

Avi Feller

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Employment

Current employment

UC Berkeley, Assistant Professor
2015 – Goldman School of Public Policy
2016 – Department of Statistics

Other affiliations

2017 – California Policy Lab
2017 – Opportunity Lab

Previous employment

2010 – 2011 The White House Office of Management and Budget, Special Assistant to the Director
2009 – 2010 Center on Budget and Policy Priorities, Research Associate

Education

2011 – 2015 Ph.D., Statistics, Harvard University
2007 – 2009 M.Sc., Applied Statistics, Oxford University
2003 – 2007 B.A., Applied Mathematics and Political Science, Yale University (*magna cum laude*)

Publications

Statistics and methodology

- [27] Jung, J., Shroff, R., Feller, A., and S. Goel (2020), “Bayesian Sensitivity Analysis for Offline Policy Evaluation,” *AIES: AAAI/ACM Conference on Artificial Intelligence, Ethics, and Society*.
- [26] D’Amour, A., Ding, P., Feller, A., Lei, L., and J. Sekhon (2019+), “Overlap in observational studies with high-dimensional covariates,” *Journal of Econometrics*. Forthcoming.
★ Best early career research presentation, European Causal Inference Meeting
- [25] Franks, A., D’Amour, A., and A. Feller (2019+). “Flexible sensitivity analysis for observational studies without observable implications,” *Journal of the American Statistical Association*. Forthcoming.
- [24] Carvalho, C., Feller, A., Murray, J., S. Woody, and D. Yeager (2019), “Assessing treatment effect variation in observational studies: Results from a data challenge,” *Observational Studies*, 5: 21–35.
- [23] Yuan, L., Feller, A., and L. Miratrix (2019). “Identifying and estimating principal causal effects in a multi-site trial of Early College High Schools,” *Annals of Applied Statistics*, 13(3): 1348–1369.
★ Ten Have Award, Atlantic Causal Inference Conference, “for exceptionally creative or skillful research on causal inference”
- [22] Basse, G., Feller, A., and P. Toulis (2019). “Exact conditional randomization tests for causal effects under interference,” *Biometrika*, 106(2): 487–494.

- [21] Ding, P., Feller, A., and L. Miratrix (2019). “Decomposing treatment effect variation,” *Journal of the American Statistical Association*, 114(525): 304–317.
- [20] Basse, G. and A. Feller (2018). “Analyzing two-stage experiments in the presence of interference,” *Journal of the American Statistical Association*, 113(521): 41–55.
- [19] Miratrix, L., Furey, J., Feller, A., Grindal, T., and L. Page (2017). “Bounding, an accessible method for estimating principal causal effects, examined and explained,” *Journal of Research on Educational Effectiveness*, 11(1): 133–162.
 ★ Outstanding paper award, *Journal of Research on Educational Effectiveness*
- [18] Feller, A., Miratrix, L., and F. Mealli (2017) “Principal score methods: Assumptions, extensions, and practical considerations,” *Journal of Educational and Behavioral Statistics*, 42(6): 726–758.
- [17] Corbett-Davies, S., Pierson, E., Feller, A., Goel, S. and A. Huq (2017). “Algorithmic decision making and the cost of fairness,” *KDD: Proceedings of the ACM SIGKDD International Conference on Knowledge Discovery and Data Mining*.
- [16] Feller, A., Grindal, T., Miratrix, L., and L. Page (2016). “Compared to what? Variation in the impact of early childhood education by alternative care type,” *Annals of Applied Statistics*, 110(3): 1245–1285.
 ★ AERA award for outstanding publication in “Advances in Methodology”
- [15] Ding, P., Feller, A., and L. Miratrix (2016). “Randomization inference for treatment effect variation,” *Journal of the Royal Statistical Society, Series B*, 78(3): 655–671.
 ★ Winner, JSM student paper competition, ASA sections on survey research, government statistics, and social statistics
- [14] Page, L., Feller, A., Miratrix, L., and M.-A. Somers (2015). “Principal stratification: A tool for understanding variation in program effects across endogenous subgroups,” *American Journal of Evaluation*, 36(4): 514–531.
- [13] Feller, A. and A. Gelman (2014). “Hierarchical models for causal effects,” in *Emerging Trends in the Social and Behavioral Sciences*, ed. R. Scott and S. Kosslyn (Thousand Oaks, CA: Sage).

Applications to policy and the social sciences

- [12] Rogers, T. and A. Feller (2018). “Reducing student absences at scale by targeting parents’ misbeliefs,” *Nature Human Behavior*, 2(5): 335–342.
- [11] Mitchell, S., Gelman, A., Ross, R., Chen, J., Bari, S., Huynh, U. K., Harris, M. Sachs, S., Stuart, E., Feller, A., Makela, S., Zaslavsky, A., McClellan, L., Ohemeng-Dapaah, S., Namakula, P., Palm, S., and J. Sachs (2018). “The Millennium Villages Project: the end-line evaluation,” *Lancet Global Health*, 6(5): e500–e513.
- [10] Morris, P., Connors, M., Friedman-Krauss, A., McCoy, D., Weiland, C., Feller, A., Page, L., Bloom, H., and H. Yoshikawa (2018). “New Findings on Impact Variation from the Head Start Impact Study: Informing the Scale-up of Early Childhood Programs,” *AERA Open*, 4(2): 1–16.
- [9] Barnes, L., Feller, A., Haselswerdt, J., and E. Porter (2018). “Information, Knowledge and Attitudes: An Evaluation of the Taxpayer Receipt,” *Journal of Politics*, 80(2): 701–706.
- [8] Rogers, T. and A. Feller (2016). “Discouraged by peer excellence: Exposure to exemplary peer performance causes quitting,” *Psychological Science*, 27(3): 365–374.
- [7] Feller, A., Gelman, A., and B. Shor (2012). “Red state/blue state divisions in the 2012 election,” *The Forum*, 10(4): 127–131.
 ★ Companion publication in the *New York Times*: “Red versus Blue in a New Light,” Nov. 12, 2012. with A. Gelman

Applications to biology

- [6] Lemieux, J., Kyes, S., Otto, T., Feller, A., Eastman, R., Pinches, R., Berriman, M., Su, X.-Z., and C. Newbold (2013). “Genome-wide profiling of chromosome interactions in *Plasmodium falciparum* characterizes nuclear architecture and reconfigurations associated with antigenic variation,” *Molecular Microbiology*, 90(3): 519–537.
- [5] Mwai, L., Diriye, A., Masseno, V., Muriithi, S., Feltwell, T., Musyoki, J., Lemieux, J., Feller, A., Mair, Gunnar, Marsh, K., Newbold, C., Nzila, A., and C. Carret (2012). “Genome wide adaptations of *Plasmodium falciparum* in response to Lumefantrine selective drug pressure,” *PLoS One*, 7(2): e31623.
- [4] Lemieux, J.*, Feller, A.*, Holmes, C., and C. Newbold (2009). “In vivo profiles show continuous variation between two cellular populations,” *Proceedings of the National Academies of Science*, 106(27): E71–E72.
- [3] Lemieux, J.*, Gomez-Escobar, N.*, Feller, A.*, Carret, C., Amambua-Ngwa, A., Pinches, R., Daya, F. Kyes, S., Conway, D., Holmes, C., and C. Newbold (2009). “Statistical estimation of cell-cycle progression and lineage commitment in *P. falciparum* reveals a homogeneous pattern of transcription in ex vivo culture,” *Proceedings of the National Academies of Science*, 106(18): 7559–7564.
(* indicates equal contribution)

Comments

- [2] Ding, P. and A. Feller (2016). “Comment on ‘Causal Inference Using Invariant Prediction: Identification and Confidence Intervals’ by J. Peters, P. Buehlmann, and N. Meinshausen,” *Journal of the Royal Statistical Society, Series B*, 78(5): 994–995.
- [1] Feller, A. and E. Airoidi (2013). “Comment on ‘How to find an appropriate clustering for mixed type variables with application to socio-economic stratification’ by Hennig and Liao,” *Journal of the Royal Statistical Society, Series C*, 62(3): 347–348.

Pre-prints and manuscripts under review

- [R8] Basse, G., Ding, P., Feller, A., and P. Toulis. “Randomization tests for peer effects in group formation experiments.”
- [R7] Ben-Michael, E., Feller, A., and J. Rothstein. “The Augmented Synthetic Control Method.”
- [R6] Ben-Michael, E., Feller, A., and J. Rothstein. “Synthetic controls and event studies with staggered adoption.”
- [R5] Ben-Michael, E., Feller, A., and J. Rothstein. “Variation in impacts of letters of recommendation on college admissions decisions: Approximate balancing weights for treatment effect heterogeneity in observational studies.”
- [R4] Ben-Michael, E., Feller, A., and E. Stuart. “A trial emulation approach for policy evaluations with panel data.”
- [R3] Feller, A., Greif, E., Ho, N., Miratrix, L., and N. Pillai. “Weak separation in principal stratification and finite mixture models.”
★ Ten Have Award, Atlantic Causal Inference Conference, “for exceptionally creative or skillful research on causal inference”
- [R2] Keele, L., Ben-Michael, E., Feller, A., Kelz, R., and L. Miratrix. “Hospital quality risk standardization via approximate balancing weights.”
- [R1] Puelz, D., Basse, G., Feller, A., and P. Toulis. “A Graph-theoretic approach to randomization tests of causal effects under general interference.”
★ Best poster, Society for Political Methodology Annual Meeting

Software

[S2] Fifield, B., Ding, P., Feller, A., and L. Miratrix. `hettx` package for R.

[S1] Ben-Michael, E., Feller, A., and J. Rothstein. `augsynth` package for R.

Grants

2020	Institute for Education Sciences (PI; \$900,000)
2020	Hellman Family Fellowship
2020, '19, '15	UC Berkeley Institute for Research on Labor and Employment
2019	UC Berkeley Opportunity Lab (with J. Rothstein)
2018	National Science Foundation – Research and Training Grant (co-PI, \$1.9 million)
2016	Institute for Education Sciences (co-PI; with P. Ding and L. Miratrix, \$800,000)
2014	Spencer Foundation (PIs: H. Bloom and S. Raudenbush)
2014	Omidyar Network (with L. Barnes, J. Haselswerdt, and E. Porter)
2014	Harvard University Foundations of Human Behavior Initiative (with T. Rogers)

Honors and Fellowships

2019	Introductory Overview Lecture, Joint Statistical Meetings (with J. Hill)
2019	Outstanding Paper, <i>Journal of Research on Educational Effectiveness</i>
2018	Spencer Foundation/National Academy of Education Postdoctoral Fellowship
2017	Regents' Junior Faculty Fellowship, UC Berkeley
2016	AERA Award for Outstanding Publication in "Advances in Methodology"
2015	ASA Student Paper Competition Award
2015	Thomas R. Ten Have Award, Atlantic Causal Inference Conference
2014	Julius B. Richmond Fellowship, Harvard Center on the Developing Child
2014	Taubman Center Urban Dissertation Fellowship, Harvard Kennedy School
2013, 2014	Certificate of Distinction in Teaching, Harvard University
2011	Smith Family Graduate Science and Engineering Fellowship, Harvard University
2011	James Mills Peirce Fellowship, Harvard University
2008	Prize for Graduate Distinction, Lincoln College, Oxford
2008	Friedmann Endowed Prize in Music, Lincoln College, Oxford
2007	Rhodes Scholarship
2006	Phi Beta Kappa, Yale University

Presentations

2020	ICHPS, Google (postponed), University of Chicago (postponed), Columbia (postponed)
2019	MDRC, SAMSI, Society for Research in Educational Effectiveness, Stanford, MIT, Atlantic Causal Inference Conference, Joint Statistical Meetings
2018	Society for Research in Educational Effectiveness, Atlantic Causal Inference Conference, Stanford, UNC, Society for Political Methodology, Mathematica Policy Research
2017	Society for Research in Educational Effectiveness, Atlantic Causal Inference Conference, UC Berkeley (Goldman School of Public Policy), UC Davis, Columbia, UT Austin
2016	Society for Research in Educational Effectiveness, Atlantic Causal Inference Conference, RAND Corporation, Association of Public Policy and Management, UC Berkeley (Statistics)
2015	Duke University (Statistics), Duke University (Sanford School of Public Policy), UC Berkeley (Goldman School of Public Policy), UC Berkeley (School of Education), Society for Research in Educational Effectiveness, Joint Statistical Meetings
2014	Harvard University (Graduate School of Education), University of Chicago, Georgetown University (McCourt School of Public Policy)

Teaching

As instructor

Statistics for Program Evaluation (PP 249): Fall 2016, Fall 2017, Fall 2019

Data Science for Public Policy (PP 290): Fall 2017, Spring 2020

Causal Inference Group (Stat 298): Fall 2016 – Present

Core Data Analysis and Visualization Workshop (PP 297): Fall 2016, Fall 2017

Analytics for Government and Policy (PP 290-10): Spring 2016

Short courses

Heterogeneous Treatment Effects, SREE March 2019 (with Luke Miratrix)

Principal Stratification, SREE March 2017, NYU June 2014 (with Lindsay Page)

Professional service

Professional societies and meetings

American Statistical Association

2017 – Scientific and Public Affairs Advisory Committee (Vice Chair, 2020 – Present)

American Causal Inference Conference

2022 Co-Chair, Annual Conference at UC Berkeley

2017, 2021 Program Committee (NYU and UT Austin)

Editorial Service and Peer Review

Associate editor/editorial board:

- 2019 – *Journal of Causal Inference*
- 2019 – *Journal of Research on Educational Effectiveness*
- 2019 – *Journal of Statistics and Public Policy*

Co-editor, special issue of *Observational Studies* on heterogeneous treatment effects

Referee for *American Journal of Epidemiology*, *American Journal of Evaluation*, *Annals of Applied Statistics*, *Biometrics*, *Biometrika*, *Economics of Education Review*, *Educational Researcher*, *Evaluation Review*, *Harvard Data Science Review*, *Journal of Applied Econometrics*, *Journal of Causal Inference*, *Journal of the American Statistical Association*, *Journal of the Royal Statistical Society*, *Journal of Econometrics*, *Journal of Educational and Behavioral Statistics*, *Journal of Policy Analysis and Management*, *Journal of Research on Educational Effectiveness*, *New England Journal of Medicine*, *Observational Studies*, *Quarterly Journal of Economics*, *Review of Economics and Statistics*, *Science*, *Statistics in Medicine*

Other reviews for American Educational Research Association (Quantitative Methods Awards, 2017), Chapman & Hall, National Science Foundation, Patient-Centered Outcomes Research Institute, Society for Research on Educational Effectiveness (Annual Meeting 2017, 2019, 2020), Spencer Foundation