

CURRICULUM VITAE

Name: Jeffrey N. Jonkman
Associate Professor of Mathematics and Statistics
Grinnell College

Work Address: Department of Mathematics and Statistics
Grinnell College
1116 8th Avenue
Grinnell, IA 50112
641-269-3930
jonkmanj@grinnell.edu

Education:

1989	Mathematics	B.A.	Calvin College
1991	Statistics	M.Ap.St.	Louisiana State University
1998	Statistics	Ph.D.	North Carolina State University

Postdoctoral Training:

1998 - 2000 Postdoctoral Fellow, Department of Health Care Policy, Harvard Medical School

Previous Positions:

2007 - 2009 Associate Professor of Biostatistics, Department of Biostatistics, University of Arkansas for Medical Sciences

2006 - 2007 Associate Professor of Statistics, Department of Mathematics and Statistics, Mississippi State University

2000 - 2006 Assistant Professor of Statistics, Department of Mathematics and Statistics, Mississippi State University

Major Research Interests:

Methodological: Meta-Analysis, Group Testing, Observational Data

Applied: Health Services Research, Analysis of Environmental Data

Professional Societies:

American Statistical Association

Honors and Distinctions:

1997	William Mendenhall Teaching Scholar, Department of Statistics, NCSU
1992-1993	Gertrude M. Cox Fellowship, Department of Statistics, NCSU
1986	Faculty Honors Scholarship, Calvin College
1985	Presidential Scholarship, Calvin College

Refereed Publications:

1. Nagarajan R, Jonkman JN. A Neural Network Model to Translate Brain Developmental Events across Mammalian Species. *PLoS One*, January 7, 2013.
2. Jonkman JN, Blinn-Pike L, Worthy SL. How is Gambling Related to Perceived Parenting Style and/or Family Environment for College Students? *Journal of Behavioral Addictions* 2013; 2(1): 42-49.
3. Bronstein JM, Ounpraseuth ST, Jonkman JN, Fletcher D, Nugent RR, McGhee J, Lowery CL. Use of Specialty OB Consults during High Risk Pregnancies in a Medicaid Covered Population: Initial Impact of the Arkansas ANGELS Intervention. *Medical Care Research and Review* 2012; 69(6): 699-720.
4. Bronstein JM, Ounpraseuth ST, Jonkman JN, Lowery CL, Fletcher D, Nugent RR, Hall RW. Improving Perinatal Regionalization for Preterm Deliveries in a Medicaid Covered Population: Initial Impact of the Arkansas ANGELS Intervention. *Health Services Research* 2011; 46(4): 1083-1102.
5. Worthy SL, Jonkman JN, Blinn-Pike L. Sensation-Seeking, Risk-Taking, and Problematic Financial Behaviors of College Students. *Journal of Family and Economic Issues* 2010; 31: 161-170.
6. Jonkman JN, Sidik K. Equivalence Testing for Parallelism in the Four-parameter Logistic Model. *Journal of Biopharmaceutical Statistics* 2009; 19: 818-837.
7. Jonkman JN, Gerard PD, Swallow WH. Estimating Probabilities Under the Three-parameter Gamma Distribution Using Composite Sampling. *Computational Statistics and Data Analysis* 2009; 53: 1099-1109.
8. Sidik K, Jonkman JN. Maximum Likelihood Estimation Using Non-Central Hypergeometric Distributions for Combining 2x2 Tables. *Journal of Statistical Planning and Inference* 2008; 138: 3993-4005.
9. Blinn-Pike L, Worthy SL, Jonkman JN, Smith GR. Emerging Adult versus Adult Status among College Students: Examination of Explanatory Variables. *Adolescence* 2008; 43: 577-591.

10. Sidik K, Jonkman JN. A Comparison of Heterogeneity Variance Estimators in Combining Results of Studies. *Statistics in Medicine* 2007; 26: 1964-1981.
11. Blinn-Pike L, Worthy SL, Jonkman JN. Disordered Gambling among College Students: A Meta-Analytic Synthesis. *Journal of Gambling Studies* 2007; 23: 175-183.
12. Sidik K, Jonkman JN. Robust Variance Estimation for Random Effects Meta-Analysis. *Computational Statistics and Data Analysis* 2006; 50: 3681-3701.
13. Sidik K, Jonkman JN. A Note on Variance Estimation in Random Effects Meta-Regression. *Journal of Biopharmaceutical Statistics* 2005; 15: 823-838.
14. Sidik K, Jonkman JN. Simple Heterogeneity Variance Estimation for Meta-Analysis. *Applied Statistics (Journal of the Royal Statistical Society, Series C)* 2005; 54(2): 367-384.
15. Jonkman JN, McCarty D, Harwood H, Normand SL, Caspi Y. Practice Variation and Length of Stay in Alcohol and Drug Detoxification Centers. *Journal of Substance Abuse Treatment* 2005; 28: 11-18.
16. Sidik K, Jonkman JN. Sample Size Determination in Fixed-Dose Combination Drug Studies. *Pharmaceutical Statistics* 2003; 2(4): 273-278.
17. Sidik K, Jonkman JN. On Constructing Confidence Intervals for a Standardized Mean Difference in Meta-Analysis. *Communications in Statistics – Simulation and Computation* 2003; 32(4): 1191-1203.
18. Sidik K, Jonkman JN. A Simple Confidence Interval for Meta-Analysis. *Statistics in Medicine* 2002; 21: 3153-3159.
19. Jonkman JN, Normand SL, Wolf R, Borbas C, Guadagnoli E. Identifying a Cohort of Patients with Early-Stage Breast Cancer: A Comparison of Hospital Discharge and Primary Data. *Medical Care* 2001; 39: 1105-1117.

Other Publications:

1. Worthy SL, Blinn-Pike L, Jonkman JN. Having mom and dad pay for college: Financial advantage or disadvantage? *Consumer Interests Annual* 54, 2008. Available at <http://www.consumerinterests.org/i4a/pages/index.cfm?pageid=3314>
2. Sidik K, Jonkman JN. Authors' Reply. (Response to a letter by Dr. John Copas regarding "A Simple Confidence Interval for Meta-Analysis") *Statistics in Medicine* 2004; 23: 159-162.

Submitted Manuscripts:

1. Sidik K, Jonkman JN. Testing for Parallelism in the Heteroscedastic Four-parameter Logistic Model. Submitted to the *Journal of Biopharmaceutical Statistics*.

Manuscripts in Progress:

1. Sidik K, Jonkman JN. A Comparison of Variance Estimation Methods for Heteroscedastic Nonlinear Models.
2. Doyle KM, Evans BA, Jonkman JN, Borders TF. Dialing up Demographics: A State-Level Comparison of the BRFSS to the Current Population Survey.
3. Nagarajan R, Clancy B, Jonkman JN. Improved Prediction of Neurodevelopmental Event Timings.
4. Worthy SL, Jonkman JN, Blinn-Pike L. Emerging Adulthood as a Conceptual Framework to Help Explain College Students' Financial Situations.
5. Jonkman JN, Swallow WH. On Asymptotic Properties of Maximum Likelihood Estimates for the Three-Parameter Gamma Distribution.

Research Grants

2009-2010	Weber JL, Robbins J, Hays NP, Pulley L, Moore P, Jonkman JN, Perry T, McNiece K, and Ward-Begnoche W. "Physical Activity Patterns and Health Status of Residents of the Delta," \$450,000, USDA.
2004-2007	Cox MS, Kingery WL, Jonkman JN, Walker T, and Martin S. "Enhanced Soils Mapping for Productive Capacity Assessments," \$273,000, USDA.
2002-2004	Cox MS, Kingery WL, Jonkman JN, Oldham LJ, and Walker T. "Soil Management Zone Delineation for Different Land Uses," \$139,887, USDA.

Graduate Student Committees (by graduation date):

2007	Major Professor: Dongmei An, M.S. in Statistics.
2007	Committee Member: Xiaoyan Chu, M.S. in Statistics.
2007	Committee Member: Shuwei Fang, M.S. in Statistics.
2006	Major Professor: Yijun Sun, M.S. in Statistics.
2006	Major Professor: Qi Yao, M.S. in Statistics.
2006	Committee Member: Nusrat Jahan, Ph.D. in Mathematical Sciences.
2006	Committee Member: Chitra Prabhu, M.S. in Geosciences.
2005	Major Professor: Zhenyu Liu, M.S. in Statistics.
2005	Committee Member: Ikuko Fujisaki, M.S. in Statistics.

2005 Committee Member: Xiaowei Tian, M.S. in Statistics.
 2005 Committee Member: Nibiao Zheng, M.S. in Statistics.
 2004 Major Professor: Shoufeng Gong, M.S. in Statistics.
 2004 Minor Professor: Rui Wang, Ph.D. in Biological Engineering.
 2004 Committee Member: Ninglong Han, M.S. in Statistics.
 2004 Committee Member: Soo-Kyoung Kim, M.S. in Statistics.
 2004 Committee Member: Justin Shows, M.S. in Statistics.
 2004 Committee Member: Dongyu Ying, M.S. in Statistics.
 2003 Major Professor: Li Dong, M.S. in Statistics.
 2003 Major Professor: Hongying Fan, M.S. in Statistics.
 2003 Major Professor: Liyan Xu, M.S. in Statistics.
 2003 Committee Member: Yi-Chen Chen, M.S. in Statistics.
 2003 Committee Member: Naveen Parihar, M.S. in Electrical Engineering.
 2002 Major Professor: Carol Chen, M.S. in Statistics.
 2002 Major Professor: Chunjie Dai, M.S. in Statistics.
 2002 Major Professor: Yuyan Luo, M.S. in Statistics.
 2002 Minor Professor: Ashley Renck, Ph.D. in Agricultural Economics.
 2002 Committee Member: Xuhong Liu, M.S. in Statistics.
 2002 Committee Member: Gensheng Shi, M.S. in Statistics.
 2002 Committee Member: Huiqin Yang, M.S. in Statistics.
 2001 Minor Professor: Jennifer Riley, Ph.D. in Industrial Engineering.
 2001 Committee Member: Sonna Cranford, M.S. in Statistics.
 2001 Committee Member: Yunxia Shen, M.S. in Statistics.
 2001 Committee Member: Juan Wu, M.S. in Statistics.
 2001 Committee Member: Zhe Zhang, M.S. in Statistics.

Courses Taught:

2010-12 Probability and Statistics II (MAT336). Department of Mathematics and Statistics, Mississippi Grinnell College.
 2010-13 Applied Statistics (MAT209). Department of Mathematics and Statistics, Grinnell College.
 2009-13 Probability and Statistics I (MAT335). Department of Mathematics and Statistics, Mississippi Grinnell College.
 2012 Statistical Analysis of Spatial Data (MAT/SST 295). Department of Mathematics and Statistics, Grinnell College. (Co-taught with Kathy Kamp, Department of Anthropology.)
 2011 First-Year Tutorial (TUT100): Lies, Damned Lies, and Statistics. Department of Mathematics and Statistics, Grinnell College.
 2009, 11 Introduction to Statistics (MAT/SST115). Department of Mathematics and Statistics, Grinnell College.
 2008 Biometrical Methods I (BIOM 5013). Department of Biostatistics, University of Arkansas for Medical Sciences.
 2003, 05, 07 Advanced Regression Analysis (ST8263). Department of Mathematics and Statistics, Mississippi State University.

- 2002, 04, 07 Nonparametric Methods (ST4213/6213). Department of Mathematics and Statistics, Mississippi State University.
- 2001-2006 Regression Analysis (ST8253). Department of Mathematics and Statistics, Mississippi State University.
- 2000-2006 Linear Models I (ST8613). Department of Mathematics and Statistics, Mississippi State University.
- 2006 Introduction to Spatial Statistics (ST4313/6313). Department of Mathematics and Statistics, Mississippi State University.
- 2001 Introduction to Probability (MA/ST 4523/6523). Department of Mathematics and Statistics, Mississippi State University.
- 2000 Statistical Methods (ST8114). Department of Mathematics and Statistics, Mississippi State University.
- 1998 Introduction to Statistics for Engineers (ST361). Department of Statistics, North Carolina State University.

Other Teaching Experience:

- 1993-1994 Teaching Assistant, Department of Statistics, North Carolina State University (ST521 and ST522 – Statistical Theory I and II)
- 1990 Lab Instructor and Grader, Department of Experimental Statistics, Louisiana State University (EXST2201 – Introduction to Statistical Analysis)

Other Research and Work Experience:

- 1998- 2000 Investigator, "Data Sources and Patterns of Care for Breast Cancer," National Cancer Institute Grant 1 R01 CA75545-01A1, Department of Health Care Policy, Harvard Medical School
- 1998- 2000 Consultant, "Substance Abuse Detoxification Programs," Institute for Health Policy, Brandeis University
- 1996-1998 Editorial Assistant, *Journal of Statistics Education*
- 1995-1996 Research Assistant, National Institute of Statistical Sciences; Spatial covariance modeling of ozone data for an EPA-funded project
- 1994-1995 Research Assistant, EMAP Forestry Project; Spatial analysis of forestry data for the national Environmental Monitoring and Assessment Program, work funded by the U.S. Forest Service
- 1993-1995 Research Analyst, Johnston, Zabor and Associates, Durham, NC; Analysis of survey data and prediction of product market shares
- 1991-1992 Statistician, Exxon NRDA Project, Houston, Texas; Analysis of wildlife data following the Exxon Valdez oil spill

Local and National Presentations:

- July 2012 ACES (Adult Community Exploration Series) Course, Grinnell, IA. Lies, Damned Lies, and Statistics.

- Nov. 2009 Central Arkansas Statistical Association, Little Rock, AR. Introduction to Meta-Analysis. (Short course taught jointly with Terry Griffin, Ph.D., and Tom Stanley, Ph.D.)
- Sep. 2008 UAMS Department of Psychiatry, Division of Health Services Research Conference, Little Rock, AR. Studying Length of Stay in Detox: A Statistician's Perspective.
- July 2007 Department of Biostatistics, Vanderbilt University, Nashville, TN. A Simple Estimator of the Between-Study Variance in Meta-Analysis.
- Aug. 2004 Joint Statistical Meetings, Toronto, ON, Canada. Simple Heterogeneity Variance Estimation for Meta-Analysis.
- Mar. 2000 ENAR (Biometric Society) Meetings, Chicago, IL. On the Power of Stratified Analyses Using Propensity Score Stratification.
- Aug. 1999 Joint Statistical Meetings, Baltimore, MD. On the Power of Stratified Analysis Using Propensity Score Matching.
- July 1999 Statistical Methods Seminar in Health Care Policy, Harvard Medical School, Boston, MA. On the Power of Stratified Analysis Using Propensity Score Matching.
- Apr. 1996 Air Quality Working Group Seminar, National Institute of Statistical Sciences, Research Triangle Park, NC. A Mixed Model for Spatial Covariance of Ozone Levels.

Administrative Responsibilities:

- 2012- Community Mini-Grant Review Committee, Grinnell College
- 2012- Institutional Review Board (Chair, 2013-), Grinnell College
- 2011- Vice-President and President-Elect, Iowa Chapter of the American Statistical Association
- 2010-13 Health Professions Advisory Committee, Grinnell College
- 2011-12 Interdisciplinary Studies Advisory Board, Grinnell College
- 2009-12 Mathematics and Statistics Seminar Series coordinator, Department of Mathematics and Statistics, Grinnell College
- 2007 Statistics Program Chair, Department of Mathematics and Statistics, Mississippi State University
- 2006-2007 College Faculty Senate, College of Arts and Sciences, Mississippi State University
- 2005-2007 Graduate Coordinating Committee, Department of Mathematics and Statistics, Mississippi State University
- 2005-2007 Department Head Search Committee, Department of Mathematics and Statistics, Mississippi State University

2005-2007 Faculty Mentor, Department of Mathematics and Statistics, Mississippi State University

2004-2007 Evaluation of Classroom Teaching Committee, Department of Mathematics and Statistics, Mississippi State University

2000-2007 Statistics Committee, Department of Mathematics and Statistics, Mississippi State University

2000-2005 Computing and Technology Committee, Department of Mathematics and Statistics, Mississippi State University

2003-2005 Evaluation of Teaching Assistants Committee, Department of Mathematics and Statistics, Mississippi State University

2003-2004 Search Committee, Department of Mathematics and Statistics, Mississippi State University

2002-2003 Student Recruitment Committee, Department of Mathematics and Statistics, Mississippi State University

2001-2003 ST2113/ST3113 Committee, Department of Mathematics and Statistics, Mississippi State University

1999-2000 Statistical Methods Seminar Coordinator, Department of Health Care Policy, Harvard Medical School

1996-1998 Web Page Committee, Department of Statistics, North Carolina State University

1993-1997 Student Seminar Committee, Department of Statistics, North Carolina State University