

Fast and Spurious

A Causal Evaluation of NYPD's Pursuit Policy, 2022–2025

John Hall & Justin Nix

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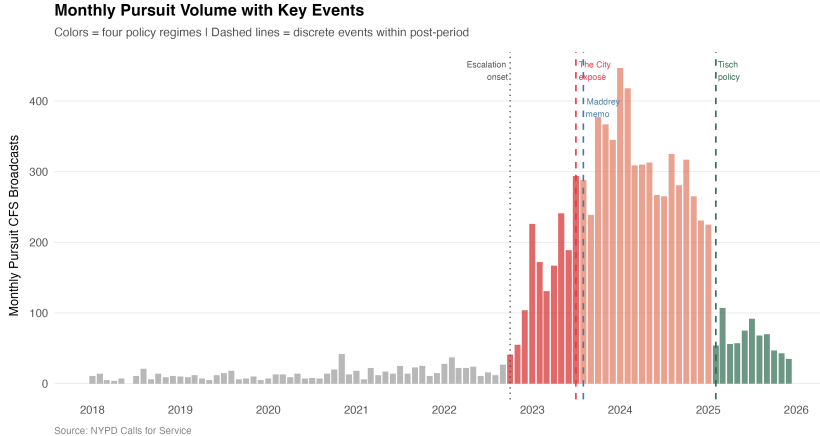
► Watch: an NYPD pursuit in progress

Every pursuit like this one carries risk to officers, suspects, and uninvolved bystanders. The question for today: is that risk worth it?

The Backdrop: Policing Pulled Back, Then NYC Escalated

- US arrests fell roughly 30–40% after 2020 and have only partially recovered
- Against that national backdrop, NYPD leadership moved the opposite direction on one specific tool: vehicle pursuits.
 - Under Mayor Adams's quality-of-life enforcement mandate and new Chief of Patrol John Chell (Dec. 2022), NYPD dramatically expanded pursuit use — with no formal Patrol Guide revision.

A 20-fold Increase in Monthly Pursuits



What Drove This?

The Written Policy Didn't Change

“Department policy requires that a vehicle pursuit be terminated whenever the risks to uniformed members of the service and the public outweigh the danger to the community if [the] suspect is not immediately apprehended.”

— NYPD Patrol Guide 212-39, Vehicle Pursuits (effective 2015; unchanged through the Oct. 2022 escalation)

Three Regime Changes in 31 Months

- **Oct. 2022** — Pursuits begin climbing under Chief of Patrol John Chell's enforcement posture; no formal policy change accompanies it.
- **Aug. 2023** — Chief of Department Jeffrey Maddrey's compliance memo reinforces existing rules but doesn't narrow eligible offenses.
- **Feb. 2025** — Commissioner Jessica Tisch issues the first structural rewrite of PG 212-39 in a decade: pursuits restricted to felonies and violent misdemeanors only.

The Tisch Policy: What Changed

- **Now authorized:** felonies, violent misdemeanors.
- **No longer authorized:** traffic infractions, non-violent misdemeanors.
- 1,930 pursuits recorded in 2024 — 67% began with a fled traffic stop, a scenario that would no longer qualify.
- 2024 collision rate: 21.8 crashes per 100 pursuits — down from 95.1 in 2018, but applied to far higher volume.
- Pursuits fell $\sim 66\%$ in the first two weeks after implementation.

Two Very Different Identification Problems

- **Collisions:** the causal pathway is direct and mechanical — more pursuits create more collision risk. ITS alone provides well-identified estimates; no external comparison group is required.
- **Crime (robbery, shootings):** a much harder problem — within-city trends can reflect secular forces unrelated to pursuit policy.
 - We triangulate with four designs: city-level ITS (upper bound on deterrence), precinct-level heterogeneous-effects DiD (primary causal design), borough-level ITS, and a national generalized synthetic control.

What the Literature Already Told Us

20–40%

**of pursuits end
in a crash**

Alpert (1988);

Kenney et al. (1997)

35%

**of pursuit deaths
are
uninvolved
bystanders**

Rivara & Mack (2004)

–82%

**Dade County
pursuits
after 1992
restriction**

Hoffmann (2005);

Alpert (1994)

+600%

**Omaha pursuits
after
1993
liberalization**

Alpert (1997)

~30%

**of pursued
suspects
escape
apprehension**

Alpert (1988)

If Pursuits Reduce Crime, How?

Deterrence

Would-be fleeing drivers see pursuit risk and don't flee.

Requires: marginal risk responsiveness — fleeing drivers must update on it. But ~30% of pursued suspects escape, weakening the signal.

Incapacitation

Pursuits catch suspects who would commit more crime.

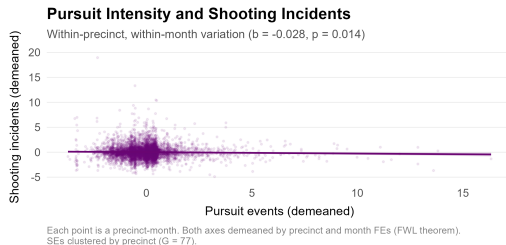
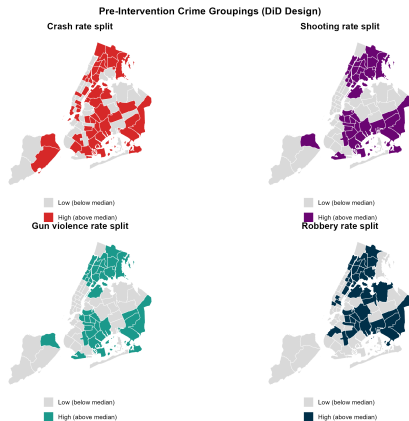
Requires: enough offenders, frequent enough, serious enough offenses to move city-level crime counts.

Where Our Designs Sit: The Maryland Scale

Level 5	Random assignment (RCT)	Not feasible — pursuit policy can't be randomized
Level 4	Compared to many places, adjusted	Precinct-level DiD (77 precincts) • Generalized synthetic control (NYC vs. 75-city panel)
Level 3	Compared to one other place	—
Level 2	Before vs. after, one place	City-level ITS (NYC pre vs. post; Newey-West HAC SEs)
Level 1	Just a correlation	—

Source: Sherman et al. (1997), *Preventing Crime: What Works, What Doesn't, What's Promising*

Precinct-Level Design: 77 Precincts, Dose by Crime Level



Precinct DiD: A Positive Effect — and a Failed Diagnostic

- High-crime precincts: shootings $-0.56/\text{month}$ ($p < .001$); robbery $+2.39/\text{month}$ ($p = .013$), relative to low-crime precincts (median-split spec).
- But the identifying assumption fails: joint Wald test on pre-treatment leads rejects parallel trends for both shootings ($\chi^2(7) = 5.34$, $p < .001$) and robbery ($\chi^2(7) = 5.49$, $p < .001$).
 - Crashes, by contrast, do **not** reject parallel trends ($\chi^2(7) = 1.33$, $p = .248$) — consistent with collisions being the mechanically direct, well-identified outcome.
 - **Conclusion:** the negative shooting coefficient more likely reflects pre-existing divergent trends than a deterrence effect.

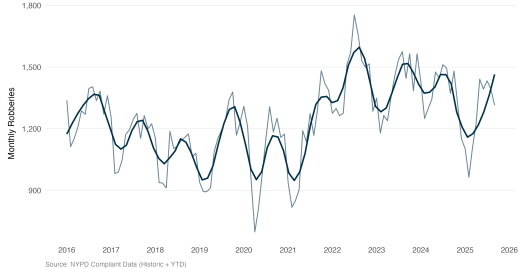
NYC Motor Vehicle Collisions with pre-crash = Police Pursuit



Crime Trends: Robbery Up, Shootings Down — Same as the Nation

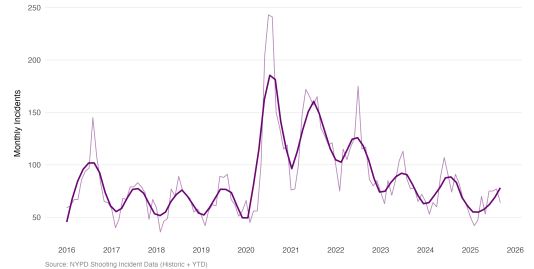
NYC Monthly Robbery Complaints (2016-Present)

NYPD Complaint Data, Offense: ROBBERY

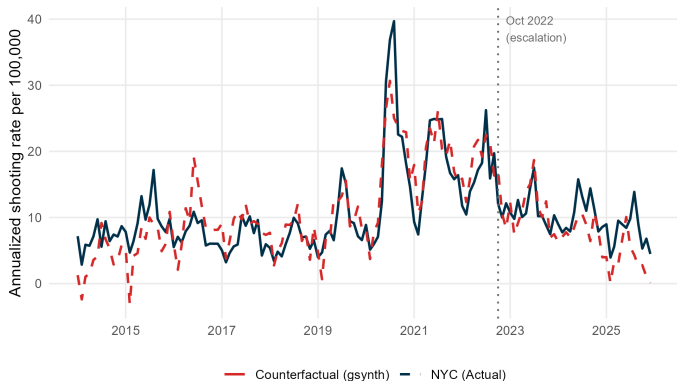


NYC Monthly Shooting Incidents (2016-Present)

NYPD Shooting Incident Data, unique incidents



The National Comparison: No Detectable Deterrence Effect



75 donor cities (pursuit-policy-change cities excluded) | $r = 3$ latent factor | Avg ATT = 1.96 per 100k

Three Designs — Honest Appraisal

City-Level ITS

CONTROLS FOR

Slow secular trends within NYC.

VULNERABLE TO

Concurrent enforcement shifts inside NYC (SQF, traffic stops).

Precinct DiD

CONTROLS FOR

Everything affecting NYC as a whole; precinct + time FEs.

VULNERABLE TO

Pre-trends fail — can't lean on this design's causal claim for crime.

Gen. Synthetic Control

CONTROLS FOR

National shocks, via 75-city donor panel.

VULNERABLE TO

NYC-specific events not present in the donor pool.

Honest read: the two designs with a credible comparison group (precinct DiD, gsynth) find no credible evidence of deterrence. The gsynth (national comparison) is the cleanest of the three.

Cost-Benefit: The Break-Even Question

\$166.8M

central collision costs

667 excess crashes, 6.7 fatalities,

350 injuries (central VSL scenario)

\$3.33B

shooting benefit at

100% attribution

if the ENTIRE ITS-estimated
shooting decline were caused

by pursuit policy

4.5%

break-even causal share

(central; 3.4–5.7%

low–high)

~120 prevented shootings

needed over the study period

The threshold is low — but the evidence (precinct DiD pre-trends fail; gsynth finds no significant national departure) is consistent with a causal share near zero. Investigative reporting found ~20 pursuit-linked deaths (Gonen, 2025), suggesting even the central fatality estimate may be conservative.

Limitations

- Precinct DiD's parallel-trends assumption fails for both crime outcomes — the design's crime estimate is not causally clean.
- Pursuit escalation coincided with a broader Adams-era enforcement shift (stop-question-frisk, discretionary traffic stops) not controlled for here — crime results reflect the combined posture shift, not pursuits in isolation.
- Pursuit counts come from radio broadcasts; unreported (“ghosted”) pursuits would bias our counts conservatively low, especially pre-escalation.
- No individual-level pursuit records (officer, suspect, bystander) are publicly available.

Beyond the Numbers

- 01 Non-aggregation.** Cost-benefit treats a catastrophic harm to one person and diffuse benefits to many as exchangeable. A favorable bottom line can hide a pedestrian death.
- 02 Innocence and state agency.** The fleeing driver assumed the risk. The bystander on the sidewalk didn't. The state chose to initiate the pursuit — so resulting harm is the state's, not just the driver's.
- 03 Proportionality and the third option.** Pursuit over a fled traffic stop fails standard proportionality tests. Plate readers, cameras, and warrant service offer alternatives — and they're getting better every year.

The Problem Isn't Pursuits

It's a department that disregarded existing evidence.

Alpert had been publishing on pursuits for 40 years!

PERF, NHTSA, and DOJ COPS put out a joint synthesis *during* the surge.

NYPD ran the experiment anyway — then re-read the same evidence after the crashes.

A department either reads its own outcomes, or pays to relearn them every administration.

Questions?

Justin Nix

jnix@unomaha.edu

John Hall

jjh97@cam.ac.uk • jhall@mocj.nyc.gov