career in industry to serve as the Program Director for the Decision, Risk and Management Sciences Program at the National Science Foundation, where he provided critical support to efforts to elevate the profile of the social and decision sciences within NSF. He was one of the original members of DAS, and served the society as Council Member for two terms, twice organizing the decision-analysis cluster for the annual conference. He has been a finalist

for the Practice Award and previously won the Decision Analysis Publication Award. He has contributed similarly to INFORMS, including a term on the Board of ORSA and serving as Chair of several INFORMS committees. He continues to be a tireless and enthusiastic participant in INFORMS and DAS conferences.

Professor Bordley is a graduate of Michigan State University and of the University of California at Berkeley, where he earned his Ph.D. in Industrial Engineering and Operations Research. He is a Fellow of INFORMS, of the Society of Decision Professionals, and of the American Statistical Association. He currently holds a position as Professor of Engineering Practice and director of the Systems Engineering and Design Program within the Integrative Sciences Division in the College of Engineering, at the University of Michigan, Ann Arbor.

### **About the Award**

The Frank P. Ramsey Medal is the highest award of the Decision Analysis Society (DAS). It was created to recognize distinguished contributions to the field of decision analysis. The medal is named in honor of Frank Plumpton Ramsey, a Cambridge University mathematician who was one of the pioneers of decision theory in the 20th century. His 1926 essay "Truth and Probability" (published posthumously in 1931) anticipated many of the developments in mathematical decision theory later made by John von Neumann and Oskar Morgenstern, Leonard J. Savage, and others.

The Ramsey Medal Award Committee for 2021 was Karen Jenni (Chair, *ex officio* as Past President of DAS), Vicki Bier, Robin Keller, Bill Klimack, Greg Parnell, and Larry Phillips.