PARKER ROGERS

Department of Economics
University of California, San Diego
9500 Gilman Drive
La Jolla, CA 92093-0508

Phone: (385) 207-9799
Email: parogers@ucsd.edu
Website: parker-rogers.com
GitHub: https://github.com/parkerrogers

Placement Director	Jim Andreoni	(858) 952-6183	andreoni@ucsd.edu
Placement Coordinator	Andrew Flores	(858) 534-1867	aflores@ucsd.edu

EDUCATION

Ph.D.	University of California, San Diego Economics	(Expected) 2023
M.A.	University of California, San Diego Economics	2019
B.S.	Brigham Young University, *magna cum laude* Applied & Computational Mathematics and Economics	2017

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
Media coverage: Marginal Revolution

Abstract: How does FDA regulation affect innovation and market concentration? I examine this question by exploiting FDA deregulation events that affected certain medical device types but not others. I use text analysis to gather comprehensive data on medical device innovation, device safety, firm entry, prices, and regulatory changes. My analysis of these data yields three core results. First, these deregulation events significantly increase the quantity and quality of new technologies in affected medical device types relative to control groups. These increases are particularly strong among small and inexperienced firms. Second, these events increase firm entry and lower the prices of medical procedures that use affected medical device types. Third, the rates of serious injuries and deaths attributable to defective devices do not increase measurably after these events. Perhaps counterintuitively, deregulating certain device types lowers adverse event rates significantly, consistent with firms increasing their emphasis on product safety as deregulation exposes them to more litigation.

WORKING PAPERS

"Demand Shocks, Procurement Policies, and the Nature of Medical Innovation: Evidence from Wartime Prosthetic Device Patents" (with Jeffrey Clemens).
Conditionally accepted at the ***Review of Economics and Statistics***
Selected for presentation at the 2020 NBER Summer Institute Public Economics workshop
Media coverage: VoxEU, The Conversation, Marginal Revolution

Abstract: We analyze wartime prosthetic device patents to investigate how demand shocks and procurement environments can shape medical innovation. We use machine learning tools to develop new data describing the aspects of medical and mechanical innovations that are emphasized in patent documents. Our analysis of historical patents yields three primary facts. First, we find that the U.S. Civil War and World War I led to substantial increases in the quantity of prosthetic device patenting relative to patenting in other medical and mechanical technology classes. Second, we find that the Civil War led inventors to increase their focus on reducing cost, while World War I did not. The Civil War era emphasis on cost is consistent with a role for that period's cost-conscious procurement model. Third, we find that inventors emphasized dimensions of product quality (e.g., a prosthetic limb's comfort or facilitation of employment) that aligned with differences in buyers' preferences across wars. We conclude that procurement environments can significantly shape the dimensions of the technical frontier with which inventors engage.

WORKS IN PROGRESS

"The Unintended Effects of Social Media Nudges on SNAP Take-Up"

Abstract: The incomplete take-up of US social safety net programs is an enduring puzzle. I test whether nudges delivered on Facebook increase the take-up of the Supplemental Nutritional Assistance Program using a field experiment in California with government and non-profit partners. Over 16,000 SNAP-eligible non-participants were randomly assigned to a control group or to receive ads in their news feeds that either provided information about benefit amounts, emphasized a low-cost, streamlined application process, or de-stigmatized participation. The experiment also used a separate Spanish speaker arm with Spanish-translated text. I find that nudges did not increase take-up. Surprisingly, the nudges decreased take-up and increased withdrawals among Spanish speakers, an effect plausibly driven by stigma and confusion.

"The Dynamic Effects of Health Care Price Reform" (With Yunan Ji)

Abstract: We study how government price reforms affect innovation and welfare in the health care sector. We exploit a Medicare payment reform that effectively reduced the reimbursement price for certain types of durable medical equipment (DME) by 45% but left other DME types unchanged. Using DME patents and the FDA medical device database, we find that manufacturers filed fewer patents and introduced fewer new models in DME types affected by the price cut compared to those unaffected. Text analysis of the patent documents suggests that patents filed after the price cut were more likely to emphasize cost efficiency relative to the control. However, reported device breakage and adverse events also increased relative to the control. These effects were largely driven by increased contracting with foreign manufacturers, which tend to cost less but produce lower quality devices. While price regulation in health care can effectively reduce spending, our results show that welfare gains from these savings can be offset by reduced innovation and product quality in the longer term. Our analysis highlights the importance of incorporating long-run dynamics into policy decisions.

"The Effect of Deregulation on the Cost, Availability, and Quality of Health Care"
(With Yunan Ji and Maggie Shi)

Abstract: We study the effects of FDA regulation on the cost, availability, and quality of health care. Our analysis exploits a deregulation event that removed pre-market testing requirements for over 250 medical device types. We leverage rich, transaction-level data on device purchases made by healthcare providers, as well as claims for medical procedures performed using purchased devices. We first consider the effects of deregulation on the prices, quantities, and characteristics of devices purchased and procedures performed. We then consider the implications for healthcare access and patient health. Our results will shed light on how government regulation affects the interactions between the key players in the healthcare supply chain, and how these interactions contribute to healthcare costs, quality, and accessibility in the United States.

HONORS, AWARDS, AND GRANTS

Research Grant, Mercatus Center at George Mason University. $35,000 (with Yunan Ji and Maggie Shi)	2022
Georgetown Business of Health Initiative. $33,000 (with Yunan Ji and Maggie Shi)	2022
WEAI Graduate Student Workshop	2022
Clive Granger Research Fellowship Award	2021–2022
WEAI Graduate Student Workshop	2022
Yankelovich Center Graduate Research Award	2022
Best Paper Award, Southern California Graduate Conference (SOCAE)	2021
Advancement to Candidacy Fellowship, UCSD	2020–2021
NBER Health Economics Research Boot Camp	2019
Graduate Summer Research Scholarship, UCSD	2018, 2019
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), WEAI Graduate Student Workshop	2022
American Society of Health Economists Annual Conference (ASHEcon), Young Economist Symposium (YES), Southern California Graduate Conference in Applied Economics (SOCAE)	2021
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 (×2), Microeconomics A, Microeconomics B (×3), Microeconomics C, Game Theory (×2), UCSD	2018-
Teaching Assistant: Economics Principles and Problems, BYU	2015

Referee Service

Review of Economics and Statistics, *Journal of Public Economics*, *Journal of Health Economics*, *Health Policy*

Other Relevant Activities

Economic Analyst Intern, United States Senate	2014

Other Information

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

REFERENCES

Jeffrey Clemens (co-chair)	UC San Diego	jeffclemens@ucsd.edu
Joshua Graff Zivin (co-chair)	UC San Diego	jgraffzivin@ucsd.edu
Paul Niehaus	UC San Diego	pniehaus@ucsd.edu
Gordon Dahl	UC San Diego	gdahl@ucsd.edu