Guozhen (Gordon) Ji - CV

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gordonjgz 'at' gmail.comDate of BirthOctober 15^{th} , 1995Websitehttps://about.gordonji.phd

Education

2020-Present PhD, Economics, University of Texas at Austin

Field courses - Empirical Industrial Organization, Econometrics

Research Interests - Industrial Organization, Price Discrimination, Environmental

Economics, Transportation Economics

2014-2018 BS w/ General Honors, Statistics and Economics, University of Chicago

References

Eugenio Miravete University of Texas at Austin, eugenio@utexas.edu

Robert Town University of Texas at Austin, robert.town@austin.utexas.edu

Jackson Dorsey University of Texas at Austin, jackson.dorsey@austin.utexas.edu

Andrey Ordin University of Texas at Austin, andrey.ordin@mccombs.utexas.edu

Alon Bergman University of Pennsylvania, Wharton School of Business, alonberg@wharton.upenn.edu

Honors and Scholarships

2022 Outstanding 2nd Year Paper Award, University of Texas at Austin

2020-Present Graduate Fellowship, University of Texas at Austin

Employment Experiences

Summer 2025 The Brattle Group **Summer Associate** *Washington, DC*

- Contributed to the liability phase of a litigation case to quantify the impact of a health insurer's alleged monopsony power against a hospital system.
- Developed an econometric model for the "but-for" scenario. Calculated the counterfactual
 market share of the insurer with additional heterogeneities of competitors and contributed to
 the final damage calculations. Provided the core quantitative evidence for the liability report.
- Managed 5 project work streams from raw data processing, statistical analysis, and short-term deliverables, directly leading 2 research analysts on individual streams to produce key GIS visualizations and econometric evidence for the case.

Research

Working Papers

Spring 2025 "Rain or Shine? Optimal Utility Pricing under Extreme Weather" (Job Market Paper)

As climate change amplifies extreme weather conditions, water utilities face increasingly volatile demand and revenue, challenging the ability of fixed Increasing Block Prices (IBP) to simultaneously ensure revenue feasibility, promote conservation, and protect low-income consumers. This paper tests whether price alone can achieve these competing policy goals under such conditions. Using granular household data from Austin, TX, and a structural demand model enhanced with satellite imagery-derived vegetation index, I find that the presence of high-quantity consumers across all income levels undermines the effectiveness of IBP. Furthermore, higher-income households-who are both weather-sensitive and surprisingly price-elastic—complicate the utility's ability to achieve its distributional objectives while meeting conservation and revenue targets. Empirically, when extreme weather shifts the demand curve rightward (e.g., during a drought), the conservation constraint becomes binding, imposing a disproportionate welfare loss on the lowest-income stratum, averaging \$60.92 per household per month. Conversely, when demand shifts leftward (e.g., during rainy periods), revenue concerns become binding, also imposing a disproportionate loss on the same group, averaging \$63.65 per household per month. These results highlight the necessity of complementary policies to achieve distributional goals. For example, encouraging households to zeroscaping/xeriscaping by 20% could generate \$57.35 in welfare per household per month for the lowest-income stratum, almost nullifying the welfare loss from the conservation policy's shadow cost.

Fall 2022 "Spatial Heterogeneous Consumers: The Welfare Effect of UberPool" Outstanding 2nd Year Paper Award

Many economic research studies have been focusing on the demand and welfare estimation of the ride-hailing market, specifically for platforms like Uber and Lyft. In this paper, I estimate the welfare effect of UberPool as a new product in the ride-hailing market accounting for heterogeneous preferences within and across locations by using a discrete-type random coefficient nested logit model. I find that, relative to the counterfactual worlds without UberPool, UberPool can increase consumer surplus by $31.58\% \sim 33.51\%$. Even a partially accessible UberPool by location is 2.57% higher on consumer surplus, compared to if only UberX were provided but with lower prices, which shows the magnitude of the variety effect in the ride-hailing market.

Work in Progress

Spring 2024 "Constrained Price Discrimination on Value of Time"

Many tolled roads in the US have been using a dynamic pricing mechanism to react to fluctuating demand, which essentially forms a price discrimination on the value of time (VOT), incentivizing high VOT users to use the more expensive toll lanes to save time and vice versa. In this paper, I explored this price discrimination on VOT with two common infrastructure constraints - 1. a fixed free price on the slow lanes, and 2. the fast lanes and slow lanes are not perfect substitutes in terms of their exits. Following existing research, I develop a structural model for optimal tolls to maximize consumer welfare and use <u>BLP</u> to estimate the demand and <u>price</u> elasticity for the Express Lane. In addition, I also conducted a counterfactual analysis to explore the welfare effect of different policies on toll designs and infrastructural investments.

Research Experience

2018-2020 Princeton University, Senior Research Specialist to Stephen Redding and Oleg Itskhoki
 2017-2018 University of Chicago Booth School of Business, Research Assistant to Richard Hornbeck

Teaching Experience

As an Assistant Instructor

Fall 2024 ECO 329, Economic Statistics
Summer 2024 ECO 329, Economic Statistics
Fall 2023 ECO 329, Economic Statistics
Summer 2023 ECO 329, Economic Statistics

As a Teaching Assistant

Fall 2025 ECO 101S, Economics to Career, Hong Tran Escobar

Spring 2025 ECO 441K, Introduction to Econometrics, Brendan Kline, Helen Schneider

Spring 2024 ECO 320L, Macroeconomic Theory, Andreas Mueller

Spring 2023 ECO 441K, Introduction to Econometrics, Brendan Kline, Helen Schneider **Fall 2022** ECO 441K, Introduction to Econometrics, Daniel Ackerberg, Haiqing Xu

Fall 2022 ECO 354M, Experimental Economics, Charity-Joy Acchiardo
Summer 2022 ECO 304L, Introduction to Macroeconomics, Charity-Joy Acchiardo

Spring 2022 ECO 330T, Experimental Economics, Charity-Joy Acchiardo ECO 330T, Experimental Economics, Charity-Joy Acchiardo

Skills

Technical Skills

Programming Languages: Python, R, MATLAB, Stata, SQL, C, Racket

Data Analysis & Manipulation

Languages & Libraries Python (NumPy, Pandas, SciPy, Jax.Jit), R (dplyr, Tidyverse, ggplot)

Databases SQL (PostgreSQL)

Core Skills Relational data operations (joins, aggregations), data wrangling, ETL

Geospatial Software: ArcGIS (Arcpy), Google Earth Engine (geemap)

Developer Tools: Git, Jupyter Notebook, VS Code

■ Language Skills

English, Full professional proficiency Mandarin, Native or bilingual proficiency Shanghainese, Native or bilingual proficiency