

JAMES E. SMITH

January 2012

ADDRESS

Fuqua School of Business
Duke University
Box 90120
Durham, NC 27708-0120
(919) 660-7770
jes9@duke.edu

EDUCATION

- 1987-1990 **Stanford University**, Stanford, California.
Ph.D. in Engineering-Economic Systems, June 1990. Coursework emphasized decision analysis, probability theory, optimization, and microeconomic analysis.
Principal Advisor: Ronald A. Howard. Thesis: "Moment Methods for Decision Analysis."
Reading Committee: Howard, David G. Luenberger, James E. Matheson.
- 1980-1986 **Stanford University**, Stanford, California.
M.S. and B.S. (with distinction) in Electrical Engineering, June 1986 and June 1984.
Coursework emphasized artificial intelligence, computer systems, and control theory.
Member of Tau Beta Pi and Phi Beta Kappa honor societies.

WORK EXPERIENCE

- 1990-Present **Fuqua School of Business, Duke University**, Durham, North Carolina.
Assistant Professor (1990-94). *Associate Professor without tenure* (1994-1997).
Associate Professor with tenure (1997-2004). *Associate Dean for Daytime MBA Program* (2000-03), *Professor* (2004-). *William and Sue Gross Distinguished Research Scholar* (2006-2008). *J.B. Fuqua Professor of Business Administration* (2009-).
Teach courses in probability and statistics, decision models, and decision analysis.
Winner of outstanding faculty awards given by MBA classes of 1993 and 2000; finalist for award in 1992, 1995, and 1998. Finalist for core course teaching award in 1997.
Winner of core course teaching award for WEMBA class of 2010. Winner of Bank of America Faculty Award in 2004.
- 1998-1999 **Stanford University**, Stanford, California.
Visiting Scholar in the Department of Engineering-Economic Systems and Operations Research; sabbatical visit for the 1998-99 academic year.
- 1986-1989 **Strategic Decisions Group**, Menlo Park, California.
Participated in a number of projects with this management consulting firm, including work in the oil and chemicals, aerospace, and financial services industries. Focused on the evaluation of portfolios of R&D projects and distressed bank loans and the development of software to aid and automate decision analysis.

PUBLICATIONS

- James E. Smith and Canan Ulu. 2011. "Technology Adoption with Uncertain Future Costs and Quality." Forthcoming in *Operations Research*.
- David B. Brown and James E. Smith. 2011. "Dynamic Portfolio Optimization with Transaction Costs: Heuristics and Dual Bounds." *Management Science* **57** (10), 1752-1770.
- David B. Brown, James E. Smith, and Peng Sun. 2010. "Information Relaxations and Duality in Stochastic Dynamic Programs." *Operations Research* **58** (4), 785-801.
- Robert T. Clemen and James E. Smith. 2009. "On the Choice of Baselines in Multiattribute Portfolio Analysis: A Cautionary Note." *Decision Analysis* **6** (4), 256-262.
- Canan Ulu and James E. Smith. 2009. "Uncertainty, Information Acquisition, and Technology Adoption," *Operations Research*, **57** (3), 740-752.
- J. Eric Bickel, James E. Smith, and Jennifer L. Meyer. 2008. "Modeling Dependence among Geologic Risks in Sequential Exploration Decisions," *SPE Reservoir Evaluation and Engineering*, **3**(4) 233-251. An earlier version of this paper appeared in the proceedings of the 2006 SPE Annual Technical Conference and Exhibition, San Antonio, Texas.
- Maxine Savitz et. al. 2007. *Prospective Evaluation of Applied Energy Research and Applied Research and Development at DOE (Phase Two)*, National Research Council, National Academies Press, Washington DC.
- J. Eric Bickel and James E. Smith. 2006. "Optimal Sequential Exploration: A Binary Learning Model," *Decision Analysis* **3** (1), 16-32.
- James E. Smith and Robert L. Winkler. 2006. "The Optimizer's Curse: Skepticism and Postdecision Surprise in Decision Analysis," *Management Science* **52** (3), 311-322.
- James E. Smith. 2005. "Alternative Approaches for Solving Real Options Problems," *Decision Analysis* **2**, 89-102.
- James E. Smith and Ralph L. Keeney. 2005. "Your Money or Your Life: A Prescriptive Model for Health, Safety and Consumption Decisions," *Management Science* **51**, 1309-1325.
- Robert W. Fri et. al.. *Prospective Evaluation of Applied Energy Research and Development at DOE (Phase One): A First Look Forward*, National Research Council, National Academies Press, Washington DC, 2005.
- Robert L. Winkler and James E. Smith. 2004. "On Uncertainty in Medical Testing," *Medical Decision Making* **24**, 654-658
- James E. Smith. 2004. "Risk Sharing, Fiduciary Duty, and Corporate Risk Attitudes," *Decision Analysis* **1**, 114-27.

PUBLICATIONS (continued)

- James E. Smith. 2004. "Comments on Howard's Precise Decision Language," *Decision Analysis* 1, 79-81.
- James E. Smith and Detlof von Winterfeldt. 2004. "Decision Analysis in Management Science," *Management Science* 50, 561-574.
- Robert L. Winkler, James E. Smith, and Dennis G. Fryback. 2002. "The Role of Informative Priors in Zero-Numerator Problems: Being Conservative Versus Being Candid," *The American Statistician* 56, 1-4.
- James E. Smith and Kevin F. McCardle. 2002. "Structural Properties of Stochastic Dynamic Programs," *Operations Research* 50, 796-809.
- Eduardo Schwartz and James E. Smith. 2000. "Short-term Variations and Long-term Dynamics in Commodity Prices," *Management Science* 46, 893-911.
- James E. Smith, Robert L. Winkler, and Dennis G. Fryback. 2000. "The First Positive: Positive Predictive Values in the Extreme," *Annals of Internal Medicine* 132, 804-809.
- James E. Smith. 1999. "Much Ado About Options?," *Decision Analysis Society Newsletter* 18 (2): 4-8.
- James E. Smith and Robert L. Winkler. 1999. "Casey's Problem: Interpreting and Evaluating a New Test," *Interfaces* 29, 63-76.
- James E. Smith and Kevin F. McCardle. 1999. "Options in the Real World: Some Lessons Learned in Evaluating Oil and Gas Investments," *Operations Research* 47, 1-15.
- James E. Smith. 1998. "Evaluating Income Streams: A Decision Analysis Approach," *Management Science* 44, 1690-1708.
- James E. Smith and Kevin F. McCardle. 1998. "Valuing Oil Properties: Integrating Option Pricing and Decision Analysis Approaches," *Operations Research* 46, 198-217.
- Patrick L. Brockett, Samuel H. Cox, and James E. Smith. 1998. "Bounds on the Price of Catastrophe Insurance Options on Futures Contracts," *Securitization of Insurance Risks*, Society of Actuaries Monograph Series, Schaumburg, Ill..
- James E. Smith. 1995. "Generalized Chebychev Inequalities: Theory and Applications in Decision Analysis," *Operations Research* 43, 807-825.
- James E. Smith and Robert F. Nau. 1995. "Valuing Risky Projects: Option Pricing Theory and Decision Analysis," *Management Science* 41, 795-816.
- James E. Smith. 1993. "Moment Methods for Decision Analysis" *Management Science* 39, 340-358.

PUBLICATIONS (continued)

James E. Smith, Samuel Holtzman, and James E. Matheson. 1993. "Structuring Conditional Relationships in Influence Diagrams," *Operations Research* 41, 280-297.

James E. Smith. 1990. "Discussion of 'Towards Efficient Probabilistic Diagnosis in Multiply Connected Belief Networks,' by Max Henrion," in R. M. Oliver and J. Q. Smith, editors, *Influence Diagrams, Belief Nets and Decision Analysis* (Wiley, 1990), 403-406.

WORKING PAPERS

James E. Smith, "Fisher Separation and Project Valuation in Partially Complete Markets," most recent version, August 1996.

RESEARCH GRANTS AND AWARDS

- | | |
|-----------|--|
| 2009- | Awarded J.B. Fuqua Distinguished Professorship |
| 2008 | Winner of INFORMS' Frank P. Ramsey Medal for distinguished contributions to Decision Analysis |
| 2007 | Elected Fellow of The Institute for Operations Research and Management Science (INFORMS) |
| 2006-2008 | William and Sue Gross Distinguished Research Scholar |
| 2004 | Winner of Bank of America Faculty Award, given annually to a Fuqua faculty member for outstanding research, teaching, and service |
| 2001-2003 | Eli Lilly Foundation Support for Developing Decision Analysis Materials (\$100,000) |
| 2000 | Winner of INFORMS' Decision Analysis Publication Award for best publication in decision analysis in 1998 for "Evaluating Income Streams" paper |
| 1998 | "Valuing Learning and Flexibility" (with Kevin F. McCardle). Joint NSF/Private Sector Grant Proposal, funded by Chevron and the National Science Foundation. Grant for a total of approximately \$230,000 (\$90,000 from the NSF, \$140,000 from Chevron). |
| 1997 | Winner of INFORMS' Decision Analysis Publication Award for best publication in decision analysis in 1995 for "Valuing Risky Projects" paper with Robert F Nau |
| 1995 | Winner of INFORMS' Decision Analysis Publication Award for best publication in decision analysis in 1993 for "Moment Methods" paper |
| 1995-1996 | "Valuation Methods Improvement" (with Kevin F. McCardle). Supported by Chevron. Grant for \$38,000 in 1995 and \$38,000 in 1996. |

RESEARCH GRANTS AND AWARDS (continued)

- 1995-1997 "Valuing Risky Projects: Integrating Option Pricing Theory and Decision Analysis" (with Kevin F. McCardle). Supported by the National Science Foundation's Decision, Risk, and Management Science program. Grant for approximately \$155,000.
- 1990 Strategic Decisions Group, Outstanding Technical Contribution award for work described in my "Structuring Conditional Relationships" paper

SERVICE OUTSIDE OF DUKE

- 2012- Associate Editor, *Operations Research*
- 2010-2012 Past President of INFORMS' Decision Analysis Society
- 2011 Decision Analysis Society's Ramsey Award Committee
- 2008-2010 President of INFORMS' Decision Analysis Society
- 2006-2008 Vice-President/President-Elect of INFORMS' Decision Analysis Society
- 2006-2008 Member of INFORMS Subdivisions Council
- 2006-2007 Review Committee for INFORMS' Frederick W. Lanchester Prize which recognizes the best contribution to the operations research/management science discipline
- 2005-2006 National Research Council Committee on Prospective Benefits of DOE's Energy Efficiency and Fossil Energy R&D Programs--Phase 2
- 2005-2006 National Research Council Panel on DOE's Carbon Sequestration Program
- 2004-2005 National Research Council Committee on Prospective Benefits of DOE's Energy Efficiency and Fossil Energy R&D Programs--Phase 1
- 2003-2005 Advisory Panel, National Science Foundation's Decision, Risk and Management Science Program
- 2001-Present Editorial Board, *Decision Analysis*
- 1999-2004 Departmental Editor for Decision Analysis department of *Management Science*
- 1996-1998 Associate Editor for Decision Analysis department of *Management Science*
- 1995-2010 Developed and maintained the e-mail list for INFORMS' Decision Analysis Society
- 1993-2006 Three times elected to Council of INFORMS' Decision Analysis Society (1993-1996; 1996-1999; 2003-2006). Secretary/Treasurer (1998-2000).

SERVICE OUTSIDE OF DUKE (continued)

- 1993-1995 Organized and chaired 1993, 1994, and 1995 Student Paper Competitions for INFORMS' Section on Decision Analysis
- 1990-Present Frequent reviewer for *Management Science* and *Operations Research*; occasional reviewer for many other journals. Cited as outstanding referee for *Management Science* and *Operations Research*
- 1990-Present Frequent contributor and presenter at INFORMS meetings; Cluster Chair for Decision Analysis Society sponsored talks for Montreal Meeting in spring of 1998

SERVICE AT DUKE

- 2011-2012 Fuqua Faculty Secretary
- 2011 Design committee for Duke-Kunshan Masters of Management Studies program
- 2011 Dean's Transition Strategy Committee
- 2010-2011 Former Associate Dean Committee
- 2010-2011 Fuqua's Appointments Advisory Committee
- 2009 Design committee for MMS: Foundations of Business program
- 2008-Present Area Coordinator for Decision Sciences
- 2005-2007 Area Coordinator for Decision Sciences
- 2006-2007 Dean Search Committee
- 2005-2006 Curriculum Review Taskforce
- 2005-2007 Dean's Executive Committee
- 2004-2010 Fuqua Faculty Secretary (elected six times)
- 2001-2003 Dean's Executive Committee
- 2000-2003 Associate Dean for Daytime MBA Program
- 1999-2000 Chair of Curriculum Committee
- 1997-1998 Member of Curriculum Committee
- 1997-1998 Elected member of University Academic Council

SERVICE AT DUKE (continued)

- 1995-1998 Coordinator of Decision Analysis Seminar Series
 - 1994-1998 Coordinator of Ph.D. program in Decision Sciences
 - 1993-1997 Three times elected by Fuqua faculty to Dean's Advisory Committee
 - 1991-1993 Member of Admissions Committee
- Various *ad hoc* committees for tenure and promotion cases

PH.D. STUDENTS

- Dinah Vernik (Duke 2009, Placed at Rice University)
- Canan Ulu, Chair of Committee (Duke 2007, Placed at University of Texas Austin)
- Casey Lichtendahl (Duke 2006, Placed at University of Virginia)
- Viridiana Lourdes (Duke 2000, Placed at Instituto Tecnológico Autónomo de México)
- Michel A. Del Buono (Stanford, 2000, Placed at McKinsey and Company)
- Kian Esteghamat (Stanford, 1999, Placed at Princeton University)
- Eric Bickel (Stanford, 1999, Now at University of Texas Austin)
- Graydon Barz (Stanford, 1999, Placed at McKinsey and Company)
- Gregg Talbert (Duke, Fuqua, 1994, Placed at Eli Lilly and Company)

PERSONAL INFORMATION

Scholarship athlete and four-year letter winner on Stanford Track and Cross Country teams (1980-84). Captain Cross Country (1982 and 1983) and Track (1984). Competitor in 1984 U.S. Olympic Track and Field Trials. Member of South Jersey Track and Field Hall of Fame.

Assistant Cross Country Coach at the North Carolina School of Science and Math (2011)

Married with two daughters