Toshio Ferrazares

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EDUCATION

UC Santa Barbara
Ph.D. Economics, 2025 (expected)
Field(s): *Labor Economics*, *Public Economics*

San Diego State University
M.A., Economics, 2019
B.A., Economics, Minor in Mathematics, 2017

JOB MARKET PAPER

"Shift Structure and Cognitive Depletion: Evidence from Police Officers".

Abstract: Decision-making, risk-taking, and situational awareness are all important factors for effective and equitable policing. However, these factors can also be affected by fatigue, overwork, and cognitive stress, which can accumulate as police officers continue to work. This paper studies how working consecutive days affects police officer outcomes and activity using rich data from the Chicago Police Department. To deal with potential selection of working days, I leverage arbitrarily-assigned fixed schedules as well as a two-way fixed effects design that uses both within-officer and within-assignment variation. This approach compares officers with the same roles who differ only on the number of working days leading up to that assignment. I find that, after initially increasing, officers make fewer arrests, conduct fewer stops, patrol less, and are more likely to be injured as they work more days. The declines in activity are driven by reductions towards the end of an officer's shift. Despite this decline in arrests and activity, officers file more use-of-force reports and make more judgement-based discretionary arrests after working many consecutive days.

PUBLICATIONS

"Monitoring Police with Body-Worn Cameras: Evidence from Chicago", *Journal of Urban Economics*, 2024.

Abstract: Using data from the Chicago Police Department on complaints filed by civilians and reports of force filed by officers, this paper estimates the effect of body-worn cameras (BWCs) of officer and civilian behavior. Using a two-way fixed effects design, I find BWCs are associated with a 29% reduction in use-of-force complaints, driven by white officer-black civilian complaints. Additionally, I find a 34% reduction in officers reporting striking civilians and a large though less significant reduction in officer firearm usage, potential mechanisms for the reduction in complaints. Importantly, I find no change in officer injury or force from civilians. However, I find evidence of de-policing as officers make fewer drug-related arrests following BWC adoption.

WORK-IN-PROGRESS

1. "The Unintended Consequences of Policing Technology: Evidence from ShotSpotter", with Michael Topper, *Under Review.*

   Abstract: Technology is integral to police departments, automating officer tasks, but inher- ently changing their time allocation. We investigate this by studying ShotSpotter, a technology that automates gunfire detection. Following a detection, officers are dispatched to the scene, thereby reallocating their time. We leverage this shock to officers' time allocation using the rollout of ShotSpotter across Chicago police dis- tricts to study the effects on 911 call response. We find substantial consequences— officers are dispatched to calls slower (23%), arrive on-scene later (13%), and the probability of arrest is decreased 9%. Consequently, police departments must eval- uate their resource capacities prior to implementing technologies.

2. "Have U.S. Gun Buyback Programs Misfired?" with Joseph J. Sabia and D. Mark Anderson, Revisions Requested at *Journal of Policy Analysis and Management.* NBER Working Paper #28763.

   Abstract: Gun buyback programs (GBPs), which use public funds to purchase civilians' privately-owned firearms, aim to reduce gun violence. However, next to nothing is known about their effects on firearm-related crime or deaths. Using data from the National Incident Based Reporting System, we find no evidence that GBPs reduce gun crime. Given our estimated null findings, with 95 percent confidence, we can rule out decreases in firearm-related crime of greater than 1.1 percent during the year following a buyback. Using data from the National Vital Statistics System, we also find no evidence that GBPs reduce suicides or homicides where a firearm was involved. These results call into question the efficacy of city gun buyback programs in their current form.

3. "Drinking Water Contaminants and Infant Health", with Katherine Grooms, Heather Royer, and Kevin Schnepel.

REFERENCES

Professor Heather Royer	Professor Peter Kuhn	Professor Kevin Schnepel
UC Santa Barbara	UC Santa Barbara	Simon Fraser University
Committee Chair	Committee Member	Committee Member
heather.royer@ucsb.edu	peter.kuhn@ucsb.edu	kevin_schnepel@sfu.ca

HONORS AND AWARDS

2024	Dissertation Summer Fellowship (UCSB)
2023	Research Quarter Fellowship (UCSB)
2021	Best 2nd Year Paper Award (UCSB)
2019	M.C. Madhavan Prize (SDSU)
2017, 2018	McCuen Fellowship (SDSU)
2017, 2018	Center for Public Economics Scholarship (SDSU)
2017, 2018	The Weintraub Paper Award (SDSU)

EMPLOYMENT AND EXPERIENCE

2023-24	Teaching Assistant, Labor Economics, Personnel Economics II
2022-23	Teaching Assistant, Data Wrangling for Economists
2021-Present	Research Assistant, Professor Heather Royer
2020-2021	Teaching Assistant, Intro to Macroeconomics
2019-2020	Teaching Assistant, Intro to Microeconomics
2019-Present	Center for Health Economics and Policy Studies, Doctoral Affiliate
2017-2019	Research Assistant, Professor Joseph Sabia

Referee Service: *Journal of Labor Economics*

Conference Presentations: **2024:** ACLEC (Los Angeles), WEAI Graduate Student Workshop (Seattle), **2023:** WEAI (San Diego), ACLEC Poster (Santa Barbara) **2019:** EEA (New York City), WEAI (San Francisco), APPAM Poster (Washington DC), **2018:** EEA (Boston)