

Youjin Lee

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EDUCATION

Johns Hopkins School of Public Health Ph.D. in Biostatistics (Primary Advisor : Elizabeth L. Ogburn)	09/2014 - 01/2019
Seoul National University , South Korea B.S. with honors in Statistics (Graduated summa cum laude)	03/2010 - 08/2014

PROFESSIONAL EXPERIENCE

Manning Assistant Professor Department of Biostatistics, Brown University	07/2021 -
Postdoctoral Fellow Center for Causal Inference (CCI), University of Pennsylvania	08/2019 - 06/2021
Postdoctoral Fellow Johns Hopkins School of Public Health	02/2019 - 07/2019

PUBLICATIONS

Articles in peer-reviewed journals:	*equal contribution
1. Lee, Y. , Buchanan, A.L., Ogburn, E.L., Friedman, S.R., Halloran, M.E., Katenka, N.V., Wu, J., & Nikolopoulos, G. (2023). Finding influential subjects in a network using a causal framework. <i>Accepted for publication at Biometrics</i> .	
2. Buchanan, A.L., Katenka, N., Lee, Y. , Wu, J., Pantavou, K., Friedman, S.R., Halloran, M.E., Marshall, B.D.L., Forastiere, L., Nikolopoulos, G.K. (2023) Methods for Assessing Spillover in Network-Based Studies of HIV / AIDS Prevention among People Who Use Drugs. <i>Pathogens</i> , 12, 326.	
3. Chang, T. H., Nguyen, T. Q., Lee, Y. , Jackson, J. W., & Stuart, E. A. (2022). Flexible propensity score estimation strategies for clustered data in observational studies. <i>Statistics in Medicine</i> , 41(25), 5016-5032.	
4. Zhao, A.*, Lee, Y.* , Small, D. S., & Karmakar, B. (2022). Evidence factors from multiple, possibly invalid, instrumental variables. <i>The Annals of Statistics</i> , 50(3), 1266-1296.	
5. Lee, Y. , & Schaubel, D. E. (2022). Facility profiling under competing risks using multivariate prognostic scores: Application to kidneytransplant centers. <i>Statistical Methods in Medical Research</i> , 31(3), 563-575.	

6. **Lee, Y.**, Kennedy, E.H., & Mitra, N. (2021). Doubly Robust Nonparametric Instrumental Variable Estimators for Survival Outcomes. *To appear at Biostatistics*.
7. **Lee, Y.**, Nguyen, T. Q., & Stuart, E. A. (2021). Partially pooled propensity score models for average treatment effect estimation with multilevel data. *Journal of the Royal Statistical Society: Series A (Statistics in Society)*.
8. Kang, H*, **Lee, Y.***, Cai, T. T., & Small, D. S. (2022). Two robust tools for inference about causal effects with invalid instruments. *Biometrics*, 78(1), 24-34.
9. **Lee, Y.**, & Ogburn, E. L. (2021). Network dependence can lead to spurious associations and invalid inference. *Journal of the American Statistical Association*, 116(535), 1060-1074.
10. Ogburn, E. L., Shpitser, I., & **Lee, Y.** (2020). Causal inference, social networks and chain graphs. *Journal of the Royal Statistical Society: Series A (Statistics in Society)*, 183(4), 1659-1676.
11. **Lee, Y.** & Ogburn, E.L. (2020). Testing for Network and Spatial Autocorrelation. In *International Conference on Network Science* (pp. 91-104). Springer, Cham.
12. **Lee, Y.**, Shen, C., Priebe, C. E., & Vogelstein, J. T. (2019). Network dependence testing via diffusion maps and distance-based correlations. *Biometrika*, 106(4), 857-873.
13. **Lee, Y.**, Wang, M. C., Grantz, K. L., & Sundaram, R. (2019). Joint modelling of competing risks and current status data: an application to a spontaneous labour study. *Journal of the Royal Statistical Society: Series C (Applied Statistics)*, 68(4), 1167-1182.

Non peer-reviewed publications:

1. **Lee, Y.** (2021). Beyond Multiple Linear Regression: Applied Generalized Linear Models and Multilevel Models in R. *The American Statistician*. (Book reviews)

Submitted papers:

1. **Lee, Y.**, Reese, P.P., & Schaubel, D.E. (2023+). Prognostic score-based methods for estimating center effects based on survival probability: Application to post-kidney transplant survival.
2. Hettinger, G., **Lee, Y.**, & Mitra, N. (2023+). Estimation of policy-relevant causal effects in the presence of interference with an application to the Philadelphia beverage tax.
3. **Lee, Y.**, Hettinger, G., Gibson, L., & Mitra, N. (2023+). Policy effect evaluation under counterfactual neighborhood intervention in the presence of spillover.

SOFTWARE

R package

- `logisticRR` (author, maintainer) : An R package for deriving adjusted relative risks from a logistic regression. [CRAN]
- `netdep` (author, maintainer): An R package for testing network dependence and generating network-dependent observations. [CRAN]
- `netchain` (author, maintainer) : An R package for estimating probabilities associated with collective counterfactual outcomes under interference. [CRAN]

SELECTED RESEARCH GRANT

External grants

- Novel approaches to estimating the causal effect of policy interventions in the presence of spillovers
Sponsor: National Science Foundation
Role: co-Principal Investigator (with Nandita Mitra), \$360,000 2022-2025

Internal grants

- Reliable and robust causal inference approaches for effective connectivity research with fMRI data
Sponsor: COBRE Center for Central Nervous System Function, Brown University
Role: Project Leader, \$250,000 2022-2023

PRESENTATIONS

Invited seminars/workshops	*upcoming
· Korean International Statistical Society Webinar*	04/2023
· Department of Biostatistics, Boston University	10/2022
· Department of Mathematics and Statistics, University of Massachusetts Amherst	09/2022
· Korean Summer Session on Causal Inference (<i>online</i>)	06/2022
· NIDDK workshop, Bethesda, MD	05/2022
· Statistics and Data Science Seminar, University of Illinois, Chicago	10/2021
· AMPHBIAN, Brown University	10/2021
· Online Causal Inference Seminar	09/2021
· Causal Inference using R, R-Ladies Philly	09/2021
· Department of Biostatistics, University of Washington	02/2021
· Department of Data Sciences and Operations, USC Marshall School of Business	01/2021
· Department of Biostatistics, Brown University	01/2021
· Department of Statistics, University of California, Irvine	01/2021
· Department of Biostatistics and Bioinformatics, Emory University	01/2021
· Department of Statistics, Seoul National University, South Korea	11/2020
· Department of Politics, Princeton University	11/2020
· Johns Hopkins causal inference statistical genetics group	03/2020
· Joint Program in Survey Methodology, University of Maryland	10/2019
· RAND Corporation, Statistics Group	02/2019
Invited scientific meetings	
· Joint Statistical Meetings. Washington DC.	08/2022
· International Chinese Statistical Association (ICSA), University of Florida	06/2022
· CMStatistics. King's College London, UK	12/2021
· New England Statistical Society Symposium, Providence, RI	10/2021
· ENAR. Baltimore, MD. (<i>online</i>)	03/2021
· CMStatistics. King's College London, UK. (<i>online</i>)	12/2020
· UPenn DBEI & CCEB Covid-19 Population Journal Club (<i>online</i>)	07/2020
Contributed oral and poster presentations	†Poster
· Joint Statistical Meetings. Philadelphia, PA (<i>online</i>)	08/2020

- ENAR. Nashville, TN (*online*) 03/2020
- Joint Statistical Meetings. Vancouver, Canada 08/2018
- †Atlantic Causal Inference Conference. Carnegie Mellon University 05/2018
- ENAR. Atlanta, GA 03/2018
- Joint Statistical Meetings. Baltimore, MD 08/2017
- †Conference on Lifetime Data Science. University of Connecticut 05/2017
- †ENAR. Washington DC 03/2017

PROFESSIONAL ACTIVITIES

Reviewer : *Journal of the American Statistical Association, Journal of Causal Inference, Statistics in Medicine, Pharmaceutical Statistics, Biometrical Journal, Epidemiology, BJPsychOpen, Biometrics, American Journal of Epidemiology, Biometrika, Journal of Computational and Graphical Statistics, Stat, Journal of the Korean Statistical Society, BMC Medical Research Methodology, JAMA Network Open, Sociological Methods and Research, Journal of Machine Learning Research, Scientific Reports, Biostatistics, Health Services and Outcomes Research Methodology*

Grant review

- NSF grant ad-hoc reviewer 2022
- TBIPHRP panel, Department of Defense Congressionally Directed Medical Research Program 2021

Session organizer/chair

*upcoming

- Advances in causal approaches to public policy evaluations using quasi-experimental designs, ICHPS 01/2023
- Advances in social network analysis for public health solutions, JSM 08/2022
- Causal inference methods for survival and longitudinal data, ENAR 03/2021

Academic service

Brown School of Public Health

- Departmental Seminar Committee, Department of Biostatistics 2022-
- Faculty Search Committee, Department of Biostatistics 2021-2022
- Admission Committee, Department of Biostatistics 2022
- Diversity and Inclusion Committee, Department of Biostatistics 2021-

AWARDS

ASA 2020 Outstanding Statistical Application Award 2020

The Jane and Steve Dykacz Award 2018

For outstanding paper by a Biostatistics student in the area of medical statistics, Department of Biostatistics, Johns Hopkins School of Public Health

The Margaret Merrell Award 2018

For outstanding research by a Biostatistics doctoral student, Department of Biostatistics, Johns Hopkins School of Public Health

Student Paper Awards

Joint Statistical Meetings (JSM) 2017

ASA Nonparametric Statistics Section

Student Poster Award

Conference on Lifetime Data Science 2017

Louis I. and Thomas D. Dublin Award

2016

For the advancement of Epidemiology and Biostatistics supports for students, Department of Biostatistics, Johns Hopkins School of Public Health

SCHOLARSHIP

Overseas scholarship, Kwanjeong Educational Foundation	2014-2018
National Science and Engineering Scholarship, Korea Student Aid Foundation (Full Tuition Scholarship)	2010-2013

TEACHING**Classroom Teaching**

- Causal Inference and missing data Fall 2022
Brown University PHP 2610

Teaching Assistant

- Public Health Biostatistics (Undergraduate Course) Fall 2018
- Causal Inference in Medicine and Public Health I 2017-2018 3rd and 4th terms
- Survival Analysis I-II 2017-2018 1st and 2nd terms
- Survival Analysis Summer 2017
- Causal Inference in Medicine and Public Health I 2016-2017 3rd and 4th terms
- Statistical Reasoning in Public Health II 2016-2017 2nd term
- Survival Analysis I 2016-2017 1st term
- Statistical Reasoning in Public Health IV 2015-2016 4th term
- Statistical Reasoning in Public Health III 2015-2016 3rd term
- Statistical Reasoning in Public Health I - II 2015-2016 1st and 2nd terms

Guest Lecture

- *Causal interference* 10/2020
Class: Causal Inference in Biomedical Research (Instructor: Nandita Mitra and Peter Yang)
- *Causal inference under interference* 03/2018
Class: Causal Inference in Medicine and Public Health I (Instructor : Elizabeth Stuart)
- *Introduction to principal stratification and truncation due to death* 03/2017
Class: Causal Inference in Medicine and Public Health I (Instructor : Elizabeth Stuart)

ADVISING**Academic advisor**

- Esteban Fernandez, Current PhD student in Biostatistics 09/2021-
Recipient of 2022 NSF Graduate Research Fellowships Program
- Chichun Tan, Current PhD student in Biostatistics 09/2022-
- Victoria Grase, Current ScM student in Biostatistics 09/2022-
- Nancy Liu, Current ScM student in Biostatistics 09/2021-05/2022

Master's thesis advisor

- Zhejia Dong, Current ScM student in Biostatistics 09/2021-

PhD thesis committee

- Gary Hettinger, Current PhD student in Biostatistics, UPenn (external committee) 2021-