Ming Ge

University of Massachusetts Amherst
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Research Interest

Applied Microeconomics, Industrial Organization, Experimental and Behavioral Economics

Education

The University of Massachusetts - Amherst — Amherst, MA
Ph.D. in Resource Economics (Co-advisors: Dr. Christian Rojas and Dr. Rong Rong) — *Expected 2023*
Graduate Certificate in Statistical and Computational Data Science — *Expected 2023*

Weber State University — Ogden, UT
B.S. in International Economics, magna cum laude — *2015*

Skills

Data Analytics: Advanced Statistics and Econometrics, Causal Inference, Machine Learning, Randomized Controlled Experimental Design, Preference and Belief Elicitation, Survey Design

Software: Stata, Python, Matlab, R, LaTeX, MS Office, Z-Tree, Qualtrics

Language: Chinese (Native), English (Fluent)

Dissertation Chapters

It Takes Two Hands to Clap: The Effects of Reputation and Search in Healthcare Markets, ⋆ *Job Market Paper*

Different Types of Reputation and Their Effect on Efficient Healthcare Provision

What Drives Soaring Wholesale Electricity Prices During Nuclear Refueling Outage?, with Xiaolin Zhou

Work In Progress

Measuring Welfare Loss of Market Power During Nuclear Refueling Outage, with Xiaolin Zhou

Learning Game Theory by Gaming: A Laboratory Valuation, Data Collection Complete, with Rong Rong

Does Information Disclosure Bring the C-section Rates Down? Evidence from New York Hospitals

Other Research Experience

RA for Prof. Christian Rojas (Hatch Research Project, USDA), Summer 2020, Summer 2021

RA for Prof. Rong Rong and Prof. Christine Crago (Behavioral Preferences and Contract Choice in the Residential Solar PV Market Project, UMass Amherst), 2018

RA for Prof. Rong Rong and Prof. Sherry Gao (Preference, Belief and Flu Shot Decisions Project, UMass Amherst), 2017-2019

RA for Prof. Rong Rong, Prof. Matthew Gnagey and Prof. Therese Grijalva (Interpersonal Discounting in Households Project, WSU), 2016

Attendee for IFREE Graduate Student Workshop in Experimental Economics, Chapman University, 2019

Teaching Experience

Instructor (Avg. Rating: 4.5 out of 5)

Intro to Statistics for Social Science (Undergraduate level GenEd course - ResEcon 212), Summer 2022

Teaching Assistant

Intro to Statistics for Social Science (ResEcon 212) - Lead Teaching Assistant, Fall 2019 - Fall 2022
Managerial Economics (ResEcon 428), Spring 2019
Financial Analysis for Consumers and Firms (ResEcon 314), Fall 2018

Conference Presentations

World Economic Science Association Conference (Boston, MA)	2022
New England Experimental Economics Workshop (Amherst, MA)	2022
Annual UMass ResEcon Graduate Conference (Amherst, MA)	2018-2022
30th Anniversary National Conference on Undergraduate Research (Asheville, NC)	2016
12th Weber State University Undergraduate Research Symposium (Ogden, UT)	2016

Grants and Fellowships

The University of Massachusetts - Amherst

The Graduate School

Research Enhancement and Leadership (REAL) Fellowship ($22,000), 2017-2022
Graduate Fellows Travel Grant ($500), 2022
Graduate School Research Grant ($3,200), 2020-2021

Department of Resource Economics

Carolyn Harper Research Fellowship - Annual Outstanding Graduate Student Research Award ($3,000), 2022
Graduate Student Travel Funds ($1,200), 2019, 2022
Resource Econ Summer Scholarship ($6,400), 2019

Weber State University

Outstanding Graduate for Economics of the Year, 2016
Goddard Scholar - Graduates with the Top 10 Percent Cumulative GPAs, 2015
Departmental Honors in International Economics, 2015
Excellence in Community Engagement Award, 2015

Service

GEO Steward, Resource Economics Graduate Council, UMass Amherst	2019-2022
Volunteer Math Tutor, Refugee Resettlement Program, Utah	2016
Vice President, Student Economics Association, Weber State University	2015
Chair, Special Olympics Teams, Student Association, Weber State University	2014

References

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It Takes Two Hands to Clap: The Effects of Reputation and Search in Healthcare Markets

⋆ *Job Market Paper*

Asymmetric information between physicians and patients often leads to rampant overtreatment and low market efficiency. A standard reputation system falls short of being effective given the credence good nature of this market: Patients cannot tell whether a costly major treatment is necessary for their recovery even after the service is completed. This type of information asymmetry creates substantial incentives for physicians to overtreat. I propose a novel solution to this problem by combining two important market mechanisms: patient search and a physician reputation system. The key insight is that physician dishonesty detected through patient search facilitates meaningful reputation-building in repeated interactions. Search cost acts as a moderating factor for reputation. High search cost reduces search frequency, which inhibits the effect of reputation building. I test these mechanisms in a laboratory experiment and find supporting evidence from this sample. The results highlight that accessibility to patient search may improve physician ethical behavior and contribute to more equitable access to healthcare.

Different Types of Reputation and Their Effect on Efficient Healthcare Provision

There is abundant evidence that physicians exploit their information advantage and overtreat their patients. Previous studies have shown that it is possible to use reputational information to curb wasteful overtreatment. It is unclear, however, which types of information are better at conveying physicians' reputations. Given the strict privacy requirement on medical records, patients often can only rely on their own past interactions with various physicians. The accumulation of such history is costly both in terms of money and time. I suggest an alternative type of reputational information that can be publicly available without violating patients' privacy: the count of each type of service recommended by a physician at the aggregate level. I experimentally examine these two types of reputational information systems and compare their effect on physician overtreatment and patient trust. I show that there is no significant difference in the level of overtreatment or market efficiency between the two informational conditions. Information on aggregated service counts, however, slightly improves patient trust in the treatment recommendations received and thus reduces costly patient search. Moreover, when the aggregated service count is visible to both patients and physicians, it leads to a quicker convergence on the frequency of overtreatment recommendations over time.

What Drives Soaring Wholesale Electricity Prices During Nuclear Refueling Outage?

With Xiaolin Zhou

Nuclear power has the lowest marginal cost among all non-renewable energy, so it always sits at the bottom of the supply curve when the reactors operate. However, reactors must undergo periodic refueling approximately every 18 months, and refueling typically leads to month-long outages. In this study, we examine how nuclear refueling outage affects the electricity wholesale market in New England. Using day-ahead hourly market data between 2016 and 2018, we find that the market-clearing price increases by $6 on average when one of the four nuclear reactors in the region is offline. This large price increase could reflect the negative supply shock as well as increased market power from dominant firms. Our analysis of firms' bidding behavior suggests that approximately one-third of the price effect is explained by increased market power. Back-of-the-envelope calculations show that the welfare loss resulting from firms' market power reaches up to 40 million annually.

Measuring Welfare Loss of Market Power During Nuclear Refueling Outage

With Xiaolin Zhou

We are using a strategic bidding model to estimate firm-level and generator-level marginal costs and measure welfare loss of market power during nuclear refueling outage in the New England Electricity market. We also plan to construct counterfactuals to test potential mitigating policies for increased market power.

Learning Game Theory by Gaming: A Laboratory Evaluation

with Rong Rong

There was a long history that economics had been taught as a theory-intensive science. However, since Chamberlin (1948) first introduced a classroom game on market efficiency into his class, more economic games and demonstrations have been integrated into the economics classroom. In this study, we investigate whether implementing an interactive game can really boost students' understanding of a particular economic topic. To better control other factors that may influence student learning, we tentatively move the experiment from the real classes to the laboratory. Aiming at measuring the effectiveness of games, we randomly assign students into different groups, which vary in pedagogical approaches and monetary incentives, and estimate their achievements through their scores on the pretest, posttest, and retention tests.

Does Information Disclosure Bring the C-section Rates Down? Evidence from New York Hospitals

Under fee-for-service payment, C-section deliveries typically have a higher reimbursement rate than vaginal deliveries. Thus, financial incentives lead to more C-section deliveries than are actually necessary. To address the high cesarean birth rate, a new law regarding information for maternity patients requires all New York hospitals to post the last five years of data surrounding maternity procedures on their website. To evaluate the effect of this legislation, I will apply a difference-in-differences model to compare the change in C-section rates in New York with that in neighboring states.

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