

# Eli Ben-Michael

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## EDUCATION

**University of California, Berkeley**, Berkeley, CA December 2020  
PhD in Statistics, Dissertation Committee: Avi Feller, Peng Ding, Jesse Rothstein, Bin Yu  
**Columbia University**, Columbia College, New York, NY May 2016  
Bachelor of Arts, *Summa Cum Laude*, Computer Science and Statistics

## ACADEMIC APPOINTMENTS

**Carnegie Mellon University**, Pittsburgh, PA August 2022 -  
Heinz College of Information Systems & Public Policy  
Department of Statistics & Data Science  
*Assistant Professor*  
**Harvard University**, Cambridge, MA January 2021 - August 2022  
Department of Statistics  
Institute for Quantitative Social Science  
*Postdoctoral Fellow*

## FORTHCOMING AND PUBLISHED ARTICLES

- Ben-Michael, E.** and L. Keele (2023+). Using Balancing Weights to Target the Treatment Effect on the Treated when Overlap is Poor. *Epidemiology*
- Ben-Michael, E.**, A. Feller, and E. Hartman (2023+). Multilevel calibration weighting for survey data. *Political Analysis*
- Soriano, D., **E. Ben-Michael**, P. J. Bickel, A. Feller, and S. D. Pimentel (2023+). Interpretable Sensitivity Analysis for Balancing Weights. *Journal of the Royal Statistical Society, Series A: Statistics in Society*
- Ben-Michael, E.**, A. Feller, and J. Rothstein (2023+). Variation in impacts of letters of recommendation on college admissions decisions. *The Annals of Applied Statistics*  
(American Statistical Association Social Statistics Section Student Paper Award winner)
- Lu, B., **E. Ben-Michael**, A. Feller, and L. Miratrix (2023+). Is it who you are or where you are? Accounting for compositional differences in cross-site treatment variation. *Journal of Educational and Behavioral Statistics*
- Ben-Michael, E.**, D. Arbour, A. Feller, A. Franks, and S. Raphael (2023). Estimating the effects of a California gun control program with Multitask Gaussian Processes. *The Annals of Applied Statistics* 17(2), 985–1016
- Keele, L. J., **E. Ben-Michael**, A. Feller, R. Kelz, and L. Miratrix (2023). Hospital Quality Risk Standardizations via Approximate Balancing Weights. *The Annals of Applied Statistics* 17(2), 901–928
- Ben-Michael, E.**, A. Feller, and J. Rothstein (2022). Synthetic controls with staggered adoption. *Journal of the Royal Statistical Society. Series B: Statistical Methodology* 84(2), 351–381  
(SF ASA Student Travel Award winner, Thomas R. Ten Have Poster Award runner up)
- Haber, N. A., E. Clarke-Deelder, A. Feller, E. R. Smith, J. A. Salomon, B. MacCormack-Gelles, E. M. Stone, C. Bolster-Foucault, J. R. Daw, L. A. Hatfield, C. E. Fry, C. B. Boyer, **E. Ben-Michael**, C. M. Joyce, B. S. Linas, I. Schmid, E. H. Au, S. E. Wieten, B. Jarrett, C. Axfors, V. T. Nguyen, B. A. Griffin, A. Bilinski, and E. A. Stuart (2022). Problems with evidence assessment in COVID-19 health policy impact evaluation: A systematic review of study design and evidence strength. *BMJ Open* 12(1)

- Ben-Michael, E.**, A. Feller, and J. Rothstein (2021). The Augmented Synthetic Control Method. *Journal of the American Statistical Association* 116(536), 1789–1803
- Ben-Michael, E.**, A. Feller, and E. Stuart (2021). A trial emulation approach for policy evaluations with group-level longitudinal data. *Epidemiology* 32, 533–540
- Elser, H., **E. Ben-Michael**, D. Rehkopf, S. Modrek, E. A. Eisen, and M. R. Cullen (2019). Layoffs and the mental health and safety of remaining workers: a difference-in-differences analysis of the US aluminium industry. *Journal of Epidemiology and Community Health* 73, 1094–1100

## PREPRINTS AND WORKING PAPERS

- Jia, Z., **E. Ben-Michael**, and K. Imai (2023). Bayesian Safe Policy Learning with Chance Constrained Optimization: Application to Military Security Assessment during the Vietnam War. arXiv:2307.08840
- Ben-Michael, E.**, L. Page, and L. Keele (2023). Approximate Balancing Weights for Clustered Observational Study Designs. arXiv:2301.05275
- Ben-Michael, E.**, A. Feller, R. Kelz, and L. Keele (2022). Estimating Racial Disparities in Emergency General Surgery. arXiv:2209.0431
- Zhang, Y., **E. Ben-Michael**, and K. Imai (2022). Safe Policy Learning under Regression Discontinuity Designs. arXiv:2208.13323  
(Yi Zhang: American Statistical Association Social Statistics Section Student Paper Award winner)
- Ben-Michael, E.**, K. Imai, and Z. Jiang (2022). Policy Learning with Asymmetric Utilities. arXiv:2206.10479
- Ben-Michael, E.**, D. A. Hirshberg, A. Feller, and J. Zubizarreta (2021). The Balancing Act in Causal Inference. arXiv:2110.14831
- Ben-Michael, E.**, D. J. Greiner, K. Imai, and Z. Jiang (2021). Safe Policy Learning through Extrapolation: Application to Pre-trial Risk Assessment. arXiv:2109.11679

## BOOK CHAPTERS

- Cohn, E. R., **E. Ben-Michael**, A. Feller, and J. R. Zubizarreta (2023). Balancing Weights for Causal Inference. In J. R. Zubizarreta, E. A. Stuart, D. S. Small, and P. R. Rosenbaum (Eds.), *Handbook of Matching and Weighting Adjustments for Causal Inference* (1 ed.), Chapter 16, pp. 293–312. Boca Raton, FL: Chapman & Hall/CRC

## OPEN SOURCE STATISTICAL SOFTWARE

- [augsynth](#): R implementation of the augmented synthetic control method
- [multical](#): R package for multilevel calibration weighting

## PRESENTATIONS

### Invited

2023

International Conference on Health Policy Statistics, Cowles Foundation Conference on Econometrics

2022

London School of Hygiene and Tropical Medicine, Centre for Statistical Methodology; Joint Statistical Meetings; LinkedIn; National Research Conference on Firearm Injury Prevention; IMS International Conference on Statistics and Data Science; International Conference on Computational and Methodological Statistics; Bank of England

2021

Johns Hopkins CICADAS Seminar; RAND Center for Causal Inference Symposium; Johns Hopkins Causal Inference Seminar; Harvard Applied Statistics Workshop; Berkeley Machine Learning and Science Forum

2020  
Online Causal Inference Seminar

## Contributed

2023  
American Causal Inference Conference

2022  
American Causal Inference Conference

2021  
Asian Political Methodology Meetings; ENAR Spring Meeting; Annual Meeting of the Society for Political Methodology; Joint Statistical Meetings (ASA Social Statistics Section Student Paper Award Winner)

2020  
Annual Meeting of the Society for Political Methodology; Joint Statistical Meetings (SFASA Student Travel Award winner); Econometric Society World Congress; Association for Public Policy Analysis & Management Fall Research Conference; BigSurv20

2019  
Society for Research on Educational Effectiveness; Atlantic Causal Inference Conference (Thomas R. Ten Have Poster Award runner up); Berkeley-Stanford Econometrics Jamboree

2018  
7th Causal Inference Workshop at UAI; European Winter Meeting of the Econometric Society

## AWARDS AND HONORS

American Causal Inference Conference Travel Award	2022
American Statistical Association Social Statistics Section Student Paper Award	2021
American Statistical Association, San Francisco Bay Area Chapter, Student Travel Award	2020
Department fellowship, Department of Statistics, U.C. Berkeley	2018
Two years of funding through RTG grant: Advancing Machine Learning - Causality and Interpretability	
Phi Beta Kappa, Columbia University	2016
Computer Science Department Award, Columbia University	2016
Given to the top two graduating seniors each year	

## TEACHING

<b>Carnegie Mellon University</b>	
36-402: Advanced Data Analysis	Spring 2023
<b>U.C. Berkeley Department of Statistics</b> <i>Graduate Student Instructor</i>	
Stat 232: Experimental Design with Sam Pimentel	Fall 2018
Stat 159/259: Reproducible and Collaborative Data Science with Fernando Perez	Fall 2017

## INSTITUTIONAL SERVICE

PhD admissions committee, Department of Statistics, UC Berkeley	Spring 2020
Co-president of the Berkeley Statistics Graduate Student Association	Fall 2018 - Spring 2019
Reviewer for <i>American Journal of Epidemiology</i> , <i>Annals of Applied Statistics</i> , <i>Biometrical Journal</i> , <i>Biometrics</i> , <i>Biometrika</i> , <i>Econometrica</i> , <i>Epidemiology</i> , <i>INFORMS Journal on Data Science</i> , <i>Journal of</i>	

*the American Statistical Association, Journal of Applied Econometrics, Journal of Business & Economic Statistics, Journal of Causal Inference, Journal of Econometrics, Journal of Educational and Behavioral Statistics, Journal of Quantitative Criminology, Journal of the Royal Statistical Society, Series A, B, and C, Management Science, Political Analysis, Population Health Metrics, Quantitative Economics, Statistics in Medicine, and Statistics and Public Policy*

**WORK EXPERIENCE**

<b>Uber</b> , New York, NY <i>Data Science Intern</i>	Summer 2019
<b>Walmart Labs</b> , Sunnyvale, CA <i>Machine Learning Scientist Intern</i>	Summer 2017
<b>Knewton</b> , New York, NY <i>Data Science Intern</i>	Summer 2016