

Cory McCartan

Curriculum Vitae

June 2022

CONTACT INFORMATION	Department of Statistics, Harvard University 1 Oxford St, Ste 400 Cambridge, MA 02138	(425) 770-9244 cmccartan@fas.harvard.edu corymccartan.com
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EDUCATION	Harvard University Ph.D. in Statistics, expected May 2023. Advisor: Kosuke Imai. A.M. in Statistics, March 2021.	2019 –
	Grinnell College B.A. in Mathematics, with honors.	2015 – 2019

PUBLICATIONS	“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> , Forthcoming.
	“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).
	“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).

WORKING PAPERS	“Measuring and Modeling Neighborhoods,” with Jacob R. Brown and Kosuke Imai.
	“Sequential Monte Carlo for Sampling Balanced and Compact Redistricting Plans,” with Kosuke Imai. Under Review.

WORKS IN PROGRESS	“Individual and Differential Harm in Redistricting,” with Christopher T. Kenny
	“Estimation of Racial Disparities When Race is Not Observed,” with Kosuke Imai, Daniel E. Ho, and Jacob Goldin.
	“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.
	“Two-stage Experiments and Stochastic Intervention,” with Shusei Eshima and Kosuke Imai.

OTHER WRITING	“Who’s the most electable Democrat? It might be Warren or Buttigieg, not Biden.” <i>The Washington Post</i> (October 23, 2019).
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SOFTWARE `redist`: Simulation Methods for Legislative Redistricting

`redistmetrics`: Redistricting Metrics

`easycensus`: Quickly Extract and Marginalize U.S. Census Tables

`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

PRESENTATIONS **Joint Statistical Meetings**, Invited Paper Panel: 2021, 2022.

Society for Political Methodology, Annual Meeting, Paper: 2021, 2022; Poster: 2021, 2022.

American Association for Public Opinion Research, Annual Meeting, Poster: 2022.

Institute for Quantitative Social Science, Harvard University, Applied Statistics Workshop, Paper: 2020, 2021.

TEACHING	Harvard University	
	STAT 221: Monte Carlo Methods & Other	Fall 2020
	Computational Tools for Statistical Learning	
	STAT 117: Introduction to Biostatistics	Spring 2021
	<i>Awarded a Certificate of Distinction in Teaching</i>	
	Grinnell College	
MAT 215: Linear Algebra	Fall 2017 and Spring 2019	
MAT 310: Statistical Modeling	Fall 2018	
Grinnell College Math Lab	2018 – 2019	

SERVICE	Harvard Statistics Graduate Association	2020 –
	Organized Ph.D. student retreat and research “lightning talks,”	2020 and 2021.
	Harvard Graduate Students Union – UAW Local 5118	2019 – 2021
	Elected member, Bargaining Committee, 2020–2021 and 2021–2024 contracts.	
	Interim chair, Finance and Benefits Committee, 2020.	

Reviewer: *Sloan Foundation.*

MEMBERSHIP American Statistical Association, Society for Political Methodology, American Association for Public Opinion Research.

WORK **University of Washington eScience Institute** Summer 2019
 EXPERIENCE Data Science for Social Good Fellow

University of Connecticut
REU Participant, Department of Mathematics

Fred Hutchinson Cancer Research Center Summer 2017
Lead Intern, Department of Biostatistics

Grinnell College Department of Mathematics
Course Grader

Cray, Inc. Summer 2015
Intern, Chapel Language Testing