Roger W. Hoerl

Union College
807 Union Street
Schenectady, NY 12308
hoerlr@union.edu

Education

Ph.D. in Statistics, University of Delaware – 1983. Dissertation topic – A Simulation Study of Biased Estimation and Subset Selection Regression Techniques, J.H. Schuenemeyer, Chair of Dissertation Committee.

M.S. in Statistics, University of Delaware - 1981

B.S. in Mathematics, Elizabethtown College - 1979

Major Professional Honors

Fellow of American Statistical Association (ASA)

Fellow of American Society for Quality (ASQ)

Elected to (Fellow of) International Statistical Institute (ISI)

Elected as Academician in (Fellow of) the International Academy for Quality (IAQ)

Soren Bisgaard Award (ASQ) (for the paper published in the 2022 edition of the journal Quality Engineering with "the greatest potential for advancing the practice of quality improvement.") 2023

Harry L. Roberts Statistical Advocate of the Year Award, Chicago Section of the American Statistical Association (ASA) (for exhibiting leadership to the profession) 2013

Elizabethtown College Educate for Service Award, (distinguished alumni in societal service) 2011

Deming Lectureship Award, ASA, (for making contributions to the profession consistent with those of the statistician W. Edwards Deming) 2011

Shewhart Medalist, American Society for Quality (ASQ), (for contributions to the technology of industrial quality control) 2009

Coolidge Fellowship Recipient*, GE Global Research, 2006

Founders Award Recipient (ASA), (distinguished service to ASA) 2004

Brumbaugh Award Recipient (ASQ), (for article that made the largest single contribution to the development of industrial applications of quality control in 2001) 2002

Hunter Award Recipient (ASQ), (for lifetime contributions to the profession consistent with those of statistician William Hunter) 1999

*Highest technical award at GE Global Research. One Fellowship is granted per year for career technical achievement from among the four GE Global Research locations. Includes paid six-month sabbatical.

Patents:

Application number 20030229556, Methods and systems for providing a financial early warning of default, Inventors: Radu Neagu, Kannan Ramanathan, Roger Hoerl, Jason

Weisman, Chandrasekhar Pisupati, Sung-Ho J. Ahn, Michael Shaw, Issued December 11, 2003.

Application number 20050055257, Techniques for performing business analysis based on incomplete and/or stage-based data, Inventors: Deniz Senturk, Christina LaComb, Roger Hoerl, Snehil Gambhir, Peter Kalish, Issued March 10, 2005.

Publications

See attached publication list. Highlights include nine books, three book chapters, and over 100 articles, eight-two of which have appeared in peer-reviewed journals.

Highlights of Professional Service

Chair, Advisory Board, International Statistical Engineering Society (ISEA) 2021-current
Chair, ISEA 2020
Member, ASQ Publications Management Committee (current)
Member, Editorial Board, International Journal of Lean Six Sigma (current)
Chair, Membership Committee, International Statistical Institute (ISI) 2014-2016
Chair, Membership and Outreach, International Society for Business and Industrial Statistics (ISBIS – a division of ISI) (2013-2017)
Member, ASA Committee on Undergraduate Education (2013-2015)
Executive Committee, National Institute of Statistical Sciences (NISS) – Vice Chair in 2013/2014
Member, ASA Committee on Masters Programs in Statistics (2011-2012)
Chair, Management Committee, Technometics Journal (2006 – 2008)
Associate Editor, Technometics Journal (1986 – 2003)
Chair, Quality and Productivity Section, ASA (1996)
Chair, Gordon Research Conference on Statistics in Chemistry and Chemical Engineering (1993)
Chair, Statistics Division, ASQ (1991)
Chair, Delaware Section, ASQ (1985)

Highlights of Conference Presentations

Keynote speaker for nine national or international statistical conferences, including NASA Statistical Engineering Conference, European Network of Business and Industrial Statistics (ENBIS), Royal Statistical Society, the Joint Statistical Meetings (ASA), the Statistics Society of Canada, the Fall Technical Conference, Making Statistics More Effective in Schools of Business, The International Statistical Engineering Association (ISEA), and Beyond the Formula.

Keynote speaker for seven national or international quality conferences, including the International Conference on Lean Six Sigma (three times), the Lean and Six Sigma

Conference, World Quality Day Finland, Lean Six Sigma Summit West, Institute for Continuous Quality Improvement, and the Global ISO Conference.

Approximately sixty-five invited presentations at national (~50) or international (~15) conferences, such as the Swiss Statistical Society Meetings, ENBIS (Poland & Greece), ISBIS (Czech Republic, Peru, Hong Kong, Thailand), Conferencia International de Calidad y Estadistica Aplicada (Conference on Quality and Applied Statistics - Peru), Royal Statistical Society (England), International Conference on Lean Six Sigma (Scotland), Statistics Society of Canada, Joint Statistical Meetings (ASA), and Fall Technical Conference (ASA & ASQ)

Twelve invited presentations in academia, including Rochester Institute of Technology, University of Tennessee, Central Michigan University, University of Arizona, Penn State University, Temple University, Purdue University, University of Colorado-Denver, Drexel University, Elizabethtown College, Universidad Nacional Mayor de San Marcos (Lima, Peru), University of Windsor (Windsor, Canada), and University of Plovdiv (Bulgaria)

Twelve invited presentations to statistics or quality groups in the private sector, including Intel, AIG, Amgen, 3M, GlaxoSmithKline, DuPont, John Deere, Nestle (Switzerland), Hewlett Packard (Poland), PPG, Amgen, and Gore Associates

Academic Teaching Experience

Union College

Brate-Peschel Professor of Statistics, 2023 - present
Promoted to *Associate Professor* upon receiving tenure in 2018. Teach introductory statistics, engineering statistics, design of experiments, regression analysis, and Big Data analytics.

Brate-Peschel Assistant Professor of Statistics, 2012 - 2018
Taught introductory statistics, engineering statistics, design of experiments, regression analysis, and Big Data analytics. Co-led effort to develop a statistics minor at Union, approved in 2016.

Drexel University

Instructor, 1988 – 1992 (approximate dates)
Taught introductory statistics, statistics for MBA students, and modern methods for quality management

University of Delaware

Instructor, 1980 – 1987 (approximate dates)

Taught introductory statistics, business statistics, multivariate statistics, and statistics for MBA students

Experience in Business and Industry

General Electric Company

Manager, Applied Statistics Laboratory 3/2001 – 6/2012
Leader of 16-person group specializing in development and application of advanced statistical methods to research and development. Key methodologies include reliability estimation and improvement, quantitative finance, biostatistics, strategies of experimentation, and Bayesian methods.

Business Systems Project Leader 4/2000 – 3/2001
Project leader at Global Research for key business improvement projects, including web-enablement of finance and other business functions, and developing an integrated approach to managing long term service agreements (LTSA's) and other contracted services.

Quality Leader - CAS 11/98 – 4/2000
Quality Leader for Corporate Audit Staff (CAS), a leadership development program within Corporate Finance. Responsible for fully implementing Six Sigma within CAS on a worldwide basis, including introduction of a Black Belt program.

Quality Program Manager - 1/1/97 - 11/98
Member of Six Sigma Quality Organization at Corporate Research and Development Center. Certified as a Six Sigma Master Black Belt. Responsible for development and implementation of a Six Sigma approach for design of new non-manufacturing processes.

Statistician - 9/95 - 1/97
Member of Applied Statistics Group, working on key technical problems within a variety of GE businesses. Received CRD Whitney Awards for contributions to GE90 Fan Blade (GE Aircraft Engines) and Ceramic Metal Halide Lamp (GE Lighting).

Scott Paper Company

Manager of Quality Methods and Information 2/92 - 9/95
Leader of Quality Methods and Information Group. Responsible for developing systems to grow organizational capability in quality methods, such as Quality Function Deployment, experimental design, and Statistical Process Control (SPC), and also common information systems depicting the state of competitive and Scott product quality.

Statistical Quality Control Manager 2/87 - 2/92
Responsible for design, development, and execution of a strategy to develop Continuous Improvement concepts and SPC skills for all levels in the organization, including hourly workers.

Hercules Incorporated

Research Statistician 6/83 - 2/87
Statistician responsible for statistical support of scientists at the Research Center, as well as production sites; ad-hoc member of Corporate Quality Assurance Group; and Principle Investigator.

DuPont Company

Statistical Intern 6/81 - 9/82 (Summers)
Responsible for assisting DuPont statisticians in consulting with clients, designing experiments, analyzing data, preparing reports, and making presentations.