Soichiro Yamauchi

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POSITION

Google LLC, Cambridge, MA
Data Scientist, Search Platforms Data Science   2022 – present

EDUCATION

Harvard University, Cambridge, MA
Ph.D. in Political Science, Department of Government   2018 – 2022
Dissertation: "Essays on Political Methodology" (CeDiD: 22QZ-AH1P-SGIU)
Committee: Kosuke Imai (Chair), Stephen Ansolabehere, Matthew Blackwell

Princeton University, Princeton, NJ
M.A. in Political Science, Department of Politics   2016 – 2018

The University of Tokyo, Tokyo, Japan
M.A. in Political Science, Graduate Schools of Law and Politics   2014 – 2016
B.A. in Law (Public Law), Faculty of Law   2010 – 2014

RESEARCH INTEREST

Political Methodology, Causal Inference, Survey Methodology

PUBLICATIONS

4. Shiro Kuriwaki, Stephen Ansolabehere, Angelo Dagonel, and **Soichiro Yamauchi**. 2024. "The Geography of Racially Polarized Voting: Calibrating Surveys at the District Level." *American Political Science Review* 118(2):922–939.

3. Naoki Egami and **Soichiro Yamauchi**. 2023. "Using Multiple Pre-treatment Periods to Improve Difference-in-Differences and Staggered Adoption Designs." *Political Analysis* 31(2):195–212.

2. Jong Hee Park and **Soichiro Yamauchi**. 2023. "Change-Point Detection and Regularization in Time Series Cross-Sectional Data Analysis." *Political Analysis* 31(2):257–277.

1. Diana Stanescu, Erik H. Wang and **Soichiro Yamauchi**. 2019. "Using LASSO to Assist Imputation and Predict Child Wellbeing." *Socius: Sociological Research for a Dynamic World*, 5:1–21.

MANUSCRIPTS

6. Naijia Liu, Sooahn Shin, and **Soichiro Yamauchi**. "Synthetic Control Method with Missing Pre-treatment Outcomes." *Working Paper*.

5. Hiroto Katsumata and **Soichiro Yamaucih**. "Statistical Analysis with Machine Learning Predicted Variables." *Working Paper*.

4. Matthew Blackwell and **Soichiro Yamauchi**. "Adjusting for Unmeasured Confounding in Marginal Structural Models with Propensity-Score Fixed Effects." *Working Paper*.

3. **Soichiro Yamauchi**. "Nonparametric Sensitivity Analysis for Randomized Experiment with Missing Outcomes." *Working Paper*.

2. Shiro Kuriwaki and **Soichiro Yamauchi**. "Synthetic Area Weighting for Measuring Public Opinion in Small Areas." *Working Paper*.

1. **Soichiro Yamauchi**. "Difference-in-Differences for Ordinal Outcomes: Application to the Effect of Mass Shootings on Attitudes towards Gun Control." *Working Paper*.

Work in Progress

- **Soichiro Yamauchi**. "Improving Subgroup Estimation When Global Mean is Known." *Working Paper*.

SOFTWARE CONTRIBUTIONS

- BridgeChange (Park and **Yamauchi** 2017): R statistical package that implements sparse linear regression with Bridge prior

- DIDdesign (Egami and **Yamauchi** 2019): R statistical package that implements proposed estimators fo the difference-in-differences design

- orddid (**Yamauchi** 2019): R statistical packages that implements the difference-in-differences estimator for the ordinal outcomes

- emlogit (**Yamauchi** 2020): R package for implementing the Expectation and Conditional Maximization (ECM) algorithm for the multinomial logistic regression

- synthArea (Kuriwaki and **Yamauchi** 2020): R package for implementing the synthetic area estimator (Kuriwaki and Yamauchi 2020) for the small area estimation

- dyRank (**Yamauchi** 2020): R package for implementing the hierarchical dynamic rating model for estimating the dynamic rating with rank-ordered data

- attritionCI (**Yamauchi** 2020): R package for constructing sensitivity-aware confidence interval for causal effect estimates under nonignorable missingness in the outcome.

- bmlogit (Kuriwaki and **Yamauchi** 2021): R package for implementing multinomial logistic regression with prediction constraints.

TEACHING

- **Harvard University**

  Teaching Fellow, Data Science for Politics (DPI-610 / GOV 1003)   Spring 2021

  Teaching Fellow, Data Analysis and Politics (GOV 51)   Fall 2020

Teaching Fellow, Topics in Quantitative Methodology (GOV 2003)   Spring 2020

Teaching Fellow, Causal Inference (GOV 2002)   Fall 2019

- **University of Tokyo**

  Teaching Assistant, Graduate School for Law and Politics, Causal Inference   Summer 2019

- **Princeton University**

  Preceptor, Freshman Scholars Institute, Visualizing Data (POL 245)   Summer 2017

AWARDS

- *GSA Peer Mentorship Award* for "graduate students who excel in helping their peers navigate graduate school," awarded by Government Department Graduate Student Association, December 2020

- *Honorable mention*, John T. Williams Dissertation Proposal Prize, awarded by the Society for Political Methodology, June 2020

- *Distinction in Teaching* for Gov 2002 (Fall 2019), Gov 51 (Fall 2020), and GOV 1003 (Spring 2021) awarded by the Bok Center for Teaching and Learning

- *Best poster award*, The 6th Asian Political Methodology Meeting, January 2019

- *Final prize* for the best score for predicting the material hardship, awarded by Fragile Family Challenge (Joint with Erik H. Wang and Diana Stanescu), September 2017

  - The result of our submission is published in *Socius*: Stanescu, Wang and Yamauchi. Forthcoming. "Using LASSO to Assist Imputation and Predict Child Wellbeing", *Socius*.

GRANTS AND FELLOWSHIPS

- Dissertation Completion Fellowships, GSAS, Harvard University,   AY2021/22

- Research Grant, IQSS, Harvard University, $1,750   May 2020

- Travel Grant, IQSS, Harvard University   June 2019

- Graduate Student Fellowship, Harvard University,   AY 2018/19

- The Alpheus Thomas Mason '23 Fellowship, Princeton University,   AY 2017/18

- Q-APS Fellow, Princeton University   AY 2017/18

- Graduate Student Fellowship, Princeton University   AY 2016/17

- Dr. Okano Keijiro Scholarship, Yano Tsuneta Kinen-kai   AY 2015/16

- Travel Grant, The American Studies Foundation   April 2016

SELECTED PRESENTATIONS

- The 2024 Summer Meeting of the Political Methodology Society. "Synthetic Control Method with Missing Pre-treatment Outcomes."

- "Statistical Analysis with Machine Learning Predicted Variables." Department of Political Science, University of California, San Diego. 2023.

- "Statistical Analysis with Machine Learning Predicted Variables." Department of Political Science, University of Rochester. 2023.

- "Statistical Analysis with Machine Learning Predicted Variables." Department of Political Science, University of California, Los Angeles. 2023.

- "Statistical Analysis with Machine Learning Predicted Variables." Department of Government, University of Texas at Austin. 2023.

- Applied Statistics Workshop. "Statistical Analysis with Machine Learning Predicted Variables." Institute for Quantitative Social Science, Harvard University. October 11, 2023.

- The 2021 Summer Meeting of the Political Methodology Society. "Adjusting for Unmeasured Confounding in Marginal Structural Models with Propensity-Score Fixed Effects." New York University. July 14, 2021.

- Applied Statistics Workshop. "Adjusting for Unmeasured Confounding in Marginal Structural Models with Propensity-Score Fixed Effects." Institute for Quantitative Social Science, Harvard University. February 18, 2020.

- Applied Statistics Workshop. "Difference-in-Differences for Ordinal Outcomes." Institute for Quantitative Social Science, Harvard University. April 1, 2020.

Past presentations

- Political Methodology Meeting: Poster 2018, 2019, 2020 (online); Paper 2021 (online)

- Asian Political Methodology Meeting: Poster 2016, 2019

- American Political Science Association, Annual Meeting: Paper 2019, 2020, 2022

- Midwest Political Science Association, Annual Meeting: Poster 2016; Paper 2016

- Gakushuin University, 2016

REFEREE SERVICE

Referee for *Observational Studies*, *Journal of Causal Inference*, *Political Analysis*, *Research and Politics*

July 19, 2024