Readme document:
Pittsburgh Experimental Crime Hot Spot Program

The non-human subjects data provided and described in this document do not have personal identifiers nor crime incident street addresses or point coordinates.

A preprint research paper (http://arxiv.org/abs/2011.06019), describing the non-human subjects controlled field experiment, is:

Dylan J. Fitzpatrick[1], Wilpen L. Gorr[2], Daniel B. Neill[3] (11/11/2020), "Policing Chronic and Temporary Hot Spots of Violent Crime: A Controlled Field Experiment", arXiv.org.
[1]University of Chicago, [2]Carnegie Mellon University, [3]New York University.

The paper provides models and results on serious violent crimes and victims of serious violent crimes prevented by community-oriented patrols of hot spots.

Abstract

Objectives

We evaluate effectiveness and equity of proactive police patrols for preventing serious violent crimes in a controlled field experiment targeting chronic and temporary hot spots.

Methods

We design separate models for chronic and temporary hot spots whose predictions mostly do not overlap spatially, thereby yielding two policy levers for balancing effectiveness versus equity in police crime prevention services. We evaluate impacts of community-based policing patrols to hot spots, conducted by officers during their discretionary times, through a year-long crossover field experiment in Pittsburgh, PA.

Results

We find statistically significant reductions in serious violent crimes, with an overall reduction of 25.3 percent, and a corresponding 39.7 percent reduction of Black and other non-white victims. The program reduced crime costs by an estimated $3.41 million while the cost of patrols was less than $300 thousand. We find that temporary hot spots increase spatial dispersion of patrols and have a greater percentage reduction in P1V crimes than chronic hot spots, but fewer total number of crimes prevented. Only foot patrols, not car patrols, had statistically significant crime reductions in hot spots. We find weakly statistically significant spillover of crime prevention benefits to adjacent areas. The data show that there was no over-policing arrests of minority or other populations.

Conclusions

We provide evidence that a small-scale, hot-spot policing program based on community-oriented foot patrols can lead to meaningful violent crime reductions in both chronic and temporary hot spots, giving policy makers means to balancing effectiveness versus equity in crime prevention.