

## CURRICULUM VITAE

### LORI A. THOMBS

Associate Professor

Department of Statistics, University of Missouri

Columbia, MO 65211-6100

Phone: (573) 882-3844 email: thombsl@missouri.edu

### EDUCATION:

B.S. (Mathematics) Baylor University, 1981

M.S. (Statistics) Southern Methodist University, 1983

Ph.D. (Statistics) Southern Methodist University, 1985

Advisor: W. R. Schucany Dissertation Title: *“Bootstrap Prediction Intervals for Autoregression”*

### ACADEMIC EXPERIENCE:

Associate Professor	2003 - present	Department of Statistics, University of Missouri
Director, Social Sciences Statistics Center		
Visiting Professor	2000 - 2001	Department of Statistics, Rice University
Visiting Scholar	Summer 1999	Department of Economics and Statistics, Universidad de Carlos III, Spain
Visiting Scholar	April - June 1995	Department of Statistics Australian National University
Visiting Scholar	Jan - Aug 1993 July 1994	Department of Statistics Stanford University
Associate Professor	1991 - 2003	Department of Statistics, University of South Carolina
Assistant Professor	1985 - 1991	Department of Statistics University of South Carolina

### AWARDS AND HONORS:

Nominee, 2015 W.J. Dixon Award for Excellence in Statistical Consulting  
Fellow of the American Statistical Association, 2011  
Excellence in Education Awards, MU Division of Student Affairs, 2006  
USC Educational Foundation Outstanding Faculty Service Award, 1998  
Mortar Board Excellence in Teaching Award, USC, 1990  
USC AMOCO Teacher of the Year Award, 1989  
John E. Walsh Award for Outstanding Ph.D. Student, SMU, 1985  
Outstanding Mathematics Senior, Baylor University, 1981

### RESEARCH INTERESTS:

Social Science Statistical Methods, Resampling methods for Correlated data, Linear and Nonlinear Time Series, Predictive modeling, Multivariate classification techniques, Statistical Education, Interdisciplinary Statistics

## MANUSCRIPTS IN PREPARATION:

- “Objective Endoscopic Evaluation of Laryngeal Function,” with Teresa E. Lever, Bridget L. Hopewell, Alyssa Ovaitt, Marlena Szewczyk, Caitlin Vandell, Ian Deninger, Brett Blake, Cameron Hinkel and Matthew Page.
- “Role of spinal cord motor neurons in in canines with degenerative myelopathy,” with Christine Sigibtroth.
- “Videofluoroscopic characterization of presbyphagia in a mouse model and exploring therapeutic treatment with menthol,” with Loren Littrell and Teresa Lever.
- “Redesigned Outdoor Fitness Trail: Impacts on Physical Activity in a Low-Income Neighborhood Park,” with Courtney Schultz, Sonja Wilhelm Stanis and Stephen Sayers.

## PUBLICATIONS:

- Thombs, Lori (2017). “Kolmogorov-Smirnoff Test,” *The SAGE Encyclopedia of Educational Research, Measurement, and Evaluation*, edited by Bruce Frey, SAGE Publications Inc, CA, in print 2017.
- Secher JO, Ceylan A, Mazzoni G, Mashayekhi K, Li T, Muenthaisong S, Nielsen TT, Li D, Li S, Petkov S, Cirera S, Luo Y, Thombs L, Kadarmideen HN, Dinnyes A, Bolund L, Roelen BA, Schmidt M, Callesen H, Hyttel P, Freude KK. (2017). “Systematic in vitro and in vivo characterization of LIF and FGF derived porcine iPSC,” *Molecular Reproduction and Development*, in print.
- Schultz CL, Wilhelm Stanis SA, Sayers SP, Thombs LA, Thomas IM. (2016). “A longitudinal examination of improved access on park use and physical activity in a low-income and majority African American neighborhood park,” *Preventive Medicine*, Feb: S95-S100.
- Schultz CL, Sayers SP, Wilhelm Stanis SA, Thombs LA, Thomas IM, Canfield SM. (2015). “The Impact of a Signalized Crosswalk on Traffic Speed and Street-Crossing Behaviors of Residents in an Underserved Neighborhood,” *Journal of Urban Health*, **92 (5)**: 910-22.
- Shock LA, Gallemore BC, Hinkel CJ, Szewczyk MM, Hopewell BL, Allen MJ, Thombs LA, Lever TE. (2015). “Improving the utility of laryngeal adductor reflex testing: A translational tale of mice and men,” *Otolaryngology - Head and Neck Surgery*, **153 (1)**: 94-101.
- Lever TE, Brooks RT, Thombs LA, Littrell LL, Harris RA, Allen MJ, Kadosh MD, Robbins KL. (2015). “Videofluoroscopic Validation of a Translational Murine Model of Presbyphagia,” *Dysphagia*, **30 (3)**: 328-342.
- Walker, J.L., Sistrunk, W.W., Higginbotham, M.A., Burks, K., Halford, L., Goddard, L., Thombs, L.A., Austin, C., Finley, P.J. (2014). “Hospital hand hygiene compliance improves with increased monitoring and immediate feedback,” *American Journal of Infection Control*, **42 (10)**: 1074-8.
- Litofsky NS, Matthews J, Wolak ML, Shah MM, Melamed I, Thombs LA. (2010). “Optimizing referral practices for patients with non-traumatic intracerebral hemorrhage,” *Missouri Medicine*, **107 (3)**: 210-6.
- Kolenikov, Stanislav, Steinley, Douglas and Thombs, Lori. (2010). *Statistics in the Social Sciences: Current Methodological Developments*, Wiley, New York.
- Atkinson KJ, Fine DM, Thombs LA, Gorelick JJ, Durham HE. (2009). “Evaluation of Pimobendan and N-Terminal Probrain Natriuretic Peptide in the Treatment of Pulmonary Hypertension Secondary to Degenerative Mitral Valve Disease in Dogs,” *Journal of Veterinary Internal Medicine*, **23 (6)**: 1190-6.
- Cepel, Raina, Thombs, Lori A., Neal, Steven P., Ho, Dominic. (2007). “Statistical Analysis and Computer Generation of Correlated Acoustic Noise,” *Journal of Nondestructive Evaluation*, **26 (1)** 19-32.
- Thombs, Lori A. and Sampson, Charles, (2006). “Modeling Change in Municipal Fiscal Policy using Mayoral Expenditure Data,” *ASA Proceedings of the Social Statistics Section*.

- Sayers SP, Guralnik JM, Thombs LA, Fielding RA. (2005). "Effect of Leg Muscle Contraction Velocity on Functional Performance in Older Men and Women," *Journal of the American Geriatrics Society*, **53** (3): 467-471.
- Li, X.-B, Donohue, J. M, Sweigart, J. R., Thombs, L. A. (2003). "Multivariate Decision Trees using Linear Discriminants and Tabu search," *IEEE Transactions on Systems, Man and Cybernetics, Part A:Systems and Humans*, **33** (2) 194-205.
- Li, X. B., Donohue, J. M., Sweigart, J. R., Thombs, L.A. (2001). "A Dynamic Programming Based Pruning Method for Decision Trees," *INFORMS Journal on Computing*, **13**, (4) 332-344.
- Thombs, Lori A. (2001). [Entry on *Standard Deviation*,] Grinstein, L. S. & Lipsey, S. J. (Eds.) *Encyclopedia of Mathematics Education*, NY: Routledge Falmer.
- Spurrier, J.D., Edwards, D.G, and Thombs, L.A. (1999). *Statistics: Learning by Doing*, Whittier Press.
- Romano, Joseph P. and Thombs, Lori A. (1996). "Inference for Autocorrelations Under Weak Assumptions," *Journal of the American Statistical Association*, **91**, 590 - 600.
- John D. Spurrier, Don Edwards, and Lori A. Thombs, (1996). "Elementary Statistics Laboratory," *Communications in Statistics-Theory and Methods*, **25**, 2663 - 2673.
- McClenaghan, B.A.; Williams, H.; Dickerson, J. Dowda, M.; Thombs L. A. and Eleazer, Paul (1995). "Spectral Characteristics of Aging Postural Control," *Gait and Posture*, **3**, (3) , 123-131.
- Thombs, L. A. and Whitin, D (1995). "Use of the Spectral Signature to Discriminate Between Levels of Physical Stability," *ASA Proceedings of the Social Statistics Section*, 174-179.
- Spurrier, J.D., Edwards, D.G, and Thombs, L.A. (1995). *Elementary Statistics Laboratory Manual - Macintosh Version*, Wadsworth, Belmont, CA.
- Spurrier, J.D., Edwards, D.G, and Thombs, L.A. (1995). *Elementary Statistics Laboratory Manual - Macintosh Version*, Wadsworth, Belmont, CA.
- Spurrier, J.D., Edwards, D.G, and Thombs, L.A. (1995). *Elementary Statistics Laboratory Manual - MS-DOS Version*, Wadsworth, Belmont, CA.
- McClenaghan, B.A.; Williams, H.; Dickerson, J. and Thombs L. A. (1994). "Spectral signature of forces to discriminate perturbations in standing posture," *Clinical Biomechanics*, **9**(1), 21-27.
- Romano, J. and Thombs, L. A. (1994). "Inference for Autocorrelations by Resampling," *ASA Proceedings of the Statistical Computing Section*, 1-10.
- Spurrier, J.D.; Edwards, D.E. and Thombs, L.A. (1993). "Elementary Statistics Laboratory," *Proceedings of the American Statistical Association, Section on Statistical Education*, 23-28.
- McClenaghan, B. A., Thombs, L. A. and Milner, M. (1992). "Effects of Seat Surface Inclination of Postural Stability and Functional Use of the Upper Extremity in Children with Cerebral Palsy," *Developmental Medicine and Child Neurology*, **34**, 40-48.
- Padgett, C. S., Thombs, L. A. and Padgett, W. J. (1992). "On  $\alpha$ -Risks for Shewhart Control Charts," *Communications in Statistics-B*, **21**,, 1125-1147.
- Thombs, L.A. and Chan, K.C. (1991). "Ridge Regression and the Bootstrap," *ASA Proceedings of the American Statistical Association, Section on Social Statistics*.
- Thombs, L.A. and Sheather, S. J. (1990). "Local Bandwidth Selection for Density Estimation," *Computing Science and Statistics: Proceedings of the Symposium on the Interface*, Springer-Verlag, 111-116.
- Thombs, L. A. and Schucany, W. R. (1990). "Bootstrap Prediction Intervals for Autoregression," *Journal of the American Statistical Association*, **85**, 486 - 492.

- Spurrier, J. D. and Thombs, L. A. (1990). "Control Charts for Detecting Cyclical Behavior," *Technometrics*, **32**, 164 - 171.
- McClenaghan, B. A., Williams, Harriet, Dickerson, John and Thombs, Lori (1990). "Use of the Spectral Signature of Postural Sway to Predict Impairments of Stability," *Proceedings of the Canadian Medical and Biological Engineering Society*, Banff, Alberta, May.
- Gardner, L. R.; Thombs, L. A.; Edwards, D. G., and Nelson, D. (1989). "Time Series Analysis of Suspended Sediment Concentration at North Inlet, S.C." *Estuaries*, **12**, (4), 211-221.
- Padgett, W. J. and Thombs, L. A. (1988). "A Smooth Nonparametric Quantile Estimator from Right Censored Data," *Statistics and Probability Letters*, **7**, 113-121.
- Thombs, L. A. (1987). "Recent Advances in Forecasting: Bootstrap Prediction Intervals for Time Series," *1987 Proceedings of the Decision Sciences Institute*, Ed. Bob Parsons and John Saber.
- Padgett, W. J. and Thombs, L. A. (1986). "Smooth Nonparametric Quantile Estimation under Censoring: Simulation and Bootstrap Methods," *Communications in Statistics - B*, **15**, 1003 - 1025.

**PUBLICATIONS - Acknowledged as Statistician:**

- Brown, S., Yeckel, G., Heinz, R., Clark, K., Slepser, D. and Mitchum, M.G., (2010). "A high-throughput automated technique for counting females of *Heterodera glycines* using a fluorescence-based imaging system," *Journal of Nematology*, **42(3)** 201-206.
- Mueller, Patrick J., Hasser, Eileen M. (2006). "Putative role of the NTS in alterations in neural control of the circulation following exercise training in rats," *American Journal of Physiology - Regulatory Integrative and Comparative Physiology*, **290(2)** 383-392.
- Kaplan, P. A ., Frazier, S. R., Loy, T. S., Diaz-Arias, A.A., Bradley, K., Bickel, J.T. (2005). "1D5 and 6F11: An immunohistochemical comparison of two monoclonal antibodies for the evaluation of estrogen receptor status in primary breast carcinoma,," *American Journal of Clinical Pathology*, **123(2)** 276-280.

**FUNDING AS STATISTICAL EXPERT/CONSULTANT:**

- Kyle Gibson, Chair, Department of Physical Therapy, (2012-2013). "*Analysis of Admissions Procedure for MU Department of Physical Therapy*
- Evan Prost, Department of Physical Therapy University of Missouri, (2012-2013). "*Is there a relationship between Myers Briggs Type Indicator (MBTI) domain strength and student satisfaction with the Problem Based Learning (PBL) group approach,*'
- Robert Wood Johnson Foundation, (2006-2008) *Evaluation of ALbD Community Intervention in Columbia, MO*, PI: Steve Sayers, MU Department of Physical Therapy.
- Quality Improvement Center for Child Protection at the University of Kentucky, "*Child Welfare Services Supervisory Training,*" (2005-2006). PIs: Mike Kelly and Paul Sundet, MU School of Social Work.
- Department of Health and Human Services, (2005-2006). "*The Impact of Cash Incentives on Early Childhood Development,* PI: Sara Gable, MU Department of Human Development and Family Studies.
- NIDRR/US Department of Education, (2003-2008). "*Missouri Arthritis Rehabilitation Research and Training Center,*" PI: Jerry Parker, MU Department of Physical Medicine and Rehabilitation.

### **GRANT PROPOSALS: (Pending)**

NIH-R21, "Impact of serotonin deficiency on speech and swallow function in a mouse model of Amyotrophic Lateral Sclerosis, with T. Lever (PI), September 2017 to August 2019, \$417K, **status pending**.

US Department of Education, "*Classmate Effects On 4th Graders' Noncognitive Factors and Academic Achievements,*" with Ze Wang (PI), D. Bergin and N.Dong, Included as statistical advisor, July 2017 - June 2019, \$312K, **status pending**.

NIH, "*Adapting CIT for Corrections: Improving Outcomes for People with Mental Illnesses in Prison,*" with Kelli Canada (PI), December 2016 to November 2019, **status pending**.

### **GRANT FUNDING:**

NSF, "*Conference on Methodological Developments of Statistics in Social Sciences,*" (2006-2007,) with Stas Kolenikov, Doug Steinley, Steve Osterlind and Nancy Flournoy.

NSF, "*Conference in the Mathematical Sciences on New Development of Statistical Analysis in Wildlife, Fisheries, and Ecological Research,* (2004-2005,) with Chong He, Chris Wikle, Dongchu Sun and Nancy Flournoy.

MU Alumni Association, (2004-2005). "*Predictive Modeling to Enhance the Marketing Efforts of the MUAA.*"

South Carolina Department of Education, (1999). "*Advanced Placement Graduate Institute in Statistics,*" with Todd Ogden.

South Carolina Department of Education, (1998). "*Advanced Placement Graduate Institute in Statistics,*" with Todd Ogden.

National Science Foundation, (1997-1999). "*Elementary Statistics Laboratory Workshop,*" with John D. Spurrier (PI).

USC Research and Productive Scholarship, (1993). "*Analysis of Postural Sway Patterns Using Nonlinear Models.*"

Center for Disease Control, (1992-1995). "*Spectral Signature as a Predictor of Falls in the Elderly,*" with Bruce McClenaghan (PI).

National Science Foundation, (1992-1995). "*Undergraduate Course Development in Statistics,*" with John D. Spurrier and Don Edwards.

National Science Foundation, (1990-1991). "*Time Series Modeling and the Bootstrap.*"

USC Provost's Instructional Innovation Grant, (1991-1992). "*Elementary Statistics Laboratory,*" with John D. Spurrier and Don Edwards.

National Science Foundation, (1990). Funded participant in IMA Summer Program, Minneapolis, MN.

Association for Women in Mathematics, (1990). Travel grant to attend IMS Eastern Regional Conference, Baltimore, MD.

National Science Foundation, (1988). Funded participant in workshop *Pathways to the Future*, Ft. Collins, CO.

USC Research and Productive Scholarship, (1986). "*Bootstrap Prediction Intervals for Autoregression.*"

Travel Support, May 21 - June 3, 1986 (ONR and National Academy of Sciences.) "Cutting Edge Workshop on Time Series Analysis and Signal Processing," Texas A& M, College Station, TX.

### **OTHER FUNDING:**

Funded Participant to attend invitation-only Conference entitled, *Interdisciplinary Symposium on Realistic Decision Making*, sponsored by MU Advantage Grant, February 11-12, 2011.

MU Global Scholar, *Mongolia: Empire and Democracy*, Ulaanbaatar, Mongolia, June 2008.

Funded Participant, President's Academic Leadership Institute (PALI), Columbia, MO, 2004-2005.

Funded Participant, NSF ADVANCE Women's Leadership Institute, Univ. of Missouri/Kansas City, 2004.

### **STUDENT SUPERVISION:**

#### **University of Missouri MA Statistics Thesis Direction:**

<b>Year</b>	<b>Name</b>	<b>Title of Thesis</b>
2017	Shelby McNeil	Expected completion May 2017
2016	Jimmy Behrens	Unsupervised Learning used to Identify Relationships Between Workers Safety Behavior and Motivational Attributes
2015	Steven Mackey	Multilevel Modeling Analysis of MU Student Learning Outcomes—Online Versus Face-to-Face Modalities
2014	Emilie Shireman	A cross-sectional and longitudinal latent variable examination of municipal spending
2013	Mary Peng	Allelic Variation in 5-HTTLPR and Its Association with Eating Disorders: A Meta Analysis
2012	Chia-Lin Tsai	Using Multilevel Growth Modeling to Assess Urban Spending
2011	Xinting Zhao	Modeling Physical Activity Data by Using Hierarchical Linear Models
2011	Shuang Hao	Bootstrapping the Ljung-Box Statistic: A Robust Test of Uncorrelatedness
2011	Xi Luo	Moving Blocks Bootstrap Prediction Intervals for Autoregressive Models
2011	Brad Lindeman	Examining Textbook Use and Curriculum Effectiveness in Indiana Schools
2011	Feifei Wang	Out-of-Sample Equity Premium Predictability: Evidence from Principal Components and Bayesian Regression
2011	Haibo Yu	The Exchange Rate effect on trade balance in view of US - Japan Bilateral trade
2010	Rob Monzyk	Comparison of Hierarchical Cluster Analysis Methods to Address Similarities in Missouri County Socioeconomic and Court Activity Data
2009	Hanqing Lui	Time Series Factor Analysis on US Economic Data
2008	Zhenyu Wang	Discriminant Analysis on Spectral Characteristics of Postural Control
2008	Yu Lu	Cluster Analysis of U.S. Residential Housing Market in Large Metropolitan Area
2008	U. Parameswaran	Comparing Unit Root Tests and Other Measures of Persistence in Determining Persistence Properties of Time Series Data
2007	Siwei Cheng	Clustering Analysis of Time Series Data
2007	Yi Zhuang	CART Analysis of the MUAA Data
2007	Yan Huang	Racial Differences in Households' Financial Asset Allocation: 1992-2004
2007	I-Ting Lu	Bootstrapping Regression Models with Time Series Errors
2006	Yuwei Wang	Real Exchange Rate and Balance of Trade: An Empirical Assessment on the Long-run Relationship and the Short-term Dynamics
2005	Nurisa Diandalu	Combining Predictions for Time Series
2004	Mark Powell	Use of Statistics to Enhance the Marketing Efforts of the MU Alumni Association

#### **University of Missouri Undergraduate Honors Thesis Direction:**

<b>Year</b>	<b>Name</b>	<b>Title of Thesis</b>
2016	Alex Bay	Using the Chi Square Test to Determine Statistically Significant Association Rules
2016	Tianyuan Ren	Logistic Regression Analysis of Park Activity in Columbia, Missouri

**University of South Carolina M.S. Statistics Thesis Direction:**

1997	Yuan Lu	“New methods for Comparing Forecasts”
1996	Cheryl Karcher	“Classification Trees for Spectral Analysis”
1995	Kathleen Shutt	“Bootstrapping Times Series: Simulation and Estimation”
1992	Laura Gooding	Analysis of postural sway patterns using smooth spectrum estimation and testing”
1992	Pat Reynolds	“Power Studies for Shewhart Charts when with Correlated Data”
1991	Carla Padgett	“A study of $\alpha$ risks for Shewart control charts”
1989	Elizabeth Ely	“Bootstrap and Box-Jenkins prediction intervals for non-gaussian autoregressive models”
1988	Denise Walters	“The Detection and Effort of Outliers on Seasonal Time Series”
1988	Mayrose Pacis	“Control Charts for Correlated Data”
1987	Barbara Sniezak	“Prediction of the ARMA( $p, q$ ) process using the bootstrap method”
1986	Jan Schumann	“A Refinement of Bootstrap Prediction Interval for Autoregressive Processes”

**University of South Carolina M.I.S. Statistics Thesis Direction:**

2001	Lisa Branson	“Teaching Descriptive Statistics to High School Students Using Webstat”
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**University of South Carolina Honors College:**

1994	David Whitin	“A Comparison of Multivariate Classification Techniques”
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**Ph.D. COMMITTEE MEMBERSHIP:** (List Incomplete – needs updating)**University of Missouri**

2014	Zhenyu Wang	Department of Statistics “Bayesian Non-Linear Moethod for Survival analysis and Structural Equation Models”
2013	Daniel Gladish	Department of Statistics “Spatio-temporal models with Time-Varying Spatial Covariances for Environmental Processes”
2012	Chester Schmaltz	Department of Statistics “Marginally Modeling Misaligned Regions and Handling Masked Failure Causes with Imprecision”
2012	Dung Tran	Department of Learning, Teaching, and Curriculum “Learning Trajectories Related to Bivariate data in contemporary High School Mathematics Textbook Series in the US
2012	Sungwook Kim	Department of Statistics “Optimal Experimental Design for Parallel Systems Under a Bivariate Weibull Function”
2012	I-Ting Lu	Department of Personal Financial Planning “Saving, Consumption and the Old Age Allowance in Taiwan”
2012	Chia-Lin Tsai	Educational, School and Counseling Psychology “Assessing Multilevel Construct Validity with Latent Variable Modeling: Validating School-Level Inferences in College BASE”
2011	Jia Tao	Mechanical and Aerospace Engineering “Dynamic Simulation for Particulate Molecular Systems”
2011	Gretchen Hendrickson	Psychological Sciences “Association measures: Comparison and Performance”
2011	Ting Yan	Political Science “From Trade to International Conflict: Seeking Empirical and Theoretical Convergence
2009	Jeremy Gorelick	Statistics “Nonparametric Treatment Comparison Based on Interval-Censored Data
2008	Richard Morey	Psychological Sciences “Signal Detection Models with Random Participant and Item Effects”
2007	Kwang-Jin Kim	Political Science

“The Logic of Decision in Militarized Disputes”

**University of South Carolina:**

- 2002 Andrea Thomas Chemistry, Director: Scott Goode  
“Calibration, Optimization and Absorbtion of Metals analysis  
using Atomic Absorbtion and Laser Induced Breakdown Spectroscopy”
- 2001 Vanessa Kinton Chemistry, Director: S. Morgan  
“Chemometric Techniques for Classification and Modeling  
of Mixture Composition of Multivariate Analytical Chemical Data,”
- 1999 Xiaobai Li Management Science, Director: J. Sweigart  
“Multivariate Decision Trees for Data Mining, ”
- 1997 W. Scott Street Department of Statistics, Director: Don Edwards  
“B-splines and nonlinear mixed models for environmental time series”
- 1997 Steven Yoon Epidemiology and Biostatistics, Director: W. Drane  
“A comparison of classification error rates using pseudo-continuous variates”
- 1991 Chan, Kam C. Department of Accounting, Director: E. Chewning  
“ A reexamination of the stock market and bond market reaction to LIFO adoption”
- 1994 Melinda McCann Department of Statistics, Director: D. G. Edwards  
“Classical multiple comparisons via Naiman’s inequality”
- 1995 Jonathan Kuhn Department of Statistics, Director: W.J. Padgett  
“Bandwidth selection for kernel density estimation from right censored data”
- 1994 Melinda McCann Department of Statistics, Director: D. G. Edwards  
“Classical multiple comparisons via Naiman’s inequality”
- 1991 Chan, Kam C. Department of Accounting, Director: E. Chewning  
“A reexamination of the stock market and bond market reaction to LIFO adoption”
- 1987 Yuhlong Lio Department of Statistics, Director: W. J. Padgett  
“Smooth nonparametric quantile estimation from right-censored data”
- 1989 John R. Garlick Department of Accounting, Director: C. Strobel  
“Cumulative abnormal returns: intervention analysis”
- 1990 L. Drew Rosen Management Science, Director: T. Fry  
“The Measurement and Modeling of Quality in Service Organizations”
- 1989 John R. Garlick Department of Accounting, Director: C. Strobel  
“Cumulative abnormal returns: intervention analysis”
- 1987 Yuhlong Lio Department of Statistics, Director: W. J. Padgett  
“Smooth nonparametric quantile estimation from right-censored data”



## **PRESENTATIONS:**

### **Presentations Given at the Research Level:**

Comparison of student success in undergraduate online classes and traditional lecture classes, presented by Nai-En Tang and Lori Thombs, SRCOS Summer Research Conference, Galveston, TX. June 2014.

Interdisciplinary Statistical Research in the Social Sciences, Baylor University, Waco, TX, November 15, 2012.

Understanding institutional and exogenous factors and their impact on long term municipal expenditure decisions, (poster) presentation at the Midwest Political Science Conference, (with Charles Sampson,) Chicago, IL, April 12, 2012.

Modeling Change in Municipal Fiscal Policy using Mayoral Expenditure Data, (with C. Sampson,) presented at the Joint Meetings of the American Statistical Association, Minneapolis, August 2005.

The Intelligent Design Movement: Sound Science or Creationism Cloaked in a Cheap Tuxedo?, presented at the Sigma Xi 72<sup>nd</sup> Annual Banquet, Oklahoma State University, March 2004.

Nonlinear Time Series Model Identification and Estimation via Resampling, presented to the Department of Statistics, Oklahoma State University, March 2004.

Nonlinear Time Series Model Identification and Estimation via Resampling, (with K. Ensor, Rice Univ.) presented at Special Contributed Topic Session entitled *Nonlinear and Nonstationary Time Series Models*, (organized by S. Pantula,) Joint Statistical Meetings, New York, August 2002.

The Intelligent Design Movement: Sound Science or Creationism Cloaked in a Cheap Tuxedo?, University of South Carolina Colloquium Series, September 2001.

Bootstrapping GARCH Models, Department of Economics and Statistics, Universidad de Carlos III, Madrid, Spain, May 1999.

A Tutorial on the Bootstrap, Department of Analysis, Economics, and Quantitative Economics, Universidad Autonoma de Madrid, June 1999.

Inference for Time Series by Resampling, Rutgers University, April 1998.

Time Series Inference Using Resampling Techniques, University of New South Wales, Sydney, Australia, May 1995.

Time Series Inference Under Weak Conditions, Center for Mathematics and Its Applications, Australian National University, Canberra, Australia, April 1995.

Inference for Autocorrelation Under Weak Conditions, University of North Carolina - Charlotte Colloquium Series, March 1994.

Spectral Analysis of Postural Sway Data, Stanford University Colloquium, May 1993.

Spectral Analysis of Postural Sway Data, Rice University, April 1993.

An overview of Time Series Analysis, USC Department of Exercise Science Colloquium, October 1992.

Quality Control and Correlation, Rice University Colloquium, November 1990.

### **Invited Talks at Conferences:**

Supporting Interdisciplinary Collaboration at MU, presented at the 2013 Summer Research Conference on Statistics, Burns, TN, June, 2013.

Resampling Dependent Data: Past, Present and Future, presented at the Seminar Celebrating Bill Schucany's

40 Years in Statistical Science at SMU, September 17, 2010.

Elementary Statistics Laboratory Course, presented at the 6th Annual International Conference on Statistics, Combinatorics and Related Areas, University of South Alabama, December 18-20, 1999.

Statistics Labs: Possible Formats and Some Examples, Beyond the Formula III - Technology and Teaching Statistics, Monroe Community College, Rochester, NY, August 5-6, 1999.

Elementary Statistics Laboratory Course, Beyond the Formula III - Technology and Teaching Statistics, Monroe Community College, Rochester, NY, August 5-6, 1999.

Resampling Techniques for GARCH Modeling, Summer Research Conference in Statistics, Ozark Folk Center, Mountain View, Arkansas, June 13-17, 1999.

Inference for Time Series, Joint Meetings of the American Statistical Association, Dallas 1998.

Resampling Methods in Time Series, presented at the Workshop on Resampling Methods, The Centre de Recherches Mathematiques, Universite de Montreal, September 1997.

Time Series Inference Under Weak Conditions, ASA Annual Meeting, Toronto, Canada, August 1994.

An Experimental Environment for Introductory Statistics Students, Conference for Texas Statisticians, Austin TX, April 1993.

Local Bandwidth Selection for Density Estimation, 1990 Interface on Computing and Statistics, E. Lansing Michigan, May 1990.

Model-Dependent Resampling Methods for Time Series, IMS Annual Meeting, Ft. Collins CO, August 1988.

Recent Advances in Forecasting: Bootstrap Prediction Intervals for Time Series, Decision Sciences Institute Annual Meeting, Boston, MA, Nov. 1987.

Bootstrapping Times Series: An Overview, UNC-Charlotte Statistics Conference, Dec 1987.

Bootstrap Prediction Intervals for Autoregressive Processes, SRCOS-ASA Summer Research Conference, Mobile AL, June 1986.

### **Talks Given to a General Audience:**

“A Comparison of Student Success in Undergraduate Online Classes and Traditional Lecture Classes at the University of Missouri,” Presented at the 2014 Celebration of Teaching, University of Missouri (MU), May 20-22, 2014. (Presenters: Kim Siegenthaler, Ph.D., Mizzou Online; Lori Thombs, MU Social Science Statistics Center; Paula McFarling, MU Assessment Resource Center.)

“MU Social Science Statistics Center,” presented to the MU Dept of Psychological Services Developmental Area PhD Seminar, March 2012.

“Social Sciences Statistics Center at MU”, presented to the Dept. of Agricultural Economics, Univ. of Missouri, February 2, 2007.

“Social Sciences Statistics Center at MU,” presented to the Minority New Graduate Students Orientation, August 2005.

“Statistics as a Career Choice,” presented to the Math Club at Hickman High School, April 2005.

“Exposing Students to Statistics: Some New Approaches,” presented to the MIMS (Midlands Improving Math and Science) Quantitative Literacy Group, August 1996.

“Trial by Numbers: Statistical Issues in the Courtroom,” SC Governor’s School for Science and Mathematics, March 1995.

“USC Adventures in Creativity Camp,” Faculty Presenter, July 1996.

## **MEMBERSHIPS IN PROFESSIONAL SOCIETIES:**

American Statistical Association  
Institute of Mathematical Statistics  
Association for Women in Science  
CAUCUS for Women in Statistics

## **SERVICE TO THE PROFESSION:**

2010-2011 Chair, ASA Section on Statistical Education  
2009-2010 Appointed Member, ASA Education Workgroup  
Committee appointed by President of ASA S. Pantula  
Charge: "To facilitate a significant discussion among academic units, industry statisticians, and government statisticians about the preparation of students."  
2008 Chair, Fisher Lecture Award Committee  
2009 - 2011 Executive Committee, ASA Section on Statistical Education  
2005 - 2011 ASA Representative to COPSS, Fisher Lecture Committee.  
2004 - 2005 Executive Committee, ASA Committee on Women in Statistics  
2004 - 2006 Race Organizer, Gertrude Cox 5K Scholarship Run/Walk  
2000 - 2003 President, Mu Sigma Rho, National Statistics Honor Society  
1998 - 2000 Chair, George W. Snedecor Award Committee  
1996 - 1998 George W. Snedecor Award Committee  
1996 - 1998 Publications Chair, ASA Section on Statistical Education  
1995 - 1996 Newsletter Editor, ASA Section on Quality and Productivity  
1991 - 1992 President, South Carolina Chapter of the ASA  
1990 - 1991 Vice President, South Carolina Chapter of the ASA  
1989 - 1990 Secretary/Treasurer, South Carolina Chapter of the ASA

## **EDITORIAL SERVICE TO THE PROFESSION:**

### **Associate Editor:**

*The American Statistician*, August 1991 - Dec 1996.

*Journal of Statistical Computation and Simulation*, December 1989 - 1993.

### **Reviewer for:**

British Journal of Mathematical and Statistical Psychology, Journal of the American Statistical Association, Annals of Statistics, The American Statistician, Technometrics, International Journal of Forecasting, Journal of Statistical Planning and Inference, Journal of Statistical Computation and Simulation, Computational Statistics and Data Analysis, Communications in Statistics, Mathematical Geology, Scandinavian Journal of Statistics, Springer Verlag Textbook Series, National Science Foundation (Grant Review) and National Security Administration (Grant Review), Hodder-Arnold Education Group

## **EXTERNAL PROMOTION AND TENURE REVIEW:**

External Reviewer, Promotion to Full Professor, 2013.

External Reviewer, Promotion to Associate Professor, October 2012

External Reviewer, Promotion to Associate Professor, August 2012.

External Reviewer, Reviewed Promotion case of candidate Harvard Medical School, July 2012.

**PANEL REVIEW:**

Panel Reviewer, NSF Human and Social Dynamics Grant Program, 2004.

Invitee, Workshop to develop curriculum guidelines for Undergraduate Education in Statistics, (as part of ASA's Undergraduate Statistics Education Initiative, USEI,) Alexandria, VA, April 28-29, 2000.

Panel Reviewer, NSF Faculty Early Career Development Program, 1996.

Panel Reviewer for National Science Foundation, Statistics Program Screening Panel, 1995.

Panel Reviewer for National Science Foundation, Instrumentation and Laboratory Improvement Grants, 1991.

Panel Reviewer for USC Provost's Instructional Development Fund, 1991-1993.