Eric D. Nordmoe

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Research Interests

- Statistics education
- Applications of categorical data analysis
- Uses of technology in introductory statistics pedagogy

Education

1993 PhD (Statistics) Northwestern University with Shelby Haberman, "Entropy-Based Prediction of Categorical Response Variables in Scanner Panel Data."

1987 MBA (Econometrics and Marketing with honors) University of Chicago.

1981 BA (Economics with honors) University of Chicago.

Academic Positions

- · Professor, Kalamazoo College, 2016-present
- · Associate Professor, Kalamazoo College, 2004–2016
- Assistant Professor, Kalamazoo College, 1996–2004

Major duties: Teach courses in statistics and mathematics, supervise senior individualized projects, advise students, engage in scholarly research, serve on faculty committees, and provide statistical consultation to students and faculty.

Courses taught:

- Calculus I
- Calculus II
- Applied Statistics I
- Applied Statistics II
- Biostatistics
- Introduction to Data Science
- Probability
- Mathematical Statistics
- Mathematical Modeling Seminar
- Mathematics Majors Workshop: How to Lie with Statistics

· Visiting Professor, Korea University, Seoul, Korea, 2010

Visiting appointment to teach two Statistical methods courses in the International Summer Campus program.

Visiting Scientist, Nanyang Technological University, Singapore, 2006

Sabbatical appointment to carry out collaborative applied statistical research related to life and environmental sciences as well as population analysis of long-lived taxa. Developed and applied statistical models for longitudinal data including time series models, linear mixed models, and generalized linear mixed models.

Visiting Scholar in Biostatistics, University of Michigan, Fall 2002

Carried out research and attended seminars related to applications of statistical methods for longitudinal data including linear mixed models and generalized linear mixed models.

Teaching Fellow, Department of Economics and Statistics, National University of Singapore, 1993–1996

Major duties: Conducted lectures and tutorials in applied statistics for undergraduate majors and supervised honors thesis projects.

Courses taught:

- Elementary Statistics
- Statistical Methods and Computing with SAS
- Marketing Research
- Statistical Methods for Social Sciences

• Lecturer, Northwestern University, 1991–1993

Taught Introductory Statistics to university undergraduates each quarter of the 1991–92 and 1992–93 academic years while writing dissertation.

· Research Assistant, Northwestern University, 1989–1992

Provided lead research assistance in major analytical project for the U.S. Army Recruiting Command. Responsibilities included project management and supervision, statistical analysis, programming and report writing. Project involved merging and re-weighting data sets, modeling aptitude scores, modeling and imputing missing scores and adjusting national empirical score distributions to allow small area analysis.

• Statistical Consultant, Northwestern University, 1990–1991

Completed a variety of faculty-supervised consulting assignments for university and external clients. Responsibilities included direct statistical consultation, analysis, and preparation of reports.

Industry Positions

• Statistical Consultant, Kraft, Inc., 1989

Analyzed new product database for marketing information department. Analysis led to the establishment of performance standards for new products in consumer testing.

Assistant Manager Marketing Research, Kraft, Inc., 1985–88
Managed, analyzed, reported, and presented consumer marketing research for new product introductions.

• Research Supervisor, BBDO Chicago, 1981-85

Analyzed and reported ongoing and new product market research for consumer products clients. Responsibilities also included econometric modeling and introducing the research department to new statistical techniques including the analysis of categorical data using log-linear models.

Refereed Publications

- Nordmoe, E. D. (2008), "Kiss high blood pressure goodbye: The relationship between dark chocolate and hypertension," *Teaching Statistics*, 30, 34–38.
- Nordmoe, E. D. (2007), "Mobiles and cancer: A case of phony connections?," *Teaching Statistics*, 29, 2–7.
- Nordmoe, E. D. (2007), "Service-learning in introductory statistics at Kalamazoo College," *Journal of Statistics Education* [Online], 15(2).
- Nordmoe, E. D., Sieg, A. E., Sotherland, P. R., Spotila, J. R., Paladino, F. V. and Reina, R. D. (2004), "Nest Site Fidelity of Leatherback Turtles at Playa Grande, Costa Rica," *Animal Behaviour*, 68, 387–394.
- Nordmoe, E. D. (2004), "Of Poohsticks and P-values: Hypothesis Testing in the Hundred Acre Wood," *Teaching Statistics*, 26, 56–58.
- Nordmoe, E. D., Jain, D. C. (2000), "Drawing Statistical Inferences from Logit Models for Panel Data," Applied Stochastic Models in Business and Industry, 16, 127–145.
- Nordmoe, E. D. (1998), "Lawn Toss: Producing Data On-the-Fly." *Teaching Statistics*, 20, 66–67.
- Nordmoe, E. D. (1996), "Testing the Significance of Correlations," *Teaching Statistics*, 18, 20–22.

Other Publications

- Fink, J. F. and Nordmoe, E. D. (2006), "A Decade of Quantitative Reasoning at Kalamazoo College," in *Current Practices in Quantitative Literacy*, ed. R. A. Gillman, Mathematical Association of America, pp. 51–55.
- Nordmoe, E. D. (2000), "Using SPSS in an Undergraduate Probability and Mathematical Statistics Course," American Statistical Association Proceedings of the Section on Statistical Education, pp. 225–29.

• Larson, R. B., Nordmoe, E. D. and Veeck, A. (2000), "Segmenting Households Based on Food Nutrition Attitudes and Behavior," abstract of Research Update presented at the Annual Meeting of the Food Distribution Research Society in San Antonio, TX, on October 20, Journal of Food Distribution Research, 31, 248–49.

 Spencer, B. D., Nordmoe, E. D., Qian, J., and Haberman, S. J. (1991), "Aptitude Score Distribution Study — Phase I: Sample Merging and Direct Estimation of Armed Forces Qualifying Test Score Distributions in Counties and Battalion Regions," Chicago: NORC.

Paper In Progress

• Nordmoe, E. D. (in progress), "Where's the Greek? Applying Diversity Indices to Quantify Achieved Curriculum Breadth."

Selected Presentations

- "Of Poohsticks, P-values, and Plus-Four: A Perambulation through a Century of Inference for Proportions," presentations at Hope College (April 2016), Kalamazoo College (February 2016), and Hillsdale College (October 2013).
- "New Graduation Requirements Four Years Later: Holding Our Breadth or Time for Baited Breadth?" presentation at the Fall Faculty Colloquium, Kalamazoo College, September 2013.
- "Quantifying Achieved Curricular Breadth: Evaluating a Change in Degree Requirements," joint presentation with Professor Paul Sotherland at the North Central Association Higher Learning Commission Annual Conference, Chicago, IL, April 2012.
- "Are Students Catching their Breadth under the New Graduation Requirements?" presentation at the Fall Faculty Colloquium, Kalamazoo College, September 2011.
- "Where's the Greek? Applying Diversity Indices to Quantify Achieved Curriculum Breadth," poster presented at the Joint Statistical Meetings, August 2011.
- "Keeping the Doors Open: A Summer Algebra Camp for Under-represented Minority Middle Schoolers," with John Fink, paper presented at the Joint Mathematics Meetings, January 2010.
- "Election 2008, A View from Cyberspace: Election Graphics Then and Now," presentation at Kalamazoo College, November 2008.
- "There's No Place Like Home Investigating Nest Site Fidelity in Leatherback Sea Turtles (*Dermochelys coriacea*)," presented at the Indian Ocean and South East Asia (IOSEA) Year of the Turtle 2006 celebration in Singapore, November 2006.
- "Nest Site Fidelity in Leatherback Turtles," presentation to the Malaysian Nature Society in Kuching, Sarawak, Malaysia, August 2006.

• "Community-based Learning in Undergraduate Courses," paper presented at the Joint Statistical Meetings, August 2005.

- "A Mixed Models Approach to Nest Site Fidelity of Leatherback Turtles at Playa Grande," poster presented at the Joint Statistical Meetings, August 2004.
- "Describing Nest Site Fidelity in Leatherback Turtles: Home, Home on the Beach," presentation at Grand Valley State University, March 2003.
- "Patterns of Nest-Site Locations of Individual Leatherback Turtles (Dermochelys Coriacea) Nesting At Parque Nacional Las Baulas, Costa Rica," with Sieg, A. E., Reina, R. D., and Sotherland, P. R., poster presented by A. E. Sieg at the 22nd Annual Symposium on Sea Turtle Biology and Conservation, April 2002.
- "Using SPSS in an Undergraduate Probability and Mathematical Statistics Course," paper presented at the Joint Statistical Meetings, August 2000.
- "Identifying the Healthy Eaters: An Application of Correspondence Analysis," with Larson, R. and Veeck, A., paper presented at the *Kalamazoo College Faculty Study*, February 2000.
- "The Essence of Marketing Research: The Buyer Be Where, ..., What, When, and Why," presentation at the Kalamazoo College Mathematics Workshop, October 1996.
- "Drawing Statistical Inferences from Logit Models for Panel Data: A Robust Approach," with Dipak C. Jain, paper presented at Advances in the Theory and Practice of Marketing Science, the 1995 TIMS Marketing Science Conference, July 1995.
- "Entropy-based Prediction of Categorical Response Variables in Scanner Panel Data," paper presented at the National University of Singapore Department of Economics and Statistics Seminar, January 1994.

Computer Skills

- MacOS, Windows and Unix operating systems
- R. R Markdown, RStudio, LATEX, MINITAB, SAS, and SPSS.

Grants

- Teagle Foundation Scholarship of Teaching and Learning, Kalamazoo College, 2011, 2103
- Scholarship of Teaching and Learning Conference Attendance Award, 2013
- Faculty Development Software Fund Award, Kalamazoo College, 2009
- Faculty Development Travel Awards, Kalamazoo College, 1996–98, 2000, 2002, 2004, 2005, 2007, 2009, 2010, 2011, 2016, 2018, 2019, 2020.
- Faculty Study Abroad Travel Award, Kalamazoo College, 2006
- Oberlin College/Kalamazoo College/University of Michigan Exchange Program, 2002
- Kalamazoo College Faculty/Student Summer Research Grant, 2002

 LaPlante Fellowship, The Mary Jane Underwood Stryker Institute for Service Learning, 2002

• McGregor Interdisciplinary Research Grant, Kalamazoo College, 2001

Academic Service

- Associate Editor, Journal of Statistics Education, 2009–present.
- Contributing Editor, Teaching Statistics, 2005–2011.
- Faculty Consultant, College Board Advanced Placement Statistics Examination, 2001–05, 2007, 2017, 2019.
- Judge, Michigan Statistics Poster Competition, 2001–2009.
- Chapter representative, Southwest Michigan Chapter of the American Statistical Association, 2000–03

Service to Kalamazoo College

- Statistical Consulting
 - Senior Independent Projects (SIPs), 1996-present
 - Faculty research projects, 1996–present

• Department Administration

- Chair, Mathematics and Computer Science, Fall 2004–Fall 2005, July 2016– present
- Chair, Mathematics Search Committee, 2004–06, 2014, 2016, 2018–19.
- Acting chair, Mathematics and Computer Science, Fall 1999 and Summer 2001
- Developed Mathematics and Computer Science Department online mathematics placement exams, 2005
- Coordinator of Mathematics and Computer Science Department comprehensive mathematics exams, 1998–present

• Assessment and Reaccreditation

- Member, Faculty Executive Committee, 2020–present.
- Chair, Assessment Committee, 2001–02, 2003–04, 2014–16
- Member, Institutional Assessment Plan ad hoc Committee, 2016.
- Chair, Reaccreditation Self-study Steering Committee, 2010–13.
- Chair, Reaccreditation Planning Task Force, 2009–10.
- Chair, Educational Policies Committee, 2009.
- Member, Educational Policies Committee, 2006–09.
- Attendee, North Central Association Annual Meeting, 2002, 2009–12
- Member, Assessment Committee, 1998–99, 2000–2004, 2005, 2013–14
- Self Study Steering Committee, 2001–03
- Attendee, The Assessment Institute, Indiana University-Purdue University Indianapolis, 2001

- · Other Service
 - Admission Committee, 1998–2000, 2018–present
 - Dean of the Senior Class, 2008–12
 - Employee Advisor, 2007–2020
 - Academic Advisor, 1997–present
 - Registrar Search Committee, 2008
 - College Appeals Board Member, 2008–11, 2017–19
 - Luce Professor Search Committee, 2001
 - Luce Proposal Working Group, 2000
 - Fiction Writer Search Committee, 1998–99
 - International Programs Committee, 1997–98
 - Applied Math Search Committee, 1996–97

Professional Memberships

- Member, American Statistical Association, 1989–present
- Member, American Marketing Association, 1981–88, 1998–99
- Council Member, Singapore Institute of Statistics, 1994–96