

Perpetua Lynne Nielsen, Ph.D.

Department of Statistics
Brigham Young University
2176 WVB
Provo, UT 84602

Email: nielsen@stat.byu.edu
Phone: (801) 422-9202
Fax: (801) 422-0635

EDUCATION

- Doctor of Philosophy: Instructional Psychology and Technology (Measurement and Evaluation); Brigham Young University; August 2018
 - Dissertation: Enhancing Educational Dialogue to Promote Student Success in an Online Independent Study Statistics Course
- Master of Science: Statistics; Brigham Young University; April 1984
 - Thesis: Furnace Control Feedback Loop in the Manufacture of Integrated Circuits
- Bachelor of Science: Mathematics; University of the Philippines; April 1973

PROFESSIONAL EXPERIENCE

- Teaching Professor; Course Manager for Introductory Statistics Courses; Brigham Young University; August 2000-Present.
- Adjunct Faculty; Chandler-Gilbert Community College, Arizona; 1990-2000.
Instructor in College Algebra, Brief Calculus, Finite Mathematics, Business Statistics and Quantitative Methods in Business. Attended workshops and seminars on Cooperative Learning and Critical Thinking in Education.
- Research Director; SkyMall; Phoenix, AZ; 1992-1994.
Responsible for all aspects of research (design, data collection, analysis and report generation) for monthly and quarterly customer satisfaction surveys as well as market research activities.
- Consultant; INTEL Corporation, Chandler, AZ; 1987-1988.
Helped design and develop the training manual for the Continuous Improvement Program of the Quality Control Division.
- Consultant; International Rectifier; Temecula, California; 1986-1987.

Helped develop the performance appraisal program of the Human Resource Department; Implemented and supervised the use of quality control charts in the production of integrated circuits.

- Research Associate; Correlation Department; The Church of Jesus Christ of Latter-day Saints; Salt Lake City, Utah; 1983-1986.
Designed and implemented the sampling methodology of the church-wide Women's Survey; Analyzed and summarized the results of the study.
- Instructor in Math and Statistics; Utah Technical College; Orem, UT; 1984-1986.
- Teaching and Research Assistant; Department of Statistics; Brigham Young University; Provo, UT; 1981-1984.
- Head, Socio-Economic Evaluation Division; National Electrification Administration (NEA); Manila, Philippines; 1976-1980.
Co-author, NEA's Nationwide Survey of Rural Households and Small Businesses on the Socio-economic Impact of Rural Electrification; Funded by USAID for \$100,000 in 1979.
- High School Math Instructor; St. Marys' College; Manila, Philippines; 1973-1976.

TEACHING EXPERIENCE

- Brigham Young University:
 - Statistics 105 Introduction to Statistics
 - Statistics 121 Principles of Statistics
 - Statistics 301 Statistics and Probability for Secondary Educators
 - Statistics 321 Elements of Mathematical Statistics
 - Statistics 334 Methods of Survey Sampling
 - Statistics 361 Quality Improvement for Industry (currently Stat 201 Statistics for Engineers and Scientists)
- Chandler-Gilbert Community College
 - College Algebra and Trigonometry
 - Finite Mathematics
 - Integral Calculus
 - Differential Calculus
- Utah Technical College
 - College Algebra
 - Introductory Statistics
- St. Mary's College
 - Algebra
 - Geometry
 - Trigonometry

PUBLICATIONS IN PREPARATION

- Nielsen, P. L. & Scott, D. “Enhancing educational dialogue to promote student success in an Independent study course in Statistics,” under second revision at Journal of Statistics Education.
- Nielsen, P. L., & Sudweeks, R. “Development and evaluation of abbreviated scales for measuring learner autonomy and attitude towards Statistics,” submitted to the British Journal of Distance Education.

PEER-REVIEWED PUBLICATIONS

- Nielsen, P. L., Bean, N., & Larsen, R. (2018). The impact of a flipped classroom model of learning on a large undergraduate statistics class. *Statistics Education Research Journal*. 17(1), 121-140.
- Bowen, D., Hudson, V. M., & Nielsen, P. L. (2015). We Are Not Helpless: Addressing Structural Gender Inequality in Post-Conflict Societies. *PRISM – Journal of the Center for Complex Operations*. 6(1), 123–139.
- Hudson, V. M., Bowen, D., & Nielsen, P. L. (2015). Clan governance and state stability: The relationship between female subordination and political order. *American Political Science Review*, 109 (3), 535-555. doi:10.1017/S0003055415000271
- Billings, C., Nielsen, P.L., Snyder, A., Sorensen, A., & West, R. E. (2012). Educational Technology Research Journals: “Journal of Research on Technology in Education, 2001-2010”. *Educational Technology*, 52(4), 37-41.
- Hudson, V. M., Bowen, D., & Nielsen, P. L. (2011). What is the relationship between inequity in family law and violence against women? Approaching the issue of legal enclaves. *Politics and Gender*, 7, 453-492.

OTHER PUBLICATIONS

- Hudson, V. M., Bowen, D., & Nielsen, P. L. *The First Political Order: How Sex Shapes Governance and National Security Worldwide*. Columbia University Press. Published March 2020.
- Bowen, D., Hudson, V. M., & Nielsen, P. L. (2015). State Fragility and Structural Gender Inequality in Family Law: An Empirical Investigation. *Laws* (Special Edition: Evolving Challenges: An International Retrospective on Feminist Legal Theory). 4(4), 654–672;

doi:10.3390/laws4040654

- Nielsen, P. L. (2004). Secrets of A+ Teaching Assistants. *STATS: The Magazine for Students of Statistics*, 41, 14-16.

GRANTS

- College of Physical and Mathematical Sciences (CPMS), Brigham Young University, HITS grant for \$8,000 to develop and implement Shiny R Apps to enhance Statistics 121 lectures and labs; shared with Matt Heaton (BYU). 2018-2019.
- U.S. Department of Defense; Minerva grant for \$1.2 M to investigate the relationship between household formation systems and marriage markets to state stability and security; shared with Valerie Hudson (Texas A & M), Rebecca Nielsen (Yale), and Donna Lee Bowen (BYU). 2015-2018.
- CPMS HITS grant for \$3,500 to develop Statistics 121 mastery-based quizzes on Learning Suite. 2013

PROFESSIONAL ACTIVITIES AND SERVICE

- Service to the University
 - Advisor, BYU Filipino Club, 2007 to present.
 - Member, BYU Women's Conference Committee, 2018-2020.
 - Co-principal investigator, BYU WomanStats project, 2012 to present.
 - Collaborator, Decision-based Learning Project with Center for Teaching and Learning and School of Education, 2018-2021
 - Panel discussion member, Forum on Use of Open Source ebooks and Textbook Affordability, Brigham Young University, March 2016.
 - Speaker, BYU Women's Colloquium Series, "Female Subordination, Clan Governance, and State Peacefulness", April 2016.
 - Speaker, BYU Women's Colloquium Series, "What is the relationship between Inequitable Family Laws and Level of Violence Against Women? Approaching the Issue of Legal Enclaves", January 2014.
 - Panelist, BYU Student Consultants on Teaching (SCOT) Training program, February 2011.
 - Panelist, BYU Faculty Women's Association's (FWA) Meeting on Work/Life Balance, February 15, 2011.
 - Chair, Family Issues Committee, BYU Faculty Women's Association, 2007-2010.
- Service to the College

- Session facilitator, College of Physical and Mathematical Sciences' Annual TA Training Conference, 2001 to present.
- Service to the Department
 - Chair, Statistics 121 Steering committee, 2002 to present
 - Member, Curriculum committee, 2019 to present
 - Member, Learning Outcomes committee, 2018 to present
 - Member, Lab resources committee, 2016-present
 - Statistics 105 (Introduction to Statistics) course development and management, 2009 to present
 - Statistics 121 Online (Principles of Statistics) course development and management, 2016 to present
 - Statistics 121 BYU Independent Study, course development and management, 2012-present
 - Stat 201 Statistics for Engineers and Scientists (formerly Statistics 361 Quality Improvement for Industry) course development (2016) and management, 2019
 - Stat 230 (Analysis of Variance) course development: managed the transition from 12 paper homework submissions (mostly free response) to 30 online homework submissions on Learning Suite with 15 multiple choice/true-false questions per homework set, 2019
 - Presenter, BYU Department of Statistics seminar, The impact of a flipped classroom model of learning on a large undergraduate statistics class, November 2017.
- Service to the Statistics Education Community
 - Peer Review Referee for Statistics Education Research Journal, 2018-2019.
 - Reader for Advanced Placement (AP) Statistics Exams, Earned 52 Professional Development Hours and 5.2 Continuing Education Units from Educational Testing Service's College Board, 2003-2010.
 - Participant, U.S. Conference on Teaching Statistics (Ohio State University) 2005-2015
 - Participant, Redesign and Technology Conference: Innovation in Mathematics Education, Charleston, South Carolina, 2009.
 - Book reviewer for Basic Practice of Statistics by David Moore, 2009 and 2012 editions.
 - Book reviewer for Statistics: The Art and Science of Learning from Data by Alan Agresti and Chris Franklin, 2008 and 2011 editions.
 - Participant, Introductory Statistics Forum sponsored by Pearson –Prentice Hall, Boston, MA, 2008.
- Service to International Studies Association
 - Presenter; International Studies Association, "Geographic Patterns of Women's Subordination Through Law and Violence." April 2018; San Francisco, California.
 - Presenter; International Studies Association; "Marriage Systems, Political Order, and National Stability: Some Preliminary Findings." February 2017; Baltimore, Maryland.

- Presenter; International Studies Association; “The First Political Order: Sex, Governance, and National Security.” March 2016; Atlanta, Georgia.
- Service to Community
 - Member, Mentoring Committee, Utah Women in Education Initiative by Utah’s governor, 2012-2014.
 - Presenter, Expanding Your Horizons’ Girls Conference, Utah Valley University, Orem, UT, 2008-2010.
 - Consultant for Provo School District’s Center for Accelerated Studies to develop and analyze a parent survey to evaluate the services offered to gifted kids by the district, 2009.

MEMBERSHIPS

- Statistical Education Section, American Statistical Association, 2001 to present.
- International Studies Association, 2015-2018.
- American Educational Research Association, 2011-2013
- Mathematical Association of America, 2003 – 2010.