

GARY HETTINGER, MS
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EDUCATION

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

Associate Fellow , Leonard Davis Institute for Health Economics <i>University of Pennsylvania</i>	Philadelphia, PA 2022–present
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Associate Data Scientist , R&D Content and Viewership Team <i>Xandr</i>	New York, NY 2019 – 2020
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Data Science Software Engineer , Bid Logic Optimization Team <i>AppNexus (Xandr)</i>	New York, NY 2018 – 2019
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Software Engineering Intern , Development Operations Team <i>AppNexus</i>	New York, NY 2017
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Technology Development Intern Optum Technology	Boston, MA 2016
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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.
“Change in pediatric weight-related outcomes after implementation of the Philadelphia Beverage Tax.” *JAMA Pediatrics* (Accepted 2024)
6. 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: an interrupted time series analysis.” *The Lancet Regional Health – Americas* (Accepted 2024)

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, Minor Revisions: Journal of the Royal Statistical Society: Series C, arXiv:2301.06697*)
2. **Gary Hettinger**, Youjin Lee, Nandita Mitra.
“Multiply Robust Difference-in-Differences Estimation of Causal Effect Curves for Continuous Exposures.” (*Under Review, Minor Revisions: Biometrics, arXiv:2401.14355*)
3. 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*)
4. **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*)
5. **Gary Hettinger**, David J Margolis, Nandita Mitra.
“Mendelian Randomization for Dermatology Research” (*Under Review: JAMA Dermatology*)
6. **Gary Hettinger**, Youjin Lee, Nandita Mitra.
“A Causal Framework for Evaluating Drivers of Policy Effect Heterogeneity Using Difference-in-Differences.” (*Under Review: Health Economics, arXiv:2408.16670*)

Manuscripts in Progress

1. 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*)
2. 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*)
3. 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*)
4. D. Zheng, **G. Hettinger**, E. van der Mei, Y. Li, Y. Huang, C. Aftandilian, K. Bona, E. Caywood, A. Collier, M. Gramatges, M. Heneghan, M. Henry, C. Lotterman, K. Maloney, T. Miller, A. Modi, R. Mody, E. Morgan, N. Winick, J. Wilkes, V. Wong, H. Newman, R. Myers, C. Elgarten, A. Seif, B. Fisher, R. Aplenc, K. Getz.
“Survival Disparities by Frontline Clinical Trial Enrollment Status for Treatment of Pediatric Acute Myeloid Leukemia” (*In Preparation: Journal of the National Cancer Institute*)

5. **Gary Hettinger**, Arman Oganisian, Kelly Getz, Todd Alonzo, Richard Aplenc, Jason Roy.
“A Primer on Statistical Methods for Analyzing Sequential Treatment Strategies in Cardio-Oncology”
(*In Preparation: Journal of the American College of Cardiology: CardioOncology*)
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*)
7. **Gary Hettinger**, Arman Oganisian, Weiyi Xia, Long Khuong, Jason Roy, Richard Aplenc, Kelly Getz.
“Optimal Anthracycline Decision Rules Based on Course-Specific Cardiac Function Measurements for Pediatric Acute Myeloid Leukemia” (*In Preparation*)

Presentations

Eastern North American Region (ENAR) International Biometric Society Spring Meeting	New Orleans, LA
Accepted Invited Oral Presentation	March 2025
<i>“Transportability of Policy Effects under Heterogeneous Exposure and Demographic Distributions”</i>	
International Biometric Conference (IBC)	Atlanta, GA
Accepted Invited Oral Presentation	December 2024
<i>“Stochastic Health Policy Interventions under Interference using a Difference-in-Differences Framework”</i>	
Penn Conference on Big Data in Biomedical and Population Health Sciences	Philadelphia, PA
Contributed Poster Presentation	September 2024
<i>“Stochastic Health Policy Interventions under Interference Using a Bayesian G-Computation Framework”</i>	
Joint Statistical Meetings (JSM)	Portland, OR
Invited Oral Presentation	August 2024
<i>“Robust Estimation and Transportation of Causal Effect Curves for Difference-in-Differences Designs”</i>	
American Causal Inference Conference (ACIC)	Seattle, WA
Contributed Oral Presentation	August 2024
<i>“Evaluating Policy Mechanisms Through Exposure Heterogeneity Using Difference-in-Differences”</i>	
European Causal Inference Meeting (EuroCIM)	Copenhagen, DK
Contributed Oral Presentation	May 2024
<i>“Counterfactual Policy Effect Estimation under Treatment and Spillover Heterogeneity”</i>	
Eastern North American Region (ENAR) International Biometric Society Spring Meeting	Baltimore, MD
Invited Oral Presentation	March 2024
<i>“A Difference-in-Differences Framework for Heterogeneous Policy Exposures with an Eye Towards Generalizing and Transporting Policy Effects”</i>	
International Conference on Statistics and Data Science (ICSIDS)	Lisbon, PT
Contributed Oral Presentation	December 2023
<i>“Multiply Robust Estimation of Heterogeneous Direct and Indirect Policy Effects”</i>	
Center for Causal Inference (CCI) Seminars	Philadelphia, PA
Contributed Oral Presentation	November 2023
<i>“New Methods for Evaluating Heterogeneous Policies with Heterogeneous Exposures”</i>	

Joint Statistical Meetings (JSM) Contributed Oral Presentation <i>"Difference-in-Differences Estimators Under Heterogeneous Direct and Indirect Policy Exposures"</i>	Toronto, CA August 2023
New England Statistical Symposium (NESS) Invited Oral Presentation <i>"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"</i>	Boston, MA June 2023
New England Statistical Symposium (NESS) Contributed Poster Presentation <i>"Pairwise Doubly-Robust Difference-in-Differences Estimators in the Presence of Heterogeneous Direct and Indirect Policy Exposures"</i>	Boston, MA June 2023
American Causal Inference Conference (ACIC) Contributed Poster Presentation <i>"Pairwise Doubly-Robust Difference-in-Differences Estimators in the Presence of Heterogeneous Direct and Indirect Policy Exposures"</i>	Austin, TX May 2023
UPenn Department of Biostatistics, Epidemiology, and Informatics Research Day Contributed Poster Presentation <i>"Multiply Robust Difference-in-Differences Estimators in the Presence of Heterogeneous Policy Exposures"</i>	Philadelphia, PA March 2023
Eastern North American Region (ENAR) International Biometric Society Spring Meeting Invited Oral Presentation <i>"A Difference-in-Differences Framework to Estimate Causal Effects for Policy Interventions in the Presence of Heterogeneous Interference"</i>	Nashville, TN March 2023
International Conference on Health Policy Statistics (ICHPS) Invited Oral Presentation <i>"Estimation of Policy-Relevant Causal Effects in the Presence of Spillovers under the Difference-in-Differences Framework"</i>	Scottsdale, AZ January 2023
International Conference on Computational and Methodological Statistics (CMStatistics) Invited Oral Presentation <i>"Estimation of Heterogeneous Policy-Relevant Causal Effects under the Difference-in-Differences Framework with Spillover"</i>	London, UK December 2022
Joint Statistical Meetings (JSM) Contributed Oral Presentation <i>"Estimating Causal Effects of the Philadelphia Beverage Tax Policy in the Presence of Spillover"</i>	Washington D.C. August 2022
American Causal Inference Conference (ACIC) Contributed Poster Presentation <i>"Estimation of Causal Effects for Philadelphia Beverage Tax in Presence of Spillover"</i>	Berkeley, CA May 2022
Eastern North American Region (ENAR) International Biometric Society Spring Meeting Contributed Oral Presentation	Houston, TX March 2022

“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”

Awards

Tom Ten Have Student Leadership Award , Graduate Group in Epidemiology and Biostatistics (UPenn)	2024
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 Invited Guest Lecture <i>“Health Policy Application Practicum”</i> Department of Biostatistics, Epidemiology, and Informatics, University of Pennsylvania	Jan 2025
Summer Undergraduate Internship Program (SUIP) Invited Workshop <i>“Introduction to Causal Inference”</i> Department of Biostatistics, Epidemiology, and Informatics, University of Pennsylvania	Jun 2024
EPID 6450: Research Methods in Cancer Epidemiology Invited Guest Lecture <i>“Evaluation Methods for Panel Data Studies”</i> Division of Epidemiology, University of Pennsylvania	Mar 2024
BSTA 7900: Causal Inference in Biomedical Research Invited Guest Lecture <i>“Interference in Causal Inference: Challenges and Recent Approaches”</i> Division of Biostatistics, University of Pennsylvania	Nov 2023
BSTA 7900: Causal Inference in Biomedical Research Invited Guest Lecture <i>“Causal Inference for Longitudinal Panel Data”</i> Division of Biostatistics, University of Pennsylvania	Oct 2023
BSTA 6320: Statistical Methods for Survival and Categorical Data Graduate Teaching Assistant Division of Biostatistics, University of Pennsylvania	Spring 2023

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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