Thomas J. Fisher

Curriculum Vitæ

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Contact Information

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Miami University Email: fishert4@miamioh.edu

Department of Statistics Webpage:

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Citizenship: United States

Education

Ph.D. in Mathematical Sciences, Clemson University

December 2009

Dissertation: On the Testing and Estimation of High-Dimensional Covariance Matrices

Principal Advisor: Xiaoqian Sun (University of Missouri-Columbia)

M.S. in Mathematical Sciences, Clemson University

May 2006

MS Project: Simulation Study for Single-Index Models

Principal Advisor: K.B. Kulasekera (University of Nebraska-Lincoln)

B.S. in Computer Science, University of Maryland Baltimore County

December 2003

Senior Project: Simulating the Pick-up Stones Game: A Dynamic Approach

A.S. in Computer Science, Anne Arundel Community College

May 2001

Employment

Miami University

Oxford, OH 45056Department of StatisticsAssociate ProfessorJuly 2017 to PresentAssistant ProfessorAugust 2013 to June 2017

University of Missouri-Kansas City

Kansas City, MO 64110

Department of Mathematics and Statistics

Assistant Professor August 2010 to August 2013

Clemson University

Clemson, SC 29631 Department of Mathematical Sciences

Visiting Assistant Professor

Graduate Assistant

January 2010 to May 2010

August 2004 to December 2009

COACT, Inc.

Columbia, MD 21046

CMVP Lab Manager, COACT, Inc.

December 2003 to August 2004

Security Technician, COACT, Inc.

November 2001 to December 2003

Scholarship

Reviewed Published/Accepted Contributions

- 25. **Fisher, T.J.**, Zhang, Jing, Colegate, Stephen P. and Vanni, Michael J., "Detecting and modeling changes in a time series of proportions," accepted to the *Annals of Applied Statistics* in June 2021.
- 24. <u>Cirkovic, Daniel</u> and **Fisher, T.J.**, "On Testing for the Equality of Autocovariance in Time Series," accepted to *Environmetrics* in March 2021. (10.1002/env.2680)
- 23. Philips, Cody, Garrett, Robert, Tatro, A.J. and **Fisher, T.J.**, "Crash-Safety Ratings and the True Assessment of Injuries by Vehicle" *Computational Statistics*, 36, 1639-–1660, 2021. (10.1007/s00180-021-01072-9)
- 22. Rasnick, Erika, Ryan, P.H., Bailer, A.J., Fisher, T.J., Parsons, P.J., Yolton, K., Newman, N.C., Lanpear, B.P., and Brokamp, C., "Identifying Sensitive Windows of Airborne Lead Exposure Associated with Behavioral Outcomes at Age 12." *Environmental Epidemiology*, April 2021 Volume 5 Issue 2 p e144. (10.1097/EE9.000000000000000144)
- 21. **Fisher, T.J.**, Lund, Robert, and Robbins, Michael W., "A Statistical Analysis of North Atlantic Tropical Cyclone Changes," in Lyubchich, et al. *Evaluating Climate Change Impacts*, CRC press, 25–43, October 2020. (10.1201/9781351190831)
- 20. Berry, Nichole L., Overholt, Erin P., **Fisher, T.J.**, and Williamson, Craig E., "Dissolved organic matter protects mosquito larvae from damaging solar UV radiation," *PLOS ONE*, 15 (10): e0240261. Oct. 2020. (10.1371/journal.pone.0240261)
- Sun, Zequn, and Fisher, T.J., "Testing for correlation between two time series using a parametric bootstrap", *Journal of Applied Statistics* 48:11, 2042-2063, 2021. (10.1080/02664763.2020.1783519)
- 18. **Fisher, T.J.** and Robbins, Michael W., "A Cheap Trick to Improve the Power of a Conservative Hypothesis Test," *The American Statistician*, 73 (3) 232–242, July 2019. (10.1080/00031305.2017.1395364)
- 17. Ortiz, Shelby N., Forrest, Lauren N., **Fisher, T.J.**, Hughes, Michael S., and Smith, April R., "Changes in Internet Suicide Search Volumes Following Celebrity Suicides", *Cyberpsychology, Behavior, and Social Networking*, 22 (6), April 2019. (10.1089/cyber.2018.0488)
- 16. Lazar, Jeffrey A., Spahr, Rachel, Grudzinski, Bartosz P., and **Fisher, T.J.**, "Land Cover Impacts on Storm Flow Suspended Solid and Nutrient Concentrations in Southwest Ohio Streams,", *Water Environment Research*, 91 (6) 510–522, January 2019. (10.1002/wer.1054)
- 15. Garrett, Robert C., Nar, Austin, Fisher, T.J. and Maurer, Karsten T., "ggvoronoi: Voronoi Diagrams and Heatmaps with ggplot2", Journal of Open Source Software, 3 (32), 1096, December 2018. (10.21105/joss.01096)
- 14. Renwick, William, Vanni, Michael, **Fisher, T.J.**, and <u>Morris, Emily</u>, "Stream nitrogen, phosphorus and sediment concentrations show contrasting long-term trends associated with agricultural change", *Journal of Environmental Quality*, 47 (6) 1513-1521, September 2018. (10.2134/jeq2018.04.0162)
- 13. Pilla, Rachel, Williamson, Craig E., Zhang, Jing, Smyth, Robyn, Lenters, John, Brentrup, Jennifer, Knoll, Lesley and **Fisher, T.J.**, "Browning-related decreases in water transparency lead to long-term increases in surface water temperature and thermal stratification in two small lakes", *Journal of Geophysical Research Biogeosciences*, 123 (5) 1651-1665, April 2018. (10.1029/2017JG004321)
- 12. Knoll, Lesley B., Williamson, Craig E., Warner, Theresa M., Pilla, Rachel M., Leach, Taylor H., Brentrup, Jennifer A., and **Fisher, T.J.**, "Browning-related oxygen depletion in an oligotrophic lake", *Inland Waters*, 8 (3) 255-263, March 2018. (10.1080/20442041.2018.1452355)

- 11. **Fisher, T.J.** and Robbins, Michael W., "An improved measure for lack of fit in time series models," *Statistica Sinica*, 28, 1285-1305, July 2018. (10.5705/ss.202016.0286)
- 10. **Fisher, T.J.** and Bailer, A. John, "Who, What, When and How: Changing the Undergraduate Statistics Curriculum; A Discussion of 'Mere Renovation is Too Little Too Late' by George Cobb. *The American Statistician*, 69 (4), November 2015. (10.1080/00031305.2015.1093029)
- 9. Robbins, Michael W. and **Fisher, T.J.**, "Cross-Correlation Matrices for Tests of Independence and Causality between Two Multivariate Time Series," *Journal of Business & Economic Statistics*, 33 (4), 459–473, October 2015. (doi:10.1080/07350015.2014.962699)
- 8. Gallagher, Colin M., **Fisher, T.J.** and Shen, Jie, "A Cauchy Estimator Test for Autocorrelation," *Journal of Statistical Computation and Simulation*, 85 (6), 1264–1276, April 2015. (10.1080/00949655.2013.874424)
- 7. Gallagher, Colin M. and **Fisher, T.J.**, "On Weighted Portmanteau Tests for Times Series Goodness-of-fit," *Journal of Time Series Analysis*, 36 (1), 67–83, January 2015. (10.1111/jtsa.12093)
- Cui, Yunwei, Fisher, T.J. and Wu, Rongning, "Diagnostic Tests for Non-causal Time Series with Infinite Variance," *Journal of Statistical Planning and Inference* 147, 117-131, April 2014. (10.1016/j.jspi.2013.10.010)
- 5. **Fisher, T.J.** and Gallagher, Colin M., "New Weighted Portmanteau Statistics for Time Series Goodness-of-Fit Testing," *Journal of the American Statistical Association* 107 (498), 777–787, June 2012. (10.1080/01621459.2012.688465)
- 4. **Fisher, T.J.**, "On Testing for an Identity Covariance Matrix when the Dimensionality Equals or Exceeds the Sample Size," *Journal of Statistical Planning and Inference* 142 (1), 312–326, January 2012. (10.1016/j.jspi.2011.07.019)
- 3. Piccirillo, Sarah, Wang, Hsiao-Lin, **Fisher, T.J.** and Honigberg, Saul M., "GAL1-SceI directed site-specific genomic (gsSSG) mutagenesis: a method for precisely targeting point mutations in S. cerevisiae," *BMC Biotechnology* 11:120, 5 December 2011. (10.1186/1472-6750-11-120)
- 2. **Fisher, T.J.** and Sun, Xiaoqian, "Improved Stein-Type Shrinkage Estimators for the High-dimensional Multivariate Normal Covariance Matrix," *Computational Statistics & Data Analysis* 55 (5), 1909–1918, May 2011. (10.1016/j.csda.2010.12.006)
- 1. **Fisher, T.J.**, Sun, Xiaoqian, and Gallagher, Colin M., "A New Test for Sphericity of the Covariance Matrix for High Dimensional Data," *Journal of Multivariate Analysis* 101 (10), 2554–2570, November 2010. (10.1016/j.jmva.2010.07.004)

Reviews & Discussions

1. **Fisher, T.J.**, A Review of: "Practical Multivariate Analysis, Fifth Edition, by A. Afifi, S. May, and V. A. Clark," *Journal of Biopharmaceutical Statistics* 22 (6), 1280–1283, October 2012. (doi:10.1080/10543406.2012.713289)

Technical Reports and Others

- 6. <u>Cirkovic, Daniel</u> and **Fisher, T.J.**, "autocovarianceTesting: Test for Equality of Autocovariance Functions in Time Series." R package version 1.0, January 2021. (https://github.com/cirkovd/autocovarianceTesting)
- 5. Garrett, Robert, Nar, Austin, Fisher, T.J., and Maurer, K., "ggvoronoi: Voronoi Diagrams and Heatmaps with 'ggplot2'." R package version 0.8.3, February 2019.

 (https://cran.r-project.org/web/packages/ggvoronoi/index.html)
- 4. Gallagher, Colin M. and **Fisher, T. J.**, "A comparison of Various Weighted Portmanteau Tests for Time Series Goodness-of-fit," *Clemson University Technical Report*, 2013.

- (http://www.clemson.edu/ces/math/technical_reports/gallagher.TR2013.pdf)
- 3. **Fisher, T. J.** and Gallagher, Colin M. "WeightedPortTest: Weighted Portmanteau Tests for Time Series Goodness-of-fit," R package version 1.0, 2012.
 - (http://CRAN.R-project.org/package=WeightedPortTest)
- 2. **Fisher, T. J.** "Weighted Portmanteau Tests Revisited: Detecting Heteroscedasticity, Fitting Nonlinear and Multivariate Time Series," *Invited Paper to the 2012 SAS Global Forum*.
 - (http://support.sas.com/resources/papers/proceedings12/338-2012.pdf)
- 1. **Fisher, T. J.** "Testing the Adequacy of ARMA Models using a Weighted Portmanteau Test on Residual Autocorrelations," *Contributed Paper to the 2011 SAS Global Forum*.
 - (http://support.sas.com/resources/papers/proceedings11/327-2011.pdf)

Grant Activity

Awarded

- **PI:** "New Multivariate Techniques in Time Series Analysis and Forecasting," *University of Missouri Research Board*, \$13,000, 1 June 2011 to 31 May 2012.
- **PI:** "Adaptive Estimation in Time Series," *Miami University Faculty Research Grants*, **\$6,500**, 19 May 2014 to 1 Aug 2014.
- **PI:** "Adaptive Estimation in Time Series," *Miami University College of Arts & Science Faculty Funding*, \$5,000, Summer 2015.
- Co-PI: "Industry-Sponsored GA in Statistics," *Proctor and Gamble*, Summer 2015 to Spring 2016.
- **Co-PI:** "Bayesian Variable Selection for Predictive Modeling," *Center for Analytics and Data Science Summer Fellowship*, **\$8,623.86**, Summer 2017.
- **Co-PI:** "Will increases in dissolved organic matter accelerate a shift in trophic status through anoxiadriven positive feedbacks in an oligotrophic lake?", *National Science Foundation Long Term Research in Environmental Biology*, **\$126,391**, 1 June 2018 to 31 May 2023.
- Co-PI: "MTD Forecasting Project," *Center for Analytics and Data Science* Project, \$10,137, 15 Aug 2018 to 31 Oct 2018.

Research Advising

Undergraduate Projects

- Emily Morris, 2014-2015, "Modeling and Detecting Changes in Water Quality of a Midwest Watershed."
- Alec Feeman, 2015-2016, First Year Research Experience: "Investing using Short Term Econometric Predictors."
- Cody Phillips, Robert Garrett, AJ Tatro, spring 2016-spring 2017, "Analysis of National Automotive Sampling System." Part of the 2016 JSM GSS Data Challenge.
- AJ Tatro, 2016-2017, "Bayesian Variable Selection in Time Series Models."
- Robert Garrett, Ritu Narahari, spring 2017-fall 2017, "Analysis of the Consumer Expenditure Survey." Part of the 2017 JSM GSS Data Challenge.
- Robert Garrett, Benjamin Schweitzer, Nichole Rook, Ryan Estep, spring 2018-spring 2019, "An analysis of Weather Forecast in the Continental United States." Part of the 2018 JSM GSS-SCG DataExpo.
- Robert Garrett, Benjamin Schweitzer, Alison Tuiyott, Lydia Carter, spring 2019-spring 2020, "Analysis of New York City housing history." Part of the 2019 JSM GSS-SCG DataExpo.

^{*} underline denotes current/former Miami statistics student

- Benjamin Schweitzer, Alison Tuiyott, Lydia Carter, Phuong Ho, Matthew Snyder, spring 2020-present, "A statistical analysis of climate change impacts." Part of the 2020 JSM GSS-SCG DataExpo.
- Lydia Carter, Coby Warkentin, Hank Giffin, spring 2021-present, "An Analysis of the 2019 American Community Survey." Part of the 2021 JSM GSS-SCG DataExpo.

Masters Advising

- Bo Wang, 2014, *M.S. Thesis, Dept. of Economics*, "Detecting Shift in Mean and Variance for Both Uncorrelated and Correlated Series Using Several Popular Tests."
- Veena Vezhapparambu, 2012, M.S. Project, "Modeling Daily Rainfall and Detecting Changepoints."
- Mehee Cho, 2014-2015, M.S. Project, "The Bass Model and Marketing Prediction."
- Adam Barnhard, 2015, co-advised with Doug Noe, *M.S. Project*, "Utilizing Unsupervised Maching Learning Models to Predict User Activity from Wearable Technology Sensor Data."
- Zequn Sun, 2016, M.S. Project, "Testing for Causality in Variance for Two Stationary Time Series."
- Mitch Beebe, 2016, M.S. Project, "Exploring and Modeling the Zooplankton Food Web in Acton Lake."
- Stephen Colegate, 2016, co-advised with Jing Zhang, *M.S. Project*, Analyzing Changes in the Proportions of Phytoplankton of a Freshwater Lake."
- Qi He, 2017-2018, co-advised with Jing Zhang, M.S. Project, "Bayesian Variable Selection in Big Data."
- Jie Wang, 2017-2019, co-advised with Jing Zhang, *M.S. Project*, "Bayesian Variable Selection in Time Series Models."
- Chengjun Shi, 2017-2018, co-advised with Michael Hughes, *M.S. Project*, "A times series analysis of the metabolic rate of Shrews."
- Kyle Linville, 2018, co-advised with A. John Bailer, *M.S. Project*, "An analysis of Point Spread Accuracy in Professional Football."
- Xuyi Pei, 2018-2019, co-advised with Jing Zhang, *M.S. Project*, "Variable Split and Merge applications for predictive modeling."
- Xinqi Liu, 2018-2019, co-advised with Jing Zhang, *M.S. Project*, "Divide and conquer techniques in generalized linear modeling."
- Erika Rasnick, 2019, co-advised with A. John Bailer, M.S. Project, "Modeling lagged toxicity."
- Daniel Cirkovic, 2019-2020, *M.S. Project*, "Estimation and testing of the autocovariance matrix for multivariate time series."
- Joey Davis, 2019-2020, co-advised with Seonjin Kim, *M.S. Project*, "Clustering based models for estimating and predicting customer energy usage."

Masters Committees

- Alexander Martishius (2014), Steve Kiplagat (2014), Michael Tekavec (2014), Jefei Zhang (2014), Michael La-Tour (2014), Lin Dai (2014), Claire Gilbert (2015), Diana Eid (2016), Baini Li (2017), Michael Creutzinger (2018), Nathaniel Coffin (2018), Nicole Berry (BIO) (2018), Gongmei Li (2018), Bunyod Tusmatov (2019), Sally Dufek (2020), Heather Luken (BIO) (2020), Tessa Farthing (GEO) (Ongoing), Owen Larson (GEO) (Ongoing), Michelle Little (BIO) (Ongoing), Addie Zeisler (BIO) (ongoing).

PhD Committees

- Nikki Berry (BIO) (ongoing), Lauren Knose (BIO) (ongoing), Jake Godfrey (BIO) (ongoing), Rachel Pilla (BIO) (2021).
- Jianfeng Meng, Wei Wu, Karen Richard at UMKC.

Seminar Talks

- 5. "Weighting the Portmanteau Test," *Department of Statistics, University of Missouri-Columbia, Department Colloquium*, 28 November 2012.
- 4. "Time Series Modeling and Diagnostic Testing," *Department of Mathematics and Statistics, University of Missouri-Kansas City, Graduate Seminar*, 18 November 2011.
- 3. "The Stein Paradox and Estimation of the Covariance Matrix," *Department of Mathematics and Statistics, University of Missouri-Kansas City, Graduate Seminar*, 24 September 2010.
- 2. "Improved Stein-type Estimators for the Covariance Matrix under Normality," *Department of Mathematical Sciences, Clemson University, Graduate Student Seminar*, 9 November 2009.
- 1. "Introduction to the R Project for Statistical Computing," *Department of Mathematical Sciences, Clemson University, Graduate Student Seminar*, 8 October 2007.

Conference, Panels and Workshop Presentations

- 17. "A second course in statistics: Bridging data science and statistical modeling," *Breakout Session at the 2021 US Conference on Teaching Statistics*, co-presented with Michael R. Hughes and Xin Wang at virtual conference, 28 June 2021.
- 16. "A Cheap Trick to Improve the Power of a Conservative Hypothesis Test," *Invited talk to the 2020 Joint Statistical Meetings, sponsored by the American Statistician*, virtual conference, 6 August 2020.
- 15. "A split and merge strategy to variable selection," *Topic Invited talk to the 2019 International Conference on Statistical Distributions and Applications*, Grand Rapids, MI, 12 October 2019.
- 14. "ggvoronoi: Voronoi tesselations in R," Contributed talk to the 2019 Joint Statistical Meetings, Section on Statistical Graphics, Denver, CO, 31 July 2019.
- 13. "Scaling a Data Science Curriculum to the Masses: Success and Failures in the Undergraduate Classroom," *Invited talk to the 2018 Joint Statistical Meetings, Section on Statistical Education*, Vancouver, BC, 29 July 2018.
- 12. "Detecting and Modeling Changes in a Time Series of Proportions: An Application to Phytoplankton Taxa in a Freshwater Lake," *Invited talk to the Third Annual Kliakhandler Conference: Bayesian Inference in Statistics and Statistical Genetics*, Houghton, MI, 17 August 2017.
- 11. "Testing for Causality Between Two Time Series Using a Parametric Bootstrap," *Contributed talk to the 2017 Joint Statistical Meetings, Business and Economic Statistics Section*, Baltimore, MD, 1 August 2017.
- 10. Invited Panelist to the 2017 Joint Statistical Meetings Student Chapter Workshop, Baltimore, MD, 31 July 2017.
- 9. "Improving the Measure of Correlation in Time Series Goodness-of-Fit Testing," *Contributed SPEED session to the 2016 Joint Statistical Meetings, Business and Economic Statistics Section*, Chicago, IL, 2 August 2016.
- 8. "Detecting Changes in the Quality and Ecology of a Freshwater Lake," *Contributed talk to the 2015 Joint Statistical Meetings, Section on Statistics and the Environment*, Seattle, WA, 12 August 2015.
- 7. "An Application of Stochastic Optimization to Time Series Modeling," *Presentation at 42nd Annual Mathematics Conference "Optimization"*, Oxford, OH, 19 September 2014.
- 6. "Weighting the Times Series Portmanteau Test," *Poster Presentation at Southern Regional Council on Statistics Summer Conference 2013*, Nashville, TN, 4 June 2013.
- 5. "New Weighted Portmanteau Statistics for Time Series Goodness-of-Fit Testing," *Poster Presentation at NBER-NSF Time Series Conference*, College Station, TX, 27 October 2012.

- 4. "Time Series Goodness-of-Fit Testing using a Weighted Portmanteau Statistic," *Contributed talk to the 2012 Joint Statistical Meetings, Business and Economic Statistics Section*, San Diego, CA, 31 July 2012.
- 3. "Weighted Portmanteau Tests Revisited: Detecting Heteroscedasticity, Fitting Nonlinear and Multivariate Time Series," *Invited Paper to the 2012 SAS Global Forum*, Orlando, FL, 24 April 2012.
- 2. "Testing on the Multivariate Normal Covariance Matrix in High-Dimensions," *Contributed Talk to the 2011 Joint Statistical Meetings, Section on Statistics in Epidemiology*, Miami, FL, 2 August 2011.
- 1. "Testing the Adequacy of ARMA Models using a Weighted Portmanteau Test on Residual Autocorrelations," *Contributed Paper to the 2011 SAS Global Forum*, Las Vegas, NV, 5 April 2011.

Teaching Experience

Miami University, Department of Statistics:

| Course | Title | Semester | Students | Rating* |
|-------------|--|-------------|----------|---------|
| Sta 261 | Statistics | Spring 2021 | 58 | |
| Sta 363 | Intro to Statistical Modeling | Spring 2021 | 30 | |
| Sta 261 | Statistics | Fall 2020 | 58 | 3.30 |
| Sta 363 | Intro to Statistical Modeling | Fall 2020 | 30 | 3.40 |
| Sta 363 | Intro to Statistical Modeling | Spring 2020 | 53 | 3.61 |
| Sta 404/504 | Advanced Data Visualization | Spring 2020 | 23 | 3.54 |
| Sta 650 | Topics in Statistics: Stochastic Processes | Spring 2020 | 19 | 3.37 |
| Sta 404/404 | Advanced Data Visualization | Fall 2019 | 22 | 3.67 |
| Sta 404 | Advanced Data Visualization | Fall 2019 | 22 | 3.93 |
| Sta 402/502 | Statistical Programming | Spring 2019 | 24 | 3.75 |
| Sta 467/567 | Statistical Learning | Spring 2019 | 32 | 3.00 |
| Sta 363 | Intro to Statistical Modeling | Fall 2018 | 46 | 3.47 |
| Sta 483/583 | Analysis of Forecasting Systems | Fall 2018 | 30 | 3.29 |
| Sta 363 | Intro to Statistical Modeling | Spring 2018 | 25 | 3.50 |
| Sta 402 | Statistical Programming | Spring 2018 | 22 | 3.81 |
| Sta 402 | Statistical Programming | Fall 2017 | 24 | 3.35 |
| Sta 463 | Regression Analysis | Fall 2017 | 27 | 3.48 |
| Sta 402/502 | Statistical Programming | Spring 2017 | 25 | 3.45 |
| Sta 483/583 | Analysis of Forecasting Systems | Spring 2017 | 21 | 3.74 |
| Sta 665 | Theory of Statistics | Spring 2017 | 17 | 3.44 |
| Sta 483/583 | Analysis of Forecasting Systems | Fall 2016 | 16 | 3.50 |
| Sta 664 | Theory of Statistics | Fall 2016 | 19 | 3.38 |
| Sta 402/502 | Statistical Programming | Spring 2016 | 20 | 3.55 |
| Sta 483/583 | Analysis of Forecasting Systems | Spring 2016 | 20 | 3.53 |
| Sta 301 | Applied Statistics | Spring 2015 | 82 | 3.54 |
| Sta 483/583 | Analysis of Forecasting Systems | Spring 2015 | 22 | 3.50 |
| Sta 401/501 | Probability | Fall 2014 | 13 | 3.67 |
| Sta 462/562 | Inferential Statistics | Fall 2014 | 25 | 3.70 |
| Sta 261 | Statistics | Spring 2014 | 80 | 3.17 |
| Sta 483/583 | Analysis of Forecasting Systems | Spring 2014 | 42 | 3.57 |
| Sta 301 | Applied Statistics | Winter 2014 | 15 | 3.67 |
| Sta 462/562 | Inferential Statistics | Fall 2013 | 27 | 3.64 |
| Sta 667 | Multivariate Statistical Analysis | Fall 2013 | 8 | 3.50 |

^{*} The average score on question #5 on student course evaluations. The question asks for an overall evaluation of the effectiveness of the instructor on a 4 points scale, 4 being the best, 0 the worst.

University of Missouri-Kansas City, Department of Mathematics & Statistics:

| Course | Title | Semester | Students | Rating** |
|-----------|------------------------------|-------------|----------|----------|
| Stat 235 | Elementary Statistics | Spring 2013 | 72 | 4.505 |
| Stat 5572 | Multivariate Analysis | Spring 2013 | 4 | 4.963 |
| Stat 436 | Mathematical Statistics I | Fall 2012 | 15 | 4.316 |
| Stat 5551 | Applied Statistical Analysis | Fall 2012 | 9 | 4.741 |
| Stat 235 | Elementary Statistics | Spring 2012 | 71 | 4.554 |
| Stat 5572 | Multivariate Analysis | Spring 2012 | 10 | 4.789 |
| Math 300 | Linear Algebra I | Fall 2011 | 28 | 4.483 |
| Stat 5551 | Applied Statistical Analysis | Fall 2011 | 6 | 4.852 |
| Stat 235 | Elementary Statistics | Spring 2011 | 69 | 4.341 |
| Stat 5572 | Multivariate Analysis | Spring 2011 | 8 | 4.778 |
| Stat 235 | Elementary Statistics | Fall 2010 | 40 | 4.520 |

^{**} The weighted average of questions #1 to #9 on student course evaluations. The weighted average provides an overall teaching evaluation on a 5 point scale, 5 being the best, 1 the worst.

Clemson University, Department of Mathematical Sciences:

| Course | Title | Semester | Students | Rating*** |
|-----------|----------------------------------|-------------|----------|-----------|
| MthSc 106 | Calculus of One Variable | Spring 2010 | 37 | 4.15 |
| MthSc 302 | Engineering Statistics | Spring 2010 | 35 | 4.09 |
| MthSc 309 | Introductory Business Statistics | Fall 2009 | 37 | 4.11 |
| MthSc 302 | Engineering Statistics | Spring 2009 | 24 | 4.54 |
| MthSc 302 | Engineering Statistics | Fall 2008 | 45 | 4.42 |
| MthSc 302 | Engineering Statistics | Spring 2008 | 18 | 3.88 |
| MthSc 309 | Introductory Business Statistics | Fall 2007 | 29 | 4.11 |
| MthSc 207 | Multivariable Calculus | Spring 2007 | 19 | 4.05 |
| MthSc 102 | Intro. to Mathematical Analysis | Spring 2006 | 19 | 3.94 |
| MthSc 102 | Intro. to Mathematical Analysis | Fall 2005 | 38 | 4.18 |

^{***} The average score on question #10 on student course evaluations. The question asks the student for an overall teaching evaluation on a 5 points scale, 5 being the best, 1 the worst.

Service

Professional

- Associate Editor, *Journal of Applied Statistics* (08/17-present) 20 articles
- Reviewer for Journals:
 - Environmetrics (05/14-06/14, 01/20-05/20), Statistics in Medicine (08/19-09/19, 08/20-09/20), Earth and Space Science (02/19-08/19), Journal of Business & Economic Statistics (01/14-09/14, 11/16-02/17, 01/18-05/18, 01/19-06/19), Journal of Statistical Computation and Simulation (08/16-12/16), Statistics: A Journal of Theoretical and Applied Statistics (11/16-09/17), The American Statistician (07/17-08/17, 09/14-11/14), Communications in Statistics: Theory and Methods (01/17-05/17), Journal of the American Statistical Association (09/16-11/16), Computational Statistics & Data Analysis (01/15-04/15, 07/15-09/15, 08/16-10/16), Journal of Multivariate Analysis (06/13-02/14, 07/13-12/13, 03/16-05/16), The Annals of Statistics (02/16-04/16), Environmental Toxicology & Chemistry (01/16-02/16), Scandinavian Journal of Statistics (08/15-10/15), International Journal of Undergraduate Research and Creative Activities (02/15-03/15, with Stephen Colegate), Hacettepe Journal of Mathematics and Statistics (09/14-11/14), Metrika (06/14-07/14, 05/13-06/13), Far East Journal of Theoretical Statistics (02/14-05/14), Bernoulli Journal (01/12-08/13), Portuguese Statistical Society (12/11-02/12).
- Grant Review:
 - Ohio Water Resources State Water Resources Research Institute 104(b) Grant Program (12/14)
- Other:
 - Session Chair at 2015 Joint Statistics Meetings Section on Statistics and the Environment
 - October-November 2017 Judge for ASA Police Data Challenge
 - ISI Short Course Instructor, with A. John Bailer, 4 June 2021.

Miami University, Departmental Level Service

- Chief Departmental Advisor, June 2017 to Present.
- Undergraduate Curriculum Committee, August 2013 to Present.
- Ad-hoc Committee to create Actuarial Science co-major, Jan 2014 to Present.
- Statistical Consulting Center, August 2013 to Present.
- Analytics Graduate Certificate Development Committee, December 2013 to April 2014.
- Hiring Committee and Chair (8-positions)
 - Member: September 2014 to January 2015, September 2016 to April 2017.
 - Chair: June 2017-December 2017, September 2018-December 2018, January 2019-April 2019, September 2019-February 2020.

Miami University, Student-Oriented Service

- Advisor for Mathematics & Statistics, August 2013 to June 2017.
- Advisor for Co-Major in Analytics, August 2014 to Present.
- First-year advisor for Math & Statistics, August 2015 to June 2017.
- Divisional Coordinator, University Academic Scholars Program in Mathematics & Statistics, November 2014 to Present.
- Advisor for ASA Student Chapter, August 2015 to Present.
- Co-Advisor (with Byran Smucker) for Actuarial Science Club, January 2014 to Present.

Miami University, College & University Level Service

- College of Arts and Science Governance Committee Member, Spring 2019 to Fall 2020.
- Hiring Committee for Systems Administrator II or III Architect (Cloud/ITSM) position IT Services, March 2018.
- Make it Miami Recruitment at UASP and Honors breakfast and Louis Place events.
- CAS representative at commencement & volunteer, 2015, 2016, 2017.
- Discover the Sciences recruitment event volunteer, September 2013, September 2014, September 2017 & September 2018.
- Volunteer for Careers Involving Quantitative Skills (CIQS) day, January 2015, January 2016, January 2017 & January 2018.

Center for Analytics and Data Science

- Faculty Fellow, summer 2021 present
- DataFest Organizing Committee, Chair October 2015 to May 2016; Member May 2016 to Present.
- CADS Associate Director Search Committee, December 2019 to January 2020.
- Faculty Mentor on CADS projects
 - Forecasting calls into a call center, Spring 2018.
 - Forecasting sales of mechanical parts, Fall 2018.
 - Analysis of merchandise sales for a professional sports team, Fall 2019.

UMKC Service

- Hiring Committee (3-positions), September 2012 to April 2013.
- Graduate Teaching Assistant Supervisor, August 2012 to May 2013.
- Graduate Assessment Coordinator, January 2011 to May 2013.
- Statistics Curriculum Committee, August 2010 to May 2013.
- Salary Committee, May 2011 to August 2011.
- Committee to revise IPhD Requirements, October 2010 to January 2011.

Awards and Honors

- College of Arts & Sciences Distinguished Educator, 2021.
- Top Ten finalist Associated Student Government Outstanding Professor Award, 2017.
- SAS Global Forum Faculty Scholarship, 2011.
- Outstanding Citizenship Award, Department of Mathematical Sciences, Clemson University, 2007-2008
 Academic Year.
- Outstanding Graduate Teaching Assistant Award, Department of Mathematical Sciences, Clemson University, 2005-2006 Academic Year.

Professional Memberships and Interest

Professional Affiliations

- American Statistical Association (ASA).
- Institute of Mathematical Statistics (IMS).
- Elected Member of the International Statistical Institute (ISI).

Professional Development/Activities

- Institute for Mathematical and Statistical Innovation (IMSI) Confronting Climate Change Workshop, 1-5 March 2021.
- Intermediate Shiny short course at RStudio conference, 15-16 January 2019.
- ASA short course on "Design and Analysis of Research Studies Using Generalized Linear Mixed Models," University of Cincinnati, 16 November 2015.
- "Presenting Data and Information" Workshop by Edward Tufte, 10 November 2015.
- "Visualizing Data: A Truthful Art" Workhop by Alberto Cairo, 23 January 2015.
- ASA short course on "Structural Equation Modeling," Proctor & Gamble, 13 September 2013.
- NSF Day, University of Kansas, 5 October 2010.
- CAEFF NSF Site Visit, Clemson University, 23 September 2008.

Professional Interest

- Multivariate Analysis and its application to modern science: genetics and economics.
- Time-Series Analysis and Forecasting.
- Stochastic Processes, Probability and Kernel Smoothing.