

## Robert A. Shumsky

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### Education

**Massachusetts Institute of Technology**, Cambridge, MA  
PhD in Operations Research, 1995; MS in Operations Research, 1993.

**Harvard University**, Cambridge, MA  
BA, *magna cum laude*, in Applied Mathematics, 1988.

### Employment

**Tuck School of Business at Dartmouth** 2005-present  
*Associate Professor of Business Administration*

**William E. Simon School of Business Administration, University of Rochester**  
*Associate Professor of Operations Management* 2001 – 2005  
*Xerox Assistant Professor of Operations Management* 1995 - 2001

**Massachusetts Institute of Technology** 1990 - 1995  
*Teaching and Research Assistant*

**Massachusetts Port Authority**, Logan Airport, Boston, MA 1992 (summer)  
**MITRE Center for Advanced Aviation Systems**, McLean, Virginia 1993 (summer)  
*Research Associate*

**Northfield Mount Hermon School, Northfield, MA** 1988 - 1990  
*High School Mathematics Teacher*

### Honors and Awards

- Meritorious Service Awards from the journals *Manufacturing & Service Operations Management* (2009, 2008), *Management Science* (2009), and *Operations Research* (2000-2003, 1998, 1996).
- Superior Teaching Awards from the Simon School full-time MBA Classes of 2001, 2003, 2004 and 2005 and the Executive MBA Classes of 2000 and 2002.
- Simon School Teaching Honor Roll for student evaluations that place among the top 5 in the school (spring, 1999; winter and spring, 2000; winter, 2001; winter and spring, 2002; spring 2003; winter and spring, 2004; winter, 2005).
- Listed among the Simon School's "Outstanding Faculty" in the *Business Week Guide to the Best Business Schools*, 2001 and 2002 editions.

## Honors and Awards (continued)

- 2nd place, M&SOM student paper competition (2000), for “Flexible Service Capacity: Optimal Investment and the Impact of Demand Correlation,” with S. Netessine and G. Dobson,
- MIT's Harold Hazan Award for outstanding teaching in EE/CS (1992).

## Refereed Publications: Research

- “Dynamic Revenue Management in Airline Alliances,” (with C. Wright and H. Groenevelt), *Transportation Science*, Vol. 44, No. 1, February 2010, pp. 15-37.
- “Work Expands to Fill the Time Available: Capacity Estimation and Staffing under Parkinson’s Law,” (with S. Hasija and E. Pinker), *Manufacturing & Service Operations Management*, Vol. 12, No. 1, 2010, pp. 1-18.
- “Dynamic Capacity Management with Substitution,” (with F. Zhang), *Operations Research*, Vol. 57, No. 3, May-June 2009.
- “Call Center Outsourcing Contracts Under Information Asymmetry,” (with S. Hasija and E. Pinker), *Management Science*, Vol. 54, No. 4, April 2008.
- “The Southwest Effect, Airline Alliances and Revenue Management,” *Journal of Revenue and Pricing Management*, Vol. 5, No. 1, April 2006.
- “Staffing and Routing in a Two-Tier Call Center,” (with S. Hasija and E. J. Pinker), *International Journal of Operational Research*, Vol. 1, No. 1, 2005.
- “Revenue Management Games: Horizontal and Vertical Competition,” (with S. Netessine), *Management Science*, Vol. 51, No. 5, May 2005.
- “Salesforce Design with Experience-based Learning,” (with S. Misra and E. J. Pinker), *IIE Transactions*, Vol. 36, No. 10, October 2004.
- “Approximation and Analysis of a Queueing System with Flexible and Specialized Servers,” *OR Spectrum, Special Issue on Call Center Management*, Vol. 26, Issue 3, July 2004.
- “Gatekeepers and Referrals in Services,” (with E. J. Pinker), *Management Science*, Vol. 49, No. 7, July 2003.
- “Flexible Service Capacity: Optimal Investment and the Impact of Demand Correlation,” (with S. Netessine and G. Dobson), *Operations Research*, Vol. 50, No. 2, March-April 2002.
- “Safe at Home? An Experiment in Domestic Airline Security,” (with A. Barnett, M. Hansen, A. Odoni, and G. Gosling), *Operations Research*, Vol. 49, No. 2, March-April 2001.
- “The Efficiency-Quality Tradeoff of Crosstrained Workers,” (with E. J. Pinker), *Manufacturing and Service Operations Management (M&SOM)*, Vol. 2, No. 1, Winter 2000.
- “Optimal Updating of Forecasts for the Timing of Future Events,” *Management Science*, Vol. 44, No. 3, 1998.
- “Real-Time Forecasts of Aircraft Departure Queues,” *Air Traffic Control Quarterly*, V5:4, 1997.
- “A Comparison of Retained and Appointed Counsel in Cases of Capital Murder,” (with J. Beck). *Law and Human Behavior*, Vol. 21, No. 5, 1997.
- “Response of the U.S. Air Carriers to the On-Time Disclosure Rule,” *Transportation Research Record 1379*, 1993.

## Refereed Publications: Book Chapters, Proceedings and Curriculum Development

- “Game Theory Models,” (with P. Kopalle), book chapter for the *Handbook of Pricing Management*, Oxford University Press. Forthcoming.
- “Managing the Outsourcing of Two-Level Service Processes: Literature Review and Integration,” (with E. Pinker, H. Lee and S. Hasija), Proceedings of HICSS’43.
- “Introductory, Integrative Cases on Airline Revenue Management,” *INFORMS Transactions on Education*, Vol. 9, Issue 3, May 2009.
- “Web-based Simulations for Teaching Queueing, Little’s Law, and Inventory Management,” (with Gregory Dobson), *INFORMS Transactions on Education*, Vol. 7, No. 1, September 2006.
- “Introduction to the Theory and Practice of Yield Management,” (with S. Netessine), *Informations Transactions on Education*, Vol. 3, No. 1, September 2002.

## Other Publications

- “Covering the Spread”, (with S. Powell), *BizEd* March/April 2007.
- “OR Theory and Practice: A Student Perspective,” (with E. J. Pinker, K. Malone, and S. Ahn). *OR/MS Today*, June 1993.

## Working Papers

- “Outsourcing a Two-Level Service Process,” (with Hsiao-Hui Lee and Edieal Pinker), August, 2010.
- “A Constant Bid Price Approximation for Airline Network and Alliance Revenue Management,” (with C. Wright and H. Groenevelt), June 2010.
- “Routing and Staffing in Large Call Centers with Specialized and Fully Flexible Servers”, (with P. Chevalier and N. Tabordon), March, 2004.

## Research Grants and Fellowships

- Research grant to the Simon School with a total budget of \$27,000 from the Federal Aviation Administration for research under the White House Commission on Safety and Security (1997).
- Research grant of \$60,000 from Rochester Gas and Electric Corp (1996, with Gregory Dobson).
- FAA Graduate Research Award on Public Sector Aviation Issues (1991).

## Professional Service

- Associate Editor for *Management Science* (2000-present);  
Associate Editor, *M&SOM* (2006-present);  
Associate Editor for *Operations Research* (1999-2010);  
Editorial Review Board, *M&SOM* (2002-2005);  
Editorial Review Board, *Journal of Revenue and Pricing Management* (2003 – present);  
Senior Editor for *Production and Operations Management* (2003 – present).
- Vice-Chair (2006-07), Chair (2007-08), and board member (2008-2009), INFORMS Revenue Management and Pricing Section.

## Professional Service (continued)

- Chair of the Practice Prize Committee, INFORMS Revenue Management and Pricing Section (2009-present).
- OR/MS Today Advisory Committee (2005 – present, Chair 2007-2009).
- Cluster Co-Chair, *Revenue Management and Dynamic Pricing*, INFORMS Denver (2004).
- Member of INFORMS; Member of the INFORMS Public Awareness Committee (1998 – 2003); Vice President of the INFORMS Section on Public Policy and Processes (1996-1999); Regular teacher in the INFORMS high school outreach program.
- Ad hoc referee for *Operations Research, Management Science, Manufacturing & Service Operations Research, Transportation Science, Production and Operations Management, INTERFACES, European Journal of Operations Research, IIE Transactions, Operations Research Spectrum, Naval Research Logistics, Computers and Operations Research, Inform Transactions on Education, Journal of Retailing, Journal of Traumatic Stress*, INFORMS Junior Faculty Interest Group competition (2008), M&SOM Services Special Interest Group conference (2008, 2009), M&SOM Section conference (2009, 2010), INFORMS George B. Dantzig Dissertation Award (2005; chair 2006), POMS Wickham Skinner Award for best unpublished paper (2006), and the M&SOM student paper competition (2001, 2002, 2009, 2010).

## Industry and Government Affiliations

- Consultant for Eastman Kodak, Rochester Gas and Electric, Frontier Communications, and the Federal Aviation Administration.
- University of Rochester coordinator for FAA-sponsored National Center of Excellence for Aviation Operations Research (1997-1999).

## Media Citations

Quoted in USA Today (2010), The Washington Post (2007), Christian Science Monitor (2006), CFO Magazine (2006), Wall Street Journal (2006), Boston Herald (2006), AP Newswire (2005), Knight Ridder Newspapers (2004), San Jose Mercury News (2001-2002), Airline Financial News (1996), The Sporting News (1995).

## Ph.D. Committees

At the Simon School: Hsiao-Hui Lee (2010), Sameer Hasija (2007), Praneet Singh (2007), David Huff (2003), Jiri Chod (2002), Pranab Majumder (2001), Serguei Netessine (2001), Reynold Byers (2000), Effie Stavroulaki (1997). At NYU-Stern: Xing Hu (2010). At Indian Institute of Science, Bangalore: Sri Vanamal V. At the Rotman School, University of Toronto: Hao Qian (2004). At the Institut d'Administration et de Gestion, CORE, Louvain-la-Neuve, Belgium : Nathalie Tabordon (2003).

## Teaching and Curriculum Development

- Tuck core course in *Decision Science* to full-time MBA students (2005-present).  
Avg. instructor evaluation: 5.3/6.0
- Tuck elective on *Service Operations Management* to full-time MBA students (2007-present).  
Avg. instructor evaluation: 5.5/6.0

## Teaching and Curriculum Development (continued)

- Course on *Spreadsheet Modeling* in the Tuck Business Bridge program for undergraduates and recent graduates of arts and sciences colleges (2006-2007).
- Tuck executive education
  - *Health Care Operations Management*, a two-week module combining in-person and on-line materials (2011)
  - *Mastering the Supply Chain* for minority business entrepreneurs (2006-2007)
  - *Operations Strategy* for a program on Building Successful Native American Businesses (2008)
- Simon core course in *Operations Management* to part-time and full-time MBA students (1996-2005). Avg. instructor evaluation: 4.8/5
- Simon core course in *Operations Management* to Executive MBA's (1999-2005). Average instructor evaluation: 4.8/5
- Simon elective in *Manufacturing Management* (1996-1997). Avg. instructor evaluation: 4.1/5
- Ph.D. seminars in *Queueing Networks and Approximations* (2005), *Agency Models for Operations Management* (2000), and *Stochastic Models for Supply Chain Management* (1999). Co-taught Ph.D. seminar in *Stochastic Inventory Theory* with Phil Lederer and Harry Groenevelt (2004).

## Invited Seminars

- 2011: Queen's School of Business, Queen's University (forthcoming)  
Alberta School of Business, University of Alberta (forthcoming)
- 2010: Graduate School of Business and Department of Industrial Engineering & Operations Research, Columbia University  
Anderson School of Management, UCLA  
Carroll School of Management, Boston College  
International Workshop on Supply Chain Models for Shared Resource Management, Brussels, Belgium (keynote speaker)  
The Airline Group of the International Federation of Operational Research Societies (AGIFORS)  
Revenue Management Conference, Columbia University
- 2009: INSEAD Singapore  
Indian School of Business  
IBM Research - India  
Harvard Business School, Harvard University  
Desautels Faculty of Management, McGill University  
Stern School of Business, New York University
- 2008: Johnson School, Cornell University  
Wharton Call Center Forum, University of Pennsylvania
- 2007: PROS Revenue Management Conference, Houston  
College of Business, University of Cincinnati
- 2006: Gordon College, Department of Mathematics  
School of Management, Boston University

## **Invited Seminars (continued)**

- 2005: McCombs School of Business, University of Texas at Austin  
Robert H. Smith School of Business, University of Maryland  
Tuck School of Business at Dartmouth
- 2004: School of Management, SUNY Binghamton  
Department of Decision Sciences and Engineering Systems, Rensselaer Polytechnic Institute  
Stern School of Business, New York University  
Rotman School of Business, University of Toronto
- 2003: Graduate Program in Industrial Engineering, University of Minnesota  
Graduate School of Management, University of California, Irvine  
GSIA, Carnegie Mellon University  
Kenan-Flagler Business School, University of North Carolina  
Marshall School of Business, University of Southern California  
School of Management, Yale University
- 2002: Operations Workshop, Kellogg School, Northwestern University  
Center for Operations Research and Economics, Université Catholique de Louvain
- 2001: Weatherhead School of Management, Case Western Reserve University  
University of Washington Business School  
The Wharton School, University of Pennsylvania  
Department of Industrial and Systems Engineering, Lehigh University  
Darden Graduate School of Business Administration, University of Virginia  
Kellogg School of Management, Northwestern University
- 2000: The Anderson School, University of California, Los Angeles  
Department of IE and MS, Northwestern University  
Johnson School, Cornell University  
Olin School of Business, Washington University in St. Louis  
Fuqua School of Business, Duke University  
Rotman School of Business, University of Toronto
- 1997: Department of IE and OR, SUNY Buffalo  
Department of Mathematics, Northeastern University
- 1996: Department of Aeronautics/Draper Labs, MIT

## **Conference Presentations**

Conference presentations at INFORMS Annual Meeting (1998-2009), INFORMS Revenue Management Conference (summer, 2010, 2006-2008, 2003 and 2001), EURO Working Group on Stochastic Modeling (2006), EURO (summer 2003 and 2001), M&SOM/INFORMS (summer 2008, 2006, 2005, 2004, 2002 and 2000), and IFORS Beijing (summer 1999).

## **Boards and Community Service**

- Advisory Board, Flightcaster.com, 2009-present
- Advisory Board, American Management and Marketing Association, 2004-present
- Board of Trustees of Temple Sinai, Rochester, NY; Co-chair of the Temple Sinai Social Action Committee, 2004-05.