

Samuel P. Wilcock, PhD

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Professional Experience

Associate Professor of Mathematics and Statistics

2001–present

Messiah College, Department of Mathematical Sciences, Grantham, PA

- ▷ Undergraduate teaching experience –
 - Applied Mathematics for Management
 - Calculus I & II
 - Introductory Statistics
 - Statistics for the Mathematical Sciences I & II
 - Statistical Methods in Operations Research
 - Experimental Design
 - Introduction to Mathematical Statistics
 - Advanced Statistical Methods
 - Independent Study in Nonparametric Statistics
 - Independent Study in Game Theory
- ▷ Guided student data collection and analysis projects of Statistics for the Mathematical Sciences II.
- ▷ Guided students in project teams to analyze data and present formal written presentations of their results.
- ▷ Took Provost's Seminar course
- ▷ Member of School Community Building Committee for the School of Mathematics, Engineering, and Business (2001)
- ▷ Served on committee to plan annual social event for Mathematics and Computer Science faculty and students. (2001)
- ▷ Member of committee to plan School chapel for the Spring Semester 2002
- ▷ Gave presentations on the Statistics minor at Open House for the Department of Mathematics
- ▷ Secretary for Department meetings (2003–2009)
- ▷ Gave presentations as part of summer 2003 Combinatorics conference at Messiah College
 - Presented problem from April 2003 Math Horizons
 - Provided solutions to the problem and discussed unique relations between them
 - Gave a presentation on the use of combinatorics in the development of the Paired Sign Statistic in my dissertation
- ▷ Served on School of Math, Engineering, and Business 2005 Vocation Retreat Planning Committee.
- ▷ Gave brief presentation of a solution to a problem posed as part of the summer 2006 Discrete Mathematics workshop at Messiah College
- ▷ Participated in biennial conference of the ACMS (Assoc. of Christians in the Mathematical Sciences) at Messiah (2007)
- ▷ Attended the Joint Statistical Meetings 2008, 2010
- ▷ Completed a sabbatical semester at Penn State Milton S. Hershey College of Medicine, Department of Public Health Sciences, Division of Biostatistics (Fall 2010)
- ▷ Presented the paper “*A Bayesian Secondary Analysis in an Asthma Study*” at the biennial conference of the ACMS at Westmont College (2011)
- ▷ Promoted from Lecturer to Assistant Professor in August 2002.
- ▷ Promoted from Assistant Professor to Associate Professor in August of 2007.

Freelance Consulting

2001–present

- ▷ Novartis Pharmaceuticals, CNS Marketing Research Department, East Hanover, NJ
 - Provided verification of patient flow modeling for the Alzheimer's disease state
 - Evaluated inputs from primary research studies and aided in the interpretation of findings
- ▷ Janssen, L.P., a member of the Johnson and Johnson family of companies, Business Analysis Department, Titusville, NJ
 - Aided in the determining the significance of psychiatrist attitude trend data

Freelance Consulting, cont.

- ▷ Erik Lindquist, PhD, Assistant Professor of Biology and Environmental Science, Messiah College
Aided in the comparison of Golden Frog species in Panama.
Provided analysis of a variety of physical characteristics to aid in classification decisions.
- ▷ Christopher S. Lucas, and Associates, L.L.P.
Used available quality measures to model citations in nursing homes to determine whether a particularly high number of citations for one home was warranted.
Prepared summary report detailing methods and results for court filing.
- ▷ The Nature Conservancy
Worked with Drs. Erik Lindquist and David Foster.
Analyzed biodiversity data from vernal ponds in the South Mountain area of Pennsylvania.
- ▷ Brian Bradow, MD, General Surgeon (Reconstructive Plastic Surgery), Lehigh Valley Hospital
Analyzed data comparing alternate treatment of skin graft donor sites in patients with and without comorbidities.
Co-author of paper summarizing results of the study (currently in press).
Work presented by Dr. Bradow at the American Society of Plastic Surgeons (ASPS) Senior Residents Conference, Tampa, FL January 18-21, 2012 and the Robert H. Ivy Society of Plastic Surgeons 58th Annual Meeting, Philadelphia, PA, March 9-10, 2012
- ▷ Various Students
Assisted various students with proper analyses of class projects and senior honors projects.
Worked with students who had taken statistics with me prior, and several who had not.

Instructor

2000–2001

Virginia Polytechnic Institute & State University, Department of Statistics, Blacksburg, VA

- ▷ Undergraduate teaching experience –
Statistical Methods I & II
Probability and Statistics for Electrical Engineers
Statistics, a Liberal Arts Approach
- ▷ Taught various course-loads with as many as 280 students and three sections per semester.
- ▷ Provided out-of-class tutoring and assistance.
- ▷ Responsible for course, exam, homework, and syllabus design.
- ▷ Supervised Statistical Methods II students in the collection and analysis of data for individual projects of their own choosing.
- ▷ Supervised graduate assistants employed as graders.

Teaching Assistant

1997–2000

Virginia Polytechnic Institute & State University, Department of Statistics, Blacksburg, VA

- ▷ Undergraduate teaching experience –
Statistical Methods I
Biological Statistics I & II
- ▷ Supervised graduate assistants employed as graders.
- ▷ Supervised Biological Statistics II students in the collection and analysis of data for individual projects of their own choosing.
- ▷ Led fifty-student recitation sections –
Introduction to Statistics
- ▷ Graded and reported student homeworks –
Introduction to Statistics
Statistical Methods for the Social Sciences
Probability and Statistics for Electrical Engineers

Statistical Consultant

Virginia Polytechnic Institute & State University, Department of Statistics Consulting Center, Blacksburg, VA

- ▷ Lead and assisted consultant teams to gather information about projects and determine goals and appropriate methods of analysis.
- ▷ Interacted with clients with varying levels of statistical knowledge.
- ▷ Participated in projects from a variety of departments such as Biology, Mechanical Engineering, Food Science, Fisheries & Wildlife, Education, Wood Products, Geology, Chemistry, and Psychology.

Academic Degrees

Ph.D., Statistics

2001

Virginia Polytechnic Institute & State University, College of Arts & Sciences, Blacksburg, VA

- ▷ *Dissertation Title:* A New Nonparametric Procedure for the k -sample Problem
- ▷ *Dissertation Summary:* Research focused on the development of a new statistical method for determining whether data come from equally located distributions
- ▷ *Dissertation Committee Chair:* Dr. George Terrell
- ▷ Chapter Vice-President, Mu Sigma Rho, 1998-1999

M.S., Statistics

1997

Virginia Polytechnic Institute & State University, College of Arts & Sciences, Blacksburg, VA

- ▷ Member, Mu Sigma Rho, National Statistical Honor Society

B.A., Mathematics, Statistics Minor, Cum Laude

1996

Messiah College, Grantham, PA

- ▷ Member, Sigma Zeta, National Honorary Science Society

Published Papers

'Prevalence of Cognitively Intact Individuals Residing in Extended Care Nursing Facilities', (with W. D. Crews, Jr., et. al.), in the *Journal of Clinical Geropsychology* **8**, 323-333.

Professional Memberships

- ▷ The American Statistical Association (2001-present)
 - Section on Nonparametrics
 - Statistical Education
 - Teaching Statistics in the Health Sciences
 - Isolated Statisticians
 - Christian Statisticians Informal Discussion Group
 - Harrisburg Chapter
 - Receive *AMSTAT News* and *Journal of the American Statistical Association*
- ▷ The Institute for Mathematical Statistics (2001-2006)
 - Received *The IMS Bulletin* and *The Annals of Statistics*
- ▷ The Mathematical Association of America (2001-2008)
 - Eastern Penn/Delaware Section
 - Receive *FOCUS* and *The American Mathematical Monthly*
- ▷ Receive the *Journal of Nonparametric Statistics* (2006-2007)
- ▷ The Association of Christians in the Mathematical Sciences (2007-present)
 - Attended the biennial conference at Messiah College, May 2007.
 - Presented a talk at the biennial conference at Westmont College, May 2011. (*A Bayesian Secondary Analysis in an Asthma Study*)

Additional Skills

- ▷ SAS: General Procs, Macro Programming, International Matrix Language, Analyst, and Data Management
- ▷ Minitab: Graphics, Data Summary, Data Manipulation and Analysis
- ▷ LaTeX: Equations, Tables, General Chapters, Indexes, Bibliographies, Type-Setting, Presentations using Beamer
- ▷ Working knowledge of UNIX and Windows environments
- ▷ Working knowledge of Microsoft Office and Correl Suite word processing and spreadsheet software
- ▷ Working knowledge of WikiMedia software, including mathematics typesetting