

DANIEL G. BROOKS

dan.brooks@asu.edu

480-965-6184

Department of Supply Chain Management
W. P. Carey School of Business
Arizona State University

EDUCATION	PhD Indiana University Major concentration: Statistical Decision Theory Second major: Mathematical economics	1978
	MASTER OF BUSINESS ADMINISTRATION Indiana University	1976
	MASTER OF SCIENCE Colorado School of Mines Major concentration: Mathematics	1974
	BACHELOR OF SCIENCE Colorado School of Mines Major concentration: Mathematics	1970
ACADEMIC APPOINTMENTS	ASSOCIATE PROFESSOR Arizona State University, Department of Supply Chain Management (formerly Dept of Decision & Information Systems, Mgt Dept)	1981-Present
	DIRECTOR (W. P. Carey School of Business): Honors Certificate Program in Business Analysis Consulting Scholars Program SCM Graduate Certificate Program MBA-Corporate Program (2 formats) MBA-Global Program	2008-Present 2007-Present 2005-2010 2005-Present 2004-
2007	MBA-Executive Program MSc in Business Analytics	1998-2006 2012-Present
	MEMBER, COMMITTEE ON STATISTICS Arizona State University	1994-Present

VISITING STAFF MEMBER	1984-1985
Statistics and Applied Math Group	1991-1992
Los Alamos National Laboratory	1994-2000
ASSISTANT PROFESSOR	1977-1981
Arizona State University, Department of Decision and Information Systems	

RESEARCH PUBLICATIONS

Winkler, R. and Brooks, D., "Competitive Bidding with Dependent Value Estimates," *Operations Research*, Vol.28 (1980), 603-613.

Brooks, D. and O'Leary, T., "A Comparison of Encoding Techniques," *OMEGA*, Vol. 13 (1983), 211-219.

Brooks, D. and Johnson, M., "Generation of Bivariate Poisson Variables with Negative Correlation," *American Mathematical Monthly*, (1985), 721-724.

Brooks, D. and Kirkwood, C., "Decision Analysis to Select a Microcomputer Network: A Method and an Application," *Journal of the Operational Research Society*, Vol. 39 (1988), 23-32.

Brooks, D., Carroll, S., Verdini, W., "Characterizing the Domain of a Regression Model," *American Statistician*, Vol. 42 (1988), 187-190.

Brooks, D. and Verdini, W., "Computational Experience with Simulated Annealing," *American Journal of Mathematical and Management Sciences*, Vol. 8 (1988), 425-449.

Brooks, D., Carroll, S., Verdini, W., "Comment on Characterizing Regression Model Domains," *American Statistician*, Vol. 43 (1989), 217-218.

Brooks, D., "Competitive Subsidization in Regional Development," *Regional Science and Urban Economics*, Vol. 19 (1989), 589-599.

Brooks, D., "Using Related Samples in Assessing Conformance to Safety Goals," *Risk Analysis*, Vol. 10 (1990), 176-186.

Brooks, D., "Using Related Samples in Assessing Conformance to Safety Goals," *Risk Analysis*, Vol. 10 (1990), 176-186.

Brooks, D., "The Use of Related Samples in Safety Goal Compliance: A PRA Example," in *Probability Safety Assessment and Management*, Elsevier Science Publishing, 1991.

Brooks, D., A. Miller, L. Merkhofer, and G. Hamm, "An Approach to Prioritizing Risk-Reducing Projects," in *CMA Risk Management*, 1993.

Brooks, D., "Environment, Health and Safety Risk Management," *Risk Management Quarterly*, Spring 1993.

Brooks, D., "Risk-Based Cost-Benefit Analysis in Risk Management," in *Probability Safety Assessment and Management*, Elsevier Science Publishing, 1994.

Brooks, D. and Stack, D., "Risk Management at Los Alamos National Laboratory," in *Probability Safety Assessment and Management*, Elsevier Science Publishing, 1994.

Brooks, D., "Computational Performance Using Generalized Simulated Annealing," in *Computational Methods for Analytical Chemistry Processes*, Elsevier Science, 1995.

Brooks, D., Desmond Stack, Kent Summers, Mary Hall, "Using Hazards Analysis and Preliminary Risk Assessments in Risk-Based Prioritization," in ASME Conference on Risk and Decision Making, 1995

Brooks, D. and Adam Borison, "Integrating Risk Management into the Business Planning Process," in *Environmental Risk Management*, Edited by Rao Kolluru, McGraw-Hill, 1995.

Kolluru, R. and D. Brooks, "Environmental Risk and Integrated Business Management," in *Environmental Risk Management*, Edited by Rao Kolluru, McGraw-Hill, 1995.

Brooks, D. and C. Kirkwood, "Selecting a Networking Strategy," updated version reprinted in *Decision Analysis Anthology*, 1996.

IN-PROCESS

Brooks, D., J. Patry and N. Hendrickson, "Risk-Based Cost-Benefit Analysis: Incorporating Risk Management into Business Planning," for *Risk Analysis*.

Brooks, D., J. Patry and N. Hendrickson, "Decision Analysis for Social Risk Management," for *Interfaces*.

RESEARCH
(cont.)

REFEREED BOOK OF READINGS

Brooks, D., "The Use of Related Samples in Safety Goal Compliance: A PRA Example," in *Probability Safety Assessment and Management*, Elsevier Science Publishing, 1991.

REFEREED PROCEEDINGS

"The Capital Budgeting Decision of a Multinational Firm: A Programming Approach," *Proceedings*, of the Decision Sciences Institute, 1976 (with Y. Chen).

"Use of the Entropy Measure for Decision Making: An Example," *Proceedings* of the Decision Sciences Institute, 1976 (with Y. Chen).

"Sequential Sampling for Compliance Testing in Noise Exposure," *Proceedings* of the Decision Sciences Institute, 1984 (with I. Brunn).

Empirical Study of Meaningful Recognition for Nurses, with K. Werner, American Nurses Association Conference, San Diego, May 2010

Meaningful Recognition of Nurses from Nurses' Perspective, with K. Werner, Arizona Nurses Association Regional Conference, August, 2010

Hierarchical models and forecasting shipping times, with A. Maltz, Y. Wang, PSOM regional meeting, 2013

CHAPTERS IN BOOKS

Three chapters in books (game theory, Markov Processes, Time Series

FUNDED REPORTS

Over fifty funded research reports over the past 10 years. List available.

Recent Technical Reports: Sandia National Lab (2006); ExxonMobil Shipping (2001, 2003, 2005, 2008); Tasweeq Shipping (2008); SeaRiver (2008); British Petroleum (2007); Kuwait Petroleum Corporation (2006)

GRANTS

Eight summer grants between 1980 and 1990

Participant in University grant proposals to Department of Homeland Security, Ford Motor Company, Department of Energy, and several sustainability grant proposals in the past three years.

Most recent grant: Principle Investigator, Evaluating Risk in Modeling Risk and Risk Mitigation in a Supply Network, Sandia National Laboratory, 2003 – 2006; \$50,000.

Directing Investigator, Patterns in Shipping Risk, ExxonMobil, 2009-2010; \$24,000

BOOK REVIEWS

Book reviewer for Technometrics for five years, 1991 to 1995.

RECENT PRESENTATIONS AT PROFESSIONAL MEETINGS

Over 50 presentations at professional meetings in past 10 years. List available.

Keynote or main speaker at the following risk-management conventions in past six years:

ExxonMobil Corp. Risk Management, California; Chevron Corp., Environmental risk management conference, California; IBC (International Business Conference), Washington D.C., Risk Management in Mainstream Businesses; API (American Pipeline Institute) conference on transportation risk management, Dallas; AOPL (Association of Oil Pipelines) national conference on risk management, Atlanta; ASME national conference on public risk management, Dallas convention center.

TEACHING SUMMARY OF COURSES TAUGHT AT ARIZONA STATE UNIVERSITY (since 1993)

Graduate courses in

- Decision Analysis and Applied Decision Analysis
- Statistical Decision Theory
- Operations Research
- Statistical Models applied to Decision Theory Problems
- Introduction to Supply Chain Management

- Doctoral seminars in statistical decision theory, decision analysis and applied decision analysis

Recent Course and Program initiatives

- Designed and delivered a six-session series of “Statistics Tutorials” for MBA students including lectures, Q&A and video material (2007 – 2008)
- Designed and implemented a Consulting Scholars management consulting organization in which students recruit and engage clients (2007-8)
- Designed and delivered a new Honors Statistics class for Honors students (2007-8)
- Developed and Directed a new Honors Certificate in Business Analysis and Modeling (2007-8)
- Created and Directed a new W. P. Carey MBA Program (Corporate Program) delivered to corporate clients internationally on-line (2005 – present)
- Participated in the design and launch of a new International joint-degree Executive MBA Program with an institution in Mexico City (ITAM) in collaboration with the W. P. Carey MBA – Executive Program. (2004-8)

SUMMARY OF TEACHING PERFORMANCE AND AWARDS

- College of Business *Teaching Effectiveness* award, 1990
- *Outstanding Graduate Teaching Award*, College of Business, 1991
- "*Distinguished Professor of Business for Teaching*" award, Graduate Program Teaching Award, College of Business, 1992
- "*ASU Teacher of the Year*," Arizona State University Founders' Day Award, one professor selected from the University, 1992
- *College of Business Teaching Commendation*, 1993; Top-rated graduate business college course for 1993
- *Distance Learning Award*: The United States Distance Learning Association gave the 1993 *Outstanding Distance Learning in the U.S. Award* to the Waste-management Education and Research Consortium; there were 10 programs in all -- 9 programs and a final summary program. I was on the second program and on the summary program. After Program 9, my presentation was judged the best presentation of series.
- *1993 Arizona Wakanse Fellow Award*: Teaching fellowship based on nominations from college deans and confirmed by University President. The fellowship consists of nominees from the three state universities.
- *Outstanding MBA Teacher Award*, 1995-6.
- *Outstanding MBA Teacher (Executive Program) Award*, 2002
- *Outstanding MBA Teacher (Executive Program) Award*, 2003 (co-recipient)

- *Outstanding MBA Teacher Award*, ASU-Mexico MBA Program, 2006 (co-recipient)
- *Outstanding W. P. Carey Graduate Programs Teacher Teaching Award*, 2007
- *Preview Day Lecture*, W. P. Carey MBA Programs and Carey Academy Program, 2007 – 2009
- Inaugural Lecture in “*W. P. Carey First Lecture Series*,” Carey Academy, 2008
- Teaching Fellowship Award: Universidad de los Andes, Graduate School of Business, International MBA Program, Bogota, Columbia, 2008
- Finalist, John Teets Undergraduate Teaching Award, ASU, 2010

DISSERTATIONS AND APPLIED (MASTERS) PROJECTS

Dissertation Committees, Masters’ theses and graduate studies

45 dissertation committees, 13 Masters’ theses/project chairs, averaged between two and three independent studies per year.

Most recent:

“Modeling Binary Data Using Hierarchical Bayes Models,” Chair, 2009-2010

Multi-level Sampling Designs, Chair, 2012

Heirarchical finite-mixed-model characterizations of international shipping times, Chair, 2013

FACULTY GOVERNANCE

Member of ASU Academic Senate, 1984 - 1989;
 Chaired numerous University Senate and College governance committees,
 President’s Consultative Committee member
 Academic Senate’s Executive Committee
 Provost’s committee on digital instruction excellence, 2013

PROFESSIONAL POSITIONS AND ACTIVITIES

Decision Sciences Institute - National

Doctoral Dissertation Competition Judge, 1979-80
Regional Representative, DSI Council, 1982-84
Vice-President, 1984-86
Secretary, 1986-88
Board of Directors, 1984-88
Committee on Resource Development, 1989-91
Doctoral Student Consortium Representative, 1990
Treasurer (candidate), 1991

Decision Sciences Institute - Western Region

Vice-President, 1979-80
Program *Vice-President, 1981*
Membership *Vice-President, 1982*
President, 1983-84

American Statistical Association

Committee on Statistics Curriculum for Business Schools, 1982-83
Invited Session Organizer/Participant, 1986-87

The Institute of Management Science

Track Chair for two tracks, ORSA/TIMS National Convention, 1990,
1993, 2000

The U.S. Department of Energy (DOE)

Member, DOE Subcommittee on Low Probability/High Consequence
Events, 1988-present.
Organizing member, development of DOE standard on risk
management, 1993 to present

Arizona Department of Environmental Quality (ADEQ)

Member, Comparative Environmental Risk Project Committee, 1993-95
Coordinator, Cross-Committee Ranking Methodology Group, 1993-95

***University of California System, U.S. Congress & Los Alamos National
Laboratory***

Division Review Committee (DRC), annual review (with others from
other universities) of research and application work conducted by the
Laboratory, 2000 - 2003

PROFESSIONAL EDITORIAL POSITIONS

Associate Editor, *Decision Sciences, 1991-93*

Special issue technical editor, *Journal of Human Resource Planning,*
1994

Editor, Program proceedings, Western Region Decision Sciences Institute Conference, 1981

Referee, *Decision Sciences*, *Journal of the American Statistical Association*, *American Journal Mathematical and Management Sciences*, *Journal of Simulation and Computational Statistics*, *Technometrics*, *Management Science*, *Sociology Review*, *Regional Science and Urban Economics*

CONSULTATIVE POSITIONS

- *Affiliate Staff Member*, Los Alamos National Laboratory, Los Alamos, New Mexico, 1984 to 2003
- *Review Board Member*, Department of Energy and University of California, 2000 - 2006
- *Senior Scientist*, Applied Decision Analysis, Inc., Menlo Park, CA, 1993 to 2000
- *Director*, PricewaterhouseCoopers, Financial Advisory Services division, 2000-2002
- *Decision Analyst*, Geomatrix Consultants, 2002-2004
- Decision- and statistical-modeling consulting for over 100 companies, many in the Fortune 100, over the past 25 years