

Sean M. Tomlin

PH.D. CANDIDATE · INTERDISCIPLINARY PH.D. PROGRAM IN BIOSTATISTICS

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Education

The Ohio State University

Columbus, OH

DOCTOR OF PHILOSOPHY IN BIOSTATISTICS

Aug. 2020 - present

- Advisor: Bo Lu, Ph.D.
- Dissertation (tentative title): "Estimating causal effects from observational data in quasi-experimental designs"
- Expected August 2025
- 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

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| 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, Langley 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. *(Draft version available upon request; currently preparing for journal submission).*

Honors and Awards

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| 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.** (Upcoming) 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, Oregon.
- 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 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

- Dissertation (in progress)

Wright State University - Dept of Mathematics and Statistics

Dayton, OH

ADVISOR: YANG LIU, PH.D.

2019-2020

- Thesis: "Feature selection of survival genes in The Cancer Genome Atlas"

Development

SERVICE AND OUTREACH

- 2023-2024 **Statistics and Biostatistics Graduate Student Association**, President
- 2023-2024 **Peer Mentor Program (Statistics and Biostatistics Graduate Student Association)**, Mentor
- 2023-2024 **Ohio Five OSU SURE**, Journal Club Leader
- 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.