Sean M. Tomlin

BIOSTATISTICIAN · CAUSAL INFERENCE & COMPARATIVE EFFECTIVENESS · DATA SCIENTIST

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Education

The Ohio State University   *Columbus, OH*
DOCTOR OF PHILOSOPHY IN BIOSTATISTICS   *Aug. 2020 - Aug. 2025*
- Dissertation: "Estimating Causal Effects from Observational Data in Quasi-Experimental Designs"
- Advisor: Bo Lu, Ph.D.
- Skills: R; Python; Causal inference; propensity scores; observational data; quasi-experimental methods; panel data; difference-in-differences; policy evaluation; complex survey design; constrained optimization.

The Ohio State University   *Columbus, OH*
MASTER OF SCIENCE IN STATISTICS   *Aug. 2020 - May 2022*

Wright State University   *Dayton, OH*
BACHELOR OF SCIENCE IN STATISTICS   *Aug. 2016 - May 2020*
- Minor in Mathematics
- *Summa cum Laude* with Honors

Positions and Scientific Appointments

2025-	**Biostatistician**, Medpace, Inc., Cincinnati, OH
2024-2025	**Dissertation Year Fellow**, Division of Biostatistics, The Ohio State University
2023-2024	**Graduate Research Associate**, College of Public Health, The Ohio State University
2020-2023	**Graduate Fellow**, Division of Biostatistics, The Ohio State University
2020	**Research Intern**, Hypersonic and Airbreathing Propulsion Branch, Research Directorate, National Aeronautics and Space Administration, Langely Research Center, Hampton, VA
2019	**Statistician Intern**, Scientific Test & Analysis Techniques Center of Excellence, Air Force Institute of Technology, Wright-Patterson Air Force Base, OH

Publications

WORKING PAPER

Tomlin, Sean, Lu, Bo. 2025+. Counterpart Statistics in the Matched Difference-in-Differences Design. Under revision and resubmitting. August 2025.

Honors and Awards

April 2025	**Craig Cooley Memorial Prize**, Department of Statistics, The Ohio State University
Aug 2024	**Student Travel Award**, Survey Research Methods Section, American Statistical Association
2022-2023	**College of Public Health Fellowship**, College of Public Health, The Ohio State University
2020-2022	**Susan Huntington Dean's Distinguished University Fellowship**, The Ohio State University
2020	**University Honors Scholar**, Wright State University
2016-2020	**Competitive Honors Scholarship**, Wright State University
2016-2020	**Valedictorian Scholarship**, Wright State University

Presentations

CONTRIBUTED PRESENTATIONS

Tomlin, S., Lu, B. 2025. Counterpart Statistics in the Matched Difference-in-Differences Design. Oral presentation: Joint Statistical Meetings, Nashville, TN, 2025

Tomlin, S. 2025. Counterpart Statistics in the Matched Difference-in-Differences Design. Poster presentation: American Causal Inference Conference, Detroit, MI, 2025

Tomlin, S. 2025. Revisiting Covariate Adjustment in Parametric Difference-in-Differences. Oral presentation: ENAR Spring Meeting 2025, New Orleans, LA.

Tomlin, S. 2024. On the Matched Difference-in-Differences Design with Counterparts. Speed presentation and poster: Golden Anniversary Celebration of the Department of Statistics, The Ohio State University

Tomlin, S. 2024. Revisiting the Design and Analysis of Parametric Difference-in-Differences. Departmental poster session: Department of Statistics and Division of Biostatistics, The Ohio State University

Tomlin, S. 2024. On the Matched Difference-in-Differences Design with Counterparts. Oral presentation: Joint Statistical Meetings Portland, OR.

Tomlin, S. 2023. Matching Designs for Causal Inference in Health Policy Evaluation. Oral presentation: Research Day, College of Public Health, The Ohio State University.

Tomlin, S. 2023. Negative Control Adaptive Randomization Inference for Matched Observational Studies. Departmental poster session: Department of Statistics and Division of Biostatistics, The Ohio State University

Grant Application

Apr 2023	**NIH F31 Pre-doctoral Fellowship**, "Causal inference for policy evaluations with individual-level survey data: Estimating the impact of Tobacco 21 policies on adolescent smoking behavior," not funded.

Mentoring

Jul 2025	**Yuan Wang (Oberlin College)**, Ohio Five Summer Undergraduate Research Experience
Jul 2024	**Syad Rafey (Kenyon College)**, Ohio Five Summer Undergraduate Research Experience
Jul 2023	**Lynn Nguyen (Denison University)**, Ohio Five Summer Undergraduate Research Experience

Research Experience

The Ohio State University - Division of Biostatistics   *Columbus, OH*
ADVISOR: BO LU, PH.D.   *2021 - Present*
- Conducting dissertation research on causal inference methods for quasi-experiments, with a focus on difference-in-differences designs, nonnegative outcomes in healthcare utilization, and addressing retrospective constraints from survey design.
- Graduate Research Associate in collaboration with the Center for Injury Research and Policy at Nationwide Children's Hospital; contributed to applied studies involving causal inference in public health and injury epidemiology.

Development

SERVICE AND OUTREACH

2023-2025	**Ohio Five OSU SURE**, Journal Club Leader
2023-2024	**Statistics and Biostatistics Graduate Student Association**, President
2023-2024	**Peer Mentor Program (Statistics and Biostatistics Graduate Student Association)**, Mentor
2023-2024	**Ohio State Science Fair**, Volunteer Judge
2023-2024	**ASA DataFest Ohio State University**, Volunteer

PEER REVIEW

Annals of Applied Statistics *(referee)*
Observational Studies *(referee)*

PROFESSIONAL MEMBERSHIPS

American Statistical Association, 2022-present
ENAR, 2024-present
Society for Causal Inference, 2025-present.