

JUN (BEAN) ZHAO

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Employment

- Assistant Professor of Economics, The University of Alabama, August 2021 – Present

Education

- Vanderbilt University, Department of Economics
Ph.D. in Economics, June 2021
Dissertation Title: Essays on the Econometrics and Empirics of Bayesian Games
Dissertation Committee: Tong Li (**advisor**), Joshua D. Clinton, Atsushi Inoue, Mattias Polborn, Pedro H.C. Sant'Anna
- Renmin University of China, School of Economics
M.A. in Economics, 2015
B.A. in Economics and B.S. in Mathematics, 2013

Research and Teaching Fields

- Microeconometrics, Empirical Industrial Organization, Political Economy

Honors and Fellowships

- CEGS Grant Funding, Vanderbilt University, Spring 2020
- Teaching Assistantship, Vanderbilt University, 2016, 2017; Fall 2018, Fall 2019, Fall 2020
- University Graduate Fellowship, Vanderbilt University, 2015 - 2020

Research Assistant Experience

- Research Assistant for Professor Tong Li: Summer 2017; Summer 2018; Spring 2019; Spring 2020, Summer 2020, Fall 2020; Spring 2021

Teaching Experience

- The University of Alabama, Instructor
Industrial Organization (Undergraduate): *expected* Spring 2022
Causal Inference (Ph.D.): *expected* Spring 2022
- Vanderbilt University, Instructor
Economic Statistics (Undergraduate): Summer 2019
- Vanderbilt University, Teaching Assistant

Statistical Analysis (Ph.D.): Fall 2019
 Econometrics II (Ph.D.): Fall 2018, Fall 2019
 Intermediate Microeconomic Theory (Undergraduate): Fall 2016, Fall 2018
 Econometrics I (Ph.D.): Spring 2017, Spring 2018
 Microeconometrics (Ph.D.): Spring 2018
 Microeconomic Theory III (Ph.D.): Fall 2017
 Selected Topics in Mathematics for Economists (Ph.D.): Fall 2017
 Econometrics (M.A.): Spring 2017
 Microeconomic Theory (M.A.): Fall 2016

Research Papers

1. “[Campaign Spending in Senate Elections: A Structural Analysis of a Two-Stage Election with Endogenous Candidate Entry](#),” ***Job Market Paper***

This paper quantifies the effect of campaign spending on electoral outcomes in the U.S. Senate elections. To this end, I develop a two-stage asymmetric contest model where in the first stage potential candidates decide whether to enter, and in the second stage those that decide to enter participate in an election consisting of within-party primaries and a general election where they make campaign spending decisions to influence the probability of winning. I also specify voters’ decisions through a latent utility model. I estimate this game-theoretic model using data on the vote shares of Senate candidates in primary and general elections, data on candidates’ campaign spending, and state-year level covariates for Senate elections between 1994 and 2018. Taking account of endogenous entry, I find that candidates with past legislative experience and incumbents spend more and run more relative to the rest of the potential challengers, and that campaign spending is more effective in increasing votes in the primary compared to the general election. Moreover, I show that the primary election in the incumbent’s party is important in the sense that it can increase the electoral competition. I also show in a counterfactual analysis that a public funding policy targeting at challengers can reduce the amount of campaign spending by candidates, and increase the probability of challenger victory modestly.

2. “[Doubly Robust Difference-in-Difference Estimators](#),” with Pedro H. C. Sant’Anna, ***Journal of Econometrics***, vol. 219 (1), p. 101-122, 2020. [[SSRN](#)] [[arXiv](#)] [[Supplementary Appendix](#)] [[R package: DRDID](#)]

This article proposes doubly robust estimators for the average treatment effect on the treated (ATT) in difference-in-differences (DID) research designs. In contrast to alternative DID estimators, the proposed estimators are consistent if either (but not necessarily both) a propensity score or outcome regression working models are correctly specified. We also derive the semiparametric efficiency bound for the ATT in DID designs when either panel or repeated cross-section data are available, and show that our proposed estimators attain the semiparametric efficiency bound when the working models are correctly specified. Furthermore, we quantify the potential efficiency gains of having access to panel data instead of repeated cross-section data. Finally, by paying particular attention to the estimation method used to estimate the nuisance parameters, we show that one can sometimes construct doubly robust DID estimators for the ATT that are also doubly robust for inference. Simulation studies and an empirical application illustrate the desirable finite-sample performance of the proposed estimators. Open-source software for implementing the proposed policy evaluation tools is available.

Working Papers

1. “Nonparametric Identification of Bayesian Games under Exclusion Restrictions,” with Tong Li and Jun Zhang, *under review*
2. “Testing for Collusion in Procurement Auctions,” with Tong Li and Jun Nakabayashi, *under review*

Work in Progress

1. “Efficacy of a Bidder Training Program in Procurement Auctions with Selection and Entry,” with Dakshina G. De Silva and Tong Li
2. “Nonparametric Identification and Estimation of Bayesian Games,” with Tong Li and Jun Zhang
3. “Nonparametric Estimation of Tullock Contest Models”

Publications in Chinese

1. “Poverty in China: Re-Analysis Adjusted by the Equivalence Scale,” *Management World*, 2015, 10:65-77 (with Yang Song)

Presentations and Conferences

- Presentations of Research
 - Seminar Series at Colby College, Waterville, Maine, November 2021 (scheduled)
 - Brown Bag Seminar Series at The University of Alabama, Tuscaloosa, AL, September 2021
 - The 2021 European Summer Meeting of the Econometric Society (Virtual), August 2021
 - The 2021 China Meeting of the Econometric Society (Virtual), July 2021
 - The Conference on Econometrics of Games, Matching and Networks (2021) (Virtual), June 2021
 - 2021 MPSA Conference (Virtual), April 2021
 - The 2020 European Winter Meeting of the Econometric Society (Virtual), December 2020
 - SEA 90th Annual Meeting (Virtual), November 2020
 - The 15th Annual Economics Graduate Student Conference (Virtual), November 2020
 - The Econometric Society and Bocconi University Virtual World Congress, Milan, Italy, August 2020
 - 7th Annual Conference on Auctions, Competition, Regulation and Public Policy, Lancaster, UK, May 2020 (cancelled)
 - 2020 MPSA Conference, Chicago, IL, April 2020 (cancelled)
 - Conference on Advances in Econometrics, Nashville, TN, October 2019
 - Vanderbilt Work in Progress Seminar, Nashville, TN, September 2019
 - Vanderbilt Graduate Student Research Day, Nashville, TN, April 2019
- Conference Attended
 - ASSA 2022 Annual Meeting (Virtual), January 2022 (scheduled)
 - SEA 91th Annual Meeting, Houston, Texas, November 2021 (scheduled)
 - The 5th Dongbei Econometrics Workshop (Virtual), June 2021
 - Conference on Identification in Econometrics, Nashville, TN, April 2018
 - Conference on Econometrics and Models of Strategic Interactions, Nashville, TN, April 2017

Computer Skills

R, Python, Matlab, Stata, and \LaTeX

Personal

Citizenship: China (H1B visa)

Language: English (Fluent), Chinese (Native)

Professional References

Professor Tong Li (Advisor)

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Senior Researcher, Microsoft

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