

DO&IT Seminar Series

Speaker: Karen Smilowitz, Associate Professor
Department of Industrial Engineering and Management Sciences
Northwestern University

Date: Friday, March 6, 2009

Time: 3-4:30 pm

Location: VMH 1520

Title: Operations Research for Non-Profit Agencies

Abstract:

This talk will discuss opportunities and challenges related to the application of operations research techniques, many of which were developed for commercial enterprises, to non-profit agencies. Much research has been conducted on logistics problems in commercial settings where the goal is either to maximize profit or to minimize cost. Significantly less work has been conducted for non-profit applications. In such settings, the objectives are often more difficult to quantify since issues such as equity and sustainability must be considered, yet efficient operations are still crucial. This talk will present several research projects that introduce new approaches tailored to the objectives and constraints unique to non-profit agencies, which are often concerned with obtaining equitable solutions given limited, and often uncertain, budgets, rather than with maximizing profits.

This talk will assess the potential of operations research to address the problems faced by non-profit and attempt to understand why these problems have been understudied within the operations research community. To do so, we will ask the following questions: Are non-profit operations problems rich enough for academic study? and (ii) Are solutions to non-profit operations problems applicable to real communities?

Bio:

Karen Smilowitz is an Associate Professor in the Department of Industrial Engineering and Management Sciences at Northwestern University and holds a joint appointment with the Transportation Center. Dr. Smilowitz holds the Junior William A. Patterson Chair in Transportation.

She received her Ph.D. in Civil and Environmental Engineering from the University of California, Berkeley in 2001 and her BSE in Civil Engineering and Operations Research from Princeton

University in 1995. Dr. Smilowitz studies modeling and solution approaches for logistics and transportation operations. Dr. Smilowitz received a CAREER award from the National Science Foundation and a Sloan Industry Studies Fellowship to study operational flexibility in freight transportation. In 2004, she was an invited participant in National Academy of Engineering's Frontiers of Engineering Workshop.