

Karthik Tadepalli

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EDUCATION

UNIVERSITY OF PENNSYLVANIA
BA, MATHEMATICAL ECONOMICS

WITH HONORS

MINOR - STATISTICS

May 2021 | Philadelphia, PA

Cumulative GPA: 3.92/4.00

COURSEWORK

Microeconomic Theory (PhD)

Game Theory (PhD)

Experimental Economics (PhD)

Market Design (PhD)

Advanced Econometrics

Real Analysis 1 & 2

Advanced Linear Algebra

Probability Theory

Intermediate Computer Science

HONORS

PHI BETA KAPPA

Elected as a junior, top 8 out of
2500 students

UNIVERSITY SCHOLAR

Received Penn grant to fund
independent experimental
research

PROJECTS

- Scraping Twitter economists for network analysis
- Extracting India's family health data from PDFs into a tidy dataset
- Discovery engine for social science research papers
- Data essay analyzing India's air quality under COVID
- Python package to simulate matching markets (WIP)

SKILLS

DATA ANALYSIS

R || 20,000+ lines

Stata || 5,000+ lines

Python || 5,000+ lines

Extensive experience with web scraping, NLP, building data pipelines

PROGRAMMING

Java || 5,000+ lines

OCaml || 1,000+ lines

Comfortable with JavaScript, SQL, Git, Unix scripting

RESEARCH

Multihoming in Ridesharing Markets: Welfare and Investment (with Amit Gupta) (submitted)

- We show that multihoming—ridesharing drivers serving multiple platforms—benefits both riders and drivers, by reducing waiting time for drivers while reducing prices for riders. However, multihoming creates harmful incentives: when platforms can be asymmetric, we show that multihoming disincentivizes a firm from becoming more efficient than its competitor, even if that efficiency gain is free. Thus, multihoming may have short-term benefits but long-term harms.

Income-Share Agreements: A Mechanism Design Approach (under revision)

- I study the growing rise of income-share agreements to fund college education, contrasting them with fixed tuitions. I find that ISAs increase the supply of education, but they reduce student productivity relative to tuition. However, this tradeoff disappears when universities compete: in a duopoly where universities can choose their pricing model, tuition pricing is socially efficient, maximizing both the supply and productivity of education. Furthermore, tuition pricing is a dominant strategy for universities, so equilibrium is efficient.

Beyond Ordinal: The Value of Cardinal Information in Matching (with Judd Kessler, Clayton Featherstone) (in progress)

- We study the scope to improve welfare in matching markets through eliciting richer preferences. We first study the allocation of Harvard MBAs, and show that eliciting indifference gives 10% more people their first choice. We then build on this with a teacher placement match in Chile, and show that maximizing cardinal welfare makes teachers \$1,700 better off—simply eliciting indifference accounts for half of this improvement.

Dynamic Job Discrimination (with Aislinn Bohren) (in progress)

- Job discrimination may be driven by inaccurate beliefs about minority workers. We examine how such inaccurate beliefs can be identified in a dynamic labor market, showing an outcome—partial unravelling—that cannot occur when firms have accurate beliefs. Furthermore, we use this framework to show that early hiring creates discriminatory outcomes, and that a counterfactual policy that banned early contracting would reduce inaccurate discrimination.

EXPERIENCE

DATA ANALYSIS

Full-Time Research Assistant to Heather Schofield || May 2020 -

- Analyze administrative data from garment factory to evaluate a pilot intervention to reduce loneliness among female migrants in India
- Designing an experiment to measure the impact of mental health on beliefs
- Analyze Indian economic panel to determine the effects of COVID lockdowns on households, as well as their recovery

Research Intern, JPAL || August 2019 - December 2019

- Analyzed India's universal housing program to build data management systems and identify recipient characteristics
- Trained government officials in data collection and maintenance

Wharton Analytics Fellow, January 2019 - May 2019

- Optimized advertising auction bidding for GroupM by using machine learning on millions of historical actions to identify high-value customers

DEBATE

Debater and Coach, Indian National Debate Team || May 2016 -

- One of 5 out of 1,000+ representing India at world championships in 2016, 2017
- In 2019, coached first Indian team to win world championships