

# 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

**Harvard University**, Cambridge, MA January 2021 - Present  
*Postdoctoral Fellow*, Institute for Quantitative Social Science and Department of Statistics

## PUBLISHED ARTICLES

- Ben-Michael, E.**, A. Feller, and J. Rothstein (2021+). Synthetic controls with staggered adoption. *Journal of the Royal Statistical Society, Series B*  
(SF ASA Student Travel Award winner, Thomas R. Ten Have Poster Award runner up)
- Ben-Michael, E.**, A. Feller, and J. Rothstein (2021). The augmented synthetic control method. *Journal of the American Statistical Association*
- 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

- Ben-Michael, E.**, D. A. Hirshberg, A. Feller, and J. Zubizarrra (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
- Arbour, D., **E. Ben-Michael**, A. Feller, A. Franks, and S. Raphael (2021). Using Multitask Gaussian Processes to estimate the effect of a targeted effort to remove firearms. arXiv:2110.07006
- Lu, B., **E. Ben-Michael**, A. Feller, and L. Miratrix (2021). Is it who you are or where you are? Accounting for compositional differences in cross-site treatment variation. arXiv:2103.14765
- Ben-Michael, E.**, A. Feller, and S. Raphael (2021). The Effect of a Targeted Effort to Remove Firearms from Prohibited Persons on State Murder Rates
- Soriano, D., **E. Ben-Michael**, P. J. Bickel, A. Feller, and S. D. Pimentel (2021). Interpretable Sensitivity Analysis for Balancing Weights. arXiv:2102.13218
- Ben-Michael, E.**, A. Feller, and E. Hartman (2021). Multilevel calibration weighting for survey data. arXiv:2102.09052
- Ben-Michael, E.**, A. Feller, and J. Rothstein (2020). Variation in impacts of letters of recommendation on college admissions decisions: Approximate balancing weights for treatment effect heterogeneity in observational studies. arXiv:2008.04394  
(American Statistical Association Social Statistics Section Student Paper Award winner)
- Keele, L., **E. Ben-Michael**, A. Feller, R. Kelz, and L. Miratrix (2020). Hospital quality risk standardization via approximate balancing weights. arXiv:2007.09056

## OPEN SOURCE STATISTICAL SOFTWARE

**augsynth**: R implementation of the augmented synthetic control method

**multical**: R package for multilevel calibration weighting

## PRESENTATIONS

Safe policy learning through extrapolation	
<i>Berkeley Machine Learning and Science Forum</i>	December 2021
<i>Harvard Applied Statistics Workshop</i>	October 2021
<i>Johns Hopkins Causal Inference Seminar</i>	October 2021
Multilevel calibration weighting for survey data	
<i>Annual Meeting of the Society for Political Methodology</i>	July 2021
<i>Asian Political Methodology Meetings</i>	January 2021
<i>BigSurv20</i>	November 2020
Varying impacts of letters of recommendation on college admissions	
<i>Joint Statistical Meetings</i> (ASA Social Statistics Section Student Paper Award Winner)	August 2021
<i>RAND Center for Causal Inference Symposium</i>	June 2021
<i>Annual Meeting of the Society for Political Methodology</i>	July 2020
A trial emulation approach for policy evaluations with group-level longitudinal data	
<i>Association for Public Policy Analysis &amp; Management Fall Research Conference</i>	November 2020
Synthetic controls with staggered adoption	
<i>Johns Hopkins CICADAS Seminar</i>	March 2021
<i>ENAR Spring Meeting</i>	March 2021
<i>Online Causal Inference Seminar</i>	September 2020
<i>Econometric Society World Congress</i>	August 2020
<i>Joint Statistical Meetings</i> (SFASA Student Travel Award winner)	August 2020
<i>Berkeley-Stanford Econometrics Jamboree</i>	November 2019
<i>Atlantic Causal Inference Conference</i> (Thomas R. Ten Have Poster Award runner up)	May 2019
Multi-level balancing weights for multi-site observational studies	
<i>Society for Research on Educational Effectiveness</i>	March 2019
The augmented synthetic control method	
<i>2018 European Winter Meeting of the Econometric Society</i>	December 2018
Matrix constraints and multi-task learning for covariate balance	
<i>7th Causal Inference Workshop at UAI</i>	August 2018

## AWARDS AND HONORS

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

**U.C. Berkeley Department of Statistics** *Graduate Student Instructor*

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 *Journal of the American Statistical Association*, *Econometrica*, *Biometrika*, *Political Analysis*, *Annals of Applied Statistics*, *Statistics in Medicine*, *Statistics and Public Policy*, *Population Health Metrics*, *INFORMS Journal on Data Science*, *Journal of Educational and Behavioral Statistics*, *Journal of Causal Inference*, and *Journal of Applied Econometrics*

## 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