

# Joshua M. Tebbs

## Work Address

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12 N Bay Crossing  
Columbia, SC 29229

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**Date and Place of Birth:** 1973; Fort Madison, Iowa, USA

## Degrees

2000 Ph.D., Statistics, North Carolina State University

Advisor: William H. Swallow

1997 M.S., Statistics, University of Iowa

1995 B.S., Mathematics, Statistics; Honors: Statistics; Minor: Spanish, University of Iowa

## Experience

2012- **Professor**, Department of Statistics, University of South Carolina

2010- **Graduate Director**, Department of Statistics, University of South Carolina

2008-2011 **Associate Professor**, Department of Statistics, University of South Carolina

2006-2009 **Undergraduate Director**, Department of Statistics, University of South Carolina

2005-2008 **Assistant Professor**, Department of Statistics, University of South Carolina

2004-2005 **Undergraduate Director**, Department of Statistics, Kansas State University

2003-2005 **Assistant Professor**, Department of Statistics, Kansas State University

2001-2003 **Assistant Professor**, Department of Statistics, Oklahoma State University

2000-2001 **Statistician**, United Technologies

1997-2000 **Teaching Assistant**, Department of Statistics, North Carolina State University

1995-1997 **Teaching Assistant**, Department of Statistics, University of Iowa

## Major Areas of Current Research Interest

Categorical data, group testing, order-restricted inference, Bayesian methods, multiple comparisons, epidemiology/public health, biomedical applications

## Professional Organizations

American Statistical Association

Institute of Mathematical Statistics

International Biometrics Society (ENAR)

**Refereed Publications**

1. Bilder, C. and Tebbs, J. (2012). Pooled testing procedures for screening high volume clinical specimens in heterogeneous populations. *Statistics in Medicine*, in press.
2. McMahan, C., Tebbs, J., and Bilder, C. (2012). Two-dimensional informative array testing. *Biometrics*, in press.
3. Black, M., Bilder, C., and Tebbs, J. (2012). Group testing in heterogeneous populations by using halving algorithms. *Journal of the Royal Statistical Society, Series C*, in press.
4. McMahan, C., Tebbs, J., and Bilder, C. (2012). Informative Dorfman screening. *Biometrics*, in press.
5. Paxton, A., Baxter, S., Tebbs, J., Royer, J., Guinn, C., Devlin, C., and Finney, C. (2012). Non-significant relationship between participation in school-provided meals and body mass index during the fourth-grade school year. *Journal of the Academy of Nutrition and Dietetics*, **112**, 104-109.
6. Pritchard, N. and Tebbs, J. (2011). Estimating disease prevalence using inverse binomial pooled testing. *Journal of Agricultural, Biological, and Environmental Statistics*, **16**, 70-87.
7. Pritchard, N. and Tebbs, J. (2011). Bayesian inference for disease prevalence using negative binomial group testing. *Biometrical Journal*, **53**, 40-56.
8. Bilder, C., Tebbs, J., and Chen, P. (2010). Informative retesting. *Journal of the American Statistical Association*, **105**, 942-955.
9. Bilder, C., Zhang, B., Schaarschmidt, F., and Tebbs, J. (2010). binGroup: A package for group testing. *R Journal*, **2**, 56-60.
10. Chen, P., Tebbs, J., and Bilder, C. (2009). Group testing regression models with fixed and random effects. *Biometrics*, **65**, 1270-1278.
11. Chen, P., Tebbs, J., and Bilder, C. (2009). Global goodness-of-fit tests for group testing regression models. *Statistics in Medicine*, **28**, 2912-2928.
12. Huang, X. and Tebbs, J. (2009). On latent-variable model misspecification in structural measurement error models for binary response. *Biometrics*, **65**, 710-718.
13. McCann, M. and Tebbs, J. (2009). Simultaneous logit-based confidence intervals for odds ratios in  $2 \times k$  classification tables with a fixed reference level. *Communications in Statistics: Simulation and Computation*, **38**, 961-975.
14. Bilder, C. and Tebbs, J. (2009). Bias, efficiency, and agreement for group-testing regression models. *Journal of Statistical Computation and Simulation*, **79**, 67-80.
15. Tebbs, J. and Roths, S. (2008). New large-sample confidence intervals for a linear combination of binomial proportions. *Journal of Statistical Planning and Inference*, **138**, 1884-1893.
16. Tebbs, J. and McCann, M. (2007). Large-sample hypothesis tests for stratified group-testing data. *Journal of Agricultural, Biological, and Environmental Statistics*, **12**, 534-551.
17. McCann, M. and Tebbs, J. (2007). Pairwise comparisons for proportions estimated by pooled testing. *Journal of Statistical Planning and Inference*, **137**, 1278-1290.
18. Tebbs, J. and Bilder, C. (2006). Hypothesis tests for and against a simple order among proportions estimated by pooled testing. *Biometrical Journal*, **48**, 792-804.

19. Kim, J., Tebbs, J., and An, S. (2006). Extensions of Mangat's randomized-response model. *Journal of Statistical Planning and Inference*, **136**, 1554-1567.
20. Roths, S. and Tebbs, J. (2006). Revisiting Beal's confidence intervals for the difference of two binomial proportions. *Communications in Statistics: Theory and Methods*, **35**, 1593-1609.
21. Carolan, C. and Tebbs, J. (2005). Nonparametric tests for and against likelihood ratio ordering in the two-sample problem. *Biometrika*, **92**, 159-171.
22. Bilder, C. and Tebbs, J. (2005). Empirical Bayesian estimation of the probability of disease transmission in multiple-vector-transfer designs. *Biometrical Journal*, **47**, 502-516.
23. Tebbs, J. and Bilder, C. (2004). Confidence interval procedures for the probability of disease transmission in multiple-vector-transfer designs. *Journal of Agricultural, Biological, and Environmental Statistics*, **9**, 75-90.
24. Moser, B. and Tebbs, J. (2004). A new interim monitoring statistic for group sequential clinical trials. *Communications in Statistics: Theory and Methods*, **33**, 153-164.
25. Tebbs, J. and Bower, K. (2003). Some comments on the robustness of Student  $t$  procedures. *Journal of Engineering Education*, **92**, 91-94.
26. Tebbs, J., Bilder, C., and Moser, B. (2003). An empirical Bayes group-testing approach to estimating small proportions. *Communications in Statistics: Theory and Methods*, **32**, 983-995.
27. Tebbs, J. and Swallow, W. (2003). More powerful likelihood ratio tests for isotonic binomial proportions. *Biometrical Journal*, **45**, 618-630.
28. Tebbs, J. and Swallow, W. (2003). Estimating ordered binomial proportions with the use of group testing. *Biometrika*, **90**, 471-477.

### Other Publications

1. Bilder, C. and Tebbs, J. (2011). Informative retesting procedures to assay high volume clinical specimens. Proceedings of the 58th Session of the International Statistical Institute. Dublin, Ireland.
2. Bilder, C., Black, M. and Tebbs, J. (2009). Expected number of tests for halving and matrix pooling in heterogeneous populations. Department of Statistics Technical Report, University of Nebraska.
3. Bilder, C. and Tebbs, J. (2008). Book review of *An Introduction to Categorical Data Analysis* (2nd edition) by Alan Agresti. *Journal of the American Statistical Association*, **103**, 1323.
4. Bilder, C. and Tebbs, J. (2004). Empirical Bayesian estimation of the disease transmission probability in multiple-vector-transfer designs. *Proceedings of the American Statistical Association*, 277-284 (Biometrics Section), Alexandria, VA: American Statistical Association.

### Manuscripts in Review

1. Zhang, B., Bilder, C., and Tebbs, J. (2012+). Marginal regression models for multiple-disease group testing data. *Biometrics*, in revision.
2. Paxton, A., Baxter, S., Tebbs, J., Finney, C., Guinn, C., Devlin, C., and Royer, J. (2012+). How accurate are parental responses concerning their fourth-grade children's school-meal participation, and what is the relationship between children's body mass index and school-meal participation based on parental responses? *International Journal of Behavioral Nutrition and Physical Activity*, in revision.

3. Paxton, A., Baxter, S., Tebbs, J., Royer, J., Guinn, C., Devlin, C., and Finney, C. (2012+). Secondary analysis to explain the positive relationship between body mass index and energy intake at school-provided meals.

#### Manuscripts in Preparation

1. Habiger, J., McCann, M., and Tebbs, J. (2012+). On optimal confidence sets for parameters in discrete distributions.
2. McMahan, C., Tebbs, J., and Bilder, C. (2012+). Regression analysis for group testing data with pool dilution effects.
3. Tebbs, J., McMahan, C., and Carolan, C. (2012+). Majorant-based tests against stochastic ordering with two distributions.
4. Hashem, N., Piro, C., Bookstaver, B., and Tebbs, J. (2012+). Evaluation of caffeine and the development of necrotizing enterocolitis.
5. Baxter, S., Tebbs, J., Guinn, C., and Royer, J. (2012+). Is academic achievement really related to body mass index? Results from data analyses involving predominantly African-American children in the fourth grade.

#### Funded Grants: External

National Institutes of Health. Disease detection and prevalence estimation through informative group testing (R01-AI067373). Funded at \$722,666. **Role:** Co-PI (27.1% effort). **PI:** Christopher R. Bilder, University of Nebraska. Funding timeline: 09/2007-07/2011.

National Institutes of Health. School meals and BMI percentile: Secondary analyses of non-self-report data (R21-HL096035). Funded at \$396,000. **Role:** Co-I (9.4% effort). **PI:** Suzanne Baxter, Institute for Families in Society, University of South Carolina. Funding timeline: 08/2009-07/2011.

Astellas Pharma US, Inc. Activity of novel echinocandin lock solutions against *Candida* species using an in vitro model of catheter infection. Funded at \$23,404. **Role:** Co-I (3.8% effort). **PI:** Brandon Bookstaver, College of Pharmacy, University of South Carolina. Funding timeline: 08/2009-07/2010.

Merck & Co, Inc. Bioactivity of echinocandin lock solutions against non-albicans *Candida* isolates. Funded at \$30,422. **Role:** Co-I (3.8% effort). **PI:** Brandon Bookstaver, College of Pharmacy, University of South Carolina. Funding timeline: 08/2007-07/2009.

National Oceanic and Atmospheric Administration. Urbanization and southeastern estuarine systems. Funded at \$76,582. **Role:** Co-I (3.8% effort). **PI:** Dwayne E. Porter, Department of Environmental Health Sciences, University of South Carolina. Funding timeline: 05/2006-05/2007.

**Note:** All effort percentages are based on a 12-month calendar year.

**Note:** I have been part of seven external grant proposals which were not funded.

**Note:** I had to remove myself from three additional NIH grants with PI Baxter because of time constraints.

**Funded Grants: Internal**

University of South Carolina Undergraduate Research (Magellan Scholar Award). Evaluation of caffeine and the development of necrotizing enterocolitis. Funding timeline: 05/2010-04/2011.

Big 12 Faculty Fellowship Program. Simultaneous inference for odds ratios in the analysis of count data. Funding timeline: Summer, 2004.

Oklahoma State University. College of Arts and Sciences Summer Research and +1 Supplement Program. Efficient estimation of rare traits from multiple studies. Funding timeline: Summer, 2002.

Oklahoma State University. College of Arts and Sciences Dean's Incentive Grant. Incorporating covariate information into the group-testing estimation problem. Funding timeline: Summer, 2002.

Oklahoma State University. College of Arts and Sciences Travel Grant. New advances in estimating the probability of disease transmission in vector-transfer experiments. Funding timeline: Summer, 2002.

**Invited Seminars**

Regression models for group testing data.

- Department of Mathematical Sciences Seminar at Clemson University. March, 2012.
- Department of Statistics Seminar at George Washington University. November, 2011.
- NIH/NICHD Biostatistics and Bioinformatics Division Seminar. November, 2011.
- Department of Statistics Seminar at University of Munich, Germany. October, 2011.
- Department of Epidemiology and Biostatistics Seminar at University of South Carolina. October, 2010.

Informative retesting. Department of Statistics Seminar at Brigham Young University. October, 2010.

Group testing regression models with fixed and random effects.

- Centre for Mathematical Sciences Seminar at Lund University, Sweden. November, 2009.
- Department of Statistics and CIS Seminar at Baruch College (City University of New York). April, 2008.

On latent-variable model misspecification in structural measurement error models for binary response. Department of Statistics Seminar at University of Nebraska. October, 2009.

Disease detection and prevalence estimation through informative group testing.

- Department of Statistics Seminar at Iowa State University. October, 2007.
- Department of Epidemiology and Biostatistics Seminar at University of South Carolina. April, 2007.
- Department of Statistics and Actuarial Science Seminar at University of Iowa. October, 2006.
- National Institute of Environmental Health Sciences (NIEHS) Biostatistics Seminar Series. September, 2006.
- Department of Biostatistics Seminar at University of Alabama at Birmingham. September, 2006.

Asymptotically optimal tests for stratified group-testing data. Department of Statistics Seminar at University of South Carolina. September, 2006.

Informative group screening.

- Department of Statistics Seminar at University of Georgia. April, 2006.
- Department of Statistics Seminar at University of Oslo, Norway. November, 2005.

Monitoring clinical trials. Department of Statistics Seminar at University of South Carolina. September, 2005.

Pooled testing with covariates. Department of Statistics Seminar at University of South Carolina. February, 2005.

Pairwise comparisons for proportions estimated by pooled testing: Applications to HIV seropositivity screening.

- Department of Statistics Seminar at Stockholm University, Sweden. September, 2004.
- Department of Statistics Seminar at Kansas State University. February, 2004.

Estimating the disease transmission probability in multiple-vector transfer designs. Oklahoma Chapter of the American Statistical Association Meeting. April, 2003.

Improved isotonic regression estimates for ordered binomial proportions.

- Department of Statistics Seminar at Kansas State University. February, 2003.
- Department of Statistics Seminar at Federal University of Rio de Janeiro, Brazil. July, 2002.

On the use of group testing in medical screening. Department of Biostatistics and Epidemiology Seminar at University of Oklahoma. January, 2003.

Estimating the prevalence of rare traits. Department of Statistics Seminar at Oklahoma State University. February, 2002.

Estimating isotonic proportions using group testing.

- Department of Statistics Seminar at Oklahoma State University. March, 2001.
- Department of Mathematics and Statistics Seminar at Mississippi State University. February, 2001.
- Department of Mathematics and Statistics Seminar at Texas Tech University. February, 2001.
- Department of Statistics Seminar at University of Akron. February, 2001.
- Department of Mathematics and Statistics Seminar at Miami University (OH). February, 2001.
- Department of Mathematics and Statistics Seminar at University of Missouri-Rolla. February, 2001.
- Department of Management Science Seminar at University of Miami (FLA). January, 2001.

An overview of group testing. Department of Statistics Seminar at University of Waterloo, Canada. September, 2000.

An introduction to group testing. Department of Statistics Graduate Student Seminar at North Carolina State University. February, 2000.

**Research Presentations**

- Optimal confidence sets for parameters in discrete distributions. Joint Statistical Meetings, San Francisco. August, 2012. Oral presentation by Joshua Habiger.
- Binary regression models for common group testing protocols. Joint Statistical Meetings, San Francisco. August, 2012. Oral presentation by Boan Zhang.
- Two-dimensional informative array testing. ENAR Spring Meetings, Washington, DC. March, 2012.
- Marginal regression models for multiple-disease group testing data. ENAR Spring Meetings, Washington, DC. March, 2012. Oral presentation by Christopher Bilder.
- Regression models for group testing data with pool dilution effects. ENAR Spring Meetings, Washington, DC. March, 2012. Oral presentation by Christopher McMahan.
- Dorfman group screening with multiple infections. ENAR Spring Meetings, Washington, DC. March, 2012. Oral presentation by Yanlei Peng.
- Investigating the relationship between observed energy intake at school meals and fourth-grade children's body mass index. APHA Annual Meeting and Exposition, Washington, DC. October, 2011. Oral presentation by Amy Paxton.
- Informative retesting procedures to assay high volume clinical specimens. International Statistical Institute Annual Meeting, Dublin, Ireland. August, 2011. Oral presentation by Christopher Bilder.
- Group testing regression models for multiple traits. Joint Statistical Meetings, Miami. August, 2011. Oral presentation by Boan Zhang.
- Accuracy of parental responses of fourth-grade children's usual participation in school provided meals. SNE Annual Conference, Kansas City. June, 2011. Oral presentation by Amy Paxton.
- Alternative pooled testing procedures to evaluate high volume clinical specimens. APHL Annual Meeting, Omaha. June, 2011. Poster presentation with Christopher Bilder.
- Using pooled testing to screen heterogeneous populations. CDC Symposium on Statistical Methods, Atlanta. May, 2011. Poster presentation with Christopher Bilder.
- Informative Dorfman screening. ENAR Spring Meetings, Miami. March, 2011. Oral presentation by Christopher McMahan.
- Evaluation of caffeine and the development of necrotizing enterocolitis.
- SCSHP Annual Meeting, Hilton Head Island. March, 2011. Poster presentation by Nehal G. Hashem.
  - ASHP Clinical Meetings, Anaheim. December, 2010. Oral presentation by Nehal G. Hashem.
  - ACCP Annual Meetings, Austin. October, 2010. Oral presentation by Nehal G. Hashem.
  - PPAG Annual Meetings, St. Charles. October, 2010. Poster presentation by Nehal G. Hashem.
- Group testing in heterogeneous populations using halving algorithms. Joint Statistical Meetings, Vancouver. August, 2010. Oral presentation by Michael Black.
- Informative array screening. Joint Statistical Meetings, Vancouver. August, 2010. Poster presentation with Christopher McMahan.

binGroup: A package for group testing. The R User Conference, Gaithersburg. July, 2010. Oral presentation by Boan Zhang.

Estimating disease prevalence using inverse binomial pooled testing.

- Kansas State University Conference on Applied Statistics in Agriculture. April, 2010.
- Poster presentation at ENAR Spring Meetings, New Orleans. March, 2010.

Informative Dorfman screening with risk thresholds. ENAR Spring Meetings, New Orleans. March, 2010. Oral presentation by Christopher McMahan.

Evaluation of body mass index on glycemic control in hospitalized medicine patients with type II diabetes mellitus. ASHP Annual Meetings, Las Vegas. December, 2009. Oral presentation by Andrea Adkins.

Informative retesting. Joint Statistical Meetings, Washington D.C. August, 2009. Poster presentation with Christopher Bilder.

Inference for variance components in generalized linear mixed models with pooled binary response. ENAR Spring Meetings, San Antonio. March, 2009.

Informative screening. ENAR Spring Meetings, Arlington. March, 2008.

Pooled testing regression models with random effects. Joint Statistical Meetings, Salt Lake City. July, 2007. Oral presentation by Peng Chen.

New large-sample confidence intervals for a binomial contrast.

- Kansas State University Conference on Applied Statistics in Agriculture. April, 2007.
- Poster presentation at ENAR Spring Meetings, Atlanta. March, 2007.

Revisiting Beal's confidence intervals for the difference of two binomial proportions. Joint Statistical Meetings, Seattle. August, 2006.

Asymptotically optimal inference with partially observed binary data: Applications to plant-disease assessment. ENAR Spring Meetings, Tampa. March, 2006.

A new interim monitoring statistic for group sequential clinical trials. Joint Statistical Meetings, Minneapolis. August, 2005.

Multiple comparisons for odds ratios. ENAR Spring Meetings, Austin. March, 2005. Oral presentation by Melinda McCann.

Improved group-testing estimation of trait prevalence. ENAR Spring Meetings, Austin. March, 2005. Poster presentation with Christopher Bilder.

Optimal design for simultaneous inference using pooled assessments. Joint Statistical Meetings, Toronto. August, 2004.

Empirical Bayesian estimation of the probability of disease transmission in multiple-vector-transfer designs. Joint Statistical Meetings, Toronto. August, 2004. Poster presentation with Christopher Bilder.

Simultaneous inference for prevalence using pooled assessments. ENAR Spring Meetings, Pittsburgh. March, 2004.

Extensions of Mangat's (1994) randomized-response model. ENAR Spring Meetings, Pittsburgh. March, 2004. Oral presentation by Jong-Min Kim.

Confidence interval procedures for the probability of disease transmission in multiple-vector-transfer designs. Joint Statistical Meetings, San Francisco. August, 2003.

Area-based testing under likelihood ratio ordering. Joint Statistical Meetings, San Francisco. August, 2003. Oral presentation by Christopher Carolan.

New interval estimation procedures for the disease transmission probability in multiple-vector transfer designs. Kansas State University Conference on Applied Statistics in Agriculture. April, 2003.

Group testing with small-sized pools. Joint Statistical Meetings, New York. August, 2002.

### Professional Service

Member, Current Index to Statistics Management Committee, 2012-2015

Member, National Science Foundation Review Panel (DMS, Statistics), January, 2012

External Evaluator, Department of Statistics, Brigham Young University (for promotion to Associate Professor), 2011

Member, Program Committee, Joint Statistical Meetings, Miami. August, 2011

Organizer and Chair of the Invited Session “Modern data analysis with order restrictions: A tribute to Tim Robertson,” for Joint Statistical Meetings, Miami. August, 2011.

Organizer of the Invited Session, “Measurement error and latent variable modeling,” for Southern Regional Council on Statistics, Hickory Knob, SC. June, 2011.

Member, National Science Foundation Review Panel (DMS, Statistics), January, 2011

Chair, Council of Chapters, American Statistical Association, 2010-2011

Organizer and Chair of the Topic Contributed Session “Recent advances in group testing methodology,” for Joint Statistical Meetings, Vancouver. August, 2010.

Chair, Session 38: Clustered survival data. ENAR Spring Meetings, San Antonio. March, 2009

Internal Reviewer, PSC-CUNY Research Awards, March, 2008

Organizer and Chair of the Invited Session “Nonparametric constrained inference,” for Current and Future Trends in Nonparametrics, Columbia, SC. October, 2007.

Internal Editor, NIEHS, September, 2006. The paper I reviewed was later published in *Journal of the American Statistical Association*.

Associate Editor, *Communications in Biometry and Crop Science*, 2005-2008

Member, ENAR Student Paper Award Committee, 2005-2007

Chair, Mu Sigma Rho Statistics Education Award Committee, 2005-2007

Chair, Session 33: Multiple testing and false discovery rates. ENAR Spring Meetings, Austin. March, 2005

Vice President, Mu Sigma Rho National Statistics Honorary Society, 2004-2007

Chair, Session 471: Multivariate approaches to gene expression data. Joint Statistical Meetings, San Francisco. August, 2003

Vice President, Oklahoma Chapter of the American Statistical Association, 2002-2003

Editorial Board, *Journal of Modern Applied Statistical Methods*, 2001-2008

President, NCSU Department of Statistics Graduate Association, 1999-2000

Referee for **55** papers: *American Statistician* (3) • *Biometrical Journal* • *Biometrics* (5) • *Communications in Statistics: Simulation and Computation* (6) • *Communications in Statistics: Theory and Methods* (5) • *Computers and Mathematics with Application* • *Journal of Agricultural, Biological, and Environmental Statistics* (2) • *Journal of Agriculture Science* • *Journal of the American Statistical Association* (3) • *Journal of Biopharmaceutical Statistics* • *Journal of the Korean Statistical Society* • *Journal of Natural Resources and Life Sciences Education* • *Journal of the Royal Statistical Society: Series B* • *Journal of the Royal Statistical Society: Series C* • *Journal of Statistical Computation and Simulation* • *Journal of Statistical Planning and Inference* (10) • *Metrika* • *Phytopathology* • *Proceedings for the Kansas State University Conference on Applied Statistics in Agriculture* (2) • *Scientia Agricola* • *Statistics and Computing* • *Statistics in Medicine* (4) • *Statistics and Probability Letters* • *Test*

### Honors and Awards

Finalist for Michael J. Mungo Undergraduate Teaching Award, 2011

Nominated for Two Thumbs Up Faculty Award, Office of Student Disability Services, University of South Carolina, 2010

Travel expenses to attend Workshop for Junior Researchers at the ENAR 2004 Spring Meetings

North Carolina State UGSA Teaching Effectiveness Award, 2000

NCSU Department of Statistics Paige Plagge Graduate Award for Outstanding Citizenship, 2000

North Carolina State UGSA Teaching Effectiveness Award, 1999

University of Iowa Department of Statistics Allen T. Craig Award for Outstanding Teaching Assistant, 1997

University of Iowa Council on Teaching Award for Outstanding Teaching Assistant, 1997

University of Iowa Honors Program, 1992-1995

### Student Direction

Yanlei Peng, Ph.D. (in progress).

Christopher McMahan, Ph.D. (in progress). Chris won a 2011 ENAR Student Paper Award for his submission "Informative Dorfman screening."

Chun Pan, M.S. Thesis: *Estimation of logistic regression model parameters using the EM algorithm for three group testing strategies*. Graduated August, 2009.

Peng Chen, Ph.D. Dissertation: *Topics in binary regression models with group testing data*. Graduated December, 2008.

Nicholas Pritchard, Ph.D. Dissertation: *Geometric group testing*. Graduated December, 2008.

Lance Ridpath, M.S. Thesis: *Simultaneous confidence intervals for log-odds ratios*. Graduated August, 2005.

Scott Roths, M.S. Thesis: *Empirical Bayes confidence intervals for the difference of two independent binomial proportions*. Graduated May, 2005.

Hyung-Tae Kim, M.S.. Thesis: *Using conjoint analysis to examine the preferences of graduate students when registering for elective courses*. Graduated May, 2003.

Daniel Scott, M.S. Thesis: *A comparison of three confidence interval procedures for group-testing proportions in the presence of testing errors*. Graduated May, 2003.

Other graduate committees at USC/KSU/OSU: 15 Ph.D., 13 M.S.

Director, USC Honors College Senior Thesis (Kevin Doerge, 2012)

Reader, USC Honors College Senior Thesis (James Wu, 2010)

## Teaching

	Number of sections	Number of students
<b>University of South Carolina</b>		
STAT 110 Introduction to Descriptive Statistics	2	176
STAT 509 Statistics for Engineers	1	50
STAT 511 Probability	5	145
STAT 512 Mathematical Statistics	5	140
STAT 513 Theory of Statistical Inference	3	65
STAT 520 Forecasting and Time Series	2	55
STAT 700 Applied Statistics I	1	8
STAT 714 Linear Statistical Models	3	39
STAT 823 Large Sample Theory	2	25
<b>Kansas State University</b>		
STAT 490 Statistics for Engineers I	1	26
STAT 510 Introductory Probability and Statistics I	2	85
STAT 713 Applied Linear Statistical Models	1	16
STAT 771 Theory of Statistics II	2	43
STAT 950 Clinical Trials and Epidemiology	1	16
<b>Oklahoma State University</b>		
STAT 2023 Elementary Statistics for Business and Economics	2	140
STAT 4203 Mathematical Statistics I	2	56
STAT 4213 Mathematical Statistics II	2	37
STAT 5013 Statistics for Experimenters I	1	47
STAT 5113 Intermediate Probability	1	1
STAT 5323 Theory of Linear Models I	1	6
STAT 5333 Theory of Linear Models II	1	6
<b>North Carolina State University*</b>		
ST 311 Introduction to Statistics	9	569
ST 371 Probability and Distribution Theory	1	22
ST 350 Statistics for Business and Economics	1	46

\*Instructor of record

**Course Development**

STAT 715 Nonlinear Statistical Models. This is a new course which will be taught for the first time at University of South Carolina in Fall, 2012. This course will serve as an elective for PhD program in Statistics.

STAT 823 Large Sample Theory. This is a new course I created and taught for the first time at University of South Carolina in Spring, 2007. This course is now a required for the PhD program in Statistics.

STAT 950 Clinical Trials and Epidemiology. This was a new course that I created and taught at Kansas State University in Spring, 2005.

**University Service (USC)**

Member, College of Arts and Sciences Curriculum Committee, 2010-2011

Faculty Advisor, Actuarial Science Club, 2010-present

Presenter, College of Pharmacy Residency Research Project Series (July 22, 2010)

Undergraduate Research Mentor, SC STEP to STEM Program, Summer, 2010

Instructor, STEM 101 (March 31 and April 2, 2009)

Faculty Advisor, Pi Kappa Alpha Fraternity, 2008-2010

Member, Finance FEI Search Committee, 2008-2009

Member, College of Arts and Sciences Scholarship Committee, 2008-2009

Instructor, STEM 101 (November 11 and November, 2008)

Presenter, Pi Mu Epsilon Graduate School Information Night (October 28, 2008)

Instructor, STEM 101 (April 1 and April 3, 2008)

Member, Woody Competition Committee, 2007-2010

Judge, Region II Science and Engineering Fair (March 23, 2007)

Presenter, USC Graduate School Orientation (August 16, 2006)

Volunteer, 2006 USC Showcase (April 8, 2006)

**Department Service (USC)**

Member, Preliminary Exam Committee, 2012

Faculty Mentor for Ou Zhao, 2011-present

Member, Preliminary Exam Committee, 2011

Director, Graduate Program, 2010-present

Faculty Mentor for Xianzheng Huang, 2009-present

Chair, Colloquium Committee, 2009-2010

Member, Undergraduate Advisory Committee, 2009-2010

Chair, Preliminary Exam Committee, 2009-2010  
Proctor, 2009 AP Statistics Practice Exam (April 26, 2009)  
Member, Faculty Search Committee, 2008-2012  
Faculty Mentor for Lianming Wang, 2008-2010  
Member, Grievance Committee, 2008-2009  
Chair, Assistant Professor Peer Review Committee, 2008-2009  
Member, Preliminary Exam Committee, 2008  
Chair, Instructor Peer Review Committee, 2008  
Member, Self-study Committee, 2007-2009  
Organizing Committee Member, Nonparametrics Conference (October 11-12, 2007)  
Organizer, 2007 AP Statistics Practice Exam (April 21, 2007)  
Director, Undergraduate Program, 2006-2009  
Department Liaison to Mathematical Association of America, 2006-2009  
Chair, Undergraduate Advisory Committee, 2006-2009  
Member, Chairman's Advisory/Space Utilization Committee, 2006-2009  
Member, Nominations and Awards Committee, 2006-2009  
Member, Preliminary Exam Committee, 2006  
Proctor, 2006 AP Statistics Practice Exam (April 1, 2006)  
Advisor, Statistics Club, 2005-2009  
Member, Faculty Search Committee, 2005-2007  
Member, Undergraduate Advisory Committee, 2005-2006

**Department and University Service (OSU, KSU)**

Chair, Preliminary Exam Committee, 2005  
Director, Undergraduate Program, 2004-2005  
Member, Preliminary Exam Committee, 2004  
Member, Undergraduate Curriculum Assessment Committee, 2003-2004  
Member, Faculty Search Committee, 2003-2004  
Chair, Seminar Committee, 2002-2003  
Member, Personnel Committee, 2002-2003  
Panel speaker, Arts and Sciences Career Services, 2002  
Member, Undergraduate Committee, 2001-2003  
Advisor, Statistics Club, 2001-2002