Joshua M. Tebbs

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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

Professional Experience

2012-	Professor, Department of Statistics, University of South Carolina
2019-2023	Chair, Department of Statistics, University of South Carolina
2010-2012	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 and Actuarial Science, University of Iowa

Current Research Interests

Categorical data, statistical methods for pooled data (group testing), order-restricted inference, applications in health research and public health

Professional Organizations

American Statistical Association

International Biometric Society (ENAR)

Institute of Mathematical Statistics

International Statistical Institute

Honors and Awards

Thank a Teacher Award, Center for Teaching Excellence, University of South Carolina, 2025

Pipeline for Academic Leaders (PAL) Program, University of South Carolina, 2019-2020

Elected Member, International Statistical Institute, 2019

Statistical Significance Poster Award, American Statistical Association, Joint Statistical Meetings, 2019

Two Thumbs Up Faculty Award, Student Disability Resource Center, University of South Carolina, 2019

Outstanding Statistical Application Award, American Statistical Association, 2018

Best Paper in *Biometrics* by an IBS Member, International Biometric Society, 2017

Fellow, American Statistical Association, 2014

> Citation: "For influential contributions to order-restricted inference as well as group testing methods and practice; for inspirational statistical teaching and mentoring; and for dedicated service to his department and to the ASA."

Outstanding Statistical Application Award, American Statistical Association, 2014

Finalist for Michael J. Mungo Undergraduate Teaching Award, University of South Carolina, 2011, 2012

Travel award for the ENAR Spring Meeting, Workshop for Junior Researchers, Pittsburgh, 2004

UGSA Teaching Effectiveness Award, North Carolina State University, 2000

Paige Plagge Graduate Award for Outstanding Citizenship, Department of Statistics, North Carolina State University, 2000

President, Department of Statistics Graduate Association, North Carolina State University, 1999-2000

UGSA Teaching Effectiveness Award, North Carolina State University, 1999

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

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

Honors Program, University of Iowa, 1992-1995

Refereed Publications

1. Fang, L., Hu, T., Li, S., Wang, L., McMahan, C., and Tebbs, J. (2025). Probit time-to-event regression for misclassified group testing data. *Statistica Sinica*, in press.

2. McMahan, C., Joyner, C., Tebbs, J., and Bilder, C. (2025). A mixed effects Bayesian regression model for multivariate group testing data. *Biometrics* **81**(1), ujaf028.

3. St. Ville, M., McMahan, C., Bible, J., Tebbs, J., and Bilder, C. (2025). Bayesian additive regression trees for group testing data. *Statistics in Medicine* **44**(6), e70052.

4. Li, S., Hu, T., Wang, L., McMahan, C., and Tebbs, J. (2024). Regression analysis of group-tested current status data. *Biometrika* **111**, 1047–1061.

5. Bilder, C., Hitt, B., Biggerstaff, B., Tebbs, J., and McMahan, C. (2023). binGroup2: Statistical tools for infection identification via group testing. *R Journal* **15**, 21-36.

6. Warasi, M., Tebbs, J., McMahan, C., and Bilder, C. (2023). Estimating the prevalence of two or more diseases using outcomes from multiplex group testing. *Biometrical Journal* **65**(7), 2200270.

7. Liu, Y., McMahan, C., Tebbs, J., Gallagher, C., and Bilder, C. (2021). Generalized additive regression for group testing data. *Biostatistics* **22**, 873–889.

8. Bilder, C., Tebbs, J., and McMahan, C. (2021). Discussion on "Is group testing ready for prime-time in disease identification?" *Statistics in Medicine* **40**, 3881–3886.

9. Bilder, C., Tebbs, J., and McMahan, C. (2021). Informative array testing with multiplex assays. *Statistics in Medicine* **40**, 3021–3034.

10. Mokalled, S., McMahan, C., Tebbs, J., Brown, D., and Bilder, C. (2021). Incorporating the dilution effect in group testing regression. *Statistics in Medicine* **40**, 2540–2555.

11. Tang, C., Wang, D., El Barmi, H., and Tebbs, J. (2021). Testing for positive quadrant dependence. *American Statistician* **75**, 23–30.

12. Joyner, C., McMahan, C., Tebbs, J., and Bilder, C. (2020). From mixed effects modeling to spike and slab variable selection: A Bayesian regression model for group testing data. *Biometrics* **76**, 913–923.

13. Hou, P., Tebbs, J., Wang, D., McMahan, C., and Bilder, C. (2020). Array testing with multiplex assays. *Biostatistics* **21**, 417–431.

14. Bilder, C., Iwen, P., Abdalhamid, B., Tebbs, J., and McMahan, C. (2020). Tests in short supply? Try group testing. *Significance* **17**, 15–16.

15. Wang, D., Tang, C., and Tebbs, J. (2020). More powerful goodness-of-fit tests for uniform stochastic ordering. *Computational Statistics and Data Analysis* **144**(4), 106898.

16. Hitt, B., Bilder, C., Tebbs, J., and McMahan, C. (2019). The objective function controversy for group testing: Much ado about nothing? *Statistics in Medicine* **38**, 4912–4923.

17. Bilder, C., Tebbs, J., and McMahan, C. (2019). Informative group testing for multiplex assays. *Biometrics* **75**, 278–288.

18. Wang, D., McMahan, C., Tebbs, J., and Bilder, C. (2018). Group testing case identification with biomarker information. *Computational Statistics and Data Analysis* **122**, 156–166.

19. McMahan, C., Tebbs, J., Hanson, T., and Bilder, C. (2017). Bayesian regression for group testing data. *Biometrics* **73**, 1443–1452.

20. Tang, C., Wang, D., and Tebbs, J. (2017). Nonparametric goodness-of-fit tests for uniform stochastic ordering. *Annals of Statistics* **45**, 2565–2589.

21. Warasi, M., McMahan, C., Tebbs, J., and Bilder, C. (2017). Group testing regression models with dilution submodels. *Statistics in Medicine* **36**, 4860–4872.

22. Hou, P., Tebbs, J., Bilder, C., and McMahan, C. (2017). Hierarchical group testing for multiple infections. *Biometrics* **73**, 656–665.

    Note: This paper won the 2017 award for Best Paper in *Biometrics* by an IBS Member and the 2018 American Statistical Association Outstanding Statistical Application Award. Video abstract: `https://www.youtube.com/watch?v=58UwRxYur7o`.

23. Warasi, M., Tebbs, J., McMahan, C., and Bilder, C. (2016). Estimating the prevalence of multiple diseases from two-stage hierarchical pooling. *Statistics in Medicine* **35**, 3851–3864.

24. McMahan, C., Tebbs, J., and Bilder, C. (2016). Invited rejoinder to "A note on the evaluation of group testing algorithms in the presence of misclassification." *Biometrics* **72**, 303–304.

25. Cox, C., Hashem, N., Tebbs, J., Bookstaver, B., and Iskersky, V. (2015). Evaluation of caffeine and the development of necrotizing enterocolitis. *Journal of Neonatal-Perinatal Medicine* **8**, 339–347.

26. Black, M., Bilder, C., and Tebbs, J. (2015). Optimal retesting configurations for hierarchical group testing. *Journal of the Royal Statistical Society: Series C* **64**, 693–710.

27. Tebbs, J., McMahan, C., and Bilder, C. (2013). Two-stage hierarchical group testing for multiple infections with application to the Infertility Prevention Project. *Biometrics* **69**, 1064–1073.

    Note: This paper won the 2014 American Statistical Association Outstanding Statistical Application Award.

28. Zhang, B., Bilder, C., and Tebbs, J. (2013). Regression analysis for multiple-disease group testing data. *Statistics in Medicine* **32**, 4954–4966.

29. Habiger, J., McCann, M., and Tebbs, J. (2013). On optimal confidence sets for parameters in discrete distributions. *Statistics and Probability Letters* **83**, 297–303.

30. McMahan, C., Wang, L., and Tebbs, J. (2013). Regression analysis for current status data using the EM algorithm. *Statistics in Medicine* **32**, 4452–4466.

31. McMahan, C., Tebbs, J., and Bilder, C. (2013). Regression models for group testing data with pool dilution effects. *Biostatistics* **14**, 284–298.

32. Zhang, B., Bilder, C., and Tebbs, J. (2013). Group testing regression model estimation when case identification is a goal. *Biometrical Journal* **55**, 173–189.

33. Baxter, S., Guinn, C., Tebbs, J., and Royer, J. (2013). There is no relationship between academic achievement and body mass index among fourth-grade, predominantly African-American children. *Journal of the Academy of Nutrition and Dietetics* **113**, 551–557.

34. Bilder, C. and Tebbs, J. (2012). Pooled testing procedures for screening high volume clinical specimens in heterogeneous populations. *Statistics in Medicine* **31**, 3261–3268.

35. McMahan, C., Tebbs, J., and Bilder, C. (2012). Two-dimensional informative array testing. *Biometrics* **68**, 793–804.

36. McMahan, C., Tebbs, J., and Bilder, C. (2012). Informative Dorfman screening. *Biometrics* **68**, 287–296.

37. 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* **61**, 277–290.

38. Baxter, S., Paxton-Aiken, A., Tebbs, J., Royer, J., Guinn, C., and Finney, C. (2012). Secondary analyses of data from four studies with fourth-grade children show that sex, race, amounts eaten of standardized portions, and energy content given in trades explain the positive relationship between BMI and energy intake at school-provided meals. *Nutrition Research* **32**, 659–668.

39. Paxton-Aiken, 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* **9**:30, 1–9.

40. 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.

41. Pritchard, N. and Tebbs, J. (2011). Estimating disease prevalence using inverse binomial pooled testing. *Journal of Agricultural, Biological, and Environmental Statistics* **16**, 70–87.

42. Pritchard, N. and Tebbs, J. (2011). Bayesian inference for disease prevalence using negative binomial group testing. *Biometrical Journal* **53**, 40–56.

43. Bilder, C., Tebbs, J., and Chen, P. (2010). Informative retesting. *Journal of the American Statistical Association* **105**, 942–955.

44. Bilder, C., Zhang, B., Schaarschmidt, F., and Tebbs, J. (2010). binGroup: A package for group testing. *R Journal* **2**, 56–60.

45. Chen, P., Tebbs, J., and Bilder, C. (2009). Global goodness-of-fit tests for group testing regression models. *Statistics in Medicine* **28**, 2912–2928.

46. Chen, P., Tebbs, J., and Bilder, C. (2009). Group testing regression models with fixed and random effects. *Biometrics* **65**, 1270–1278.

47. Huang, X. and Tebbs, J. (2009). On latent-variable model misspecification in structural measurement error models for binary response. *Biometrics* **65**, 710–718.

48. 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.

49. Bilder, C. and Tebbs, J. (2009). Bias, efficiency, and agreement for group-testing regression models. *Journal of Statistical Computation and Simulation* **79**, 67–80.

50. 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.

51. 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.

52. McCann, M. and Tebbs, J. (2007). Pairwise comparisons for proportions estimated by pooled testing. *Journal of Statistical Planning and Inference* **137**, 1278–1290.

53. 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.

54. Kim, J., Tebbs, J., and An, S. (2006). Extensions of Mangat's randomized-response model. *Journal of Statistical Planning and Inference* **136**, 1554–1567.

55. 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.

56. Carolan, C. and Tebbs, J. (2005). Nonparametric tests for and against likelihood ratio ordering in the two-sample problem. *Biometrika* **92**, 159–171.

57. 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.

58. 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.

59. 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.

60. Tebbs, J. and Bower, K. (2003). Some comments on the robustness of Student t procedures. *Journal of Engineering Education* **92**, 91–94.

61. 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.

62. Tebbs, J. and Swallow, W. (2003). More powerful likelihood ratio tests for isotonic binomial proportions. *Biometrical Journal* **45**, 618–630.

63. 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., Tebbs, J., and McMahan, C. (2019). Cost-effective surveillance for infectious diseases through specimen pooling and multiplex assays. *Online Journal of Public Health Informatics* **11**(1). doi:10.5210/ojphi.v11i1.9743.

2. Bilder, C. and Tebbs, J. (2011). Informative retesting procedures to assay high volume clinical specimens. International Statistical Institute: Proceedings of the 58th World Statistics Congress, 5806–5811.

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 (Biometrics Section), 277–284.

Manuscripts in Review (or in Preparation "+")

1. Porter, E., McMahan, C., Tebbs, J., and Bilder, C. (2025). Gradient boosting for group testing.

2. Bilder, C., Nguyen, M., Yaseen, M., Tebbs, J., and McMahan, C. (2025). Group testing complexity.

3. Li, Y., Wang, D., and Tebbs, J. (2025). Varying coefficient models for group testing data.

4. Mou, X., Wang, D., McMahan, C., and Tebbs, J. (2025+). Nonparametric conditional density estimation with pooled outcomes.

5. Tang, C. and Tebbs, J. (2025+). Goodness-of-fit tests for positive quadrant dependence.

6. Li, S., McMahan, C., Wang, L., Li, Q., and Tebbs, J. (2025+). Regression analysis of multivariate group-tested current status data.

Grants Funded: External

National Institutes of Health (2024-2028). New epidemiologic methods for reducing measurement error and misclassification bias in cancer epidemiology (R01 CA279175-01). PIs: Donna Spiegelman (Yale University) and Molin Wang (Harvard University). Role: Consultant.

National Institutes of Health (2021-2026). Group testing for infectious disease detection (2 R01-AI121351). PI: Christopher Bilder, University of Nebraska-Lincoln. Role: Co-I.

National Institutes of Health (2016-2020). Group testing for infectious disease detection: Multiplex assays and back-end screening (R01-AI121351). PI: Christopher Bilder, University of Nebraska-Lincoln. Role: Co-I.

National Institutes of Health (2009-2012). School meals and BMI percentile: Secondary analyses of non-self-report data (R21-HL096035). PI: Suzanne Baxter, University of South Carolina. Role: Co-I.

Astellas Pharma US, Inc. (2009-2010). Activity of novel echinocandin lock solutions against *Candida* species using an in vitro model of catheter infection. PI: Brandon Bookstaver, University of South Carolina. Role: Co-I.

National Institutes of Health (2007-2011). Disease detection and prevalence estimation through informative group testing (R01-AI067373). PI: Christopher Bilder, University of Nebraska-Lincoln. Role: Co-PI.

Merck & Co, Inc. (2007-2009). Bioactivity of echinocandin lock solutions against non-albicans *Candida* isolates. PI: Brandon Bookstaver, University of South Carolina. Role: Co-I.

National Oceanic and Atmospheric Administration (2006-2007). Urbanization and southeastern
estuarine systems. PI: Dwayne Porter, University of South Carolina. Role: Co-I.

Note: I have been part of **10** additional external grant proposals that were not funded.

Grants Funded: Internal

University of South Carolina Undergraduate Research, 2010

Big 12 Faculty Fellowship Program, 2004

Oklahoma State University College of Arts and Sciences Summer Research Program, 2002

Oklahoma State University College of Arts and Sciences Travel Grant, 2002

Oklahoma State University College of Arts and Sciences Dean's Incentive Grant, 2001

Invited Seminars

1. Department of Statistics, University of Kentucky, September 2023

2. Department of Biostatistics, Virginia Commonwealth University, September 2023

3. School of Statistics, University of Minnesota, April 2023

4. Academy of Mathematics and Systems Science, Chinese Academy of Sciences, August 2022

5. School of Business, Pontificia Universidad Católica de Chile, October 2021

6. Department of Statistics and Actuarial Science, Northern Illinois University, September 2021

7. Department of Sciences, Universidade de São Paulo, April 2021

8. Department of Biostatistics, Vanderbilt University, January 2021

9. Department of Statistics, University of Missouri, November 2020

10. Department of Mathematics and Statistics, Coastal Carolina University, October 2020

11. Department of Biostatistics and Bioinformatics, Emory University, March 2020

12. Big Data Health Science Center, University of South Carolina, February 2020

13. Department of Mathematics, Furman University, January 2020

14. School of Mathematics, University of Edinburgh, November 2019

15. School of Mathematical Sciences, University of Nottingham, November 2019

16. Department of Statistics and Actuarial Science, University of Iowa, November 2019

17. Department of Mathematics and Statistics, American University, November 2019

18. Division of Natural Sciences and Mathematics, Colgate University, September 2019

19. Department of Statistical Science, Baylor University, March 2019

20. Division of Epidemiology and Biostatistics, University of Illinois at Chicago, September 2018

21. Division of Biostatistics and Bioinformatics, University of California, San Diego, April 2018

22. Department of Economics, University of California, San Diego, April 2018

23. Department of Mathematical Sciences, Clemson University, November 2017

24. Department of Mathematics and Statistics, University of Maryland-Baltimore County, March 2017

25. Biostatistics Branch, Division of Cancer Epidemiology and Genetics, National Cancer Institute, March 2017

26. Department of Statistics and Actuarial Science, University of Iowa, April 2015

27. Department of Biostatistics, Johns Hopkins University, September 2014

28. Biostatistics Branch, National Institute of Environmental Health Sciences, April 2013

29. Department of Mathematical Sciences, Clemson University, March 2012

30. Department of Statistics, George Washington University, November 2011

31. Biostatistics and Bioinformatics Division, National Institute of Child Health and Human Development, November 2011

32. Department of Statistics, University of Munich, October 2011

33. Department of Statistics, Brigham Young University, October 2010

34. Department of Epidemiology and Biostatistics, University of South Carolina, October 2010

35. Centre for Mathematical Sciences, Lund University, November 2009

36. Department of Statistics, University of Nebraska-Lincoln, October 2009

37. Department of Statistics and Computer Information Systems, Baruch College (City University of New York), April 2008

38. Department of Statistics, Iowa State University, October 2007.

39. Department of Epidemiology and Biostatistics, University of South Carolina, April 2007

40. Department of Statistics and Actuarial Science, University of Iowa, October 2006

41. Department of Biostatistics, University of Alabama at Birmingham, September 2006

42. Biostatistics Branch, National Institute of Environmental Health Sciences, September 2006

43. Department of Statistics, University of South Carolina, September 2006

44. Department of Statistics, University of Georgia, April 2006

45. Department of Statistics, University of Oslo, November 2005

46. Department of Statistics, University of South Carolina, September 2005

47. Department of Statistics, University of South Carolina, February 2005

48. Department of Statistics, Stockholm University, September 2004

49. Department of Statistics, Kansas State University, February 2004

50. Department of Statistics, Kansas State University, February 2003

51. Department of Biostatistics and Epidemiology, University of Oklahoma, January 2003

52. Department of Statistics, Federal University of Rio de Janeiro, July 2002

53. Department of Statistics, Oklahoma State University, February 2002

54. Department of Statistics, Oklahoma State University, March 2001

55. Department of Mathematics and Statistics, Mississippi State University, February 2001

56. Department of Mathematics and Statistics, Texas Tech University, February 2001

57. Department of Statistics, University of Akron, February 2001

58. Department of Mathematics and Statistics, Miami University, February 2001

59. Department of Mathematics and Statistics, University of Missouri-Rolla, February 2001

60. Department of Management Science, University of Miami, January 2001

61. Department of Statistics, University of Waterloo, September 2000

62. Department of Statistics, North Carolina State University, February 2000

Conference Presentations

1. Oklahoma Conference for Statistics, Biostatistics and Data Science, Stillwater, 2025

2. American Statistical Association, West Tennessee Chapter Meeting, Memphis, 2021

3. ENAR Spring Meetings, Philadelphia, 2019

4. STD Prevention Conference, Washington DC, 2018

5. International Biometric Conference, Barcelona, 2018

6. Kansas State University Conference on Applied Statistics in Agriculture, Manhattan, 2017

7. American Statistical Association, South Carolina Chapter Meeting, Clemson, 2014

8. Joint Statistical Meetings, Montréal, 2013

9. ENAR Spring Meetings, Orlando, 2013

10. ENAR Spring Meetings, Washington DC, 2012

11. Kansas State University Conference on Applied Statistics in Agriculture, Manhattan, 2010

12. ENAR Spring Meetings, New Orleans, 2010

13. ENAR Spring Meetings, San Antonio, 2009

14. ENAR Spring Meetings, Arlington, 2008

15. Kansas State University Conference on Applied Statistics in Agriculture, Manhattan, 2007

16. ENAR Spring Meetings, Atlanta, 2007

17. Joint Statistical Meetings, Seattle, 2006

18. ENAR Spring Meetings, Tampa, 2006

19. Joint Statistical Meetings, Minneapolis, 2005

20. Joint Statistical Meetings, Toronto, 2004

21. ENAR Spring Meetings, Pittsburgh, 2004

22. Joint Statistical Meetings, San Francisco, 2003

23. Kansas State University Conference on Applied Statistics in Agriculture, Manhattan, 2003

24. Oklahoma Chapter of the American Statistical Association Meeting, Oklahoma City, 2003

25. Joint Statistical Meetings, New York, 2002

Note: I have been a co-author (i.e., not the presenting author) on an additional **82** conference presentations.

Professional Service

- Editorial Service

    - Editor, *American Statistician*, 2021-2023
    - Associate Editor, *Sankhya B*, 2025-2027
    - Associate Editor, *American Statistician*, 2024-2026
    - Associate Editor, *Statistics in Medicine*, 2018-2023

- Grant/Proposal Review

    - Panel Member, NIH, Analytics and Statistics for Population Research Panel A (ASPA), 2024
    - Panel Member, NIH, Biostatistical Methods and Research Design (BMRD)
        * Permanent: 2017-2021
        * Temporary: 2016, 2017 (2), 2022
    - Panel Member, NIH, Topics in Health Services Research and Health Informatics, 2023
    - Panel Member, NIH, Exploratory Clinical Trials of Mind and Body Interventions, 2022
    - Panel Member, NIH, Chronic Diseases and Epidemiology, 2020
    - Panel Member, NIH, Risk, Prevention, and Health Behavior, 2016, 2017
    - Panel Member, NIH, Healthcare Delivery and Methodologies, 2016
    - Panel Member, NSF, Division of Mathematical Sciences (DMS), Statistics
        * Six panels: 2011, 2012, 2015, 2018, 2021, 2023
    - Panel Member, NSF, DMS/Quantitative Approaches to Biomedical Big Data, 2016
    - Panel Member, NSF, DMS/NIGMS, 2012, 2013

- – External Reviewer, United States-Israel Binational Science Foundation, 2025
  - – External Reviewer, Research Grants Council of Hong Kong, 2014-2025
  - – External Reviewer, NSF, Methodology, Measurement, and Statistics (MMS), 2020, 2024, 2025

- Invited Panelist

  - – "How to write a successful grant proposal," National Institute of Statistical Sciences, November 2021
  - – "NISS affiliates describe open academic positions and give down-to-earth advice," National Institute of Statistical Sciences, September 2021

- Professional Committees/Elected Positions

  - – Member, Editorial Search Committee, *Journal of Statistics and Data Science Education*, 2023-2024
  - – Member, Education Committee, International Biometric Society, 2020-2026
  - – Member, Committee on Publications, American Statistical Association, 2020-2023
  - – Chair, Journal Club, International Biometric Society, 2021
  - – Member, Outstanding Statistical Application Award Committee, American Statistical Association, 2017-2019
  - – Chair, Current Index to Statistics Management Committee, American Statistical Association, 2015
  - – Member, Current Index to Statistics Management Committee, American Statistical Association, 2013-2014
  - – Chair, Council of Chapters, American Statistical Association, 2010-2011
  - – Member, ENAR Student Paper Award Committee, 2005-2007
  - – Chair, Mu Sigma Rho Statistics Education Award Committee, 2005-2007
  - – Vice President, Mu Sigma Rho National Statistics Honorary Society, 2004-2007
  - – Vice President, Oklahoma Chapter of the American Statistical Association, 2002-2003
  - – President, NCSU Department of Statistics Graduate Association, 1999-2000

- Conference Committees/Organization

  - – Organizer of the Invited Session, "*The American Statistician*: A showcase of innovative science." Joint Statistical Meetings, 2023.
  - – Chair of the Contributed Session, "Current trends in categorical data analysis." International Biometric Conference, 2018
  - – Organizer and Chair of the Invited Session, "Measurement error models." Latent Variables Conference, 2016
  - – Chair of the Contributed Session, "Dose response and nonlinear models." ENAR Spring Meetings, 2013
  - – Member, Program Committee, Joint Statistical Meetings, 2011
  - – Organizer and Chair of the Invited Session, "Modern data analysis with order restrictions: A tribute to Tim Robertson." Joint Statistical Meetings, 2011
  - – Organizer of the Invited Session, "Measurement error and latent variable modeling." Southern Regional Council on Statistics, 2011

- Organizer and Chair of the Topic Contributed Session, "Recent advances in group testing methodology." Joint Statistical Meetings, 2010
- Chair of the Contributed Session, "Clustered survival data." ENAR Spring Meetings, 2009
- Organizer and Chair of the Invited Session, "Nonparametric constrained inference." Current and Future Trends in Nonparametrics, 2007
- Chair of the Contributed Session, "Multiple testing and false discovery rates." ENAR Spring Meetings, 2005
- Chair of the Contributed Session, "Multivariate approaches to gene expression data." Joint Statistical Meetings, 2003

- Program Review

  - PhD Program in Statistics, Department of Statistical Science, Baylor University, 2024
  - MS Program in Applied Statistics, Department of Mathematics, Statistics, and Physics, Qatar University, 2021

- Tenure/Promotion Review

  - Boston University, Department of Biostatistics
  - Brigham Young University, Department of Statistics (2)
  - Clemson University, School of Mathematical and Statistical Sciences (3)
  - Colgate University, Department of Mathematics (2)
  - Louisiana State University, Department of Experimental Statistics
  - Harvard University, Department of Otolaryngology
  - Kansas State University, Department of Statistics
  - Medical University of South Carolina, Department of Public Health Sciences (2)
  - Miami University, Department of Statistics
  - Michigan Technological University, Department of Mathematical Sciences
  - National Central University (Taiwan), Department of Mathematics
  - New York Medical College, Department of Public Health
  - Oklahoma State University, Department of Statistics
  - Texas Tech University, Department of Mathematics and Statistics
  - University of Akron, Department of Statistics
  - University of California-Riverside, Department of Statistics
  - University of Edinburgh, School of Mathematics
  - University of Hawaii, Department of Quantitative Health Sciences
  - University of Kansas, Department of Biostatistics
  - University of Mississippi, Department of Data Science
  - University of Nevada-Reno, Department of Mathematics and Statistics
  - University of Nevada-Reno, School of Community Health Sciences
  - University of Oklahoma, Department of Biostatistics and Epidemiology (2)
  - University of Rochester, Department of Biostatistics and Computational Biology
  - University of Texas-El Paso, Department of Mathematical Sciences
  - University of Texas-San Antonio, Department of Management Science and Statistics
  - University of Vermont, Department of Mathematics and Statistics

- Referee for **164** papers:

  - Advances in Virus Research
  - American Statistician (9)
  - Annals of Applied Statistics
  - Biometrical Journal (5)
  - Biometrics (20)
  - Biometrika (3)
  - Biostatistics (3)
  - BMC Medical Informatics and Decision Making
  - Communications in Statistics: Simulation and Computation (15)
  - Communications in Statistics: Theory and Methods (8)
  - Computational Statistics and Data Analysis (3)
  - Computers and Mathematics with Application
  - Econometric Theory
  - Emerging Themes in Epidemiology
  - Epidemiology (2)
  - Journal of Agricultural, Biological, and Environmental Statistics (5)
  - Journal of Agriculture Science
  - Journal of the American Statistical Association (7)
  - Journal of Applied Statistics
  - Journal of Biopharmaceutical Statistics
  - Journal of Clinical Epidemiology
  - Journal of the Korean Statistical Society
  - Journal of Natural Resources and Life Sciences Education
  - Journal of Nonparametric Statistics
  - Journal of Pharmacokinetics and Pharmacodynamics
  - Journal of the Royal Statistical Society: Series B
  - Journal of the Royal Statistical Society: Series C
  - Journal of Statistical Computation and Simulation (9)
  - Journal of Statistical Planning and Inference (13)
  - Journal of Statistical Theory and Practice
  - Journal of Survey Statistics and Methodology
  - Management Science (4)
  - Metrika (3)
  - Modelling and Simulation in Engineering
  - Nucleic Acids Research
  - Operations Research
  - Phytopathology
  - PLOS ONE (2)
  - Proceedings for the KSU Conference on Applied Statistics in Agriculture (2)
  - Psychological Methods
  - Sankhya B

- Scientia Agricola
- Scientific Reports
- Signal Processing
- Statistica Neerlandica
- Statistical Modelling
- Statistica Sinica (2)
- Statistics
- Statistics and Computing
- Statistics in Medicine (13)
- Statistics and Probability Letters (4)
- Test

University Service

Member, Faculty Advisory Committee, College of Arts and Sciences, 2025-2027

Panelist, College of Arts and Sciences Early Career Professional Development Series, 2023

Member, Top Scholar Selection Committee, 2019-2020

Chair, Faculty Grievance Committee, 2018-2019

Faculty Mentor, First-Year Scholars Program, 2016-2017

Member, Faculty Grievance Committee, 2016-2017

Chair, University Committee on Tenure and Promotion, 2014-2015

Member, American Cancer Society Institutional Research Grant Review Committee, 2014

Reviewer, SPARC Graduate Research Grant Program, 2014

Member, University Committee on Tenure and Promotion, 2012-2014

Faculty Advisor, Actuarial Science Club, 2010-2015

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

Presenter, College of Pharmacy Residency Research Project Series, 2010

Undergraduate Research Mentor, SC STEP to STEM Program, 2010

Faculty Advisor, Pi Kappa Alpha Fraternity, 2008-2010

Instructor, STEM 101, 2008-2009

Member, Finance FEI Search Committee, 2008-2009

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

Presenter, Pi Mu Epsilon Graduate School Information Night, 2008

Member, Wooddy Scholarship Committee, 2007-2010

Judge, Region II Science and Engineering Fair, 2007

Presenter, USC Graduate School Orientation, 2006

Volunteer, USC Showcase, 2006

Department Service

- Chair, 2019-2023

- Graduate Committee
  - Chair, 2010-2012 (Graduate Program Director)
  - Member, 2012-2014, 2016-2017, 2018

- Undergraduate Committee
  - Chair, 2006-2009 (Undergraduate Program Director)
  - Member, 2005-2006, 2009-2010

- Faculty Mentor (for Assistant Professors)
  - William Consagra, 2025-present
  - Ray Bai, 2023-2025
  - Karl Gregory, 2019-2022
  - Dewei Wang, 2014-2020
  - Xianzheng Huang, 2009-2012
  - Lianming Wang, 2008-2010

- Miscellaneous
  - Preliminary Exam Committee
    * Chair: Jan 2010, May 2010, Jan 2013, May 2013, Jan 2015, May 2016, Aug 2024
    * Member: May 2006, May 2008, May 2011, May 2014, Jan 2017, May 2019
  - Member, Grantsmanship Committee, 2024-2025
  - Member, 40th Anniversary Planning Committee, 2024-2025
  - Member, Honors and Awards Committee, 2024-2025
  - Member, Undergraduate Ad-Hoc Mentoring Committee, 2024-2025
  - Member, Chair Search Committee, 2024
  - Member, MAS Exam Committee, 2018
  - Chair, Faculty Search Committee, 2016-2018, 2022-2023
  - Chair, Tenure and Promotion Committee, 2013-2015, 2017-2019
  - Chair, Chair Review Committee, 2012-2017
  - Chair, Post-Tenure Review Committee, 2012-2013
  - Member, Chairman's Advisory Committee, 2010-2019
  - Chair, Colloquium Committee, 2009-2010
  - Member, Grievance Committee, 2008-2009
  - Chair, Assistant Professor Peer Review Committee, 2008-2009
  - Chair, Instructor Peer Review Committee, 2008

- Member, Self-study Committee, 2007-2009
- Organizer, AP Statistics Practice Exam, 2007
- Department Liaison to Mathematical Association of America, 2006-2009
- Member, Chairman's Advisory Committee, 2006-2009
- Member, Nominations and Awards Committee, 2006-2009
- Proctor, AP Statistics Practice Exam, 2006, 2009
- Organizing Committee Member, Nonparametrics Conference, 2006-2007
- Member, Faculty Search Committee, 2005-2012, 2018-2019
- Advisor, Statistics Club, 2005-2009

Service at KSU/OSU (2001-2005)

- Kansas State University

  - 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

- Oklahoma State University

  - Chair, Seminar Committee, 2002-2003
  - Member, Personnel Committee, 2002-2003
  - Panelist, Arts and Sciences Career Services, 2002
  - Member, Undergraduate Committee, 2001-2003
  - Advisor, Statistics Club, 2001-2002

Student Direction

- PhD Students (Major Advisor)

  1. Jihyun Kim (co-advise with Lianming Wang): "Regression analysis of arbitrarily censored data and group-tested current status data," May 2025.
  Initial position: TBD.

  2. Michael Stutz: "Regression methods for group testing data," August 2021.
  Initial position: Instructor, Department of Statistics, University of South Carolina.

  3. Zichen Ma (co-advise with Yen-Yi Ho): "Bayesian methods in analyzing association of random variables," May 2021.
  Initial position: Assistant Professor, Department of Mathematics, Colgate University.

  4. Xichen Mou (co-advise with Dewei Wang): "Estimation problems for pooled data," August 2019.
  Initial position: Assistant Professor, School of Public Health (Biostatistics), University of Memphis.

  5. Chuan-Fa Tang (co-advise with Dewei Wang): "Nonparametric inference for orderings and associations between two random variables," August 2017.
  Initial position: Assistant Professor, Department of Mathematical Sciences, University of Texas-Dallas.

6. Peijie Hou (co-advise with Dewei Wang): "Topics in group testing with multiple infections," May 2017.
   Note: Peijie won a 2015 ENAR Student Paper Award for his submission "Hierarchical group testing for multiple infections."
   Initial position: Statistician, Takeda Pharmaceuticals.

7. Md S. Warasi: "Modern estimation problems in group testing," August 2016.
   Initial position: Assistant Professor, Department of Mathematics and Statistics, Radford University.

8. Christopher McMahan: "Topics in heterogeneous group testing," May 2012.
   Note: Chris won a 2011 ENAR Student Paper Award for his submission "Informative Dorfman screening."
   Initial position: Assistant Professor, School of Mathematical and Statistical Sciences, Clemson University.

9. Peng Chen: "Topics in binary regression models with group testing data," December 2008.
   Initial position: Statistician, Takeda Pharmaceuticals.

10. Nicholas Pritchard: "Geometric group testing," December 2008.
    Initial position: Assistant Professor, Department of Mathematics and Statistics, Coastal Carolina University.

- MS Students (Major Advisor)

  1. Nicholas Tice: "Predicting lower body soft tissue injuries in American football with GPS data," May 2022.
  2. Chun Pan: "Estimation of logistic regression model parameters using the EM algorithm for three group testing strategies," August 2009.
  3. Lance Ridpath: "Simultaneous confidence intervals for log-odds ratios," August 2005.
  4. Scott Roths: "Empirical Bayes confidence intervals for the difference of two independent binomial proportions," May 2005.
  5. Hyung-Tae Kim: "Using conjoint analysis to examine the preferences of graduate students when registering for elective courses," May 2003.
  6. Daniel Scott: "A comparison of three confidence interval procedures for group-testing proportions in the presence of testing errors," May 2003.

- BS Students (Major Advisor)

  1. Harrison Cassel: "Comparing changes in health access, utilization, and outcomes in the Southeast and a peer region to assess the impacts of Medicaid expansion," May 2024.
  2. Cade Stanley: "Modeling the probability of a successful stolen base attempt in Major League Baseball," May 2023.
  3. Matthew Mullis: "The forgotten team: Ranking punt teams in the NFL by modeling net yardage gain per play," May 2022.
  4. Nicholas Tice: "The relationship between NFL draft position and high school recruiting ranking," May 2020.
  5. Kevin Doerge: "Game over: Modeling the probability of converting a save," May 2012.

- Graduate Committee Member (at USC/KSU/OSU combined): 23 PhD, 13 MS, 1 MAS

- Undergraduate Committee Member (USC, Reader for Honors Thesis): 3

Teaching

University of South Carolina	# Sections	# Students
STAT 110 Introduction to Statistical Reasoning	6	715
STAT 509 Statistics for Engineers	8	337
STAT 511 Probability	8	263
STAT 512 Mathematical Statistics	9	256
STAT 513 Theory of Statistical Inference	5	101
STAT 520 Forecasting and Time Series	3	82
STAT 700 Applied Statistics I	1	8
STAT 712 Mathematical Statistics I	4	53
STAT 713 Mathematical Statistics II	5	64
STAT 714 Linear Statistical Models	3	39
STAT 823 Large Sample Theory	2	26

Kansas State University	# Sections	# Students
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

Oklahoma State University	# Sections	# Students
STAT 2023 Elementary Statistics for Business/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

North Carolina State University*	# Sections	# Students
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 that serves as an elective for the PhD program in Statistics at USC.

STAT 823: Large Sample Theory. This is a new course that serves as a requirement for the PhD program in Statistics at USC (the course has been renamed and renumbered).

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

March, 2025