

Daniel Ebanks

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Education

California Institute of Technology

Ph.D. Social Sciences

(September 2023)

M.S. Social Sciences

(June 2020)

Thesis: Unexpected Partisan Unity Among Congressional Leaders and Legislators Using New Latent Variable Estimation Techniques and Frameworks

Dissertation Committee: Jonathan N. Katz (*Chair*), R. Michael Alvarez, Gary King, Bob Sherman

Princeton University

(May 2015)

A.B., School of Public and International Affairs

Thesis: European Integration through Political Mobilization: Is it Still Possible?

Academic Experience

Institute for Quantitative Social Science, Harvard University

Postdoctoral Fellow (September 2023-Present)

Professional Experience

Nvidia

PhD Research Intern (May-December 2022)

Federal Reserve, Board of Governors

Senior Research Assistant (October 2016-August 2018)

Research Assistant (June 2015- October 2016)

Student Intern (June-August 2014)

Bureau of Foreign Relations, Senate of the French Republic

Student Intern (June-August 2013)

Peer-Reviewed Articles

Analyzing Political Text at Scale with Online Tensor LDA. *Conditionally Accepted at Political Analysis, 2025* (with Sara Kangaslahti, Jean Kossai, R. Michael Alvarez, Anima Anandkumar)

Legislative Communication and Power: Measuring Leadership from Social Media Data. *European Political Science Review, 2024*

Review. (with Hao Yan, R. Michael Alvarez, Sanmay Das, Betsy Sinclair)

DOI: 10.1017/S1755773924000146

Climate change free riders: Identifying free riding among Americans, motivating more collective sustainable behavior. *Scientific Reports, 2024.*

(with Beatrice Magistro, Cecilia Abramson, Ramit Debnath, R. Michael Alvarez)

DOI: <https://doi.org/10.1038/s41598-024-57042-w>

Persuadable voters decided the 2022 midterm: Abortion rights and issues-based frameworks for elections. *PLOS-ONE, 2023.* (with Claudia Kann, Jacob Morrier,

R. Michael Alvarez). DOI: <https://doi.org/10.1371/journal.pone.0294047>

Why don't Americans trust university researchers and why it matters for climate change. *PLOS-Climate*, 2023. (with R. Michael Alvarez, Ramit Debnath)
DOI: <https://doi.org/10.1371/journal.pclm.0000147>

Do fossil fuel firms reframe online climate and sustainability communication? A data-driven analysis. *npj Climate Action*, 2023.
(with Ramit Debnath, Kamiar Mohaddes, Thomas Roulet, R. Michael Alvarez)
DOI: <https://doi.org/10.1038/s44168-023-00086-x>

Working Papers

Topic Models are Statistically Inconsistent, More Biased with More Data, and Substantively Misleading: Evidence, Solutions, and Applications
Working Paper. (with Sara Kangslanthi)
Paper: https://dannyebanks.com/files/topic_consist.pdf

How American Politics Ensures Electoral Accountability in Congress
Working Paper. (with Jonathan N. Katz, Gary King)
Paper: <https://gking.harvard.edu/acc>

If a Statistical Model Predicts That Common Events Should Occur Only Once in 10,000 Elections, Maybe it's the Wrong Model
Working Paper. (with Jonathan N. Katz, Gary King)
Paper: <https://gking.harvard.edu/10k>

Improving Joint Sentiment-Topic Modeling for Studying Political Text: A Tensor Decomposition Approach. *Working Paper*. (with R. Michael Alvarez, Nick Adams-Cohen)

Ideological Feature Extraction *Working Paper*. (with R. Michael Alvarez, Betsy Sinclair, Joon Park, Bojan Tonguz)

Eroding Trust in Democracy: How Social Media Attacks on Election Officials in 2020 Undermined American Election Institutions *R&R at Frontiers*
(with Sarah Hashah, Sreemanti Dey, R. Michael Alvarez)

Pre-Registered Studies

How Partisan Mediation Biases Trust in Scientists: Conjoint Evidence and Implications for Climate Change *Working Paper*. (with Ramit Debnath, R. Michael Alvarez) DOI: <https://osf.io/8ufdv>

Calibration of Polarized Trust in Scientists *Working Paper*.
(with Ramit Debnath, R. Michael Alvarez)
DOI: <https://doi.org/10.17605/OSF.IO/WF2SX>

Research Interests

American Politics, Political Methodology, Electoral Politics, Party Politics, Congress, Natural Language Processing, Latent Variable Models, Scalable Tensor Methods, Machine Learning, Causal Inference, Congressional Elections, Bayesian Statistics, Text-as-data methods, Climate Politics

Other Research Articles

Fedwire Funds Service: Payments, Balances, and Available Liquidity
Finance and Economics Discussion Series. 2021. (Anton Badev, Lauren Clark, Jeffrey Marquardt, David Mills) DOI: <https://doi.org/10.17016/FEDS.2021.070>

The Network of Large-Value Loans in the U.S. *Working Paper*.
(with Anton Badev)

Conferences	<ul style="list-style-type: none"> • Presenter: MPSA, Paper Session, 2021,2022, 2023, 2024 • Presenter: APSA, Paper Session, 2022, 2023, 2024 • Invited Talk: Political Methodology, Paper Session, 2022 • Presenter: Political Methodology, Poster Session, 2021, 2023 • Invited Talk: Texas Political Methods Meeting, February 2024 • Invited Talk: UCLA, Biostatistics, April 2022 • Invited Talk: Political Networks, Paper Session, July 2021 • Invited Talk: Political Methodology Europe, Panel Session, March 2021 • Presenter: HOW Series on Payments, Federal Reserve, November 2017 • Invited Talk: Consortium for Data Analytics in Risk, UC Berkeley, November 2016
Awards	<p>Resnick Sustainability Institute Scholar Research Fellowship in the Alvarez Lab, 2021-2023 (\$45,000 per year) Google Cloud Platform Award for the Alvarez Lab, \$50,000, 2021-2023</p> <p>IST/AWS AI4Science Cloud Credit Programs Political Polarization and Novel Methods for Large Administrative Data, \$5,000, 2022</p> <p>Divisional Award for Excellence in Teaching; Advanced R Reserve Bank Operations and Payments Systems, 2015</p>
Teaching	<p>California Institute of Technology Teaching Assistant, Graduate Advanced Methods, Fall 2022 Teaching Assistant, History of U.S. Budgetary Politics II, Spring 2020, 2021 Teaching Assistant, History of U.S. Budgetary Politics I, Winter 2020, 2021 Teaching Assistant, Political Game Theory, Fall 2019</p> <p>Federal Reserve, Board of Governors Co-Instructor, Micro-econometrics via Simulations Summer Course, 2016-2017 Teaching Assistant, Micro-econometrics via Simulations Summer Course, 2015</p>
Languages & Software	<p>English (native), French (advanced) Proficient in R, Stan, Matlab, Python, Stata, L^AT_EX, AWS and GCP Cloud Computing, Pytorch, Tensorflow, TensorLy Familiar with FORTRAN, C++, SQL, SAS, SPSS</p> <p>Software: TensorLy LDA: https://tensorly.org/tlda/dev/index.html ElectIt, Election Forecasting Software, <i>Forthcoming</i>, with (Jonathan Katz, Gary King, Dominic Skinnion, Allison Xu)</p>
Extracurricular	<p>Graduate Student Council, Director for Humanities and Social Science (2021-2022) Graduate Student Council, Director for Humanities and Social Science (2020-2021) Federal Reserve LGBTQ+ ERG, Executive Committee (2017 - 2018) President, Princeton Running Club (2013-2015)</p>
Professional Memberships	<p>APSA, 2020-Present Society for Political Methodology, 2020-Present MPSA 2020-Present</p>
Peer Reviewer	<p>Political Analysis, Journal of Machine Learning Research</p>
References	<p>R. Michael Alvarez, Jonathan N. Katz, Gary King</p>