

PARKER ROGERS

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EDUCATION

Ph.D.	University of California, San Diego Economics	(Expected) 2023
M.A.	University of California, San Diego Economics	2018
B.S.	Brigham Young University, <i>magna cum laude</i> Applied & Computational Mathematics and Economics	2017

REFERENCES

Jeffrey Clemens	UC San Diego	jeffclemens@ucsd.edu
Joshua Graff Zivin	UC San Diego	jgraffzivin@ucsd.edu
Craig McIntosh	UC San Diego	ctmcintosh@ucsd.edu

FIELDS OF INTEREST

Public Finance, Health Economics, Economics of Innovation.

JOB MARKET PAPER

“Regulating the Innovators: Approval Costs and Innovation in Medical Technologies”

Winner of the Best Paper Award at SOCAE 2021

Abstract: How does regulation affect innovation and market competition? I examine this question by exploiting FDA deregulation events that affected certain medical device types but not others. I gather new, comprehensive data on medical device innovation, prices, and regulation changes from eight different sources. The analysis of this data yields three core results. First, deregulation significantly increases the quantity and quality of innovation in treated device types relative to controls. These effects are especially large among small and inexperienced firms. Second, deregulation increases firm entry and lowers the prices of medical procedures that use treated medical device types. Third, rates of serious injuries and deaths caused by defective devices do not measurably increase after deregulation. In fact, deregulating some device types lowered these adverse events rates significantly—consistent with firms increasing their emphasis on product safety as deregulation exposed firms to more liability risk.

WORKING PAPERS

“Demand Shocks, Procurement Policies, and the Nature of Medical Innovation: Evidence from Wartime Prosthetic Device Patents” NBER Working Paper No. 26679 (with Jeffrey Clemens).

Revise and Resubmit at the Review of Economics and Statistics

Abstract: We analyze wartime prosthetic device patents to investigate how procurement policy affects the cost, quality, and quantity of medical innovation. Analyzing whether inventions emphasize cost and/or quality requires generating new data. We do this by first hand-coding the economic traits emphasized in 1,200 patent documents. We then train a machine learning algorithm and apply the trained models to a century’s worth of medical and mechanical patents that form our analysis sample. In our analysis of these new data, we find that the relatively stingy, fixed-price contracts of the Civil War era led inventors to focus broadly on reducing costs, while the less cost-conscious procurement contracts of World War I did not. We provide a conceptual framework that highlights the economic forces that drive this key finding. We also find that inventors emphasized dimensions of product quality (e.g., a prosthetic’s appearance or comfort) that aligned with differences in buyers’ preferences across wars. Finally, we find that the Civil War and World War I procurement shocks led to substantial increases in the quantity of prosthetic device patenting relative to patenting in other medical and mechanical technology classes. We conclude that procurement environments can significantly shape the scientific problems with which inventors engage, including the choice to innovate on quality or cost.

WORKS IN PROGRESS

“Confused and Stigmatized: The Unintended Effects of Social Media Advertising on Take-Up”

Abstract: Can newer outreach modalities like Facebook and Instagram help increase the take-up of the Supplemental Nutritional Assistance Program? Could some demographic groups respond negatively to such outreach? I conduct a field experiment in California with government and non-profit partners to answer these questions. I find that advertising does not increase take-up. In fact, outreach decreases take-up and increases withdrawals among Spanish speakers, an effect plausibly driven by cultural stigmatization and confusion.

“The Effect of Deregulation on the Cost, Availability, and Quality of Health Care”

(With Yunan Ji and Maggie Shi)

Research Question: How does supply-side deregulation affect the market for healthcare inputs, and how do these effects ripple through the healthcare supply chain?

“Does Price Regulation Affect Innovation? Evidence from Durable Medical Equipment”

(With Yunan Ji)

Research Question: What are the dynamic effects of low prices set via competitive bidding?

“Machine Learning for Text Analysis: Pitfalls, Solutions, and Lessons Learned Analyzing Patent Documents”

(With Jeffrey Clemens)

Research Question: How can researchers use text analysis algorithms for research in Economics?

HONORS, AWARDS, AND GRANTS

WEAI Graduate Student Workshop	2022
Yankelovich Center Graduate Research Award	2022
Best Paper Award, Southern California Graduate Conference (SOCAE)	2021
NBER Health Economics Research Boot Camp	2019
Advancement to Candidacy Fellowship, UCSD	2020–2021
Graduate Summer Research Scholarship, UCSD	2018–2019
Research Grant, Dissertation Development, UCSD	2018, 2021
Regents Fellowship, UCSD	2017–2018
Public Finance Fellowship, UCSD	2017–2018

RELEVANT POSITIONS HELD

Research Assistant	UCSD (Prof. Jeffrey Clemens)	2018 - 2019
Policy Modeling Team	Open-Source Policy Center	2016 - 2017
Research Assistant	BYU (Profs. Richard Evans and Kerk Phillips)	2015 - 2016

PROFESSIONAL ACTIVITIES

Conference Presentations

International Conference on the Science of Science and Innovation (accepted talk),	2022
WEAI Graduate Student Workshop	
American Society of Health Economists Annual Conference (ASHEcon),	2021
Young Economist Symposium (YES), Southern California Graduate Conference in Applied Economics (SOCAE),	
International Conference on Health Policy Statistics (ICHPS)	2020
National Tax Association Annual Conference (NTA)	2019

Teaching and Mentoring

Undergraduate Research Assistant Supervision (4 concurrent RAs)	2018-2020
Teaching Assistant: Principles of Microeconomics ($\times 2$), Microeconomics A, Microeconomics B ($\times 3$), Microeconomics C, Game Theory ($\times 2$)	2018-
Teaching Assistant: Economics Principles and Problems, BYU	2015

Referee Service

Review of Economics and Statistics, Journal of Public Economics, Journal of Health Economics.

Other Relevant Activities

2014 Economic Analyst Intern, United States Senate.

Other Information

Citizenship:	USA
Fluent Languages:	English, Spanish
Computational Languages:	Python, R, MATLAB, STATA, SQL, Git