James Paul Normington

Contact Information	Olin-Rice Science Center Room 230 166 Macalester Street Saint Paul, MN 55105	651-366-9456 jnorming@macalester.edu Website

Research Interests Bayesian hierarchical modeling, Bayesian variable selection, adaptive clinical trials, causal inference, teaching methodology

Education

University of Minnesota, Minneapolis, MN

Ph.D., Biostatistics, December 2019

- Topic: *Bayesian hierarchical difference-in-differences models*
- Adviser: Dr. Eric F. Lock
- Co-adviser: Dr. Thomas A. Murray
- Committee: Dr. Caroline S. Carlin and Dr. David M. Vock

M.S., Biostatistics, August 2016

- Topic: *Stacked survival models in restricted mean regression*
- Adviser: Dr. Kyle D. Rudser

University of Wisconsin - Madison, Madison, WI

B.A., Mathematics, December 2013

Teaching Experience

Visiting Assistant Professor Fall 2022 - Present
STAT 253 - Statistical Machine Learning
STAT 155 - Introduction to Statistical Modeling
STAT 112 - Introduction to Data Science
Department of Mathematics, Statistics, and Computer Science,
Macalester College

Adjunct Professor Summer 2016 - Fall 2021
STAT 310 - Biostatistics
STAT 220 - Statistics I
Department of Computer and Information Sciences,
University of St. Thomas

Teaching Assistant Fall 2019
PubH 8482 - Sequential and Adaptive Methods for Clinical Trials
Instructor: Dr. Thomas Murray
Division of Biostatistics,
University of Minnesota

Teaching Assistant Spring 2019
PubH 8442 - Bayesian Decision Theory and Data Analysis
Instructor: Dr. Eric Lock
Division of Biostatistics,
University of Minnesota

Teaching Assistant Fall 2018
PubH 8401/STAT 8311 - Linear Models
Instructors: Dr. Yuhong Yang and Dr. Weihua Guan
Division of Biostatistics and Department of Statistics,
University of Minnesota

Classroom Teaching Assistant Fall 2016
PubH 6414 - Biostatistical Literacy
Instructor: Dr. Laura J. Le
Division of Biostatistics,
University of Minnesota

Subject Tutor Fall 2014 - Spring 2016
Statistics and Mathematics
Lindahl (FKA McNamara) Academic Center,
University of Minnesota

Teaching Assistant Summer 2012 - Fall 2013
Wisconsin Emerging Scholars,
Math 222 - Calculus and Analytic Geometry II
Math 221 - Calculus and Analytic Geometry I
University of Wisconsin-Madison

Work Experience

Senior Statistical Scientist Jan 2020 to Aug 2022
General Mills, Inc.
Golden Valley, MN
Supervisor: Dr. Fred Hulting

Technical Services Representative Jan 2014 to Jul 2014
Epic Systems Corporation
Verona, WI

Consulting Experience

Senior Statistician Aug 2022 to Present
General Mills, Inc.
Golden Valley, MN
Supervisor: Dr. Fred Hulting

Bayesian Statistical Scientist Dec 2021 to Present
Slingwave
Los Angeles, CA
Supervisors: Paul Boruta and Vincent Scopino

Research Experience

Research Assistant Jan 2017 to Dec 2019
Division of Biostatistics,
University of Minnesota
Supervisors: Dr. Eric F. Lock and Dr. Caroline S. Carlin

Summer Intern Jun 2019 to Aug 2019
Novartis Institutes for Biomedical Research
Supervisors: Dr. Avery I. McIntosh and Dr. Brian P. Smith

Research Assistant May 2017 to August 2018
Division of Biostatistics,
University of Minnesota
Supervisor: Dr. Bradley P. Carlin

Research Assistant Aug 2016 to May 2017
Division of Biostatistics,
University of Minnesota
Supervisor: Dr. James D. Neaton

Research Assistant Oct 2014 to Aug 2016

Division of Applied Research,
Allina Health
Supervisors: Lori L. Boland, MPH and Dr. Roman R. Melamed, MD

Refereed Journal Publications

1. **Normington JP**, Lock EF, Murray TA, Carlin C. "Bayesian variable selection in hierarchical difference-in-differences models" *Statistical Methods in Medical Research*, 2022; 31:1, 169-183.

2. **Normington JP**, Zhu J, Mattiello F, Sarkar S, Carlin BP. "An efficient Bayesian platform trial design for borrowing adaptively from historical control data" *Contemporary Clinical Trials*, 2020; 89:105890.

3. **Normington JP**, Lock EF, Carlin C, Peterson K, Carlin BP. "A Bayesian difference-in-difference framework for the impact of primary care redesign on diabetes outcomes" *Statistics & Public Policy*, 2019; 6:1, 55-66.

4. Smith J, Jain N, **Normington JP**, Holschuh N, Zhu Y. "Associations of ready-to-eat cereal consumptions and income with dietary outcomes: results from the National Health and Nutrition Examination Survey 2015-2018" *Frontiers in Nutrition*, 2022; 9.

5. Zhu Y, Jain N, **Normington JP**, Michno J, Holschuh N, Smith J. "Consumption of ready-to-eat cereal and its associations with nutrient intake and nutrition adequacy in the United States, NHANES 2017-2018" *Current Developments in Nutrition*, 2021; 5:2, 1115.

6. Smith J, Jain N, **Normington JP**, Michno J, Holschuh N, Zhu Y. "The association between ready-to-eat cereal consumptions, stratified by sugar content, and nutrient intakes in American children and adults: results from NHANES 2017-2018" *Current Developments in Nutrition*, 2021; 5:2, 1093.

7. Smith J, Jain N, **Normington JP**, Holschuh N, Zhu Y. "Ready-to-eat cereal consumption among children and adults stratified by income: results from the National Health and Nutrition Examination Survey 2015-2018". *In Revision.*

8. Melamed R, Boland LL, **Normington JP**, Prenevost RM, Hur LY, Maynard LF, McNaughton MA, Kinzy TG, Masood A, Dastrange M, Huguelet JA. "Postoperative respiratory failure necessitating transfer to the intensive care unit in orthopedic surgery patients: risk factors, costs, and outcomes" *Perioperative Medicine* 2016; Aug 2;5:19.

9. Peterson K, Carlin C, Solberg LI, **Normington JP**, Lock EF. "Primary care practice design and quality of care for patients with diabetes". *Submitted to Diabetes Care.*

10. Boland LL, Huelster JS, Hildebrandt DA, Saavedra-Romero R, **Normington JP**, Melamed RR, Mooney MR, Mulder M. "Infection, use of antibiotics and outcomes in patients receiving therapeutic hypothermia after cardiac arrest" *The Journal of the Minneapolis Heart Institute Foundation* 2018; Spring/Summer;2:1.

11. Tierney DM, Boland LL, Overgaard J, Huelster JS, Jorgenson A, **Normington JP**, Melamed RR. "Pulmonary ultrasound scoring system for intubated critically ill patients and its association with clinical metrics and mortality: A prospective cohort study" *Journal of Clinical Ultrasound*; 2018; 46:1, 14-22.

Papers in Preparation

1. **Normington JP**, Lock EF, Murray TA "Correlative structure priors in Bayesian hierarchical difference-in-differences models"

Awards

- ITQ Technical Excellence Award, General Mills, Dec 2021
- James R. Boen Graduate Award, Division of Biostatistics, University of Minnesota, 2019-2020
- International Conference on Health Policy Statistics (ICHPS) 2020 Student Travel Award Recipient
- Integrative Biostatistics Research For Imaging Genomics, and High-throughput Technologies in Precision Medicine (iBright) 2019 Travel Award Recipient
- Novartis Quantitative Science Academia-to-Industry Hackathon 2019 Winner
- Health Policy Statistics Section Student Paper Competition Winner, 2019 Joint Statistical Meetings (JSM)
- Outstanding Biostatistics Teaching Assistant Award, Division of Biostatistics, University of Minnesota, 2018-2019
- American Statistical Association's (ASA) Twin Cities Chapter Spring 2019 Meeting Graduate Student Poster Competition Winner, April 2019
- Biostatistics in the Modern Computing Era Student Travel Award Recipient, Medical College of Wisconsin, September 2017
- School of Public Health Dean's Scholarship, University of Minnesota, August 2014

Invited Presentations

- JSM, August 2020
- Ameriprise Financial, Minneapolis, MN, September 2018
- Eastern Northern American Region (ENAR) 2018, Atlanta, GA, March 2018

Presentations

- General Mills Process Modeling Network, Golden Valley, MN, August 2021
- iBright 2019, Houston, TX, November 2019
- Novartis Quantitative Science Academia-to-Industry Hackathon, Cambridge, MA, August 2019
- JSM 2019, Denver, CO, July-August 2019
- Novartis BayeSpace, Cambridge, MA, July 2019
- ASA Twin Cities Chapter Spring 2019 Meeting, Minneapolis, MN, April 2019
- Research Day, School of Public Health, University of Minnesota, Minneapolis, MN, April 2019
- ENAR 2019, Philadephia, PA, March 2019
- Biostatistics in the Modern Computing Era, Medical College of Wisconsin, Wauwatosa, WI, September 2017
- Student Seminar, Division of Biostatistics, University of Minnesota, Minneapolis, MN, November 2019, March 2018, November 2017, and November 2016

Service to Profession

Editorial Board, *Contemporary Clinical Trials*, 2020 - Present
Referee, *The American Journal of Managed Care*, 2020
Referee, *Journal of the American Statistical Association*, 2019

Service to Institution

Committee Member, DEI, Mentoring, and Support — Fall 2022 - Present
Department of Mathematics, Statistics, and Computer Science, Macalester College
Panel Member, Ph.D. Recruiting Event — Spring 2019
Division of Biostatistics, University of Minnesota
Student Representative — Fall 2014
Division of Biostatistics, University of Minnesota

Software Development

- Bayesian variable selection algorithms for hierarchical difference-in-differences models
- Probability of Success using RBesT
- Effective Sample Size using RBesT

References

Dr. Eric F. Lock — Email: elock@umn.edu
Associate Professor
Division of Biostatistics,
School of Public Health,
University of Minnesota

Dr. Erin M. Curran — Email: curr4490@stthomas.edu
Associate Dean of the Morrison Family College of Health
Associate Professor of Computer and Information Sciences
University of St. Thomas

Dr. Thomas A. Murray — Email: murra484@umn.edu
Assistant Professor and Medtronic Faculty Fellow
Division of Biostatistics,
School of Public Health,
University of Minnesota

Dr. Bradley P. Carlin — Email: bradleypcarlin@gmail.com
Senior Advisor, Data Science and Statistics
PharmaLex