# Policing Gun Violence:
# The case for investing in investigations

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Forthcoming: *Criminology & Public Policy*, by PJ Cook, AA Braga, BS Turchan, and LM Barao

# Arrest rates for gunshot cases

Higher arrest rate if victim dies

Homicide > agg assault with gunshot wound

| | Homicide arrest | Agg Ass GSW arrest | Median Gap |
|---|---|---|---|
| Milwaukee 2006-16 | 56-78% | 13-31% | 47% |
| Chicago 2010-16 | 26-46% | 5-11% | 28% |
| Durham 2015 | 50% | 10% | 40% |

# Why the fatal-nonfatal arrest gap?

Durham, NC interviews with 17 PD investigators

Most respondents mention resources:

Case load, access to crime lab

(Cook, Ho, and Shilling 2017)

But: That contradicts influential RAND study

(Chaiken Greenwood Petersilia 1976)

*Most arrests are either on-scene or follow eyewitness identification –*

*Detective work is of little value*

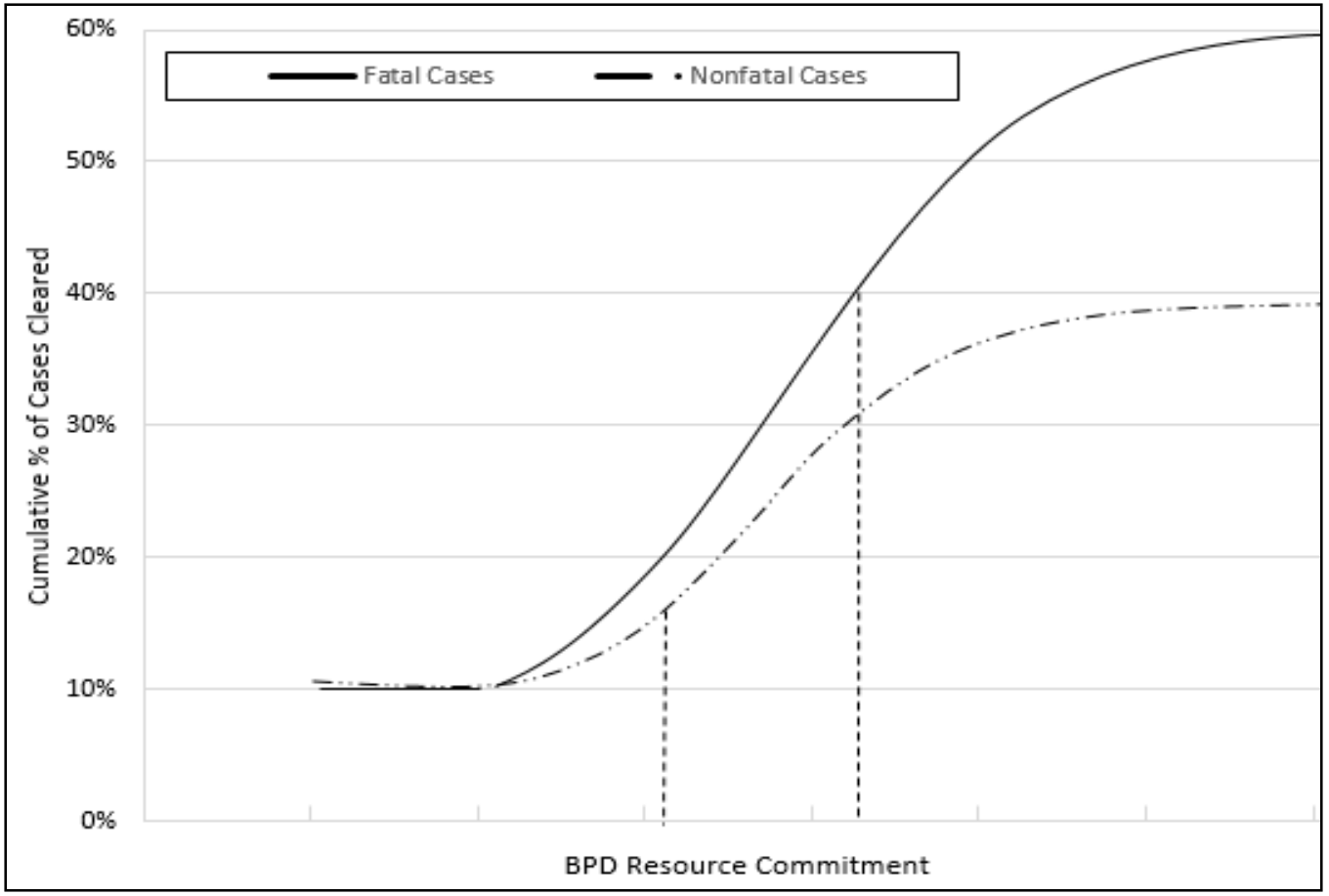
# Our Quasi-experiment

1. Fatal and nonfatal gunshot cases are similar, so "other things equal"

   (Braga and Cook, 2018, JAMA NO)

2. Far more investigative resources if fatal
3. Question: do extra resources account for the arrest gap? (or better cooperation?)
4. Policy context: preventive value of an arrest

   nonfatal = fatal


60%
50%
40%
30%
20%
10%
0%
Cumulative % of Cases Cleared
Fatal Cases
Nonfatal Cases
BPD Resource Commitment

# Boston Police Dept data

Period: 2010 – 2014

Unit of observation: the "case"

Sample: 204 homicide cases (all)

231 nonfatal cases (1/4, random)

Data from records: Circumstances, Victim characteristics, Number of Victims, arrest info

Data from Interviews with detectives: key to success

# Finding 1

Fatal and nonfatal cases are statistically indistinguishable in most respects

So:

We can think of gun homicides as a random drawing from the universe of shootings

# Finding 2

Clearance rates follow similar pattern for fatal and nonfatal shootings: Circumstances matter

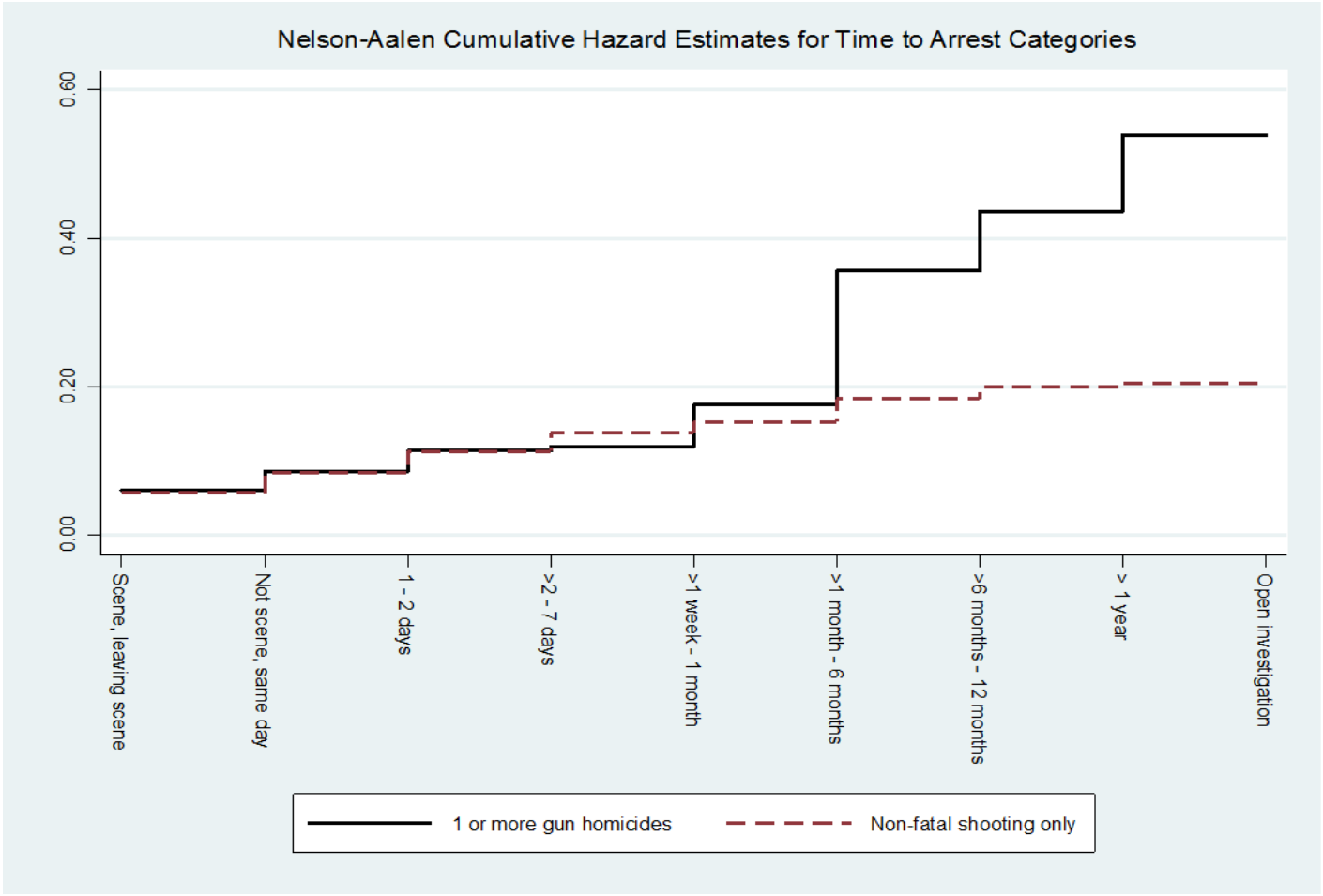
| | Fatal | NonFatal |
|---|---|---|
| Gang/drug | 40% (163) | 12% (158) |
| Personal dispute | 67% (21) | 56% (25) |
| Domestic | 100% (3) | 100% (5) |
| All | 45% (204) | 20% (231) |

# Finding 3
# More evidence collected in fatal cases

## Crime scene investigations – counts (medians)

| On-Scene Investigation Fatal Vs. NonFatal | | Subsequent investigation Fatal vs. NonFatal | |
|---|---|---|---|
| Interviews | 7 vs. 4 | Interviews | 2 vs. 0 |
| On-line checks | 4 vs. 2 | Search warrants | 1 vs. 0 |
| Officers | 3 vs. 1 | On-line checks | 3 vs. 1 |
| Videos collected | 2 vs. 1 | Latent prints | 7 vs. 3 |
| | | Ballistic tests | 9 vs. 5 |

# Finding 4
# identical arrest rate for 1st week



# Finding 5
# Eyewitnesses are key to success

| | Witness from scene | | Survivor ID's shooter | |
|---|---|---|---|---|
| | Fatal | NonFatal | Fatal | NonFatal |
| % of Cleared cases | 62% | 65% | 7% | 12% |
| % of All cases | 27% | 12% | 3% | 2% |

# Tentative Interpretation

- Shooting cases differ widely in intrinsic difficulty of solution (IDS)
- Fatal and nonfatal have similar IDS distributions
- In both, the easy cases are solved quickly
- Extra investigation resources matter for more difficult cases
- Increasing arrests is less costly for nonfatal cases than fatal