

CURRICULUM VITAE

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

Home Address: 125 16th Avenue
Grinnell, IA 50112

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

Refereed Publications:

1. Sidik K, Jonkman JN. Quantifying Uncertainty in Method of Moments Estimates of the Heterogeneity Variance in Random Effects Meta-Analysis. *Biometrical Journal* 2022; 64: 598-616.
2. Sidik K, Jonkman JN. A Note on the Empirical Bayes Heterogeneity Variance Estimator in Meta-Analysis. *Statistics in Medicine* Sep 2019; 38(20): 3804-3816. DOI: 10.1002/sim.8197.
3. Sidik K, Jonkman JN. A Comparison of the Variance Estimation Methods in Heteroscedastic Nonlinear Models. *Statistics in Medicine* Nov 2016; 35(26): 4856-4874. DOI: 10.1002/sim.7024.
4. Sidik K, Jonkman JN. Testing for Parallelism in the Heteroscedastic Four-parameter Logistic Model. *Journal of Biopharmaceutical Statistics* Apr 2016; 26(2): 250-268.
5. Nagarajan R, Jonkman JN. A Neural Network Model to Translate Brain Developmental Events across Mammalian Species. *PLoS One*, January 7, 2013.
6. 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.
7. 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.
8. 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.
9. 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.
10. Jonkman JN, Sidik K. Equivalence Testing for Parallelism in the Four-parameter Logistic Model. *Journal of Biopharmaceutical Statistics* 2009; 19: 818-837.
11. 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.

12. Sidik K, Jonkman JN. Estimation Using Non-Central Hypergeometric Distributions for Combining 2x2 Tables. *Journal of Statistical Planning and Inference* 2008; 138: 3993-4005.
13. 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.
14. Sidik K, Jonkman JN. A Comparison of Heterogeneity Variance Estimators in Combining Results of Studies. *Statistics in Medicine* 2007; 26: 1964-1981.
15. Blinn-Pike L, Worthy SL, Jonkman JN. Disordered Gambling among College Students: A Meta-Analytic Synthesis. *Journal of Gambling Studies* 2007; 23: 175-183.
16. Sidik K, Jonkman JN. Robust Variance Estimation for Random Effects Meta-Analysis. *Computational Statistics and Data Analysis* 2006; 50: 3681-3701.
17. Sidik K, Jonkman JN. A Note on Variance Estimation in Random Effects Meta-Regression. *Journal of Biopharmaceutical Statistics* 2005; 15: 823-838.
18. 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.
19. 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.
20. Sidik K, Jonkman JN. Sample Size Determination in Fixed-Dose Combination Drug Studies. *Pharmaceutical Statistics* 2003; 2(4): 273-278.
21. 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.
22. Sidik K, Jonkman JN. A Simple Confidence Interval for Meta-Analysis. *Statistics in Medicine* 2002; 21: 3153-3159.
23. 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.

Manuscripts in Progress:

1. Sidik K, Jonkman JN. Meta-Analytical Inference Using the Empirical Bayes Method of Combining Likelihoods.
2. Carpenter D, Agrawal R, Sun Y, Jonkman JN. Varenicline for the Treatment of Alcohol Use Disorder: A Systematic Review and Meta-Analysis.

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. |

Courses Taught:

- | | |
|--------------|--|
| 2017-21 | Design and Analysis of Experiments (STA309). Department of Mathematics and Statistics, Mississippi Grinnell College. |
| 2017-18 | Introduction to Data Science (MAT/STA295). Department of Mathematics and Statistics, Mississippi Grinnell College. |
| 2016-18 | Statistical Modeling (STA310). Department of Mathematics and Statistics, Mississippi Grinnell College. |
| 2014, 18, 21 | Bayesian Statistics (MAT444, STA395). Department of Mathematics and Statistics, Grinnell College. |
| 2010-20 | Probability and Statistics II (MAT/STA336). Department of Mathematics and Statistics, Mississippi Grinnell College. |
| 2010-19 | Applied Statistics (STA209). Department of Mathematics and Statistics, Grinnell College. |
| 2009-21 | Probability and Statistics I (MAT/STA335). Department of Mathematics and Statistics, Mississippi Grinnell College. |

2013	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.
1997	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, <i>Journal of Statistics Education</i>
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

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

Local and National Presentations:

Nov 2014	Central Illinois Statistical Association, Peoria, IL. <i>More Lies, Damned Lies, and Statistics: A Quick Tour of Meta-Analysis.</i>
Nov 2014	Department of Mathematics, Bradley University, Peoria, IL. <i>Lies, Damned Lies, and Statistics: A Brief Overview of Meta-Analysis.</i>
July 2012	ACES (Adult Community Exploration Series) Course, Grinnell, IA. <i>Lies, Damned Lies, and Statistics.</i>
Nov. 2009	Central Arkansas Statistical Association, Little Rock, AR. <i>Introduction to Meta-Analysis.</i> (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. <i>Studying Length of Stay in Detox: A Statistician's Perspective.</i>
July 2007	Department of Biostatistics, Vanderbilt University, Nashville, TN. <i>A Simple Estimator of the Between-Study Variance in Meta-Analysis.</i>
Aug. 2004	Joint Statistical Meetings, Toronto, ON, Canada. <i>Simple Heterogeneity Variance Estimation for Meta-Analysis.</i>
Mar. 2000	ENAR (Biometric Society) Meetings, Chicago, IL. <i>On the Power of Stratified Analyses Using Propensity Score Stratification.</i>
Aug. 1999	Joint Statistical Meetings, Baltimore, MD. <i>On the Power of Stratified Analysis Using Propensity Score Matching.</i>

- 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:

- 2018-present Associate Editor, *Journal of Statistics and Data Science Education*
- 2017-22 Institutional Review Board Chair, Grinnell College
- 2017-21 Statistics Concentration Chair, Grinnell College
- 2014 President, Iowa Chapter of the American Statistical Association
- 2012-15 Community Mini-Grant Review Committee, Grinnell College
- 2012-15 Institutional Review Board (Chair, 2013-14), Grinnell College
- 2011-13 Vice-President, 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

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.