Zoe Gibbs McBride

Brigham Young University, Department of Statistics
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Academic Appointments

- Assistant Professor of Statistics, Brigham Young University July 2025-

Education

Ph.D. Statistics 2025
University of Connecticut
- Dissertation Advisor: Xiaojing Wang
- Associate Advisors: Dipak Dey, Ofer Harel

Associate of the Society of Actuaries 2023

M.S. Statistics 2020
Brigham Young University
- Advisor: Brian Hartman

B.S. Statistical Science, Minor Mathematics 2020
Brigham Young University
- Summa Cum Laude

Working Papers

- McBride, Z. and Wang, X. Using Bayesian Methods to Determine the Long-term Impact of Mobile Health Interventions on Step Counts. In preparation for *Annals of Applied Statistics.*
- Mead-Morse, E., McBride, Z., Cassidy, R., Moore, T., Delnevo, C., Oncken, C., and Litt, M. The Potential Impact of a Flavor Ban on Demand for Cigarillos in Young Adults Who Dual Use: A Randomized Crossover Trial. Submitted to *JAMA Health Forum.*

Refereed Publications

- Maikos, J., Sidiropoulos, A., Chomack, J., Herlihy, D., Pruziner, A., Nelson, L., Phillips, S., Heckman, J., Gladish, J., McBride, Z., Moore, T., Dearth, C., and Nelson, L. M. The Prescription Consortia, and Hendershot, B. Toward Evidence-Based Prescription of Prosthetic Ankle-Foot devices: A Multisite Randomized Crossover Trial Identifying Performance-Based, Patient-Reported, and Biomechanical Parameters Sensitive to Device Type. PLOS ONE 21(7):e0352644.
- McBride, Z., Wang. X., Moore, T. and Mead-Morse, E. A Bayesian Hierarchical Modeling Approach for the Estimation of Demand Curves from Hypothetical Purchase Tasks Administered in an Experimental Setting. *Journal of Applied Statistics.* 1-30.
- Nadeau, J., Debel, N., Johnson, J., Simoneau, A., Yalavarthi, G., Sweeney, B., Stearns, G., Saliceti, A., Rutstein, H., Amalaradjou, M., Govoni, K., McBride, Z.G., and Moore, T. (2026) Influence of Parasitic Load, Breed, Age, Housing and Season on Skin and Hair Coat conditions in Horses. *Journal of Equine Veterinary Science.* 159:1, 105818.
- McBride, Z. and Wang, X. (2026) A Hierarchical Gaussian Process Approach to Understanding Mental Health Trajectories via Item Response Theory Models. *Psychometrika.* 91:3, 730-760.
- Gibbs, Z. and Hartman, B. (2021) Using Asymmetric Cost Matrices to Optimize Wellness Intervention. *North American Actuarial Journal.* 25:1, 62-72.

- Hartman, B., Owen, R., and Gibbs, Z. (2021) Predicting High-cost Health Insurance Members through Boosted Trees and Oversampling: An Application Using the HCCI Database. *North American Actuarial Journal.* 25:1, 53-61.
- Gibbs, Z, C. Groendyke, B. Hartman, and R. Richardson. (2020) Modeling County-level Spatiotemporal Mortality Rates using Dynamic Linear Models. *Risks*. 8:4, 117.

Presentations

- **"**Modeling County-level Spatiotemporal Mortality Rates using Dynamic Linear Models", Actuarial Research Conference, Murfreesboro, TN, July 2024
- "Using Ordinal Gaussian Process Regression to Understand Student Well-Being", International Meeting of the Psychometric Society, College Park, MD, July 2023
- "Using Ordinal Gaussian Process Regression to Understand Student Well-Being", New England Statistics Symposium, Boston, MA, June 2023
- "Using Asymmetric Cost Matrices to Optimize Wellness Intervention", Actuarial Research Conference, Indianapolis, IN, August 2019
- "Using Asymmetric Cost Matrices to Optimize Wellness Intervention", Society of Actuaries Annual Health Meeting, Austin, TX, June 2018

Honors/Awards

- Actuarial Research Conference Student Presentation Award – Honorable Mention (2024)
- Predoctoral Summer Fellowship, University of Connecticut Department of Statistics (2022-2024)
- Predoctoral Fellowship, University of Connecticut Graduate School (Spring 2024)
- James C. Hickman Scholar, Society of Actuaries (2021 - 2023)
- Best performance in Probability, University of Connecticut Department of Statistics (2022)
- Best performance in Inference, University of Connecticut Department of Statistics (2022)
- Best performance in Applied Statistics, University of Connecticut Department of Statistics (2021)
- Best performance in Mathematical Statistics, University of Connecticut Department of Statistics (2021)
- Graduate Student of the Year, Brigham Young University Department of Statistics (2019)
- Thomas S. Monson Presidential Scholar, Brigham Young University (2013 - 2019)

Teaching Experience

Department of Statistics, Brigham Young University

- STAT 121: Introduction to Statistical Data Analysis (Winter 2026)
- Course preparation for STAT 230: Statistical Modeling 1 (Winter-Summer 2026)

Department of Statistics, University of Connecticut

- Primary Instructor
  - STAT 1000Q: Introduction to Statistics 1 (Spring 2023)
- Teaching Assistant
  - STAT 1000Q: Introduction to Statistics 1 (Spring 2021, Fall 2021, Spring 2022)
  - STAT 3445Q: Introduction to Mathematical Statistics II (Fall 2021, Spring 2022, Fall 2023, Spring 2023, Spring 2024)

Professional Service

Service at BYU

- Student Outreach Committee (2025-)
- Graduate Admissions Committee (2025-)

Graduate Advising as Associate Advisor

- Xela Marchant, M.S. Statistics, 2025

Service at University of Connecticut

- Treasurer, University of Connecticut Department of Statistics Graduate Student Committee (2021- 2022)

Peer reviewer for North American Actuarial Journal (1)

Statistical Consulting Experience

University of Connecticut Statistical Consulting Services Project Examples

- VA Hospital: Using functional data analysis to determine the optimal type of prosthetic foot for amputees (April 2023 – May 2025)
- UConn Department of Public Health: Determining the impact of flavoring on the addictiveness of tobacco products (January 2023 – May 2025)
- Department of Linguistics: Determining the relationship between ASL proficiency and ability to rate sentence appropriateness (September 2023 – November 2023)