Civilian Impact of U.S. Drone vs. Non-Drone Strikes in Somalia and Yemen

Assessing Humanitarian Impact with Count Regression Models.

Shanmei Wanyan[1], Daniel Dai[1], Keivan Bolouri[1], Itaru Fukushima[1], Linxue Guo[1] and Evelyn Isaka[1]

1. University of California, Los Angeles, Department of Statistics and Data Science, 8125 Math Sciences Bldg, Los Angeles, CA 90095

NOAA Fisheries OpenSci
Tools for Open Science
https://keivanbolouri.github.io/finalProject140XP/

Table of contents

List of Figures

List of Tables

1 Abstract

Since 2002, the United States has conducted largely hidden counterterrorism campaigns in countries such as Somalia and Yemen, raising ongoing concerns about their humanitarian impact. This project asks how the characteristics and civilian costs of U.S. strikes differ between these two theaters of war. Using open-source strike records compiled by independent monitoring organizations, including the Bureau of Investigative Journalism, We construct a combined dataset of U.S. actions in Somalia and Yemen and analyze casualty patterns with negative binomial regression. The analysis tests three hypotheses: whether civilian casualty rates differ by country, whether drone strikes have different effects across countries, and whether reporting uncertainty varies between regions. The results show that, controlling for strike characteristics and total fatalities, strikes in Yemen are associated with nearly five times the civilian casualties of strikes in Somalia. By contrast, there is no evidence that the impact of drone strikes on civilian harm differs between the two countries, nor that overall reporting uncertainty is systematically higher in one region than the other. However, uncertainty is greater for drone and unconfirmed strikes and lower when U.S. involvement is confirmed. These findings underscore the unequal humanitarian burdens across theaters of U.S. counterterrorism and highlight the need for more transparent and consistent casualty reporting. # Introduction

2 Author Contributions

Author1 designed the research. Author2 carried out all simulations, analyzed the data. Author1 and Author2 wrote the article.

3 Acknowledgments

We thank G. Harrison, B. Harper, and J. Doe for their help.

4 References