

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	“Sequential Monte Carlo for Sampling Balanced and Compact Redistricting Plans,” with Kosuke Imai. <i>Annals of Applied Statistics</i> , Forthcoming. Covered by the Washington Post, Quanta Magazine. “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). “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). “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). “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). “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). Covered by the Associated Press, the Washington Post, the San Francisco Chronicle, and others.	

	<p>“Geodesic Interpolation on Sierpinski Gaskets,” with Caitlin M. Davis, Laura A. LeGare, and Luke G. Rogers. <i>Journal of Fractal Geometry</i> 8:2 (2021).</p>
WORKING PAPERS	<p>“Estimating Racial Disparities When Race is Not Observed,” with Jacob Goldin, Daniel E. Ho, and Kosuke Imai.</p> <p>“Individual and Differential Harm in Redistricting,” with Christopher T. Kenny.</p> <p>“Measuring and Modeling Neighborhoods,” with Jacob R. Brown and Kosuke Imai. Under Review.</p> <p>“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.</p> <p>“Making Differential Privacy Work for Census Data Users,” with Tyler Simko and Kosuke Imai.</p> <p>“Finding Pareto Efficient Redistricting Plans with Short Bursts.”</p>
WORKS IN PROGRESS	<p>“Studying Officeholders’ Perceived Geographic Constituencies,” with Jacob R. Brown and Hunter E. Rendleman.</p> <p>“Regression of the Conditional Median,” with Xiao-Li Meng.</p> <p>“Algorithm-Assisted Redistricting Methodology” (book), with Kosuke Imai, Christopher Kenny, and Tyler Simko.</p>
OTHER WRITING	<p>“Researchers need better access to US Census data,” with Tyler Simko and Kosuke Imai. <i>Science</i>, 380:6648 (2023).</p> <p>“Candy cane shortages and the importance of variation.” International Statistical Institute: <i>Statisticians React to the News</i> (December 21, 2021).</p> <p>“Where will the rocket land?” International Statistical Institute: <i>Statisticians React to the News</i> (May 12, 2021).</p> <p>“Who’s the most electable Democrat? It might be Warren or Buttigieg, not Biden.” <i>The Washington Post</i> (October 23, 2019).</p> <p>“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).</p>
SOFTWARE	<p>redist: Simulation Methods for Legislative Redistricting</p> <p>redistmetrics: Redistricting Metrics</p> <p>easycensus: Quickly Find, Extract, and Marginalize U.S. Census Tables</p> <p>birdie: Bayesian Instrumental Regression for Disparity Estimation</p> <p>causaltbl: Tidy Causal Data Frames and Tools</p> <p>PL94171: Tabulate P.L. 94-171 Redistricting Data Summary Files</p>

wacolors: Colorblind-friendly Palettes from Washington State

OTHER EXPERIENCE	Data for Progress	2022
	Consultant, Midterm election modeling	
	American Civil Liberties Union of Ohio	2021 – 2022
	Consultant (with Prof. Kosuke Imai), <i>League of Women Voters of Ohio v. Ohio Redistricting Commission</i> (Ohio Supreme Court Cases 2021–1193 and 2021–1449).	
	University of Washington eScience Institute	Summer 2019
	Data Science for Social Good Fellow	
	Union of Grinnell Student Dining Workers	2016 – 2019
	Founder, President (2016–17), and Advisor to the Executive Board (2018–19)	
	University of Connecticut	Summer 2018
	REU Participant, Department of Mathematics	
	Fred Hutchinson Cancer Research Center	Summer 2017
	Lead Intern, Department of Biostatistics	
	Grinnell College Department of Mathematics	2017
	Course Grader	
	Cray, Inc.	Summer 2015
	Intern, Chapel language testing	