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Degrees

- May 2000 Ph.D., Statistics, North Carolina State University
May 1997 M.S., Statistics, The University of Iowa
May 1995 B.S., Mathematics, Statistics; Honors: Statistics; Minor: Spanish, The University of Iowa

Experience

- Aug 2008 - present *Associate Professor*, Department of Statistics, The University of South Carolina
Aug 2005 - Jul 2008 *Assistant Professor*, Department of Statistics, The University of South Carolina
Aug 2003 - Jun 2005 *Assistant Professor*, Department of Statistics, Kansas State University
Aug 2001 - Jul 2003 *Assistant Professor*, Department of Statistics, Oklahoma State University
Jun 2000 - May 2001 *Statistician*, United Technologies
Aug 1997 - May 2000 *Teaching Assistant, Consultant*, Department of Statistics, North Carolina State University
Aug 1995 - May 1997 *Teaching Assistant, Research Assistant*, Department of Statistics and Actuarial Science, The University of Iowa

Major Areas of Current Research Interest

Group testing, categorical data, order-restricted inference, multiple comparisons, epidemiology and public health, biomedical applications

Refereed Publications

1. Chen, P., **Tebbs, J.**, and Bilder, C. (2009). Group testing regression models with fixed and random effects. *Biometrics*, in press.
2. Huang, X. and **Tebbs, J.** (2009). On latent-variable model misspecification in structural measurement error models for binary response. *Biometrics*, in press.
3. Bilder, C. and **Tebbs, J.** (2009). Bias, efficiency, and agreement for group-testing regression models. *Journal of Statistical Computation and Simulation*, **79**, 67-80.
4. **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.
5. **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.
6. McCann, M. and **Tebbs, J.** (2007). Pairwise comparisons for proportions estimated by pooled testing. *Journal of Statistical Planning and Inference*, **137**, 1278-1290.
7. **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.
8. Kim, J., **Tebbs, J.**, and An, S. (2006). Extensions of Mangat's randomized-response model. *Journal of Statistical Planning and Inference*, **136**, 1554-1567.
9. 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.

10. Carolan, C. and **Tebbs, J.** (2005). Nonparametric tests for and against likelihood ratio ordering in the two-sample problem. *Biometrika*, **92**, 159-171.
11. 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.
12. **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.
13. 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.
14. **Tebbs, J.** and Bower, K. (2003). Some comments on the robustness of Student *t* procedures. *Journal of Engineering Education*, **92**, 91-94.
15. **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.
16. **Tebbs, J.** and Swallow, W. (2003). More powerful likelihood ratio tests for isotonic binomial proportions. *Biometrical Journal*, **45**, 618-630.
17. **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.** (2008). Book review of *An Introduction to Categorical Data Analysis* (2nd edition) by Alan Agresti. *Journal of the American Statistical Association*, **103**, 1323.
2. 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. 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*, in revision.
2. Chen, P., **Tebbs, J.**, and Bilder, C. (2009). Global goodness-of-fit tests for group testing regression models.

Funded Grants: External

- Astellas Pharma US, Inc. Bioactivity of echinocandin lock solutions against non-albicans *Candida* isolates. Requested amount: \$23,404 (pending). **Role:** Co-PI (5% effort). **PI:** Brandon Bookstaver, College of Pharmacy, University of South Carolina.
- National Institutes of Health (R01-AI067373). Disease detection and prevalence estimation through informative group testing. Funded at \$722,666. **Role:** Co-PI (50% effort). **PI:** Christopher R. Bilder, University of Nebraska. Funding timeline: September, 2007 to August, 2010.
- Merck & Co, Inc. Activity of novel echinocandin lock solutions against *Candida* species using an in vitro model of catheter infection. Funded at \$30,422. **Role:** Co-PI (5% effort). **PI:** Brandon Bookstaver, College of Pharmacy, University of South Carolina. Funding timeline: Summer, 2008.
- National Oceanic and Atmospheric Administration. Urbanization and southeastern estuarine systems. Funded at \$76,582. **Role:** Co-PI (5% effort). **PI:** Dwayne E. Porter, Department of Environmental Health Sciences, University of South Carolina. Funding timeline: May, 2006 to May, 2007.
- National Institutes of Health. Travel expenses to attend Workshop for Junior Researchers at the ENAR 2004 Spring Meetings. Funded at \$800.

Unfunded Grants: External

National Science Foundation. Comprehensive mentoring through critical transition points in South Carolina. Submitted May, 2006. Requested amount: \$1,171,144. **Role: Co-PI** (1 of 6). **PI:** Anton R. Schep, Department of Mathematics, University of South Carolina.

National Science Foundation. Simultaneous inference for odds ratios in the analysis of count data (SES-0517181). Submitted January, 2005. Requested amount: \$206,303. **Role: PI** (50% effort). **Co-PI:** Melinda H. McCann, Oklahoma State University.

Oak Ridge Associated Universities. Efficient estimation of rare traits from multiple studies. Submitted October, 2002. Requested Amount: \$10,000.

Funded Grants: Internal

Simultaneous inference for odds ratios in the analysis of count data. Big 12 Faculty Fellowship Program, Kansas State University, 2004.

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

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

New advances in estimating the probability of disease transmission in vector-transfer experiments. College of Arts and Sciences, Oklahoma State University, 2001.

Seminars: International

Informative group screening. Department of Statistics Seminar at The University of Oslo, Norway. November, 2005.

Pairwise comparisons for proportions estimated by pooled testing: Applications to HIV seropositivity screening. Department of Statistics Seminar at Stockholm University, Sweden. September, 2004.

Improved isotonic regression estimates for ordered binomial proportions. Department of Statistics Seminar at The Federal University of Rio de Janeiro, Brazil. July, 2002.

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

Seminars: National

Group testing regression models with fixed and random effects: Applications to chlamydia and gonorrhea screening. Department of Statistics and CIS Seminar at Baruch College (The City University of New York). April, 2008.

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

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

Informative group screening. Department of Statistics Seminar at The University of Georgia. April, 2006.

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

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

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

On the use of group testing in medical screening experiments. Department of Biostatistics and Epidemiology Seminar at The University of Oklahoma College of Public Health. 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 The University of Akron. February, 2001.
- Department of Mathematics and Statistics Seminar at Miami University (OH). February, 2001.
- Department of Mathematics and Statistics Seminar at The University of Missouri-Rolla. February, 2001.
- Department of Management Science Seminar at The University of Miami (FLA). January, 2001.

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

Contributed Talks

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 (1987) 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

- Editorial Board, *Journal of Modern Applied Statistical Methods*, 2001-2008
- Associate Editor, *Communications in Biometry and Crop Science*, 2005-2008
- Referee for *American Statistician*, *Biometrics* (2), *Communications in Statistics: Simulation and Computation*, *Computers and Mathematics with Application*, *Journal of Agricultural, Biological, and Environmental Statistics* (2), *Journal of Agriculture Science*, *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 C*, *Journal of Statistical Computation and Simulation*, *Journal of Statistical Planning and Inference* (7), *Metrika*, *Phytopathology*, *Proceedings for the Kansas State University Conference on Applied Statistics in Agriculture*, *Statistics and Computing*
- Internal Reviewer, PSC-CUNY Research Awards, March, 2008
- Member, ENAR Student Paper Committee, 2005-2007
- Chair, Mu Sigma Rho Statistics Education Award Committee, 2005-2007
- Internal Editor, NIEHS (for a manuscript submitted by Dr. Shyamal Peddada), September, 2006
- Chair, Session 33: Multiple testing and false discovery rates. ENAR Spring Meetings, Austin. March, 2005
- Chair, Session 471: Multivariate approaches to gene expression data. Joint Statistical Meetings, San Francisco, August, 2003

Student Direction

- Chun Pan, M.S. (in progress).
- 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: 12 M.S., 10 Ph.D.

Teaching

	Number of sections	Number of students
The University of South Carolina		
STAT 110 Introduction to Descriptive Statistics	2	176
STAT 511 Probability	4	106
STAT 512 Mathematical Statistics	2	46
STAT 513 Theory of Statistical Inference	1	17
STAT 599 Independent Study	2	2
STAT 700 Applied Statistics I	1	8
STAT 714 Linear Statistical Models	2	27
STAT 723 Large Sample Theory	1	10
Kansas State University		
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		
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
North Carolina State University*		
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 The University of South Carolina in Spring, 2011. This course will serve as an elective for PhD program in Statistics.

STAT 723 Large Sample Theory. This is a new course I created and taught for the first time at The University of South Carolina in Spring, 2007. This course is required for the PhD program in Statistics, effective Spring, 2007.

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

Professional Organizations

American Statistical Association

Institute of Mathematical Statistics

International Biometrics Society (ENAR)

Elected Offices

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

University Service (USC)

Member, Finance FEI Search Committee, 2008-2009
Faculty Advisor, Pi Kappa Alpha Fraternity, 2008-2009
Member, College of Arts and Sciences Scholarship Committee, 2008
Instructor, STEM 101 (November 11 and November 13, 2008)
Presenter, Pi Mu Epsilon Graduate School Information Night (October 28, 2008)
Instructor, STEM 101 (April 1 and April 3, 2008)
Judge, Region II Science and Engineering Fair (March 23, 2007)
Member, Woody Competition Committee, 2007-present
Presenter, USC Graduate School Orientation (August 16, 2006)

Department Service (USC)

Member, Faculty Search Committee, 2008-2009
Member, Grievance Committee, 2008-2009
Faculty Mentor for Lianming Wang, 2008-present
Member, Preliminary Exam Committee, 2008
Chair, Department of Statistics Instructor Evaluation Committee, 2008
Organizing Committee Member, Nonparametrics Conference (October 11-12, 2007)
Organized 2007 AP Statistics Practice Exam (April 21, 2007)
Member, Self-study Committee, 2007-present
Director, Undergraduate Program, 2006-present
Department Liaison to Mathematical Association of America, 2006-present
Chair, Undergraduate Advisory Committee, 2006-present
Member, Chairman's Advisory/Space Utilization Committee, 2006-present
Member, Nominations and Awards Committee, 2006-present
Advisor, Statistics Club, 2005-present
Member, Faculty Search Committee, 2005-2007
Supervised 2006 AP Statistics Practice Exam (April 1, 2006) and USC Showcase (April 8, 2006)
Member, Preliminary Exam Committee, 2006
Member, Undergraduate Advisory Committee, 2005-2006

Department and University Service (OSU, KSU)

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

Honors and Awards

The North Carolina State UGSA Teaching Effectiveness Award, 2000
The NCSU Department of Statistics Paige Plagge Graduate Award for Outstanding Citizenship, 2000
The North Carolina State UGSA Teaching Effectiveness Award, 1999
The UI Department of Statistics Allen T. Craig Award for Outstanding Teaching Assistant, 1997
The University of Iowa Council on Teaching Award for Outstanding Teaching Assistant, 1997
The University of Iowa Honors Program, 1992-1995