



Distinguished Seminar

Opportunities for Industrial Engineering to Aid in Anti-Human Trafficking Efforts



Dr. Kayse Lee Maass
Northeastern University

Thus far, human trafficking research has primarily focused on qualitative studies, statistical estimations of prevalence, and insights generated from economic models. However, a variety of additional mathematical modeling and data analytic techniques also have the potential to help address the unique challenges facing anti-human trafficking efforts including: the covertness of traffickers, the hidden nature

of victim-survivors, fragmented data, and limited resources. This presentation will discuss ongoing transdisciplinary collaborations in this sphere and utilize multiple illustrative examples, including optimizing the allocation of a limited budget for rehabilitative shelters for human trafficking survivors and coordinating efforts to disrupt trafficking networks. Applications of such modeling approaches to other social justice contexts will also be briefly discussed.

Presentation Objectives:

- Identify opportunities for industrial engineers to aid service providers, policy makers, law enforcement personnel, and other researchers
- Acknowledge challenges to modeling these environments
- Highlight the benefits of incorporating industrial engineering models into the decision-making process through illustrative examples

Dr. Kayse Lee Maass is an Assistant Professor in the Department of Mechanical and Industrial Engineering at Northeastern University. Her research focuses on the application of operations research methodology to social justice, access, and equity issues within human trafficking, mental health, and supply chain contexts. Prior to joining the faculty at Northeastern University, Dr. Maass was a Research Associate in the Department of Health Sciences Research at the Mayo Clinic and received her Ph.D. from the Department of Industrial and Operations Engineering (IOE) at the University of Michigan in 2017. She is a recipient of multiple NSF EAGER grants, the NSF Graduate Research Fellowship Program Award, the Towner Prize for Outstanding PhD Research, and the INFORMS Judith Liebman Award. Dr. Maass currently serves as the INFORMS Section on Location Analysis Treasurer and is a member of the H.E.A.L. Trafficking Research Committee.

**Tuesday
February 19,
2019**

**318 – 320 Curry
Student Center
McLeod Suites
2:00 pm**

Hosted by
Mechanical and
Industrial
Engineering

**Events are open
to the public**