

Cory McCartan

Curriculum Vitae

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CONTACT INFORMATION	(425) 770-9244 corymccartan@nyu.edu	corymccartan.com
EMPLOYMENT	The Pennsylvania State University Assistant Professor of Statistics New York University Center for Data Science Data Science Assistant Professor / Faculty Fellow	Expected 2024 2023 – 2024
EDUCATION	Harvard University Ph.D., Statistics, 2023. Advisor: Kosuke Imai. A.M., Statistics, 2021. Grinnell College B.A., Mathematics, with honors.	2019 – 2023 2015 – 2019
PUBLICATIONS	<p>“Sequential Monte Carlo for Sampling Balanced and Compact Redistricting Plans,” with Kosuke Imai. <i>Annals of Applied Statistics</i>, Forthcoming.</p> <p>Covered by the Washington Post, Quanta Magazine.</p> <p>“Widespread Partisan Gerrymandering Mostly Cancels Nationally, but Reduces Electoral Competition,” with Christopher Kenny, Tyler Simko, Shiro Kuriwaki, and Kosuke Imai. <i>Proceedings of the National Academy of Sciences</i> 120:25 (2023).</p> <p>“Researchers need better access to US Census data,” with Tyler Simko and Kosuke Imai. <i>Science</i>, 380:6648 (2023).</p> <p>“Recalibration Of Predicted Probabilities Using the ‘Logit Shift’: Why does it work, and when can it be expected to work well?” with Evan T. R. Rosenman and Santiago Olivella. <i>Political Analysis</i> 1-11 (2023).</p> <p>“Comment: The Essential Role of Policy Evaluation for the 2020 Census Disclosure Avoidance System” with Christopher T. Kenny, Shiro Kuriwaki, Tyler Simko, Evan T. R. Rosenman, and Kosuke Imai. <i>Harvard Data Science Review</i>, Special Issue 2 (2023).</p> <p>“Simulated Redistricting Plans for the Analysis and Evaluation of Redistricting Plans in the United States,” with Christopher Kenny, Tyler Simko, Shiro Kuriwaki, George Garcia III, Kevin Wang, Melissa Wu, and Kosuke Imai. <i>Scientific Data</i> 9:689 (2022).</p> <p>“The Use of Differential Privacy for Census Data and its Impact on Redistricting: The Case of the 2020 U.S. Census,” with Christopher T. Kenny, Shiro Kuriwaki, Tyler Simko, Evan T. R. Rosenman, and Kosuke Imai. <i>Science Advances</i> 7:41 (2021).</p>	

Covered by the Associated Press, the Washington Post, the San Francisco Chronicle, and others.

“Geodesic Interpolation on Sierpinski Gaskets,” with Caitlin M. Davis, Laura A. LeGare, and Luke G. Rogers. *Journal of Fractal Geometry* 8:2 (2021).

WORKING PAPERS “Estimating Racial Disparities When Race is Not Observed,” with Jacob Goldin, Daniel E. Ho, and Kosuke Imai.

“Individual and Differential Harm in Redistricting,” with Christopher T. Kenny. Under Review.

“Measuring and Modeling Neighborhoods,” with Jacob R. Brown and Kosuke Imai. Under Review.

“Evaluating Bias and Noise Induced by the U.S. Census Bureau’s Privacy Protection Methods,” with Christopher T. Kenny, Shiro Kuriwaki, Tyler Simko, and Kosuke Imai.

“Making Differential Privacy Work for Census Data Users,” with Tyler Simko and Kosuke Imai.

“Finding Pareto Efficient Redistricting Plans with Short Bursts.”

OTHER WRITING “Candy cane shortages and the importance of variation.” International Statistical Institute: *Statisticians React to the News* (December 21, 2021).

“Where will the rocket land?” International Statistical Institute: *Statisticians React to the News* (May 12, 2021).

“Who’s the most electable Democrat? It might be Warren or Buttigieg, not Biden.” *The Washington Post* (October 23, 2019).

“I-405 Express Toll Lanes: Usage, benefits, and equity,” with Shirley Leung, C.J. Robinson, Kiana Roshan Zamir, Vaughn Iverson, and Mark Hallenbeck. Technical report for the Washington State Department of Transportation (2019).

SOFTWARE **redist**: Simulation Methods for Legislative Redistricting

redistmetrics: Redistricting Metrics

easycensus: Quickly Find, Extract, and Marginalize U.S. Census Tables

birdie: Bayesian Instrumental Regression for Disparity Estimation

causal_tbl: Tidy Causal Data Frames and Tools

PL94171: Tabulate P.L. 94-171 Redistricting Data Summary Files

adjustr: Stan Model Adjustments and Sensitivity Analyses using Importance Sampling

conformalbayes: Jackknife(+) Predictive Intervals for Bayesian Models

alarmdata: Download, Merge, and Process Redistricting Data

blockpop: Estimate Census Block Populations for 2020

wacolors: Colorblind-friendly Palettes from Washington State

Consultant (with Prof. Kosuke Imai), *League of Women Voters of Ohio v. Ohio Redistricting Commission* (Ohio Supreme Court, Cases 2021–1193 and 2021–1449).

Data for Progress Consultant, Midterm election modeling	2022
University of Washington eScience Institute Data Science for Social Good Fellow	Summer 2019
Union of Grinnell Student Dining Workers Founder, President (2016–17), and Advisor to the Executive Board (2018–19)	2016 – 2019
University of Connecticut REU Participant, Department of Mathematics	Summer 2018
Fred Hutchinson Cancer Research Center Lead Intern, Department of Biostatistics	Summer 2017
Grinnell College Department of Mathematics Course Grader	2017
Cray, Inc. Intern, Chapel language testing	Summer 2015