

# Heather Bone

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**Citizenship:**

Canadian

**Research Interests:**

Economics of Crime, Labour Economics

## EDUCATION

Ph.D. in Economics, University of Toronto 2025 (Expected)  
*Committee:* Arthur Blouin (supervisor), Kory Kroft,  
David Price

M.A in Economics, University of Toronto 2018

B.A in Economics, University of Waterloo 2017

## RESEARCH

**The Impact of Kingpin Captures and Deaths on Cartel Structure: Evidence from Mexico** (Job Market Paper)

**Detecting Unobserved Drug Smuggling Using Export Data: Evidence from Peru**

## AWARDS AND GRANTS

Social Sciences and Humanities Research Council Doctoral Fellowship 2019 - 2023  
(\$20,000 x 4)

University of Toronto Doctoral Fellowship (\$12,000) 2018

University of Toronto Doctoral Recruitment Award (\$5000) 2018

University of Toronto Graduate Award (\$10,000) 2018

University of Toronto Faculty of Arts and Sciences Admission Award 2017  
(\$12,000)

## PROFESSIONAL EXPERIENCE

Course Instruction

2023 - 2024

- ECO 200: Microeconomic Theory (Course Instructor)
- ECO 225: Big Data Methods for Economists (Guest Lecturer)

Teaching Assistant

2017 - present

- ECO 504: Lead Writing-Integrated Teaching Teaching Assistant
- ECO 200: Microeconomic Theory
- ECO 225: Big Data Methods for Economists
- ECO 349: Money, Banking, and Financial Markets
- ECO 321: Canadian Economic History Prior to 1850
- ECO 101: Principles of Microeconomics
- ECO 202: Macroeconomic Theory and Policy
- ECO 342: Twentieth Century Economic History
- ECO 220: Introduction to Data Analysis and Applied Econometrics
- ECO 210: Mathematical Methods for Economic Theory
- ECO 320: Economic Analysis of Law
- ECO 400: Economics Internship Course
- ECO 206: Microeconomic Theory and Applications (for Commerce)

Research Assistant

2022 - 2023

- Philip Oreopolous: Data analysis and human ethics protocols

## ACADEMIC SERVICE

Member, LGBTQIA+ Steering Committee for Canadian Economics Association Conference 2022

## LANGUAGES

English (native)

*Programming:* Python, Stata, R, ArcGIS

## REFERENCES

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## Abstracts

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### **The Impact of Kingpin Captures and Deaths on Cartel Structure: Evidence from Mexico**

(Job Market Paper)

Since 2005, the homicide rate in Mexico has more than doubled, with most of the increase attributable to an increase in the number of drug trade related deaths. Considerable disagreement exists regarding the best policy approach to combat this violence. The Mexican Presidency responded to violent crime by launching a campaign to capture the high-ranking leaders of drug trafficking organizations with the goal of weakening the organizational capacity of cartels, arguing that doing so would decrease their capacity to commit acts of violence. Opponents, however, claim that the policy increased the incidence of violence by incentivizing territorial disputes between drug trafficking organizations and increasing the likelihood of infighting within the affected cartel. This paper empirically assesses these claims by developing a new longitudinal dataset on the presence of criminal organizations in Mexican municipalities by training three natural language processing models to process over 40 million full-text newspaper articles. Using a synthetic difference-in-differences design, I show that in the municipality of capture or death, the number of cartels increases in the short term following a kingpin capture, but quickly returns to baseline, an effect that is largely attributable to the entry of new criminal organizations that replace the affected cartel. Cartels that remain following the capture or killing are more likely to split into factions, driving up the total number of criminal organizations. Additionally, a kingpin capture or death leads to a 58 percent increase in homicide rates. These results suggest that high-profile criminal captures generate violence by encouraging the entry of competitors into affected municipalities and are not an effective policy response to the violence caused by organized crime.

### **Detecting Unobserved Drug Smuggling Using Export Data: Evidence from Peru**

This paper develops a method through which to detect unobserved drug smuggling using transaction level export data. Exploiting a positive supply shock to the Peruvian cocaine market from coca eradication policy in Colombia, I study the impact of an exogenously induced increase in coca prices on the value of exports from Peru, as drug traffickers commonly use other goods to conceal cocaine shipments. Using variation in Colombian coca production to predict coca leaf prices, I estimate that a \$1USD/KG increase in the farm gate price of coca leaves lead to a 248% increase in the value of exports from Peruvian provinces that are highly suitable to grow coca to countries identified by intelligence agencies as cocaine transit countries. Additionally, I find evidence that characterizes drug traffickers as sophisticated agents who reduce the risk of arrest or seizure through their selection of shipping methods. I discuss the importance of these results in the context of global drug policy and provide a scope for future work.