

GARY HETTINGER, MS
ghetting@pennmedicine.upenn.edu

EDUCATION

University of Pennsylvania <i>PhD Candidate, Biostatistics (Expected Spring 2025)</i> Advisor: Dr. Nandita Mitra	Philadelphia, PA 2020 – 2025
University of Pennsylvania <i>Master of Science, Biostatistics</i> Advisor: Dr. Qi Long	Philadelphia, PA 2020 – 2022
Brown University <i>Bachelor of Science, Applied Math-Computer Science</i>	Providence, RI 2013 – 2017

PROFESSIONAL EXPERIENCE

Associate Fellow , Leonard Davis Institute for Health Economics <i>University of Pennsylvania</i>	Philadelphia, PA 2022–present
Associate Data Scientist , R&D Content and Viewership Team <i>Xandr</i>	New York, NY 2019 – 2020
Data Science Software Engineer , Bid Logic Optimization Team <i>AppNexus (Xandr)</i>	New York, NY 2018 – 2019
Software Engineering Intern , Development Operations Team <i>AppNexus</i>	New York, NY 2017
Technology Development Intern Optum Technology	Boston, MA 2016

Peer-Reviewed Publications

1. Joshua Petimar, Laura A Gibson, Mark S Wolff, Nandita Mitra, Patricia Corby, **Gary Hettinger**, Emily F Gregory, Emma Edmondson, Jason P Block, Christina A Roberto.
“Changes in dental outcomes after implementation of the Philadelphia beverage tax.” *American Journal of Preventive Medicine* (2023)
2. **Gary Hettinger**, Nandita Mitra, Stephen R Thom, David J Margolis.
“An Improved Clinical and Genetics-Based Prediction Model for Diabetic Foot Ulcer Healing.” *Advances in Wound Care* (2024)
3. Shazia M Siddique, **Gary Hettinger**, Anwesh Dash, Mark Neuman, Nandita Mitra, James D Lewis.
“The Role of Hospital Characteristics in Clinical and Quality Outcomes for Gastrointestinal Bleeding in a National Cohort.” *American Journal of Gastroenterology* (2024)
4. **Gary Hettinger**, David Rubin, Jing Huang.
“Refining Estimation of the Instantaneous Reproduction Number During Early Pandemic Stages: Addressing Case-Reporting Variability and Serial Interval Uncertainty.” *American Journal of Epidemiology* (Accepted 2024)
5. Emily F Gregory, Christina A Roberto, Nandita Mitra, **Gary Hettinger**, Emma Edmondson, Joshua Petimar, Jason P Block, Laura A Gibson.

Manuscripts Under Review

1. **Gary Hettinger**, Christina A. Roberto, Youjin Lee, Nandita Mitra.
"Doubly Robust Estimation of Policy-Relevant Causal Effects Under Interference." (*Under Review, 2nd Revision: Journal of the Royal Statistical Society: Series C, arXiv:2301.06697*)
2. Youjin Lee, **Gary Hettinger**, Laura Gibson, Nandita Mitra.
"Policy Effect Evaluation Under Counterfactual Neighborhood Interventions in the Presence of Spillover." (*Under Review, 2nd Revision: Journal of the Royal Statistical Society: Series A, arXiv:2303.06227*)
3. **Gary Hettinger**, Youjin Lee, Nandita Mitra.
"Multiply Robust Difference-in-Differences Estimation of Causal Effect Curves for Continuous Exposures." (*Under Review, 1st Revision: Biometrics, arXiv:2401.14355*)
4. Joshua Petimar, Christina A Roberto, Jason P Block, Nandita Mitra, Emily F Gregory, Emma Edmondson, **Gary Hettinger**, Laura A Gibson.
"Associations of the Philadelphia beverage tax with changes in adult body weight." (*Under Review, 3rd Revision: The Lancet: Regional Health Americas*)
5. **Gary Hettinger**, Qi Long, Ravi Parikh.
"Comparative Effectiveness of Second-Line Therapies for Advanced Non-Small Cell Lung Cancer: A Propensity-Score-Based Real-World Analysis." (*Under Review: Journal of Clinical Oncology Clinical Cancer Informatics*)

Manuscripts in Progress

1. **Gary Hettinger**, Youjin Lee, Nandita Mitra
"A Causal Framework for Evaluating Heterogeneous Policy Mechanisms Using Difference-in-Differences." (*In Preparation: Health Economics, arXiv:2408.16670*)
2. Jake Hogan, **Gary Hettinger**, Nandita Mitra, Brian Baumann
"Real-World Comparative Survival for Patients Receiving Proton vs. Photon Therapy Using a Nationwide Cohort." (*In Preparation: JAMA Oncology*)
3. D. Zheng, **G. Hettinger**, L. Cao, C. Elgarten, B. Fisher, C. Gathers, Y. Huang, J. Ko, K. Leger, Y. Li, R. Myers, H. Narayan, J. Ortiz, A. Seif, R. Aplenc, K. Getz.
"Near Universal National Uptake of Dexrazoxane in the Real-World Setting Associated with Reduced Cardiac ICU Care Requirements in Pediatric Acute Myeloid Leukemia." (*In Preparation: Journal of Clinical Oncology*)
4. Junko Takeshita, **Gary Hettinger**, Jonathan Heintz, Nandita Mitra, David J Margolis
"Association between Dupixent Approval and Diagnoses of Acute Dermatitis in the United States." (*In Preparation: JAMA Dermatology*)
5. **Gary Hettinger**, Emily Getzen, Qi Long
"Intrinsic and Extrinsic Evaluation of Deep Learning Propensity Score Models for Longitudinal EHR Data" (*In Preparation: Journal of Biomedical Informatics*)
6. D. Zheng, **G. Hettinger**, E. Caywood, C. Elgarten, T. Ghosh, M. Gramatges, Y. Huang, Y. Li, T. Miller, A. Modi, R. Mody, R. Myers, A. Seif, C. Smith, J. Stokke, N. Winick, J. Wilkes, B. Fisher, R. Aplenc, K. Getz
"Real-world generalizability of clinical trial cytogenetics and molecular characteristics in pediatric acute myeloid leukemia (AML)" (*In Preparation: Journal of the National Cancer Institute*)
7. **Gary Hettinger**, David J Margolis, Nandita Mitra.
"Mendelian Randomization for Dermatology Research" (*In Preparation: JAMA Dermatology: Network Insights*)

Presentations

Eastern North American Region (ENAR) International Biometric Society Spring Meeting New Orleans, LA
Accepted Invited Oral Presentation March 2025
"Transportability of Policy Effects under Heterogeneous Exposure and Demographic Distributions"

International Biometric Conference (IBC) Atlanta, GA
Accepted Invited Oral Presentation December 2024
"Stochastic Health Policy Interventions under Interference using a Difference-in-Differences Framework"

Joint Statistical Meetings (JSM) Portland, OR
Invited Oral Presentation August 2024
"Robust Estimation and Transportation of Causal Effect Curves for Difference-in-Differences Designs"

American Causal Inference Conference (ACIC) Seattle, WA
Contributed Oral Presentation August 2024
"Evaluating Policy Mechanisms Through Exposure Heterogeneity Using Difference-in-Differences"

European Causal Inference Meeting (EuroCIM) Copenhagen, DK
Contributed Oral Presentation May 2024
"Counterfactual Policy Effect Estimation under Treatment and Spillover Heterogeneity"

Eastern North American Region (ENAR) International Biometric Society Spring Meeting Baltimore, MD
Invited Oral Presentation March 2024
"A Difference-in-Differences Framework for Heterogeneous Policy Exposures with an Eye Towards Generalizing and Transporting Policy Effects"

International Conference on Statistics and Data Science (ICSDS) Lisbon, PT
Contributed Oral Presentation December 2023
"Multiply Robust Estimation of Heterogeneous Direct and Indirect Policy Effects"

Center for Causal Inference (CCI) Seminars Philadelphia, PA
Contributed Oral Presentation November 2023
"New Methods for Evaluating Heterogeneous Policies with Heterogeneous Exposures"

Joint Statistical Meetings (JSM) Toronto, CA
Contributed Oral Presentation August 2023
"Difference-in-Differences Estimators Under Heterogeneous Direct and Indirect Policy Exposures"

New England Statistical Symposium (NESS) Boston, MA
Invited Oral Presentation June 2023
"Estimation of Policy-Relevant Causal Effects in the Presence of Interference under the Difference-in-Differences Framework with an Application to the Philadelphia Beverage Tax"

New England Statistical Symposium (NESS) Boston, MA
Contributed Poster Presentation June 2023
"Pairwise Doubly-Robust Difference-in-Differences Estimators in the Presence of Heterogeneous Direct and Indirect Policy Exposures"

American Causal Inference Conference (ACIC)	Austin, TX
Contributed Poster Presentation	May 2023
<i>"Pairwise Doubly-Robust Difference-in-Differences Estimators in the Presence of Heterogeneous Direct and Indirect Policy Exposures"</i>	

UPenn Department of Biostatistics, Epidemiology, and Informatics Research Day	Philadelphia, PA
Contributed Poster Presentation	March 2023
<i>"Multiply Robust Difference-in-Differences Estimators in the Presence of Heterogeneous Policy Exposures"</i>	

Eastern North American Region (ENAR) International Biometric Society Spring Meeting	Nashville, TN
Invited Oral Presentation	March 2023
<i>"A Difference-in-Differences Framework to Estimate Causal Effects for Policy Interventions in the Presence of Heterogeneous Interference"</i>	

International Conference on Health Policy Statistics (ICHPS)	Scottsdale, AZ
Invited Oral Presentation	January 2023
<i>"Estimation of Policy-Relevant Causal Effects in the Presence of Spillovers under the Difference-in-Differences Framework"</i>	

International Conference on Computational and Methodological Statistics (CMStatistics)	London, UK
Invited Oral Presentation	December 2022
<i>"Estimation of Heterogeneous Policy-Relevant Causal Effects under the Difference-in-Differences Framework with Spillover"</i>	

Joint Statistical Meetings (JSM)	Washington D.C.
Contributed Oral Presentation	August 2022
<i>"Estimating Causal Effects of the Philadelphia Beverage Tax Policy in the Presence of Spillover"</i>	

American Causal Inference Conference (ACIC)	Berkeley, CA
Contributed Poster Presentation	May 2022
<i>"Estimation of Causal Effects for Philadelphia Beverage Tax in Presence of Spillover"</i>	

Eastern North American Region (ENAR) International Biometric Society Spring Meeting	Houston, TX
Contributed Oral Presentation	March 2022
<i>"A Bayesian Model-based Approach for Estimating the Instantaneous Reproduction Number Using Case-Notification Data in the Presence of Reporting Variation and Serial Interval Uncertainty"</i>	

Awards

Exceptional Achievement Award for a Graduate Student , ASA Philadelphia Chapter	2024
Student Paper Competition Award , ASA Health Policy Statistics Section	2024
Student Research Award , New England Statistical Symposium (NESS)	2023
Best Poster Award , Department of Biostatistics, Epidemiology, and Informatics Research Day (UPenn)	2023
Tom Ten Have Award for Best Poster , American Causal Inference Conference (ACIC)	2022

Jonathan Raz Award for Best Qualifying Exam, Division of Biostatistics (UPenn) 2021

Summa Cum Laude, Brown University 2017

TEACHING

Penn Causal Workshop Jan 2025

Invited Guest Lecture

"Health Policy Application Practicum"

Department of Biostatistics, Epidemiology, and Informatics, University of Pennsylvania

Summer Undergraduate Internship Program (SUIP) Jun 2024

Invited Workshop

"Introduction to Causal Inference"

Department of Biostatistics, Epidemiology, and Informatics, University of Pennsylvania

EPID 6450: Research Methods in Cancer Epidemiology Mar 2024

Invited Guest Lecture

"Evaluation Methods for Panel Data Studies"

Division of Epidemiology, University of Pennsylvania

BSTA 7900: Causal Inference in Biomedical Research Nov 2023

Invited Guest Lecture

"Interference in Causal Inference: Challenges and Recent Approaches"

Division of Biostatistics, University of Pennsylvania

BSTA 7900: Causal Inference in Biomedical Research Oct 2023

Invited Guest Lecture

"Causal Inference for Longitudinal Panel Data"

Division of Biostatistics, University of Pennsylvania

BSTA 6320: Statistical Methods for Survival and Categorical Data Spring 2023

Graduate Teaching Assistant

Division of Biostatistics, University of Pennsylvania

BSTA 6510: Introduction to Linear Models and Generalized Linear Models Spring 2022

Graduate Teaching Assistant

Division of Biostatistics, University of Pennsylvania

CSCI1570: Design and Analysis of Algorithms Fall 2017

Undergraduate Teaching Assistant

Department of Computer Science, Brown University

ECON 1110: Intermediate Microeconomics Spring 2015

Undergraduate Teaching Assistant

Department of Economics, Brown University

SERVICE

Conference Activities

Invited Session Organizer, JSM

2024

Poster Competition Judge, ACIC	2024
Session Chair, ENAR	2023, 2024
Student Volunteer, ENAR	2023

National Society Committees

Outreach Committee, International Conference on Health Policy Statistics (ICHPS)	2024
Outreach Committee, Society for Causal Inference	2024
Student Paper Award Committee, ENAR	2024

Editorial Activities

Reviewer, Statistics in Medicine	2024 –
Reviewer, Nature Communications Medicine	2023 –
Reviewer, Informatics in Medicine	2023 –
Reviewer, International Journal of Biostatistics	2023 –
Editorial Assistant, Observational Studies	2023 –

Council for Emerging and New Statisticians (CENS), ENAR

Student Representative	2023 – present
Steering Committee	2024 – 2025
Co-Chair	2025 – 2026

Graduate and Professional Student Assembly, University of Pennsylvania

Deputy Director, External Affairs Committee	2021 – 2022
Director of Data Analytics	2022 – 2023

Biomedical Graduate Student Assembly, University of Pennsylvania

Student Representative	2021 – 2022
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