

Healthcare Systems Engineering & Operations Research Colloquia

Center for Health Organization Transformation
Northeastern University, Boston MA

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“Life as an Academic: The Keys to Success”

February 25, 2011 – 9:00-10:00 am. 320 Curry Student Center

The transition from being a graduate student to a faculty member can appear quite ominous. This presentation, directed at graduate students considering an academic career, faculty early in their career, or anyone curious as to what academia is like, highlights the key milestones and issues that make for a successful academic career.

“Pediatric Vaccine Procurement Policy: The Monopsonist's Problem”

February 25, 2011 – 1:30-2:30 pm. 210 Shillman Hall

Vaccination against infectious disease is an important public health endeavor. Yet in the past forty years, the manufacture of pediatric vaccines has become less profitable due to rising costs and limited demand, inducing many pharmaceutical companies to leave the market. To ensure safe, secure, and reliable provision of vaccines, the economic interests of the vaccine industry must be considered by health policy makers. The monopsonistic market power of the federal government significantly positions it to influence the pediatric vaccine market by negotiating contractual agreements that increase the manufacturers' financial incentives to remain in the market. The Monopsonist Vaccine Formulary Pricing and Purchasing Problem (MVFP) is introduced, which seeks pediatric vaccine prices and purchase quantities that ensure a birth cohort is fully immunized according to the recommended childhood immunization schedule at an overall minimum cost while also ensuring that manufacturers each attain a reservation profit level. The practical value of MVFP is demonstrated by analyzing pricing, and purchasing policies that the Centers for Disease Control could adopt to actively manage the long-term provision of pediatric vaccines.

Bio Sketch:

Sheldon Jacobson is a Professor and Director of the Simulation and Optimization Laboratory at the University of Illinois. He has a broad set of basic and applied research interests, including problems related to optimal decision-making, national security, and public health. His research has been supported by the National Science Foundation and the Air Force Office of Scientific Research and has been recognized with the Aviation Security Research Award (2002), a Best Paper Award in IIE Transactions Focused Issue on Operations Engineering (2003), a Guggenheim Fellowship (2003), the Outstanding IIE Publication Award (2009), and the Award for Technical Innovation in Industrial Engineering (2010). He currently serves as the Focused Issue Editor for Operations Engineering and Analysis for IIE Transactions.