

DIANE P. BISCHAK
CURRICULUM VITAE

15 MAY 2020

Professor Emerita, Operations and Supply Chain Management
Haskayne School of Business
University of Calgary
2500 University Drive NW
Calgary, Alberta, Canada

diane.bischak@haskayne.ucalgary.ca

EDUCATION University of Michigan, Ann Arbor

- 1988 Doctor of Philosophy in Industrial and Operations Engineering
Dissertation area: simulation methodology
Co-supervisors: W. David Kelton and Stephen M. Pollock
- 1983 Master of Science in Industrial and Operations Engineering
- 1979 Bachelor of Music with high honors in Violin Performance

PROFESSIONAL EXPERIENCE / EMPLOYMENT

- 2018-present Professor Emerita, Operations and Supply Chain Management, Haskayne School of Business, University of Calgary
- 2014-2018 Professor, Operations and Supply Chain Management, Haskayne School of Business, University of Calgary
- 1999-2014 Associate Professor, Operations Management, Haskayne School of Business, University of Calgary
- 1997-1999 Senior Lecturer, Management Science and Information Systems, Faculty of Business and Economics, University of Auckland, New Zealand
- 1995-1997 Associate Professor of Business Administration (tenured), School of Management, University of Alaska Fairbanks
- 1992-1995 Assistant Professor of Business Administration, School of Management, University of Alaska Fairbanks

- 1991 Visiting Assistant Professor of Business Administration, School of Management, University of Alaska Fairbanks
- 1988-1991 Assistant Professor, Department of Industrial Engineering, and Associate Member, Program in Operations Research, North Carolina State University
- 1987 Research Assistant, Statistical Research Laboratory, University of Michigan
- 1986 Research Assistant, Advanced Manufacturing Technologies Laboratory, Industrial Technology Institute, Ann Arbor
- 1981-1983 Research Assistant, Department of Hospital Administration, School of Public Health, University of Michigan

AFFILIATIONS

Co-Director, ACCESD Healthcare (A Collaborative Consortium for Excellence of Service Delivery in Healthcare), University of Calgary
 Member, O'Brien Institute for Public Health (O-IPH)
 Member, Canadian Institutes of Health Research (CIHR) College of Reviewers

MEMBERSHIPS IN PROFESSIONAL ORGANIZATIONS

Canadian Operational Research Society
 Health Care Operational Research Special Interest Group
 Institute for Operations Research and the Management Sciences
 Simulation Society
 Health Applications Section
 Behavioral Operations Management
 SPRIG: Spreadsheet Productivity Research
 Production and Operations Management Society
 College of Behavior in Operations Management
 College of Healthcare Operations Management
 Supply Chain Management Association

HONORS AND AWARDS

100 Influential Women in Canadian Supply Chain, inaugural list, Supply Chain Management Association, 2019
 Dean's Award for Outstanding Leadership in Teaching and Learning, Haskayne School of Business, 2017
 Haskayne PhD Students' Award for Outstanding Teaching, 2014
 Canadian Operational Research Society Service Award, 2014

Dean's Award for Teaching Excellence, Haskayne School of Business, 2011-2013
CCAL Leadership Researcher, Haskayne School of Business, 2013-2016
IBM Best Paper Award for Innovation in Service Operations, College of Service
Operations, Production & Operations Management Society, 2005
Selected for the "Great Teachers at the U of C" website, 2004
Dean's Award for Teaching Excellence, Haskayne School of Business, 2002-2003
James L. Babcock Award, University of Michigan (for outstanding musicianship,
scholarship, and character), 1979
Four-year, full tuition scholarship awarded by the University of Michigan for
undergraduate studies in the School of Music, 1974

PROFESSIONAL DESIGNATIONS

Supply Chain Management Professional (SCMP)

RESEARCH

PAPERS IN PREPARATION OR UNDER REVIEW AT PEER-REVIEWED JOURNALS

B. Sharif, D.P. Bischak, D.A. Marshall, "Development of a discrete-event simulation model to improve wait times for osteoarthritis patients at the Edmonton centralized intake system," in preparation.

D.P. Bischak, M. Bijvank, "Decision trees and simulation do not mix," in preparation.

PEER-REVIEWED JOURNAL ARTICLES

T. Tagimacruz, D.P. Bischak, D.A. Marshall, "Alternative care providers in rheumatoid arthritis patient care: a queueing and simulation analysis," accepted for publication in *Health Systems*.

F. Zaerpour, D.P. Bischak, M.B.C. Menezes, A. McRae, E.S. Lang, "Patient classification based on volume and case-mix in the emergency department and their association with performance," *Health Care Management Science*, 1-14 (August 2019).

F. Zaerpour, D. P. Bischak, and M. B. C. Menezes, "Coordinated lab-clinics: A tactical assignment problem in healthcare," *European Journal of Operational Research*, 263:1, 283–294 (November 2017).

M. Cepoiu-Martin and D. P. Bischak, "Policy choices in dementia care – an exploratory analysis of the Alberta Continuing Care System (ACCS) using system dynamics," *Journal of Evaluation in Clinical Practice*, doi: 10.1111/jep.12790 (August 2017).

- S. R. Pendharkar, A. Dechant, D. P. Bischak, W. H. Tsai, A. Stevenson, and P. J. Hanly, "An observational study of the effectiveness of alternate care providers in the management of obstructive sleep apnea," *Journal of Sleep Research*, 25:2, 234–240 (2016).
- R. Hendijani, D. P. Bischak, J. Arvai, and S. Dugar, "Intrinsic motivation, external reward, and their effect on overall task motivation and performance," *Human Performance*, 29:4, 251–274 (2016).
- A. Ip, R. Asamoah-Barnieh, D. P. Bischak, W. J. Davidson, W. W. Flemons, S. R. Pendharkar, "Using process improvements to guide pulmonary function scheduling policies at an academic centre," *Canadian Respiratory Journal*, vol. 2016, Article ID 5269374, 6 pages. doi:10.1155/2016/5269374 (2016).
- R. Hendijani and D. P. Bischak, "The effect of social relationships on the rate of referral to specialists," *International Journal of Operations & Production Management* 36:4 (2016), 384–407.
- D.P. Bischak and J. Woiceshyn, "Leadership virtues exposed: Ethical leadership lessons from leading in rock climbing," *Journal of Leadership & Organizational Studies*, 23:3 (2016), 248–259.
- S. R. Pendharkar, J. Woiceshyn, G.J.C. da Silveira, D. Bischak, W.W. Flemons, F.A. McAlister, W.A. Ghali, "What happens when healthcare innovations collide?" *BMJ Quality and Safety* 25:1 (2015), 9-13.
- S.R. Pendharkar, D.P. Bischak, P. Rogers, W.W. Flemons, and T.W. Noseworthy, "Using patient flow simulation to improve access at a multidisciplinary sleep centre," *Journal of Sleep Research* 24 (2015), 320–327.
- D.P. Bischak, D.J. Robb, E.A. Silver, and J.D. Blackburn, "Analysis and management of periodic review, order-up-to-level inventory systems with order crossover," *Production and Operations Management* 23 (2014), 762-772.
- E.A. Silver, D.P. Bischak, and T. de Kok, "Determining the reorder point and order-up-to level to satisfy two constraints in a periodic review system under negative binomial demand," *Journal of the Operational Research Society* 63 (2012), 941-949.
- T.R. Rohleder, P. Lewkonja, D.P. Bischak, P. Duffy, and R. Hendijani, "Using simulation modeling to improve patient flow at an outpatient orthopedic clinic," *Health Care Management Science* 14 (2011), 135-145.
- E.A. Silver and D.P. Bischak, "The exact fill rate in a periodic review base stock system under normally distributed demand," *Omega: the International Journal of Management Science* 39 (2011), 346-349.

J.R. Boyce and D.P. Bischak, "Learning by doing, knowledge spillovers, and technological and organizational change in high-altitude mountaineering," *Journal of Sports Economics* 11 (2010), 496-532.

J.B. Eliasson, B.R. Snider, and D.P. Bischak, "Active learning in an undergraduate management science course through the use of a mobile computer lab," *International Journal of Information and Operations Management Education* 3 (2010), 104-118.

E.A. Silver, H. Naseraldin, and D.P. Bischak, "Determining the reorder point and order-up-to-level in a periodic review system so as to achieve a desired fill rate and a desired average time between replenishments," *Journal of the Operational Research Society* 60 (2009), 1244-1253.

E.A. Silver, D.P. Bischak, and G.J.C. da Silveira, "An efficient method for calculating the minimum distance from an operating point to a specific (hyperbolic) efficient frontier," *IMA Journal of Management Mathematics* 20:3 (2009), 251-261.

T.R. Rohleder, D.P. Bischak, and L.B. Baskin, "Modeling patient service centers with simulation and system dynamics," *Health Care Management Science* 10:1 (2007), 1-12.

D.P. Bischak and D. Trietsch, "The rate of false signals in X-bar control charts with estimated limits," *Journal of Quality Technology* 39:1 (2007), 54-65.

D.P. Bischak and E.A. Silver, "Estimating the out-of-control rate from control chart data in the presence of multiple causes and process improvement," *International Journal of Production Research* 42:24 (2004), 5217-5233.

E.A. Silver and D.P. Bischak, "Bayesian estimation of the rate at which a process, monitored by an \bar{X} chart, goes out of control," *International Journal of Production Research* 42:6 (2004), 1227-1242.

J.R. Boyce and D.P. Bischak, "The role of political parties in the organization of Congress," *Journal of Law, Economics, and Organization* 18:1 (2002), 1-38.

D.P. Bischak and E.A. Silver, "Estimating the rate at which a process goes out of control in a statistical process control context," *International Journal of Production Research* 39:13 (2001), 2957-2971.

D.P. Bischak, "Performance of a manufacturing module with moving workers," *IIE Transactions* 28:9 (1996), 723-733.

D.P. Bischak and K.B. Stevens, Jr., "An evaluation of the tandem configuration automated guided vehicle system," *Production Planning and Control* 6:5 (1995), 438-444.

D.P. Bischak, W.D. Kelton, and S.M. Pollock, "Weighted batch means for confidence intervals in steady-state simulations," *Management Science* 39:8 (1993), 1002-1019.

J.R.Boyce, M.L. Herrmann, D.P. Bischak, and J. Greenberg, "The Alaska salmon enhancement program: a cost/benefit analysis," *Marine Resource Economics* 8:4 (1993), 293-312.

W.D. Kelton, W.M. Hancock, and D.P. Bischak, "Adjustment rules based on quality control charts," *International Journal of Production Research* 28:2 (1990), 385-400.

W.M. Hancock, D. Lundberg, W.D. Kelton, and D.P. Bischak, "Economically optimal sample size frequency and capability indices using X-bar charts," *International Journal of Production Research* 25:7 (1987), 967-977.

J.R. Griffith, P.A. Wilson, R.A. Wolfe, and D.P. Bischak, "Clinical profiles of hospital discharge rates in local communities," *Health Services Research* 20:2 (1985), 131-151.

PEER-REVIEWED BOOK CHAPTERS

J.R. Griffith, P.A. Wilson, R.A. Wolfe, and D.P. Bischak, "Clinical profiles of hospital discharge rates in local communities," in *Methodological Advances in Health Services Research*, edited by G.H. DeFriese, T.C. Ricketts, III, and J.S. Stein, Health Administration Press, Ann Arbor, 1989.

PEER-REVIEWED PROCEEDINGS ARTICLES

S.R. Pendharkar, D.P. Bischak, and P. Rogers, "Evaluating healthcare systems with insufficient capacity to meet demand," *Proceedings of the 2012 Winter Simulation Conference*.

A.Parajuli, D.P. Bischak, and S.T. Enns, "Scheduling to optimize common due date performance using stochastic processing times," *Proceedings of the 14th Annual International Conference on Industrial Engineering Theory, Applications and Practice*, Anaheim, California, 2009, 263-268.

E.A. Silver and D.P. Bischak, "Estimating the rate at which a process goes out of control," *Proceedings of the 4th INFORMS Society on Manufacturing and Service Operations Management Conference*, Ann Arbor, Michigan, 2000, CD-ROM.

D. Trietsch and D. Bischak, "The rate of false signals for control charts with limits estimated from small samples," *Proceedings of the Operational Research Society of New Zealand 33rd Annual Conference*, Auckland, 1998, 232-241.

D.P. Bischak, "Weighted batch means and improvements in coverage," *Proceedings of the 1993 Winter Simulation Conference*, edited by G.W. Evans, M. Mollaghasemi, E.C. Russell, and W.E. Biles, 474-480.

D.P. Bischak and S.D. Roberts, "Object-oriented simulation," *Proceedings of the 1991 Winter Simulation Conference*, edited by B.L. Nelson, W.D. Kelton, and G.M. Clark, 194-203.

PUBLISHED ABSTRACTS

D.P. Bischak, W.D. Kelton, and S.M. Pollock, "Weighted batch means for confidence intervals in steady-state simulations," *Management Science* 39:8 (1993). Published in *OR/MS Today* 20:6 (1993).

INVITED PRESENTATIONS AT INTERNATIONAL, NATIONAL, AND REGIONAL CONFERENCES

"Centralization vs. decentralization: A behavioral perspective," Institute for Operations Research and the Management Sciences (INFORMS) annual meeting, session on "Individual Difference in Operations," Minneapolis, MN, October 2013 (co-author Rosa Hendijani).

"Willingness to pay and the waiting experience," Institute for Operations Research and the Management Sciences annual meeting, Seattle, Washington, November 4, 2007 (co-author Robert J. Oxoby).

"The rate of false signals in X-bar control charts with estimated limits," 2007 Joint Statistical Meetings, Salt Lake City, Utah, August 1, 2007 (co-author D. Trietsch).

"Process management and innovation in health care," Integrative Patient Centered Disease Management Retreat, Southern Alberta Transplant Program (ALTRA), Kananaskis, Alberta, January 21, 2006 (with Thomas R. Rohleder).

"Simulation modeling to facilitate queuing analysis," INFORMS Joint National Meeting, Los Angeles, May, 1995.

"Effects of processing time variability in TSS production lines," ORSA/TIMS Joint National Meeting, Detroit, Michigan, October, 1994.

W.D. Kelton, W.M. Hancock, and D.P. Bischak, "Adjustment rules based on quality control charts," American Statistical Association Spring Regional Meeting, Atlanta, March 1986.

PRESENTATIONS

“The wait is part of the treatment,” Department of Community Health Sciences/O'Brien Institute Seminar Series, Cumming School of Medicine, University of Calgary, May 11, 2018.

“Application of discrete event simulation for the analysis of a rheumatology central intake system,” Canadian Operational Research Society annual conference, Halifax, Nova Scotia, 4 June 2018 (co-authors Diane Bischak, Deborah A. Marshall, Toni Tagimacruz, presented by Tagimacruz).

“Scheduling coordinated lab-clinics to maximize the service level under stochastic testing time,” Canadian Operational Research Society annual conference, Banff, Alberta, 30 May 2016 (co-authors Farzad Zaerpour, Diane P. Bischak, Mozart B.C. Menezes, presented by Zaerpour).

“Scheduling coordinated respirology lab-clinics to maximize the service level under stochastic testing time,” Institute for Operations Research and the Management Sciences (INFORMS) annual meeting, San Francisco, CA, 9 November 2014 (co-authors Farzad Zaerpour, Diane P. Bischak, Mozart B.C. Menezes, presented by Zaerpour).

“How central intake systems can fail: An operational perspective,” Research and Innovation in Waiting Time Management and Access (sponsored by CIHR and Alberta Innovates-Health Solutions), Ottawa, ON, 2 April 2014.

“Planning for patient testing at a pulmonary function laboratory,” Institute for Operations Research and the Management Sciences (INFORMS) Conference on Healthcare, Chicago, IL, 25 June 2013 (co-authors Sachin R. Pendharkar, Warren J. Davidson, and Charlene D. Fell).

“Planning for timely patient testing linked to clinic appointments,” Canadian Operational Research Society annual conference, Vancouver, BC, 29 May 2013 (co-authors Sachin R. Pendharkar, Warren J. Davidson, and Charlene D. Fell).

“The effect of external reward on task motivation and performance,” Production & Operations Management Society Annual Conference, Denver, CO, May 2013 (co-authors Rosa Hendijani, Joseph Arvai, and Subhasish Dugar).

“The effect of centralization vs. decentralization on referral rate: A behavioral perspective,” Alberta Research Conference on Operations, April 2013 (co-author Rosa Hendijani).

“Analysis of periodic review, order-up-to level inventory systems with order crossover,” Canadian Operational Research Society annual conference, Niagara Falls, Ontario, 11 June 2012 (co-authors David J. Robb, Edward A. Silver, and Joseph D. Blackburn).

“Using simulation modeling to improve patient flow at an outpatient orthopedic clinic,” MITACS/ Canadian Operational Research Society annual conference, Edmonton,

Alberta, 27 May 2010 (co-authors Thomas R. Rohleder, Peter Lewkonina, Paul Duffy, and Rosa Hendijani).

“Willingness to pay and the waiting experience,” 2008 Behavioural Operations Conference, Edmonton, Alberta, 23-25 July 2008 (co-author Robert J. Oxoby).

“Willingness to pay and the waiting experience,” Alberta Research Conference on Operations, Calgary, Alberta, April 11, 2008 (co-author Robert J. Oxoby).

“Modeling patient service centres: the Healthcare Operations Excellence (HOPE) laboratory,” Canadian Operational Research Society annual conference, London, Ontario, May, 2007 (co-authors Thomas R. Rohleder and Leland B. Baskin).

“The effect of waiting on bargaining behavior: theory, evidence, and extensions,” CanQueue 2006 (the 8th Annual Conference for Canadian Queueing Theorists and Practitioners), Banff, Alberta, September 14-16, 2006 (co-author Robert J. Oxoby).

“Learning by (not) dying on the 8,000 meter peaks,” Alberta Research Conference on Operations, Edmonton, Alberta, April 7, 2006 (co-author John R. Boyce).

“Passing the time,” Sixteenth Annual Conference of the Production & Operations Management Society, Chicago, Illinois, April 29, 2005 (co-author Robert J. Oxoby).

“Passing the time,” Alberta Research Conference on Operations, Edmonton, Alberta, April 8, 2005 (co-author Robert J. Oxoby).

“Learning by (not) dying on the 8000-meter peaks in the Himalaya and Karakoram,” Meeting of the Calgary Chapter of the Canadian Operational Research Society, Calgary, March 18, 2005 (co-author John R. Boyce).

“Learning by (not) dying on the 8000-meter peaks in the Himalaya and Karakoram,” joint international meeting of the Canadian Operational Research Society and the Institute for Operations Research and the Management Sciences, Banff, Alberta, May, 2004 (co-author John R. Boyce).

“Estimating the out-of-control rate from control chart data when there is process improvement,” Canadian Operational Research Society annual conference, Vancouver, British Columbia, June, 2003 (co-author Edward A. Silver).

“Estimating the out-of-control rate from control chart data when there is process improvement,” Alberta Research Conference on Operations, Calgary, April, 2003 (co-author Edward A. Silver).

“Bayesian estimation in a statistical process control context,” Canadian Operational Research Society annual conference, Toronto, Ontario, June, 2002 (co-author Edward A. Silver).

“Estimating the rate at which a process goes out of control,” INFORMS Society on Manufacturing and Service Operations Management conference, Ann Arbor, Michigan, June, 2000 (co-author Edward A. Silver).

“Estimating the rate at which a process goes out of control when using statistical process control,” Canadian Operational Research Society annual conference, Edmonton, Alberta, May, 2000 (co-author Edward A. Silver).

“The rate of false signals for control charts with limits estimated from small samples,” Operational Research Society of New Zealand annual conference, Auckland, New Zealand, September, 1998 (co-author Dan Trietsch).

“Weighted batch means and improvements in coverage,” Winter Simulation Conference, Los Angeles, California, December, 1993.

“Performance analysis of a modular apparel manufacturing cell,” TIMS/ORSA Joint National Meeting, Chicago, Illinois, May, 1993.

“Object-oriented simulation,” Winter Simulation Conference, Phoenix, Arizona, December, 1991 (co-author Stephen D. Roberts).

“Design of material handling systems using object-oriented simulation,” Modern Manufacturing 1990 Conference, Integrated Manufacturing Systems Engineering Institute, Raleigh, North Carolina, September, 1990.

“Effects of bias on the performance of weighted batch means,” CORS/ORSA/TIMS Joint National Meeting, Vancouver, B.C., May, 1989.

“Weighted batch means,” TIMS/ORSA Joint National Meeting, Washington, D.C., April, 1988.

“Weighted batch means and steady-state confidence intervals,” TIMS/ORSA Joint National Meeting, Los Angeles, April, 1986 (co-author W.D. Kelton).

PEER-REVIEWED ABSTRACTS OF POSTER PRESENTATIONS

A. Ip, R. Asamoah-Barnieh, D. P. Bischak, W. J. Davidson, W. W. Flemons, S. R. Pendharkar, “Using process improvements to guide pulmonary function scheduling policies at the Foothills Medical Centre,” *Canadian Respiratory Journal* 21:2 (March/April 2014), 2014 Canadian Respiratory Conference, Calgary, AB (presenter Ip).

A. Dechant, D.P. Bischak, P.J. Hanly, W.H. Tsai, A.M. Stevenson, S.R. Pendharkar, “The optimal use of alternative care providers in the treatment of obstructive sleep

apnea.” *CHEST* 2013;144(4_MeetingAbstracts):992A. doi:10.1378/chest.1701253, CHEST 2013, October 30, 2013, Chicago, IL (presenter Dechant).

POSTER PRESENTATIONS

T. Tagimacruz, D. Marshall, and D. P. Bischak, “Modelling a central access system for specialist referrals,” 2014 Campus Alberta Student Conference on Health, Banff, AB, September 5-6, 2014 (presenter Tagimacruz).

GRANTS AWARDED

“Improving health care practices and processes through behavioural change,” Transformational Research Grant funded from the Achieving Excellence Endowment, Haskayne School of Business, University of Calgary. Marco Bijvank (Principal Investigator), Diane Bischak, Loren Falkenberg, Jaana Woiceshyn, Jo-Louise Huq, Negar Ganjoughighi (plus nine nursing and medicine faculty members in Calgary, Vancouver and Toronto), 2018-2020, \$240,500.

“Process Improvements at Hospital Emergency Departments,” O’Brien Institute for Public Health Research Catalyst Funds, Feb 2016 – July 2017 (with Marco Bijvank, Zhankun Sun and Eddy Lang), \$7040.

“Optimizing centralized intake to improve arthritis care for Albertans,” Alberta Innovates Health Solutions (AIHS) Partnership for Research and Innovation in the Health System (PRIHS) grant (Collaborator/Researcher, with Principal Investigator Deborah Marshall and Co-PI Linda Woodhouse), 01/2014 to 01/2017, \$1,138,435.

“An evaluation of the organizational process of developing a provincial acute care discharge model in Alberta hospitals,” Operating grant, Canadian Institutes of Health Research (CIHR), \$134,136 per year, 2013-2015 (Principal Applicant, with S. R. Pendharkar as Nominated Principal Applicant and D. Brewin, G. da Silveira, W. Flemons, W. Ghali, F. McAlister, and J. Woiceshyn).

“Improving the operations of an academic tertiary-care pulmonary function laboratory,” Alberta Health Services medical affairs, 2012-2013, competitive, non-peer reviewed, \$161,658 (with S.R. Pendharkar, W.J. Davidson).

“Maximizing the effective use of alternate-care providers for patients with obstructive sleep apnea,” Angela Jone Memorial Clinical Research Award 2011-2012, The Lung Association – Alberta & NWT, \$25,000 (with S.R. Pendharkar, A-M. Stevenson, and P. Hanly).

“SCOPE 2008: The Student Conference on Operations, 11-12 April 2008,” University Research Grant, University Research Grants Committee, University of Calgary, \$2000.

“Haskayne Mobile Computer Lab,” University Teaching and Learning Committee, grant for funding a mobile computer lab to enhance undergraduate education through hands-on training in decision making using Excel, March 2007, \$79,000.

“SCOPE 2007: The Student Conference on Operations,” University Research Grant, University Research Grants Committee, University of Calgary, 2006-2007, \$1450.

“CanQueue 2006: the 8th annual conference for Canadian queueing theorists and practitioners,” University Research Grant, University Research Grants Committee, University of Calgary, 2006-2007, \$1400.

“Performance of adaptive control charts developed from a small amount of data,” Natural Sciences and Engineering Research Council of Canada (NSERC), 2005-2010, \$50,000.

“The information content of queues,” Natural Sciences and Engineering Research Council of Canada (NSERC), 2000-2004, \$60,000.

“The information content of queues,” Starter Grant, University Research Grants Committee, University of Calgary, 2000-2001, \$5842.

“Lot making for apparel manufacturers,” University of Auckland Research Fund, 1998, \$3000.

“Creating value in Alaska through manufacturing and technology: an analysis of costs and directions for the future.” University of Alaska Center for Economic Development and Alaska Technology Transfer Assistance Center, May-August, 1995 (with L. M. Milner and J. M. Collins), \$9,488.

“Transit and paratransit planning operations in Alaskan rural cities.” Transportation Northwest Regional Center, March, 1992 to August, 1994 (with J. R. Boyce), \$50,760.

“Software development and policy analysis of a benefit-cost analysis of the statewide salmon enhancement program.” Alaska State Legislature, January, 1992 (with J. R. Boyce, M. L. Herrmann, and J. Greenberg), \$48,000.

“Selection, design and control procedures for automatic identification, material handling, and storage systems using expert systems and simulation-animation.” Integrated Manufacturing Systems Engineering Institute, North Carolina State University, September, 1989 (with J. Trevino and S. D. Roberts), \$32,000.

“An exploration of weighted batch means.” North Carolina State University Faculty Research and Professional Development Fund, December, 1988, \$3,500.

TEACHING

COURSES TAUGHT

Managerial Decision Modeling (MGST 613, Executive MBA program)
Operational Research Issues (PhD seminar, OPMA 799.03)
Health Care Operations Management (PhD seminar, OPMA 799.03)
Management Science Using Spreadsheets (OPMA 715)
Business Analysis Using Spreadsheets (OPMA 415)
Business Analytics (MGST 613)
Field Investigation in OPMA (OPMA 411)
Operations Analysis (OPMA 641)
Computer Simulation for Business (OPMA 409)
Simulation of Operational Systems (OPMA 743)
Management of Small Business Start-up (MGST 597.13)
Research and Analysis for Decision Making (MGST 391)
Management of Operations (636.370, Auckland)
Stochastic Methods in Management Science (636.385, Auckland)
Statistics for Commerce (475.108, Auckland)
Introduction to Operations Research (475.255, Auckland)
Seminar in Production Management (BA 660, Alaska)
Simulation for Decision Making (BA 418, Alaska)
Operations Management (BA 610, Alaska)
Production and Operations Management (BA 360, Alaska)
Stochastic Simulation Design and Analysis (IE 662, N. Carolina State)
Computer Simulation Techniques (IE 562, N. Carolina State)
Introduction to Simulation (IE 441, N. Carolina State)

POSTDOCTORAL SCHOLARS SUPERVISED

Zhankun Sun, 2014-2016, Eyes High Postdoctoral Scholar

DOCTORAL STUDENTS SUPERVISED

Farzad Zaerpour, PhD Operations Management (Calgary) (with Mozart Menezes, University of Calgary/Kedge Business School)
Toni Tagimacruz, PhD, Operations Management (Calgary) (with Deborah Marshall, Community Health Sciences)
Raymond Asamoah-Barnieh, PhD, Operations Management (Calgary) (with Jaana Woiceshyn)
Rosa Hendijani, PhD, Operations Management (Calgary)

MASTERS STUDENTS SUPERVISED

Sachin Pendharkar*, MSc, Community Health Sciences (Calgary) (with Tom Noseworthy)

** awarded the Governor General's Gold Medal, November 2012*

Anubhuti Parajuli, MSc, Manufacturing Engineering (Calgary) (with Van Enns)

Asad Ahmed, MBA, Operations Management (Calgary)

Alan Kwok, MOR, Engineering Science (Auckland)

Mohamed Afify, MS, Industrial Engineering (N. Carolina State)

Keith Stevens, MS, Industrial Engineering (N. Carolina State)

HONOURS STUDENTS SUPERVISED

Deshani Rodrigo, BCom (Hons), Management Science (Auckland)

UNDERGRADUATE STUDENTS SUPERVISED

Renan Menezes De Ávila Martins, Universidade Federal de Pernambuco, co-supervisor,
Mitacs-Globalink research intern, May-August 2013 (Calgary) (with Sachin Pendharkar)

DOCTORAL COMMITTEES

Tony Zeng, PhD, Manufacturing Engineering (Calgary)

Kanhaiya Sinha, PhD, Entrepreneurship and Innovation, Haskayne (Calgary)

Monica Cepoiu-Martin, PhD, Community Health Sciences (Calgary)

M. Zaman Forootan, PhD, Operations Management (Calgary)

Samuel Xu, PhD, Operations Management (Calgary)

Amy Metcalfe, PhD, Community Health Sciences (Calgary)

Chandandeep Grewal, PhD, Manufacturing Engineering (Calgary)

David Bruner, PhD, Economics (Calgary)

Zhenyu Wu, PhD, Finance (Calgary)

Sherif Saad Abdelatif, PhD, Civil Engineering (Calgary)

Pattita Suwanruji, PhD, Manufacturing Engineering (Calgary)

Michael Boyette, PhD, Biological and Agricultural Engineering (N. Carolina State)

MASTERS COMMITTEES

Cheryl E. Andres, Community Health Sciences (Calgary)

Ken Fyie, MSc, Community Health Sciences (Calgary)

Suvra Saha, MSc, Manufacturing Engineering (Calgary)

Jesse Tweedle, MA, Economics (Calgary)

Xu Su, MSc, Manufacturing Engineering (Calgary)

Renaes Espey, MBA thesis, Operations Management (Calgary)
Richard Cho, MA, Economics (Calgary)
Ping Zhu, MSc, Manufacturing Engineering (Calgary)
Amir Messih, MEng, Manufacturing Engineering (Calgary)
Yannai Romer Segal, MSc, Manufacturing Engineering (Calgary)
Akram Khan, MEng, Project Management (Calgary)
Lin Wang, MS, Resource Economics (Alaska)
Mary Pauline Logan, MS, Civil Engineering (Alaska)
Lisa Joyner, MS, Industrial Engineering (N. Carolina State)
Pang-Min Wang, MS, Industrial Engineering (N. Carolina State)
Shieng-Chyuarn Jang, MS, Industrial Engineering (N. Carolina State)

OTHER INSTRUCTIONAL ACTIVITIES

External examiner, Yi He, Master's thesis (MCOM student in Operations Management, University of Auckland Business School), May 2016

Instructor, Global Energy Executive MBA (GeEMBA) program: Managerial Decision Modeling (MGST 613) course, April-June 2012, April-July 2014, November 2016.

Supervisor of OPMA 411 project team that won "best business application" at the Student Conference on Operations, Calgary, April 10, 2010.

Supervisor of OPMA 411 project team that won "best operations/process improvement presentation" at the Student Conference on Operations, Calgary, April 12, 2008.

"Management Science in Spreadsheets," week-long training session for Telus Corporation, May-June 2005.

Supervisor of OPMA 411 project team that won "best service operations presentation" at the 8th Annual Student Conference on Operations, Edmonton, April 9, 2005.

"Introduction to Management Science," all-day training session for Nortel Networks Supply Chain Operations group, Calgary, December 8, 2003.

Supervisor of OPMA 411 project team that won second prize in the undergraduate category of the 2002-2003 Canadian Transportation Research Forum Student Paper Competition.

"Spreadsheet Based Decision-Making," Management Essentials program, Haskayne School of Business, University of Calgary, November 29, 2002, March 28, 2003, November 28, 2003.

Supervisor of OPMA 411 project team that won “best operations/process improvement presentation” at the 6th Annual Student Conference on Operations, Calgary, April 5, 2003.

Supervisor of OPMA 411 project team that won first place in the Donald W. Fogarty International Student Paper Competition, American Production and Inventory Control Society, for Region 8 (Canada), 2001.

Supervisor of OPMA 411 project team that won first place at the 4th Annual Canadian Student Conference on Operations, Edmonton, Alberta, for “Air Canada Resource Planning Model,” April 6-7, 2001.

INSTRUCTIONAL DEVELOPMENT

Participant in “Teaching of Management Science Conference (TMS III),” INFORMS, Indiana University Kelley School of Business, June 10-13, 2000.

Participant in “Incorporating Information Literacy Skills,” Faculty Development Session, Learning Commons, University of Calgary, February 8, 2000.

Participant in “Teaching as Performance Art,” Faculty Development Session, Learning Commons, University of Calgary, February 29, 2000.

Participant in “Teaching manufacturing process analysis in a core MBA operations management course,” ORSA Education Forum Workshop, May, 1994.

Participant in “Teaching effectiveness for engineering professors” workshop, North Carolina State University, August, 1988.

SERVICE

EDITORIAL ADVISORY BOARD MEMBERSHIPS

Production and Operations Management (2013-2019)

OR Spectrum (2012-2019)

REFEREE ACTIVITIES

Health Systems

NSERC College and Community Innovation Program (CCI) – Applied Research and Development (ARD) Grants program

NSERC Collaborative Research and Development Grant program

MITACS Accelerate Grant program

Flexible Services and Manufacturing Journal

Simulation Modelling Practice and Theory

CIHR peer reviewer, Project Grant competition

CIHR Project Scheme, 1st round reviewer
IIE Transactions on Healthcare Systems Engineering
Production and Operations Management
Operations Research Letters
Journal of Systems Science and Complexity
African Journal of Business Management
Proceedings of the Winter Simulation Conference
Journal of Business Ethics
Health Care Management Science
Journal of the Operational Research Society
Journal of Operations Management
INFOR
Canadian Public Policy
OR Spectrum
MITACS (*Mathematics of Information Technology and Complex Systems*) Graduate
Research Internship proposal
Interfaces
European Journal of Operational Research
International Journal of Production Economics
INFORMS Transactions on Education
NSERC (Natural Sciences and Engineering Research Council of Canada) Discovery
Grants (Individual)
Manufacturing and Service Operations Management
International Journal of Production Research
INFORMS Case and Teaching Materials
Management Science
Operations Research
IIE Transactions
INFORMS (previously ORSA) Journal on Computing
ACM Transactions on Modeling and Computer Simulation
Communications of the ACM
Naval Research Logistics
Operations Research and Production Systems, Division of Design and Manufacturing
Systems, Directorate for Engineering, National Science Foundation
American Journal of Agricultural Economics
Fourth Symposium on Cross-Cultural Consumer and Business Studies

INTERNAL REVIEWER

O'Brien Institute for Public Health, University of Calgary

SERVICE TO THE PROFESSION

General Chair, 2016 Annual Conference of the Canadian Operational Research Society,
Banff, Alberta

Session chair, Institute for Operations Research and the Management Sciences
 Conference on Healthcare, Chicago, Illinois, June 2013
 Judge, Student Paper Competition (Open Category), Canadian Operational Research
 Society, May 2013
 Councilor (member of Executive Board), Canadian Operational Research Society
 (national level), 2012-2014
 Bulletin Editor, Canadian Operational Research Society (national level), 2012-2014
 Chair, Alberta Conference on Operations (ARCO), University of Calgary, 9-10 April
 2010
 Director-at-Large, Canadian Operational Research Society, Calgary Chapter, 2006-2010.
 Judge, Student Conference on Operations (SCOPE), Palliser Hotel, Calgary, March 31,
 2007.
 Conference Committee, CanQueue 2006 (the 8th Annual Conference for Canadian
 Queueing Theorists and Practitioners), September 14-16, 2006, Banff, Alberta.
 Organizer, Alberta Research Conference on Operations, University of Alberta,
 Edmonton, April 7, 2006.
 Judge, Student Conference on Operations (SCOPE), University of Alberta, Edmonton,
 April 8, 2006.
 VP-Communications, Women in ORMS Forum, Institute for Operations Research and
 the Management Sciences, 2004-2006.
 President, Canadian Operational Research Society, Calgary Chapter, 2004-2005.
 Vice-President, Canadian Operational Research Society, Calgary Chapter, 2003-2004.
 Finance chair, Conference Committee, Student Conference on Operations (SCOPE),
 University of Calgary, Fall 2002-Winter 2003.
 Program director, Canadian Operational Research Society, Calgary Chapter, 2002-2003.
 University of Calgary contact person, CORS diploma, Canadian Operational Research
 Society, 2002-2017.
 Session chair, Canadian Operational Research Society annual conference, Toronto,
 Ontario, June, 2002.
 Finance chair, Conference Committee, Canadian International Student Conference on
 Operations, University of Calgary, Fall 1999-Winter 2000.
 Secretary, Operational Research Society of New Zealand, 1998-1999.
 Editor, INFORMS College on Simulation Newsletter, 1996-1998.
 Track coordinator, introductory tutorials, Winter Simulation Conference, Coronado,
 California, December, 1996.
 Assistant editor, TIMS College on Simulation Newsletter, 1994-1996.

Simulation cluster chair, TIMS International Conference, Anchorage, Alaska, June, 1994.
 Organizer of sessions sponsored by TIMS College on Simulation, TIMS International Conference, Anchorage, Alaska, June, 1994.
 Member, Committee on women and underrepresented minorities, TIMS College on Simulation, 1994.
 Chair, Committee on women and underrepresented minorities, TIMS College on Simulation, 1993.
 Session chair, "Introduction to SIMAN IV," Winter Simulation Conference, Phoenix, Arizona, December, 1991.
 Session chair, "Visual simulation," Winter Simulation Conference, New Orleans, December, 1990.
 Session organizer and chairperson, "Parallel simulation," TIMS/ORSA Joint National Meeting, Las Vegas, May, 1990.

SERVICE TO THE UNIVERSITY AND THE SCHOOL

Member, Search and Selection Committee, "Models of Care Scientist" Assistant Professor position, Department of Family Medicine and the O'Brien Institute for Public Health (OIPH), May/June 2017
 Member, Advisory Board (designated by the Provost's office as the Associate VP Academic), The Svare Professorship in Health Economics, 2017-current
 Member, Faculty Merit Committee, October 2015
 Member, Finance Instructor Recruiting Committee, July 2015
 Member, MBA Program Review Committee, 2014-2015
 Research Director, Operations and Supply Chain Management and Finance areas, 2013-2016
 Chair, Operations and Supply Chain Management Area Recruiting Committee, 2013-2014
 Chair, Finance Area Tenure Review Committee, 2013-2014
 Member, Dean's Search Committee, 2012-2013
 Presenter, "Leadership Lessons from the Crag," *Fridays with the Faculty Series*, Calgary Petroleum Club, 26 October 2012
 Member, Research Advisory Committee, Haskayne School of Business, University of Calgary, 2011-2013
 Presenter, "Process Improvement in Outpatient Health Care Clinics," *Fridays with the Faculty Series*, Calgary Petroleum Club, 21 October 2011
 Member, Faculty Promotion Committee, Haskayne School of Business, University of Calgary, 2010-2011
 Member, Master's Program Committee, Haskayne School of Business, University of Calgary, 2010, 2012-2016
 Member, Merit Committee, Haskayne School of Business, University of Calgary, 2009-2010
 Member, Assurance of Learning Committee, Haskayne School of Business, University of Calgary, 2008-2011

Member, Dean's Research Awards Committee, Haskayne School of Business, University of Calgary, 2007-2008

Member, Master's Program Committee, Haskayne School of Business, University of Calgary, 2007-2008

Chair, Operations Management Area Recruiting Committee, 2006-2007

Member, Academic Standing Committee, Haskayne School of Business, University of Calgary, 2006-2008.

Neutral Chair for two doctoral thesis examinations, Haskayne School of Business, University of Calgary, 2006-2007

Member, Steering Committee, Centre for Transportation, Van Horne Institute, University of Calgary, 2005-2007

Area Chair, Management Information Systems and Operations Management, 2005-2007

Member, Master's Program Committee, Haskayne School of Business, University of Calgary, 2004-2005

Member, Steering Committee, University of Calgary Behavioural & Experimental Economics Laboratory, 2003-2005

Member, Faculty of Graduate Studies Scholarship Committee, 2002-2005

Member, Operations Management Area Recruiting Committee, 2001-2003

Operations Management Area Seminar Coordinator, 2000-2003

Faculty of Management Representative to Engineering Faculty Council, 2000-2003

Member, Dean's Academic Advisory Committee, Economics, University of Calgary, 2000-2001

External member, Project Management Faculty Search Committee, Civil Engineering, University of Calgary, 1999-2000

Lab presenter, MGST 291, University of Calgary, Fall 1999-Winter 2000

Operations Management Undergraduate Coordinator, Department of Management Science and Information Systems, University of Auckland, 1998-1999

University of Alaska Fairbanks (UAF) School of Management Internship Director, 1995-1997

Chair, UAF Faculty Appeals and Oversight Committee, 1995-1997

Chair, UAF Emil Usibelli Distinguished Service Award Committee, 1995-1996

Member, UAF Faculty Senate, 1994-1996

Member, UAF Graduate Council, 1994-1995

Member, UAF School of Management Executive Council, 1994-1995

Chair, UAF School of Management Alumni Committee, 1993-1997

Chair, UAF School of Management Instructional Resources, Advising, and Assessment Committee, 1993-1994

UAF University Day representative for the Department of Business Administration, 1993-1994

Member, Faculty Research Development Committee, UAF Department of Business Administration, 1992-1993

Interviewer, North Carolina State University Merit Awards Program

CONSULTING ACTIVITIES

Health Quality Council of Alberta, June 2014, “Review of Alberta Health Services’ Continuing Care Wait List: First Available Appropriate Living Option Policy,” expert consultant

Calgary Laboratory Services, April 2000, simulation study of laboratory services resource utilization (with Thomas Rohleder)

Middlemore Hospital, Auckland, New Zealand, 1998, simulation study of emergency department resource utilization