

William F. Christensen, Ph.D.

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PROFESSIONAL EXPERIENCE

Professor, Brigham Young University, Department of Statistics, 2009-present
Department Chair, Brigham Young University, Department of Statistics, 2017-2019
Visiting Professor, Columbia University, Department of Biostatistics, 2016
Associate Professor, Brigham Young University, Department of Statistics, 2005-2009
Visiting Scientist, National Center for Atmospheric Research, Boulder, Colorado, 2008
Visiting Professor, University of Wisconsin-Madison, Department of Civil and Env. Engineering, 2006
Assistant Professor, Brigham Young University, Department of Statistics, 2002-2005
Assistant Professor, Southern Methodist University, Department of Statistical Science, 1999-2002

EDUCATION

Ph.D., Statistics, May, 1999; Iowa State University, Ames, Iowa; Dissertation: *Analysis of multivariate spatial data using latent variables* (Yasuo Amemiya, advisor)
M.S., Statistics, August, 1995; Brigham Young University, Provo, Utah
B.S., Magna Cum Laude, Statistics, Math Minor, April, 1994; Brigham Young University, Provo, Utah

HONORS

University Professorship, Brigham Young University, 2021.
Melvin W. Carter Professorship, Brigham Young University Department of Statistics, 2020.
Wiley-TIES (*Environmetrics*) Best Paper Award, 2019. "A model for Antarctic surface mass balance and ice core site selection," Philip A. White, C. Shane Reese, William F. Christensen, and Summer Rupper.
American Statistical Association Award for Outstanding Chapter Service (Utah Chapter), 2017.
Fellow, American Statistical Association, 2016.
Faculty Heritage Fellowship in Statistical Science, Brigham Young University Department of Statistics, 2014-2016.
Karl G. Maeser Excellence in Teaching Award, Brigham Young University, 2013.
College of Physical & Mathematical Sciences Faculty Excellence in Teaching Award, Brigham Young University, 2013.
Faculty Heritage Fellowship in Statistical Science, Brigham Young University Department of Statistics, 2012-2014.
Distinguished Achievement Award of the ASA Section on Statistics and the Environment, 2009.
John and Susan Wierman Lecturer in Air Quality Data Analysis, Department of Applied Mathematics and Statistics, Johns Hopkins University, October 2008.
Young Scholar Award, Brigham Young University, 2005-2008.

RESEARCH EXPERIENCE

Interests: statistical methods for pollution source apportionment, multivariate analysis, spatial and environmental statistics, resampling methods, climate and paleoclimate, latent variable modeling of multivariate spatial data, applications of statistics in politics and law, monitoring COVID-19 in higher education

75 refereed publications; >2500* citations; *h*-index: 26*

Orcid ID: <https://orcid.org/0000-0002-8068-1031>

TEACHING EXPERIENCE

Brigham Young University Department of Statistics, 2002-present

- *STAT 121: Principles of Statistics*
- *STAT 230: Analysis of Variance*
- *STAT 435: Nonparametric Statistics*
- *STAT 497R: Undergraduate Research Group in Environmental Statistics*
- *STAT 497R: Computational Science Training for Undergraduates in the Mathematical Sciences*
- *STAT 666: Multivariate Statistical Methods* (graduate level)

Southern Methodist University, Department of Statistical Science, 1999-2002

- *STAT 1301: Introduction to Statistics*
- *STAT 2301: Statistics for Modern Business Decisions*
- *STAT 6355: Applied Multivariate Analysis* (graduate level)

Iowa State University, Department of Statistics, 1995-1999

- *STAT 104: Introduction to Statistics*
- *STAT 447: Statistical Theory for Research Workers* (graduate level)

REFEREED PUBLICATIONS (75)

Hernandez M, Bellini S, **Christensen WF**, Jefferies L, LeCheminant JD, Patten E, Redelfs AH, Stokes N, Wang J, Rennick M, Perry K, Hunt J, and Ahlborn G. (2023) “The effects of potato presentation on vegetable intake in school aged children: a cross-over study,” *Nutrients*, **15**, 4496. <https://doi.org/10.3390/nu15214496>

Jacobson MM, Gardner AM, Handley CE[†], Smith MW, **Christensen WF**, Hancock CR, Joseph PV, Larson MJ, Martin CK, and LeCheminant JD. (2023) “Body shape perception in men and women without obesity during caloric restriction: a secondary analysis from the CALERIE study,” *Eating and Weight Disorders*, **28**, Article number: 20. doi: 10.1007/s40519-023-01548-1. PMID: 36805838; PMCID: PMC9941245.

Heiner M, Grimm T, Smith H, Leavitt SD, **Christensen WF**, Carling GT, and St. Clair, LL. (2023) “Multivariate receptor modeling with widely dispersed lichens as bioindicators of air quality,” *Environmetrics*, 34(3), e2785. <https://doi.org/10.1002/env.2785>

Widmer MA, LeCheminant JD, Widmer MA, and **Christensen WF**. (2023) “Effects of an Eight-Week Wilderness Adventure Program on Body Composition and Mental Health of Adolescents,” *Journal of Experiential Education*, **46**, 141-160. <https://doi.org/10.1177/10538259221115826>.

Warr L, Heaton MJ, **Christensen WF**, White P, and Rupper S. (2023) “Distributional validation of precipitation data products with spatially varying mixture models,” *Journal of Agricultural, Biological, and Environmental Statistics*, **28**, 99–116.

*according to Google Scholar

[†]Student advised or co-advised by WFC

Christensen WF, Wall MM, and Moustaki I. (2022) “Assessing dimensionality in data with many subjects with all zero responses: An example from psychiatry and a solution using mixture models,” *Applied Psychological Measurement*, **46**, 167–184, DOI: 10.1177/01466216211066602.

Christensen WF and Zabriskie B. (2022) “When your permutation test is doomed to fail,” *The American Statistician*, **76**, 53–63, DOI: 10.1080/00031305.2021.1902856.

Jensen S, **Christensen WF**, Roundy B, Anderson VJ, Kitchen S, and Allphin L. (2022) “Temporal and spatial factors influence native forb emergence more than sowing depth,” *Rangeland Ecology & Management*, **83**, 41–49. doi = <https://doi.org/10.1016/j.rama.2022.03.003>

Wood DS, Jensen K, Crane A, Lee H, Dennis H, Gladwell J[†], Shurtz A[†], Fullwood DT, Seeley MK, Mitchell UH, **Christensen WF**, and Bowden AE. (2022) “Accurate prediction of knee angles during open-chain rehabilitation exercises using a wearable array of nanocomposite stretch sensors,” *Sensors*, **22**, 2499. <https://doi.org/10.3390/s22072499>.

Bailey BW, Muir AM, Bartholomew CL, **Christensen WF**, Carbine KA, Marsh H, LaCouture H, McCutcheon C, and Larson MJ. (2021) “The impact of exercise intensity on neurophysiological indices of food-related inhibitory control and cognitive control: A randomized crossover event-related potential (ERP) study,” *NeuroImage*, **237**, 118162. doi: 10.1016/j.neuroimage.2021.118162.

Jensen S, Anderson VJ, **Christensen WF**, Roundy B, Kitchen SG, and Allphin L. (2021) “Does basin wildrye (*Leymus cinereus*) show local adaptation when deployed according to generalized provisional seed zones in the central basin and range ecoregion?” *Native Plants Journal*, **22**, 112–122.

Smith JL, Carbine KA, Larson MJ, Tucker L, **Christensen WF**, LeCheminant JD, and Bailey B. (2021) “To Play or Not to Play? The Relationship Between Active Video Game Play and Electrophysiological Indices of Food-Related Inhibitory Control in Adolescents,” *European Journal of Neuroscience*, **53**, 876–894. <https://doi.org/10.1111/ejn.15071>

Bailey BW, Deru L, **Christensen WF**, Stevens A, Ward T, Starr M, Bartholomew C, Tucker L. (2021). “Evaluating relationships between sleep and next-day physical activity in young women,” *Journal of Physical Activity & Health*, **17**, 874–880. <https://doi.org/10.1123/jpah.2020-0014>.

Anderson S, Gray H, Jones J, Odom A[†], Seeley MK, **Christensen WF**, Hollingshead T, and Hadfield J. (2020). “A case study exploring associations between popular media attention of scientific research and scientific citations,” *Plos One*, <https://doi.org/10.1371/journal.pone.0234912>.

Seeley MK, Pickett AE, Collins G[†], Tracy J, Tuttle N, Rosquist P, Merrell J, **Christensen WF**, Fullwood DT, and Bowden AE (2020). “Predicting Vertical Ground Reaction Force During Running Using Novel Piezoresponsive Sensors and Accelerometry,” *Journal of Sports Sciences*, **38**, 1844–1858.

Berrett C, **Christensen WF**, Sain SR, Sandholtz N[†], Coats DW[†], Tebaldi C, and Lopes HF (2020). “Modeling sea-level processes on the U.S. Atlantic Coast,” *Environmetrics*, 31:e2609. <https://doi.org/10.1002/env.2609>

Wilkinson C, Barney D, **Christensen WF** (2019). “PETE Teacher Candidates’ Preferred Teaching Styles,” *The Physical Educator*, **76**, 1247–1265, <https://doi.org/10.18666/TPE-2019-V76-I5-9062>.

Christensen MF, Heaton MJ, Rupper SB, Reese CS, and **Christensen WF** (2019). “Bayesian multi-scale spatio-temporal modeling of precipitation in the Indus watershed,” *Frontiers in Earth Science*, **7**:210, doi: 10.3389/feart.2019.00210.

White P, Reese CS, **Christensen WF**, and Rupper S (2019). “Bayesian Gaussian process model for Antarctic surface mass balance and field measurement proposals,” *Environmetrics*, **30**:e2579, <https://doi.org/10.1002/env.2579>. [Recipient of the 2019 Wiley-TIES (*Environmetrics*) Best Paper Award]

- Lee J, Li Gen, **Christensen WF**, Collins G[†], Seeley M, Bowden AE, Fullwood DT, and Goldsmith J (2019). “Functional Data Analyses of Gait Data Measured Using In-Shoe Sensors,” *Statistics in Biosciences*, **11**: 288, <https://doi.org/10.1007/s12561-018-9226-3>.
- Rader RB, Unmack PJ, **Christensen WF**, and Jiang X MK (2019). “Connectivity of two species with contrasting dispersal abilities: a test of the isolated tributary hypothesis,” *Journal of Freshwater Science*, **38**, 142–155.
- Evans A, Collins G[†], Rosquist P, Tuttle N, Morrin SJ, Tracy J, Merrell AJ, **Christensen WF**, Fullwood DT, Bowden AE, and Seeley MK (2018). “A novel method to characterize walking and running energy expenditure,” *Journal for the Measurement of Physical Behavior*, **1**(3), 100-107.
- Christensen WF**, and Reese CS (2018) “Comment on ‘Mission CO₂ntrol: A statistical scientist’s role in remote sensing of atmospheric carbon dioxide,’” *Journal of the American Statistical Association*, **113**, 171–173.
- Cline N, Roundy B, and **Christensen WF**. (2018) “Using germination prediction to inform seeding potential: I. Temperature range validation of germination prediction models for the Great Basin, USA,” *Journal of Arid Environments*, **150**, 71–81.
- Cline N, Roundy B, Hardegree S, and **Christensen WF**. (2018) “Using germination prediction to inform seeding potential: II. Comparison of germination predictions for cheatgrass and potential revegetation species in the Great Basin, USA,” *Journal of Arid Environments*, **150**, 82–91.
- Merrell AJ, **Christensen WF**, Fullwood DT, Seeley MK, and Bowden AE (2017) “Nano-composite foam sensor system in football helmets,” *Annals of Biomedical Engineering*, **45**, 2742-2749.
- Bowden AE, Rosquist PG, Collins G[†], Merrell AJ, Tuttle NJ, Tracy JB, Bird ET, Seeley MK, Fullwood DT, and **Christensen WF** (2017) “Estimation of 3D ground reaction force using nanocomposite piezo-responsive foam sensors during walking,” *Annals of Biomedical Engineering*, **45**, 2122-2134.
- Heaton MJ, **Christensen WF**, and Terres MA (2017) “Nonstationary Gaussian process models using spatial hierarchical clustering from finite differences,” *Technometrics*, **59**, 93–101.
- Carbine KA, Larson MJ, Romney L, Bailey BW, Tucker LA, **Christensen WF**, and Lecheminant JD (2017) “Disparity in neural and subjective responses to food images in obese and normal-weight women,” *Obesity*, **25**, 384-390.
- Christensen WF** and Berrett C (2016) “Optimally smoothed maps of pollution source potential via particle back-trajectories and filtered kriging,” *Chemometrics and Intelligent Laboratory Systems*, **153**, 1–8.
- Haslem L, Wilkinson C, Prusak KA, **Christensen WF**, and Pennington TR (2016) “Relationships between health-related fitness knowledge, perceived competence, self-determination, and physical activity behaviors of high school students,” *Journal of Teaching in Physical Education*, **35**, 27–37.
- Blades NG, Schaalje GB, and **Christensen WF** (2015) “The Second Course in Statistics: Design and Analysis of Experiments?” *The American Statistician*, **69**, 326-333, DOI: 10.1080/00031305.2015.1086437.
- Rupper S, **Christensen WF**, Bickmore BR, Burgener L, Koenig L, Koutnik MR, Miege C, and Forster RR (2015) “The effects of dating uncertainties on net accumulation estimates from firn cores,” *Journal of Glaciology*, **61**, 163–172.
- Neeley ES, **Christensen WF**, and Sain SR (2014) “A Bayesian spatial factor analysis approach for combining multi-model ensembles,” *Environmetrics*, **25**, 483–497.

Bailey BW, Allen M, Hill M, LeCheminant JD, and **Christensen WF** (2013) “Objectively measured sleep patterns in young adult women and the relationship to adiposity,” *American Journal of Health Promotion*, doi: <http://dx.doi.org/10.4278/ajhp.121012-QUAN-500>.

Long LN and **Christensen WF**. (2013) “When justices (subconsciously) attack: The theory of argumentative threat and the Supreme Court,” *Oregon Law Review*, **91**, 933–959.

Burgener L, Rupper S, Koenig L, Forster R, **Christensen WF**, Williams J, Koutnik M, Miede C, Steig E, Keeler D, and Riley L. (2013) “An observed negative trend in West Antarctic accumulation rates from 1975 to 2010: evidence from new observed and simulated records,” *Journal of Geophysical Research—Atmospheres*, **118**, 4205–4216, doi: 10.1002/jgrd.50362.

Christensen WF and Sain SR. (2012) “Latent variable modeling for integrating output from multiple climate models,” *Mathematical Geosciences*, **44**, 395–410, DOI: 10.1007/s11004-011-9321-1.

Williams B[†], **Christensen WF**, and Reese CS. (2011) “Pollution source direction identification: Embedding dispersion models to solve an inverse problem,” *Environmetrics*, **22**, 962–974, DOI: 10.1002/env.1124.

Christensen WF. (2011) “Filtered kriging for spatial data with heterogeneous measurement error variances,” *Biometrics*, **67**, 947–957, DOI: 10.1111/j.1541-0420.2011.01563.x.

Thomas AL[†], Rupper S, and **Christensen WF**. (2011) “Characterizing the statistical properties and inter-hemispheric distribution of Dansgaard-Oeschger events.” *Journal of Geophysical Research – Atmospheres*, **116**, D03103, doi:10.1029/2010JD014834.

Long LN and **Christensen WF**. (2011) “Does the readability of your brief affect your chance of winning an appeal?—An analysis of readability in appellate briefs and its correlation with success on appeal.” *Journal of Appellate Practice and Procedure*, **12**, No. 1.

Heaton MJ[†], Reese CS, and **Christensen WF**. (2010) “Incorporating time-dependent source profiles using the Dirichlet distribution in multivariate receptor models,” *Technometrics*, **52**, 67-79.

Christensen WF, and Schauer JJ. (2008) “Quantifying and manipulating species influence in Positive Matrix Factorization,” *Chemometrics and Intelligent Laboratory Systems*, **94**, 140-148.

Lingwall JW[†], **Christensen WF**, and Reese CS. (2008) “Dirichlet based Bayesian multivariate receptor modeling,” *Environmetrics*, **19**, 618-629.

Christensen WF, and Florence LW[†]. (2008) “Predicting presidential and other multistage election outcomes using state-level pre-election polls,” *The American Statistician*, **62**, 1-10.

Christensen WF, and Schauer JJ. (2008) “Impact of species uncertainty perturbation on the solution stability of positive matrix factorization of atmospheric particulate matter data,” *Environmental Science & Technology*, **42**, 6015-6021.

Long LN, and **Christensen WF**. (2008) “Clearly, using intensifiers is very bad—or is it?” *Idaho Law Review*, **45**, 171-189.

Martello DV, Pekney NJ, Anderson RR, Davidson CI, Hopke PK, Kim E, **Christensen WF**, Mangelson NF, and Eatough DJ. (2008) “Apportionment of ambient primary and secondary fine particulate matter at the Pittsburgh National Energy Laboratory Particulate Matter Characterization Site using positive matrix factorization and a potential source contributions function analysis,” *Journal of the Air & Waste Management Association*, **58**, 357-368.

Christensen WF, Dillner AM, Schauer JJ, and Reese CS. (2007) “Clustering composition vectors using uncertainty information,” *Environmetrics*, **18**, 859-869.

Lingwall JW[†], and **Christensen WF**. (2007) “Pollution source apportionment using *a priori* information and Positive Matrix Factorization,” *Chemometrics and Intelligent Laboratory Systems*, **87**, 281-294.

Eddleman JL, Sorber SC, Morris TH, Grimshaw SD, Dastrup E, **Christensen WF**, and Morris SL[†]. (2007) “Analysis of Fremont River strath terraces in the area of the Capitol Reef National Park, Utah—Implications for fluvial landscape evolution and the role of climate forcing,” in *Central Utah—Diverse Geology of a Dynamic Landscape*, eds. G.C. Willis, M.D. Hylland, D.L. Clark, and T.C. Chidsey, jr., Salt Lake City: Utah Geological Association.

Pyne MI, Rader RB, and **Christensen WF**. (2007) “Predicting local biological characteristics in streams: a comparison of landscape classifications,” *Freshwater Biology*, **52**, 1302-1321.

Christensen WF, Schauer JJ, and Lingwall JW[†]. (2006) “Iterated confirmatory factor analysis for pollution source apportionment,” *Environmetrics*, **17**, 663-681.

Schauer JJ, Lough GC, Shafer MM, **Christensen WF**, Arndt MF, DeMinter JT, and Park J-S. (2006) *Characterization of Emission and Human Exposure to Metals Emitted from Motor Vehicles*. Research Report 133. Boston, MA: Health Effects Institute.

Hopke PK, Ito K, Mar T, **Christensen WF**, Eatough DJ, Henry RC, Kim E, Laden F, Lall R, Larson TV, Liu H, Neas L, Pinto J, Stotzel M, Suh H, Paatero P, and Thurston GD. (2006) “PM source apportionment and health effects: 1. Intercomparison of source apportionment results,” *Journal of Exposure Science and Environmental Epidemiology*, **16**, 275-286.

Ito K, **Christensen WF**, Eatough DJ, Henry RC, Kim E, Laden F, Lall R, Larson TV, Neas L, Hopke PK, and Thurston GD. (2006) “PM source apportionment and health effects: 2. An investigation of intermethod variability in associations between source-apportioned fine particles and daily mortality in Washington, DC,” *Journal of Exposure Science and Environmental Epidemiology*, **16**, 300-310.

Christensen WF, and Yetkin FZ. (2005) “Spatio-temporal analysis of auditory cortex activation as detected with silent event related fMRI,” *Statistics in Medicine*, **24**, 2539-2556.

Thurston GD, Ito K, Mar T, **Christensen WF**, Eatough DJ, Henry RC, Kim E, Laden F, Lall R, Larson TV, Liu H, Neas L, Pinto J, Stotzel M, Suh H, and Hopke PK. (2005) “Workshop on Source Apportionment of Particulate Matter Health Effects—Intercomparison of Results and Implications,” *Environmental Health Perspectives*, **113**, 1768-1774.

Dillner AM, Schauer JJ, **Christensen WF**, and Cass GR. (2005) “A quantitative method for clustering size distributions of elements,” *Atmospheric Environment*, **39**, 1525-1537.

Christensen WF, and Gunst RF. (2004) “Estimating pollution source contributions from temporally correlated air quality observations,” *Communications in Statistics—Simulation & Computation*, **33**, 1039-1060.

Christensen WF. (2004) “Chemical mass balance analysis for air quality data when unknown pollution sources are present,” *Atmospheric Environment*, **38**, 4305-4317.

Christensen WF, and Gunst RF. (2004) “Measurement error models in chemical mass balance analysis of air quality data,” *Atmospheric Environment*, **38**, 733-744.

Yetkin FZ, Roland PS, **Christensen WF**, and Purdy PD. (2004) “Silent fMRI of tonotopicity and stimulus intensity coding in human primary auditory cortex,” *Laryngoscope*, **114**, 512-518.

Christensen WF, and Amemiya Y. (2003) “Modeling and prediction for multivariate spatial factor analysis,” *Journal of Statistical Planning and Inference*, **115**, 543-564.

Yetkin, FZ, Roland PS, Purdy PD, and **Christensen WF**. (2003) “Evaluation of auditory cortex activation using silent fMRI,” *American Journal of Otolaryngology*, **24**, 281-289.

Nelson OL, McEwen MM, Robbins CT, Felicetti L, **Christensen WF**. (2003) “Evaluation of cardiac function in active and hibernating grizzly bears,” *Journal of the American Veterinary Medical Association*, **223**, 1170-1175.

Christensen WF, and Sain SR. (2002) “Accounting for dependence in a flexible multivariate receptor model,” *Technometrics*, **44**, 328-337.

Christensen WF, and Amemiya Y. (2002) “Latent variable modeling of multivariate spatial data,” *Journal of the American Statistical Association*, **97**, 302-317.

Nelson OL, Reidesel E, Ware WA, and **Christensen WF**. (2002) “Echocardiographic and radiographic changes associated with systemic hypertension in cats,” *Journal of Veterinary Internal Medicine*, **16**, 418-425.

Christensen WF, and Amemiya Y. (2001) “Generalized shifted-factor analysis method for multivariate geo-referenced data,” *Mathematical Geology*, **33**, 801-824.

Nelson OL, Jergens AE, Miles KG, and **Christensen WF**. (2001) “Gastric emptying in healthy dogs consuming a commercial kibble ration as assessed by barium-impregnated polyethylene spheres,” *Journal of the American Animal Hospital Association*, **37**, 444-452.

Reece WO, Sell JL, Trampel DW, and **Christensen WF**. (2000) “Effects of dietary potassium supplementation for growing turkeys on leg weakness, plasma potassium concentration, and selected blood variables,” *Poultry Science*, **79**, 1120-1126.

Ware WA, and **Christensen WF** (1999) “QT interval duration in normal cats,” *American Journal of Veterinary Research*, **60**, 1426-1429.

Christensen WF, and Rencher AC. (1997) “A comparison of Type I error rates and power for seven solutions to the multivariate Behrens-Fisher problem,” *Communications in Statistics—Simulation & Computation*, **26**, 1251-1273.

WORKING PAPERS

Submitted or Under Revision

Cox PA, Banack SA, Davis DA, **Christensen WF**, and Bradley WG. “L-serine as a potential treatment for ALS,” submitted to *Amyotrophic Lateral Sclerosis and Frontotemporal Degeneration*.

Duncan GB[†], **Christensen WF**, and Handley C[†]. “COVID-19 hotspot detection in a university setting,” submitted to *PLOS ONE*.

Hernandez M, Bellini S, **Christensen WF**, Jefferies L, LeCheminant JD, Patten E, Redelfs AH, Stokes N, Wang J, Rennick M, Perry K, Hunt J, and Ahlborn G. “The effects of potato presentation on vegetable intake in school aged children: a cross-over study,” submitted to *Nutrients*.

Jensen S, Kitchen S, Baggett L, Richardson B, Roundy B, Anderson V, Allphin L, and **Christensen WF**. “SoilWeb aids seed collectors by identifying sagebrush subspecies,” submitted to *Ecosphere*.

Johnson A, Redelfs AH, **Christensen WF**, and Spruance LA. “State legislation related to school nutrition: Predictors of bill passage from 2010-2019,” submitted to *Journal of Nutrition Education and Behavior*.

Wood DS, Jensen K, Fullwood DT, Seeley MK, Mitchell UH, **Christensen WF**, and Bowden AE. “General Method of Measuring Skin Strain of the Anterior Knee using Linear Strain Theory and Application,” submitted to *Computer Methods in Biomechanics and Biomedical Engineering*.

BOOK

Rencher, AC and **Christensen, WF**. (2012) *Methods of Multivariate Analysis, Third Edition*, John Wiley & Sons: New York.

PATENT

Merrell AJ, Bowden AE, Fullwood DT, Seeley MK, Collins GQ[†], Rosquist PG, and **Christensen WF** (2016). *Shoe-based analysis system*, US20160192862A1.

NONREFEREED PUBLICATIONS

Christensen WF. (2013) Book review of “Nonparametric Statistical Inference, Fifth Edition” by Jean Dickinson Gibbons and Subhabrata Chakraborti, *Journal of the American Statistical Association*, **108**, 1553.

Hu LS, **Christensen W**, Lenoski B, Baxter L, Farhataziz N, Karis J, Debbins J, Heiserman J. (2007) “Intervoxel variability of cerebral blood volume measurements in gray matter: Comparison of cortex and putamen,” *ISMRM Workshop on Cerebral Perfusion and Brain Function: Novel Techniques and Applications, 28 July - 1 August 2007, Salvador da Bahia, Brazil*.

Christensen WF, and Prusak KA. (2007) “A permutation test for subscale distinguishability using confirmatory factor analysis,” Brigham Young University Department of Statistics, Technical Report # 07-106.

Christensen WF. (2006) “Statistical methods for pollution source apportionment,” *ASA Section on Statistics & the Environment Newsletter*, **8**(1), 3-5.

Prusak KA, **Christensen WF**, Standage M, and Treasure D. (2005) “The Sports Motivational Scale in physical education: a confirmatory factor analysis,” Brigham Young University Department of Statistics, Technical Report # 05-102.

Thurston G, Ito K, Mar T, **Christensen WF**, Eatough DJ, Henry RC, Kim E, Laden F, Lall R, Larson TV, Liu H, Neas L, Pinto J, Stolzel M, Suh H, and Hopke PK. (2005) “Results and implications of the workshop on the source apportionment of PM health effects,” *Epidemiology* **16**, S134-S135.

Christensen WF and Yetkin FZ. (2003) “Spatio-temporal analysis of auditory cortex activation as detected with silent event related fMRI.” *ISMRM Eleventh Meeting Proceedings, 10-16 July 2003, Toronto, ON, Canada*.

Christensen WF. (2001) “Using the chemical mass balance model to estimate pollution source contributions from correlated air quality observations,” *Proceedings of the 33rd Symposium on the Interface: Computing Science and Statistics, Orange County, California*.

Christensen WF. (2000) “Estimating moments of multivariate dependent observations using the block bootstrap, with application to multivariate receptor modeling,” *American Statistical Association Proceed-*

ings of the Section on Statistics and the Environment, 77-82.

Christensen WF, and Sain SR. (2000) “Use of latent variable models in air quality monitoring,” *Proceedings of the 32nd Symposium on the Interface: Computing Science and Statistics*, New Orleans, Louisiana.

Christensen WF. (1999) “Modeling and prediction for multivariate spatial data using spatially-correlated latent variables,” *American Statistical Association Proceedings of the Section on Statistics and the Environment*, 76-81.

Christensen WF. (1999) “Analysis of multivariate spatial data using latent variables,” Ph.D. dissertation, Department of Statistics, Iowa State University, Ames, Iowa.

Christensen WF, and Cook D. (1999) “Data mining soil characteristics affecting corn yield,” Iowa State University Statistical Laboratory Preprint Series, #99-06.

Christensen WF. (1998) “Analysis of spatial data using a generalized shifted-factor model,” *American Statistical Association Proceedings of the Section on Statistics and the Environment*, 109-114.

Christensen WF. (1995) “A comparison of Type I error rates and power for seven solutions to the multivariate Behrens-Fisher problem,” M.S. Thesis, Department of Statistics, Brigham Young University, Provo, Utah.

TECHNICAL PRESENTATIONS

“A statistician’s perspective on climate change assessment,” BYU Department of Statistics, January, 2022.

“Statistical advances in source apportionment and source-specific health effects evaluation,” Joint Statistical Meetings, Virtual, August, 2021.

“When your permutation test is doomed to fail,” BYU Department of Statistics, March, 2021.

“When your permutation test is doomed to fail,” Joint Statistical Meetings, Virtual, August, 2020.

“Latent variable modeling for extracting consensus estimates of precipitation in High Mountain Asia,” Joint Statistical Meetings, Vancouver, Canada, July 30, 2018.

“Extracting Consensus Estimates of Precipitation from Diverse Data Sources in High Mountain Asia,” The International Environmetrics Society Annual Meeting, Guanajuato, Mexico, July 16, 2018.

“Assessing latent dimensionality of a symptom battery in a sample with many subjects exhibiting no symptoms,” Joint Statistical Meetings, Baltimore, Maryland, July 30, 2017.

“Modeling spatiotemporal precipitation variability and glacier mass balance in High Mountain Asia,” The International Environmetrics Society Annual Meeting, Bergamo, Italy, July 26, 2017.

“Assessing latent dimensionality of a symptom battery in a sample with many subjects exhibiting no symptoms,” BYU Department of Statistics Seminar, March 23, 2017.

“Accounting for Statistical Uncertainties in Climate Change Assessment,” Columbia University Department of Biostatistics Colloquium, New York, New York, September 29, 2016.

“Avoiding extrapolation in high-dimensional prediction space,” Joint Statistical Meetings, Seattle, Washington, August 13, 2015 (with Natalie Blades, Angela Teuscher, Aaron Havens, and Summer Rupper).

“Optimally-smoothed maps of pollution source potential via particle back trajectories and filtered kriging,” Joint Statistical Meetings, Boston, Massachusetts, August 4, 2014.

“Missing observations in paired comparisons: Assessing the impact of argumentative threat in written opinions at the Supreme Court,” Joint Statistical Meetings, Montreal, Canada, August 4, 2013 (with Lance N. Long).

“Assessing snow accumulation trends in the presence of ice core dating uncertainty,” The International Environmetrics Society Annual Meeting, Anchorage, Alaska, June 12, 2013 (with Summer Rupper).

“Optimally-smoothed maps of pollution source potential via particle back-trajectories and filtered kriging,” Conference of the Western North America Region of the International Biometric Society, Fort Collins, Colorado, June 18, 2012.

“Filtered kriging for spatial data with heterogeneous measurement error variances,” Joint Statistical Meetings, Miami Beach, Florida, July 31, 2011.

“Filtered kriging for spatial data with heterogeneous measurement error variances,” The International Environmetrics Society Annual Meeting, La Crosse, Wisconsin, July 19, 2011.

“Filtered kriging for spatial data with heterogeneous measurement error variances,” BYU Department of Statistics Colloquium, Provo, Utah, January 20, 2011.

“Characterizing the statistical properties and interhemispheric distribution of Dansgaard-Oeschger events,” The International Environmetrics Society Annual Meeting, Margarita Island, Venezuela, June 23, 2010.

“Pollution Source Direction Identification: Embedding dispersion models to solve an inverse problem,” Colorado State University, Department of Statistics Seminar, Fort Collins, Colorado, Oct 26, 2009.

“Pollution Source Direction Identification: Embedding dispersion models to solve an inverse problem,” ASA Utah Chapter Meeting, Salt Lake City, UT, Oct 22, 2009.

“Spatial latent variable modeling for integrating output from multiple climate models,” International Statistical Institute Meetings, Durban, South Africa, Aug 2009 (Invited Talk; with Stephan R. Sain).

“Spatial latent variable modeling for integrating output from multiple climate models,” Joint Statistical Meetings, Washington DC, Aug 2009 (Invited Talk; with Stephan R. Sain).

“Identifying pollution source directions for pollution source apportionment,” The International Environmetrics Society Meeting, Bologna, Italy, Jul 2009 (Invited Talk; with Basil Williams and Shane Reese).

“Spatial latent variable modeling for integrating output from multiple climate models,” American Geophysical Union, San Francisco, Dec 2008 (poster, with Stephan R. Sain).

“Characterizing the statistical properties of Dansgaard-Oeschger events,” American Geophysical Union, San Francisco, Dec 2008 (poster, with Andrea Thomas as lead author).

“Identifying pollution source directions for air quality monitoring,” The Fourth John and Susan Wierman Lecture in Air Quality Data Analysis, Department of Applied Mathematics and Statistics, Johns Hopkins University, October 2008 (Invited Talk).

“Identifying pollution source directions for air quality monitoring,” Meeting of the ASA Section on Statistics and the Environment, Boulder, Colorado, October 2008 (Invited Talk).

“Integrating diverse sources of airshed information in pollution source apportionment,” The International Environmetrics Society Meeting, Kelowna, Canada, June 11, 2008 (Invited Talk).

“Bayesian approaches for pollution source identification and apportionment,” American Association for Aerosol Research Meeting, Reno, Nevada, September 26, 2007.

“Bayesian approaches for pollution source identification and apportionment,” The International Environmetrics Society Meeting, Mikulov, Czech Republic, August 18, 2007.

“Addressing temporal correlation, incomplete source profile information, and varying source profiles in the source apportionment of particulate matter: Year 2,” EPA PM Source Apportionment Progress Meeting, Research Triangle, North Carolina, June 21, 2007.

“Integrating diverse sources of airshed information in pollution source apportionment,” Multivariate Methods in Environmetrics, Meeting of the ASA Section on Statistics and the Environment, Chicago, Illinois, Oct 27, 2006 (Invited Talk).

“Improving source apportionment using auxiliary information,” The International Environmetrics Society Meeting, Kalmar, Sweden, June 21, 2006.

“Discovering hidden structure,” University of Wisconsin-Madison, Environmental Chemistry and Technology Program, Madison, Wisconsin, April 7, 2006 (Invited Talk).

“Using auxiliary information in the pollution source apportionment of particulate matter,” University of Wisconsin-Madison, Department of Biostatistics and Medical Informatics, Madison, Wisconsin, March 31, 2006 (Invited Talk).

“Spatio-temporal analysis of auditory cortex activation as detected with silent event-related fMRI,” Southern Methodist University, Dallas, Texas, October 14, 2005 (Invited Talk).

“Addressing temporal correlation, incomplete source profile information, and varying source profiles in the source apportionment of particulate matter: Year 1,” EPA PM Source Apportionment Progress Meeting, Research Triangle, North Carolina, September 19, 2005.

“Statistical issues in pollution source apportionment,”

- Joint Statistical Meetings, Minneapolis, Minnesota, August 8, 2005 (Invited Talk).
- International Biometric Society WNAR/IMS Meeting, Fairbanks, Alaska, June 23, 2005 (Invited Talk).

“Factor analysis models for pollution source apportionment,” University of Texas–Southwestern Medical Center, Dallas, Texas, March 10, 2005 (Invited Talk).

“Discovering hidden structure,” Brigham Young University: House of Learning Lecture Series, Provo, Utah, November 11, 2004.

“Iterated confirmatory factor analysis for pollution source apportionment,” The International Environmetrics Society Meeting, Portland, Maine, June 28, 2004 (with J. Lingwall).

“Factor analysis models for pollution source apportionment”

- ASA Utah Chapter Meeting, Logan, Utah, April 20, 2004 (Invited Talk).
- International Biometric Society ENAR Spring Meeting, Pittsburgh, Pennsylvania, March 29, 2004 (Invited Talk).

“Factor analysis for multivariate spatial data,” Joint Statistical Meetings, San Francisco, California, August 6, 2003 (Invited Talk).

“Iterated confirmatory factor analysis of Washington, D.C. Air Quality Data,” Workshop on Particulate Matter Source Apportionment and Health Effects: An EPA-PM Center Workshop, Harriman, New York, May 29, 2003.

“Addressing some threats to validity in multivariate receptor modeling,” Conference of the American Association for Aerosol Research: Particulate Matter and Health, Pittsburgh, Pennsylvania, April 1, 2003 (Invited Talk).

“Accounting for dependence in a flexible multivariate receptor model,” University of Wisconsin, Madison, Wisconsin, October 18, 2002 (Invited Talk).

“Measurement error models in chemical mass balance analysis of pollution data,” Joint Statistical Meetings, New York, New York, August 14, 2002.

“Spatio-temporal analysis of functional magnetic resonance imaging (fMRI) data”

- Southern Methodist University, Dallas, Texas, February 1, 2002.
- Brigham Young University, Provo, Utah, January 10, 2002 (Invited Talk).

“Performance of the effective variance solution to the chemical mass balance equations when model assumptions are violated,” Joint Statistical Meetings, Atlanta, Georgia, August 7, 2001 (with R. F. Gunst).

“Statistical issues in the receptor modeling of multivariate, temporally-correlated air quality data,” Conference in Celebration of Wayne A. Fuller’s 70th Birthday, Ames, Iowa, June 21, 2001 (Invited poster).

“Using the chemical mass balance receptor model to estimate pollution source contributions from correlated air quality observations,” 33rd Symposium on the Interface: Computing Science and Statistics, Orange County, California, June 15, 2001.

“Accounting for dependence in multivariate receptor modeling”

- Los Alamos National Laboratory, Los Alamos, New Mexico, October 10, 2000 (Invited Talk).
- Rice University, Houston, Texas, September 11, 2000 (Invited Talk).

“Estimating moments of multivariate dependent observations using the block bootstrap, with application to multivariate receptor modeling,” Joint Statistical Meetings, Indianapolis, Indiana, August 16, 2000.

“Resampling methods for the modeling of multivariate spatio-temporal data,” 25th Summer Institute of Applied Statistics at Brigham Young University, Provo, Utah, June 15, 2000 (Invited Talk).

“Use of latent variable models in air quality monitoring,” 32nd Symposium on the Interface: Computing Science and Statistics, New Orleans, Louisiana, April 7, 2000 (with S. R. Sain).

“Accounting for dependencies in latent variable models,” Conference of Texas Statisticians, Huntsville, Texas, April 1, 2000 (Invited Talk).

“Modeling and prediction of multivariate spatial data using latent variables,” Texas A&M University, College Station, Texas, October 28, 1999 (Invited Talk).

“Exploratory and model-based approaches for the analysis of multivariate precision agriculture data,” American Statistical Association North Texas Chapter Meeting, Dallas, Texas, October 7, 1999 (Invited Talk).

“Modeling and prediction issues in latent variable analysis of multivariate spatial data,” Joint Statistical Meetings, Baltimore, Maryland, August 11, 1999.

“Analysis of multivariate spatial data using a latent variable model”

- Virginia Commonwealth University, Richmond, Virginia, February 11, 1999 (Invited Talk).
- Bowling Green State University, Bowling Green, Ohio, February 8, 1999 (Invited Talk).
- University of Maryland, Baltimore County, Baltimore, Maryland, February 5, 1999 (Invited Talk).
- Southern Methodist University, January 27, 1999 (Invited Talk).
- RAND Corporation, January 21, 1999 (Invited Talk).

“Latent variable modeling of multivariate spatial data”

- Dupont, Wilmington, Delaware, January 14, 1999 (Invited Talk).
- Brigham Young University, Provo, Utah, November 10, 1998.

“Factor analysis of multivariate spatial data,” Central Intelligence Agency, McLean, Virginia, October 21, 1998 (Invited Talk).

“Analysis of spatial data using a generalized shifted-factor model,” Joint Statistical Meetings, Dallas, Texas, August 11, 1998.

“On factor analysis of spatial data,” Conference on Statistics for Correlated Data, Ames, Iowa, October 17, 1997.

“A comparison of Type I error rates and power for seven solutions to the multivariate Behrens-Fisher problem”

- Joint Statistical Meetings, Orlando, Florida, August 13, 1995 (with A. C. Rencher).
- IMS/WNAR Joint Meeting, Stanford University, Palo Alto, California, June 26, 1995 (with A. C. Rencher).

GRANT SUBMISSIONS & EXTERNAL FUNDING

2019-2022 (*not funded*, submitted 2019). “Quantifying snow and glacier response to climate and aerosol forcings in High Mountain Asia,” NASA (Co-I. with McKenzie Skiles as P.I. and Philip White as Institutional P.I.), \$256,328 (BYU portion).

2016-2019 (*FUNDED*, submitted 2016). “Precipitation and Glacier Change in High Mountain Asia Over the Modern Era,” NASA (Co-I. with Supper Rupper as P.I. and C. Shane Reese as Institutional P.I.), \$819,222.

2016-2019 (*FUNDED*, submitted 2015). “Bayesian Quantification of Antarctic Surface Mass Balance,” NASA (Co-P.I. with Supper Rupper as P.I. and C. Shane Reese as Co-P.I.), \$641,947.

2015-2017 (*not funded*, submitted 2015). “Bayesian Quantification of Antarctic Surface Mass Balance,” submitted to NSF (Co-P.I. with Supper Rupper as P.I. and C. Shane Reese as Co-P.I.).

2014-2016 (*not funded*, submitted 2014). “Bayesian Quantification of Antarctic Accumulation,” submitted to NSF (Co-P.I. with Supper Rupper as P.I. and C. Shane Reese as Co-P.I.).

2013-2016 (*not funded*, submitted 2013). “Semi-continuous monitoring and the source apportionment of PM_{2.5} mass and its components,” submitted to NSF (Co-P.I. with Jaron Hansen as P.I.).

2012 (*not funded*, submitted 2012). “BYU Statistics Proposal for 2012 Utah Public Trust & Confidence Survey,” submitted to State of Utah (Co-P.I.; \$80,607. P.I. is Scott Grimshaw, BYU Dept of Statistics)

2012-2014 (*not funded*, submitted 2011). “Spatial population ecology of the trypanosome vector, *Glossina palpalis gambiensis*, in Niayes region of Senegal,” submitted to NSF (Investigator; budget amount for WFC \approx \$32,000. P.I. is Steven Peck, BYU Dept of Biology)

2010-2012 (*FUNDED*, submitted 2009). “Contributions of Fossil Fuel-Fired Electric Power Generation to PM_{2.5} Concentrations in WI,” submitted to Wisconsin Focus on Energy, amount requested: \$212,741 (P.I. for BYU portion of grant: \$51,045 to BYU)

2009-2011 (*not funded*, submitted 2009). “Integrating Diverse Sources of Airshed Information and Uncertainty in a Hierarchical Pollution Source Apportionment Model,” submitted to Health Effects Institute, amount requested: \$272,391 (P.I.).

2009-2012. (*not funded*, submitted 2008). “Semi-continuous Monitoring and the Source Apportionment of PM_{2.5} Mass and Its Components,” submitted to the National Science Foundation; amount requested: \$786,099 (Co-P.I. with Delbert Eatough [BYU] as P.I.).

2008. (*FUNDED*, submitted 2008). “Attribution of global forcings on climate change,” submitted to National Center for Atmospheric Research, Boulder, Colorado—CISL Research and Supercomputing Visitor Program; amount requested: \$2,557.

2008-2011 (*not funded*, submitted 2007). “Identification of Primary and Secondary Sources of Fine Particulate Sulfate, Nitrate and Organic Material in the South Coast Air Basin and in Fresno Using Hourly Averaged Data,” submitted to California Air Resources Board, amount requested: \$800,000 (Co-P.I. with Delbert Eatough [BYU] as P.I.).

2008-2009 (*not funded*, submitted 2006). “Integrating Diverse Sources of Airshed Information and Uncertainty in a Hierarchical Pollution Source Apportionment Model,” submitted to EPA, amount requested: \$298,053 (P.I.).

2004-2007 (*FUNDED*, submitted 2004). “Addressing Temporal Correlation, Incomplete Source Profile Information, and Varying Source Profiles in the Source Apportionment of Particulate Matter,” EPA, amount awarded: \$238,721 (P.I.), #RD-83216001.

2004 (*not funded*, submitted 2004). “Semi-Continuous Monitoring and the Source Apportionment of PM_{2.5} Mass and Its Components,” submitted to Southern California Edison, amount requested: \$517,551 (Co-P.I. with Delbert Eatough [BYU] as P.I.).

2004-2006 (*FUNDED*, submitted 2004). “Semi-Continuous Monitoring and the Source Apportionment of PM_{2.5} Mass and Its Components,” NSF, amount requested: \$409,823 (Co-P.I. with Delbert Eatough [BYU] as P.I.).

2003-2005 (*FUNDED*). “Predicting Biological Community Composition at Local Scales using Watershed Attributes: A Comparison of A Priori and A Posteriori Approaches,” U.S. Forest Service, \$25,000 (Co-P.I. with Russell Rader [BYU] as P.I.).

2003 (*not funded*). “Continuous Monitoring and Source Apportionment of PM_{2.5} Mass and Carbonaceous Material,” submitted to EPA, amount requested: \$449,963 (Co-P.I. with Delbert Eatough [BYU] as P.I.).

2003 (*not funded*). “Predicting Biological Community Composition at Local Scales using Watershed Attributes: A Comparison of A Priori and A Posteriori Approaches,” submitted to EPA, amount requested: \$200,021 (Co-P.I. with Russell Rader [BYU] as P.I.).

2002-2003 (*FUNDED*). “Characterization of Emission and Human Exposure to Metals Emitted from Motor Vehicles,” Health Effects Institute, \$13,343 (P.I. for Subaward, under P.I. James Schauer [Univ. of Wisconsin])

sin] as P.I.).

2001. Young Researcher Travel Award, Conference in Celebration of Wayne A. Fuller's 70th Birthday, National Science Foundation.

2001. Young Researcher Travel Award, 33rd Symposium on the Interface: Computing Science and Statistics, Interface Foundation.

2000. Statistics for Large Datasets Workshop, Funded Participant, National Center for Atmospheric Research, National Science Foundation.

1998. Summer Colloquium on Statistics for Understanding the Atmosphere and Ocean, Funded Participant, National Center for Atmospheric Research, National Science Foundation

UNIVERSITY SERVICE

University Service — Brigham Young University

- COVID-19 Testing Working Group (2020-present)
 - Supervise three RAs to analyze all COVID-19 data collected by the University
 - Brief the President's Council weekly on inference for trends in: cases at BYU and Utah County, estimated prevalence, test positivity rates for all types of tests, factors affecting weekly positivity rates, hotspot distribution, and classroom-based risks
- Faculty Advisory Committee (2020-2023)
 - Committee for Environmental Sustainability and Emergency Preparedness
- Campus Traffic and Parking Committee, (2021-)
- University Academic Review Committee (2013-2017)

College Service — Brigham Young University College of Physical & Mathematical Sciences

- Dean's Search Committee (2017)
- College Rank & Status Committee (2011-2014; chair during 2013-2014)

Departmental Service — Brigham Young University Department of Statistics, 2002-present

- Associate Chair for Undergraduate Experience, (2022-present)
- Faculty Search Committee (2019-present; Chair, 2019-2022)
- Curriculum Committee (2022-present)
- Department Rank & Status Committee (2010-2016, 2020-2021; chair during 2010-2012)
- Department Chair (2017-2019)
- Department Curriculum Committee (2014-2016)
- High School Presentations on Statistics as a Career
 - Timpview High School [2 presentations], May 2017
 - Timpview High School [2 presentations], May 2016
 - Timpview High School [2 presentations], May 2014
 - Maeser Preparatory Academy, Dec 2013
 - Timpview High School [2 presentations], May 2013
 - Bountiful High School [2 presentations], May 2012
 - Timpview High School [4 presentations], May 2011
- Associate Chair for Undergraduate Experience, (2011-2012)
 - Handled undergraduate advising, coordinated career and internship placement program, and managed undergraduate recruitment and retention
- Department Secretary Search Committee (2011)
- Teaching & Learning Committee Chair (2009-2010)
- Summer Institute Committee Chair (2009)
- Department Public Relations Liaison (2008-2012)

- Search Committee (2006-2009)
 - Chair, 2007-2009
- Department Seminar Series Coordinator (2006-2008)
- Statistical Science Undergraduate Advisor (2003-2012)
- Mu Sigma Rho Faculty Advisor (2004-2007)
- Scholarship and Awards Committee, 2002-2006 (Chair: 2004-2006)
- “Habits of the Mind” (Freshmen Orientation) Presenter, 2003, 2004, 2005, 2006, 2007, 2008
- Curriculum Committee, 2002-2006
- Graduate Student Recruiting Visits
 - Weber State University Math Club, 2005, 2009
 - Utah State University, 2009
- Summer Institute Committee, 2003-2005 (Chair in 2003-2004)
- Master’s Project/Thesis Committee, 2002-2005

Departmental Service — Southern Methodist University Department of Statistical Science, 1999-2002

- Department Seminar Series Coordinator, 2000-2002
- Department Liaison with University Library, 2000-2002
- Ph.D. Qualifying Examination Committee, 2001
- Basic Examination Methods Committee, 2001

Student Advising and Mentoring

- Michella Kopti (Undergraduate Mentoring *Advisor*, 2022-present)
- Cameron Jensen (Undergraduate Mentoring *Advisor*, 2022-present)
- Jackson Passey (Undergraduate Mentoring *Advisor*, 2022-present)
- Anne Fagerburg Shurtz (Undergraduate Mentoring *Advisor*, 2021-2022; MS *Advisor*, 2022-present)
- Joshua Gladwell (Undergraduate Mentoring *Advisor*, 2021-present)
- Garrett Duncan (Undergraduate Mentoring *Advisor*, 2020-present; MS *Advisor*, 2021-present)
- Shane Huang (Undergraduate Mentoring *Advisor*, 2020-present)
- Camilla Handley (Undergraduate Mentoring *Advisor*, 2020; MS *Advisor*, 2020-2022)
- Aubrey Odom (Undergraduate Mentoring *Advisor*, 2017-2018; M.S. *Advisor*, 2018-2020)
- Angela Teuscher (M.S. *Advisor*, 2018)
- Braden Kinard (M.S. *Advisor*, 2017)
- Nathan Sandholtz (M.S. Project *Advisor*, 2014-2015)
- Gavin Collins (Undergraduate Mentoring *Advisor*, 2015-2017)
- Angela Teuscher (Undergraduate Mentoring *Co-advisor* w/ NJ Blades, 2013-2015)
- Zach White (Undergraduate Mentoring *Advisor*, 2015)
- Philip White (M.S. Committee Member, 2013-2015)
- Dan Halterman (M.S. Project *Advisor*, 2013-2014)
- Madeline Meng (M.S. Project *Advisor*, 2013-2014)
- David Coats (Undergraduate Mentoring *Advisor*, 2013-2014; M.S. Project *Advisor*, 2014-2015)
- Aaron Havens (Undergraduate Mentoring *Advisor*, 2013-2015)
- Aubrey Wride (Undergraduate Mentoring *Advisor*, 2013-2015)
- Spencer Rogers (M.S. Project *Advisor*, 2011-2012)
- Jonathan Christensen (Undergraduate Mentoring *Advisor*, 2010-2011; M.S. Project *Advisor*, 2011-2012)
- Kevin Cisney (Undergraduate Mentoring *Advisor*, 2011-2012)
- Paul Sabin (Undergraduate Mentoring *Advisor*, 2011)
- Scott Morris (M.S. Project *Advisor*, 2009-2010)
- Robert Richardson (Undergraduate Mentoring *Advisor* (IMPACT), 2009-2010)
- Alexander Zaitzeff (Undergraduate Mentoring *Advisor* (IMPACT), 2009-2010)
- Andrea Lundrigan Thomas (M.S. Thesis *Advisor*, 2008-2009)
- Greg Johnson (M.S. Project *Advisor*, 2007-2008)
- Basil Williams (Undergraduate Mentoring *Advisor*, 2006-2008)
- Jared Collings (M.S. Thesis *Advisor*, 2002-2003, 2007)

- Undergraduate Research Group on Environmental Statistics (2007-2008)
 - Andrea Lundrigan
 - Basil Williams
 - Scott Morris
 - Jody Hughes
 - Alan Vaughn
- April Logan (M.S. Project *Advisor*, 2005-2007)
- David Stromberg (M.S. Project *Advisor*, 2005)
- Undergraduate Research Group on Environmental Statistics (2006-2007)
 - Basil Williams
 - Scott Morris
 - Malcolm Merrill
 - Austin Rose
- Matt Heaton (M.S. Committee Member, 2006-2007)
- Carly Pendleton (M.S. Committee Member, 2006-2007)
- Jeff Lingwall (M.S. Thesis *Advisor*, 2005-2006; Undergraduate Mentoring *Advisor*, 2004-2005)
- Claire Bangarter (Undergraduate Mentoring, 2005-2006)
- Kenny Lian (M.S. Committee Member, 2005)
- Matt Pyne (M.S. Committee Member in Integrative Biology, 2003-2006)
- Eli Gomez (M.S. Committee Member, 2003)
- Dahai Lin (M.S. Committee Member, 2003)
- Liangang Liu (M.S. Committee Member–SMU, 2002)
- Yu Shu (M.S. Committee Member–SMU, 2002)
- Euikyoo Lee (Ph.D. Committee Member–SMU, 2001)
- Jian Han (Ph.D. Committee Member–SMU, 2001)
- Yushan Alex Liu (M.S. Committee Member–SMU, 2001)
- Jeff Spence (M.S. Committee Member–SMU, 2001)
- Abu Minhajuddin (M.S. Committee Member–SMU, 2001)
- Chu-Ping Vivjerberg (M.S. Committee Member–SMU, 2000)

PROFESSIONAL ACTIVITIES & SERVICE

American Statistical Association

- Committee on Funded Research, 2014-2017 (Vice Chair, 2015-2017)
- Advisor, thisisstatistics.org Election Prediction Contest, 2016

Utah Chapter of the American Statistical Association

- Education Outreach Coordinator, 2015-present
- Past President, 2010-2011
- President, 2009-2010
 - Implemented annual program for statisticians to visit high schools around the state
- 1st Vice President, 2008-2009
- Treasurer, 2003-2007

American Statistical Association Section on Statistics and the Environment (ENVR)

- Chair-Elect (2023)
- Fellows Nominating Committee (Chair, 2020-present)
- Publications Chair, 2017-2018
- Publications Chair Elect, 2016
- Awards Committee, 2014, 2015, 2016 (Chair)
- Secretary, 2011
- Treasurer, 2010
- JSM Presentation Award Committee, 2007, 2008 (Chair), 2009 (Chair)
- Conference Organizing Committee, Workshop on Environmetrics, (Chicago, 2006; Boulder, 2008)

Funding Panel Service

- Grant Review Panelist, Health Effects Institute, 2014
- Chair, Site Visit Committee (for evaluating proposed NSF research center), National Science Foundation, 2009
- Grant Review Panelist, National Science Foundation, 2009
- Grant Review Panelist, Environmental Protection Agency, 2008

Invited Session Organizer

- The International Environmetrics Society, Kelowna, BC, Canada, June, 2008
- Joint Statistical Meetings, Minneapolis, Minnesota, August, 2005
- WNAR Meetings of the International Biometrics Society, Fairbanks, Alaska, June, 2005

Editorial Service

- Associate Editor, *Environmetrics*, 2014-present

Referee (2000-present) for: *Aerosol Science & Technology*; *Annals of Applied Statistics*; *Atmospheric Environment*; *Biometrics*; *Biostatistics*; *Chemometrics and Intelligent Laboratory Systems*; *Communications in Statistics*; *Computational Statistics and Data Analysis*; *Ecotoxicology and Environmental Safety*; *Environmental & Ecological Statistics*; *Environmental Science & Technology*; *Environmetrics*; IMS Lecture Notes–Monograph Series; *Journal of the American Statistical Association*; *Journal of Agricultural, Biological, and Environmental Statistics*; *Journal of Applied Statistics*; *Journal of Computational and Graphical Statistics*; *Journal of Environmental Engineering and Science*; *Journal of Exposure Science and Environmental Epidemiology*; *Journal of the Royal Statistical Society, Series B*; *Journal of the Royal Statistical Society, Series C (Applied Statistics)*; *Mathematical Geosciences*; *Quaternary Research*; *R Journal*; *Science*; *Statistics in Medicine*; *Statistics & Probability Letters*; *Technometrics*; and *The American Statistician*

Member: American Statistical Association (ENVR), The International Environmetrics Society