What Police Wear and Why It Matters: Tasers, Cameras, Uniforms and Experimental Criminology

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UK Police Uniforms Over Time

1850

1891

1980

2018

2019

Standard Police Gear

- Mobile phone
- Body worn camera
- Flashing light and siren for emergencies
- GPS navigation system
- Stop signs, front and back, with the words 'stop', 'police' and 'follow'
- Additional spotlights on the front and side of the blue bar
- Orange / yellow safety vests with the word 'police' on the back
- Orange cones to discard the location of a collision
- Fifty meters of rescue rope
- Belt cutter
- Fire extinguisher, first aid kit and extra box with tools
- Chalk to mark a collision on the street

- Bullet proof vests
- Tire groove gauge
- Computer
- Dog band and possibly a dog stick
- Doctor's gloves
- Paper and plastic bags
- Safety helmet
- Digital camera
- Blankets
- Alcohol control device
- Taser/Weapon
- Teddy bears (?)

https://www.politie.nl/themas/uniform-en-uitrusting.html

https://metro.co.uk/2018/04/12/police-using-trauma-teddy-bears-calm-children-car-accidents-7463044

Experimental Psychologists are very interested in the effects of police uniforms on various outcomes

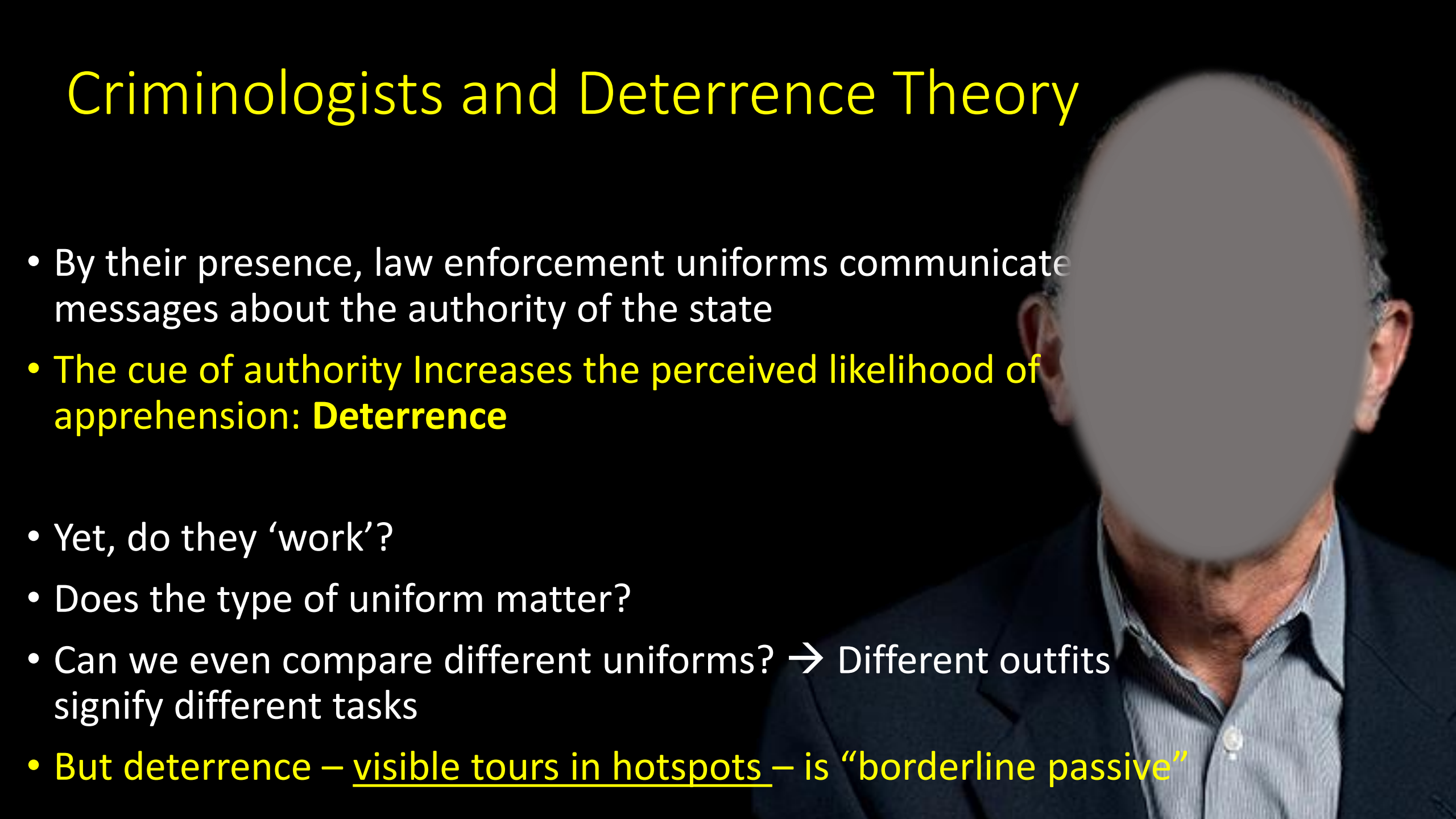
- In social psychology experiments, wearing uniforms was found to cause de-individuation (Mauro 1984)

- Higher degrees of anonymity lead to more aggressive acts ("games of fieldball" (Rehm, Steinleitner, Lilli 1987)

- Uniforms:
  - Create "brand awareness" (image)
  - Assert authority and protection
  - Promote royalty and unity
  - Promote employee security

Source: https://www.positivebranding.co.uk

Criminologists and Deterrence Theory



- By their presence, law enforcement uniforms communicate messages about the authority of the state
- The cue of authority Increases the perceived likelihood of apprehension: **Deterrence**

- Yet, do they 'work'?
- Does the type of uniform matter?
- Can we even compare different uniforms? → Different outfits signify different tasks
- But deterrence – visible tours in hotspots – is "borderline passive"

What Type of Uniforms Deters Offenders?

PCSOs in Peterborough

PCSOs in Birmingham

Security Guards in South West England and Wales

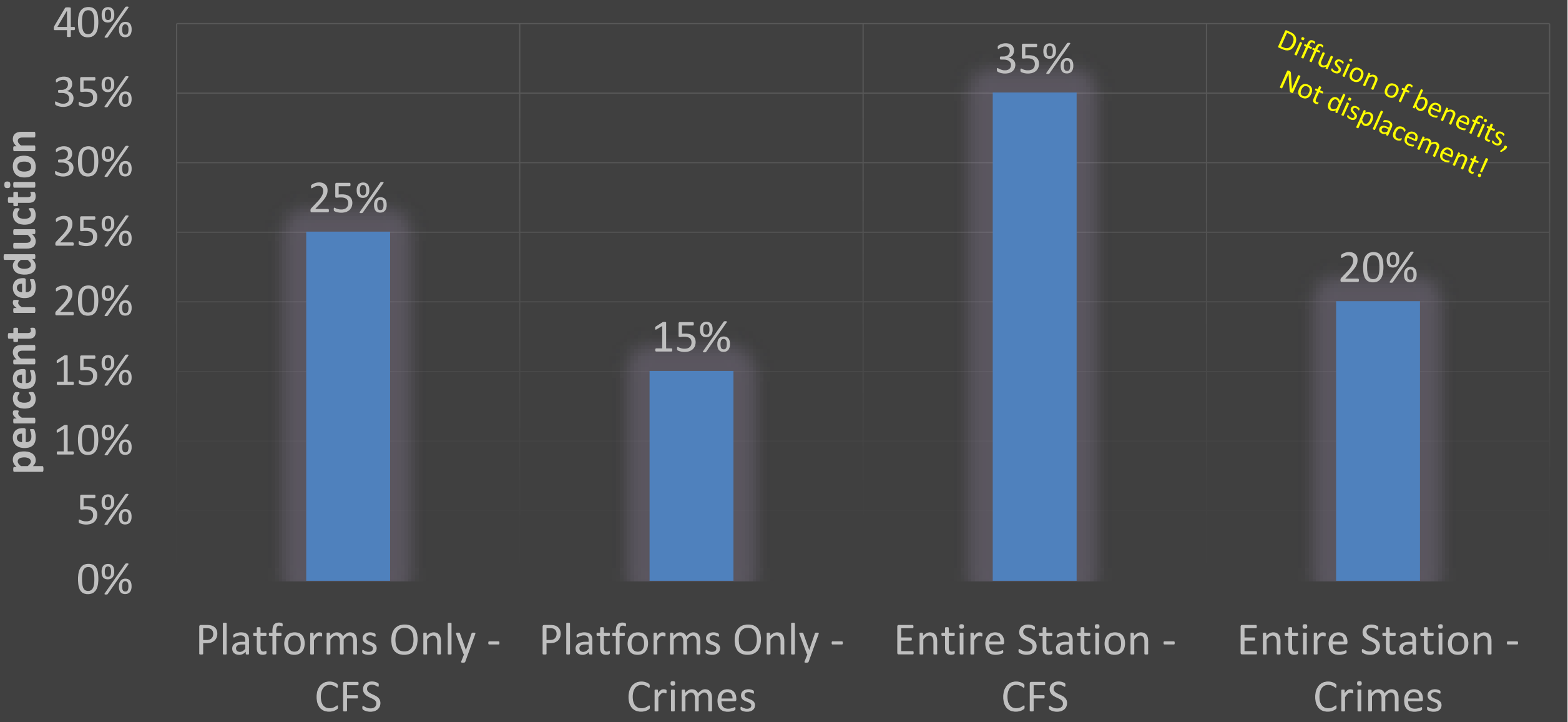
PCs in Train Stations

PC in the London Underground

PCs in Sussex Police

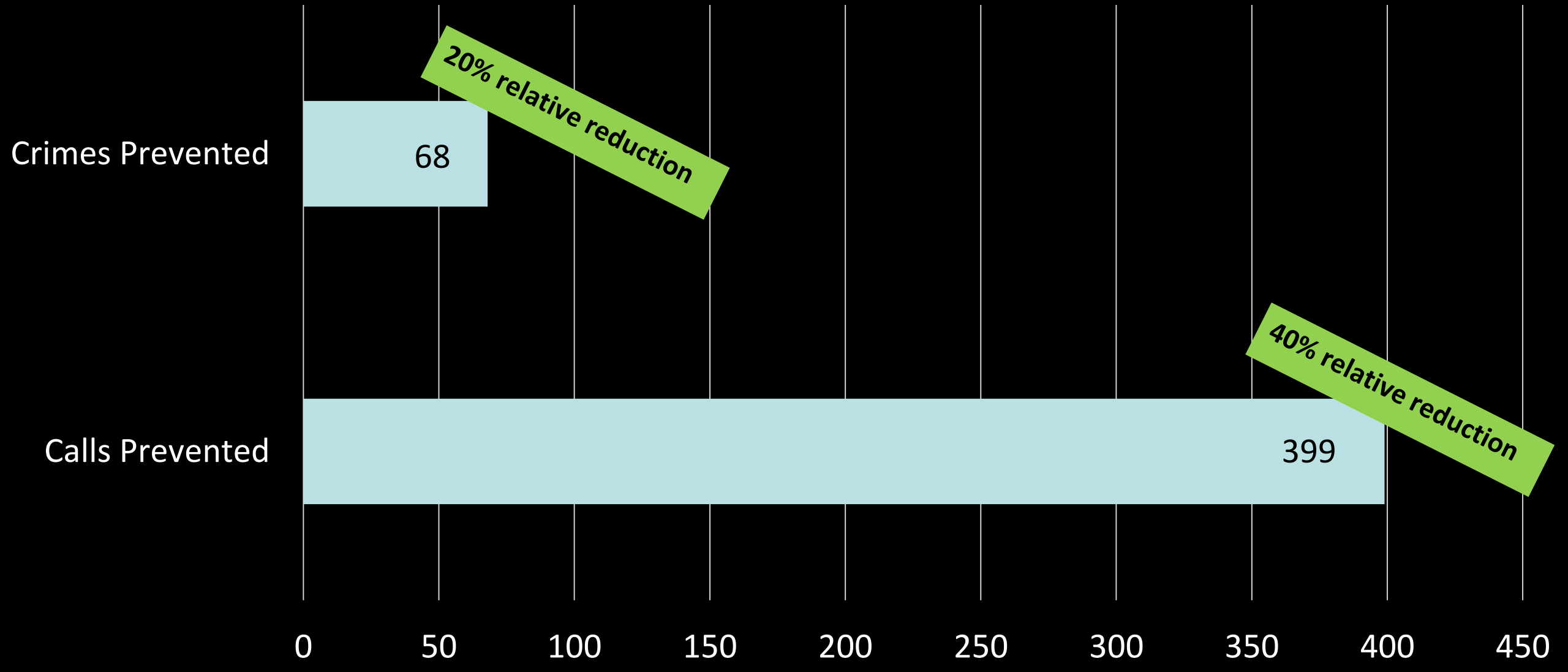
Ariel, B., Sherman, L. and Newton, M. (forthcoming). Testing "Local Deterrence" And "Regional Deterrence" Of Police Patrols Against No-Treatment Controls: The London Underground Reverse-Knockout Experiment *Criminology*

Constables reducing crimes and calls for service on the London Underground



Ariel, B., Weinborn, C., & Sherman, L. W. (2016). “Soft” policing at hot spots—do police community support officers work? A randomized controlled trial. Journal of Experimental Criminology, 12(3), 277-317.

‘soft policing’



Ariel, B., Weinborn, C., & Sherman, L. W. (2016). “Soft” policing at hot spots—do police community support officers work? A randomized controlled trial. Journal of Experimental Criminology, 12(3), 277-317.

Ariel, B., Bland, M., & Sutherland, A. (2017). 'Lowering the threshold of effective deterrence'—Testing the effect of private security agents in public spaces on crime: A randomized controlled trial in a mass transit system. PLoS one, 12(12), e0187392.

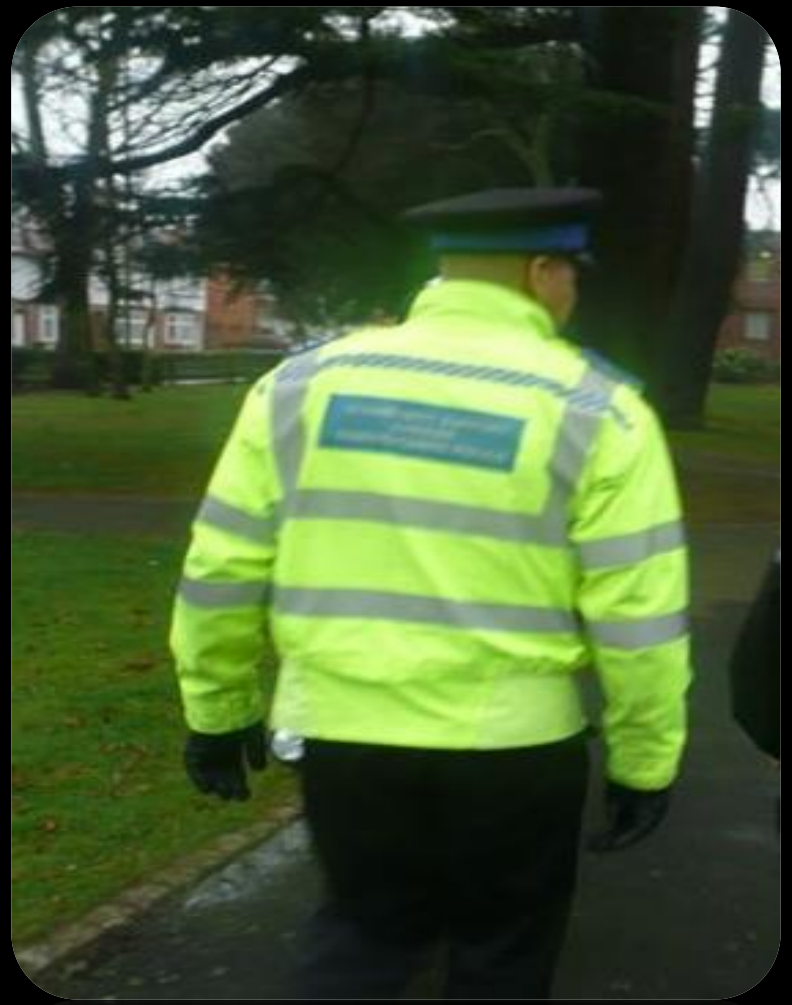
Directed Security Guards Patrols in Mass Transit Hotspots


epartures
GROUND STATION

16% fewer Victim-Generated Crimes

What Type of Uniforms Deters Offenders *more*?

Cohen's *d* = 0.176



Cohen's *d* = 0.189

Cohen's *d* = 0.184

Body-worn cameras (BWCs)

Context:
Violence and Aggression in Law Enforcement

In order to stop violence,
we gave the social control agents powers…

COULD YOU TURN THE OTHER CHEEK?

What can reduce use of force / violence?

- Rigorous training, **proactive supervision**, strict disciplinary procedures, knowledge sharing between officers, role-playing (Bayley and Garofalo 1989, Bennett 1997; Europe, Stenning et al. 2009)

- Systematic recording practices (Brandl and Stroshine 2013; Terrill et al. 2003; Walker and Alpert 2000)

- Dealing with work-related stress, job satisfaction, burnout, and situational factors

Another Possible Solution: Cameras

Why are cameras supposed to work?

- Humans (and animals) alter their behaviour if they are aware they are being observed…as this leads to…

- Greater ***self*-awareness** → self-inspection/self-scrutiny → being more likely to follow rules of conduct

- Deterrence theory

- Just as criminals differ in their sensitivity to external surveillance / deterrents (Wikstrom and Treiber, 2007), we should not expect all officers to react the same either (Noppe, 2016)

Ariel, B., Sutherland, A., Henstock, D., Young, J., and Sosinski, G. (2017). 'The Deterrence Spectrum: Explaining Why Police Body-Worn Cameras 'Work' Or 'Backfire' In Aggressive Police-Public Encounters" Policing: A Journal of Policy and Practice

Loads of Recording Devices

- CCTV – don't work
  - 44 studies show 16% reduction in crime
  - Welsh and Farrington (2002; 2009)

- Road Cameras – Work
  - 35 studies show 44% reduction in serious and fatal accidents
  - Wilson, el al. (2010)

- Mobile Phones – don't seem to work (Garner & Scott incidents)

Walter Scott shooting by Michael Thomas Slager, April 2015, S. Carolina

When cameras fail…

When cameras succeed…

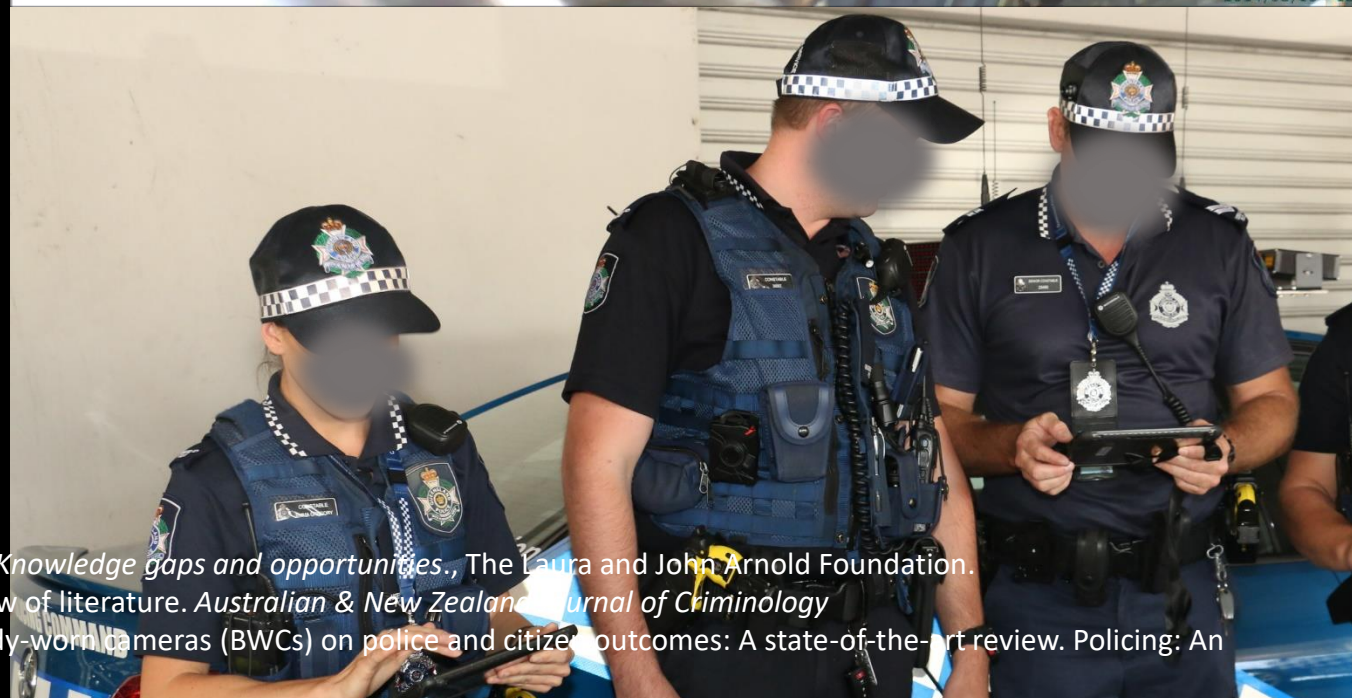
What about BWCs?

Can body worn cameras provide a solution?

UNTIL VERY RECENTLY, THE ONLY ONES NOT RECORDING THE POLICE, WERE THE POLICE THEMSELVES

Aims and Goals of BWCs

- Reduce police use of force
- Reduce complaints against officers
- Enhance police legitimacy
- Increase transparency and accountability
- Increase prosecution rates
- Improve evidence captured by the police
- Assure Evidence track is not jeopardized
- Interagency data-sharing
- Early guilty pleas
- Save time
- Reduce arrests
- Increase self-confidence of officers
- Better data-sharing

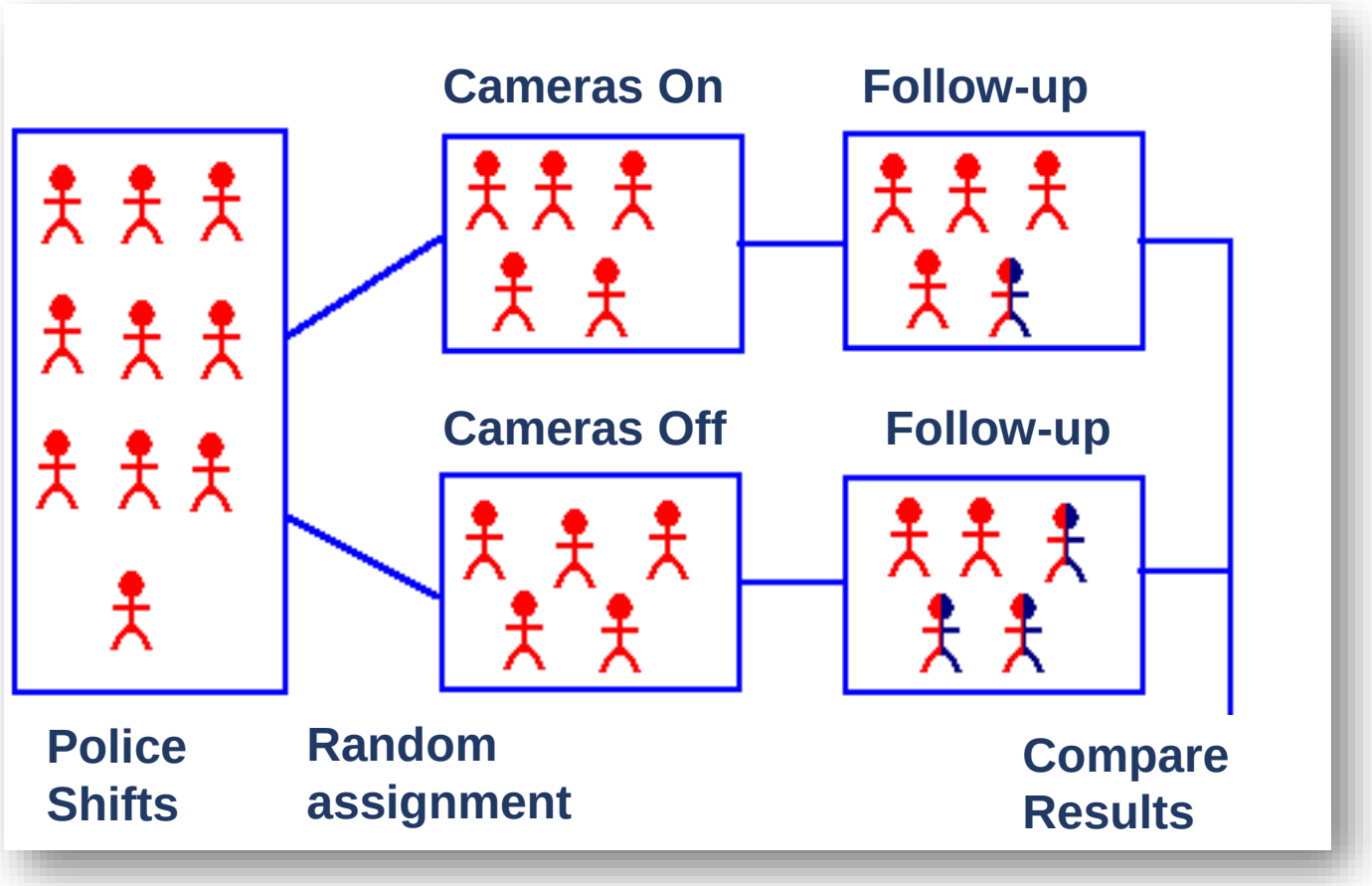


- Lum C, Koper C, Merola L, et al. (2015) *Existing and ongoing body worn camera research: Knowledge gaps and opportunities*., The Laura and John Arnold Foundation.
- Cubitt, T. I., Lesic, R., Myers, G. L., & Corry, R. (2016). Body-worn video: A systematic review of literature. *Australian & New Zealand Journal of Criminology*
- Maskaly, J., Donner, C., Jennings, W., Ariel, B., and Sutherland, A (2017). The effects of body-worn cameras (BWCs) on police and citizen outcomes: A state-of-the-art review. Policing: An International Journal of Police Strategies & Management

The First Experiment on BWCs

Rialto (California)

- Rialto Police Department
- 28.5 square miles
- population of 100,000 residents
- Mid-sized police department in California
- 54 front-line, uniformed officers
- Total of 115 sworn police officers and 42 non-sworn personnel



Ariel, B., Farrar, T., and Sutherland, A. (2015). "The Effect of Police Body-Worn Cameras on Use-Of-Force and Citizens' Complaints against the Police: A Randomized Controlled Trial." *Journal of Quantitative Criminology, 31(3)*

The Cameras

Why BWCs Matter – Use of Force

Officer Use-of-Force

February 13, 2011 to February 12, 2012 = 61

February 13, 2012 to February 12, 2013 = 25 ***(-59.01%)***

2009 = 70 ***(64.28%)***

2010 = 65 ***(61.53%)***

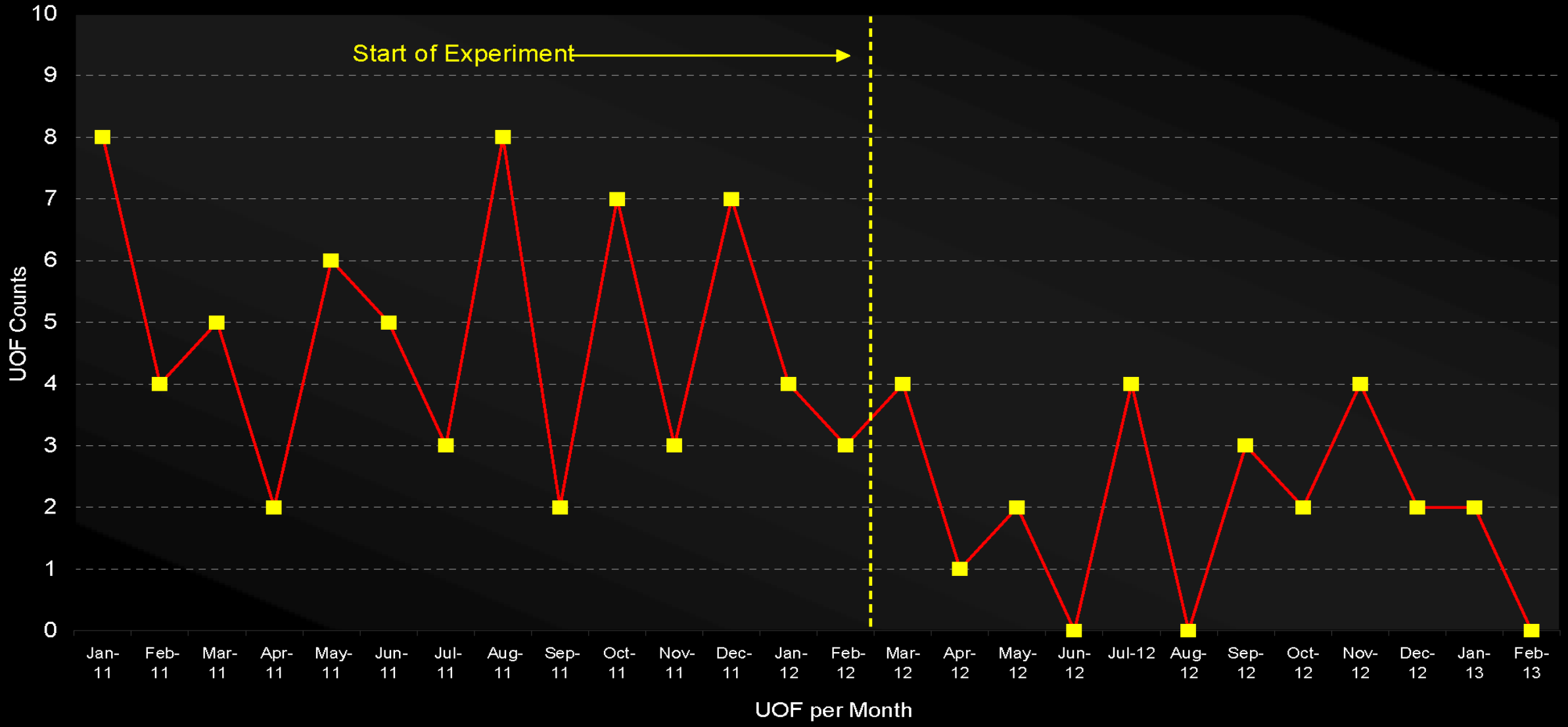
2011 = 60 ***(58.33%)***

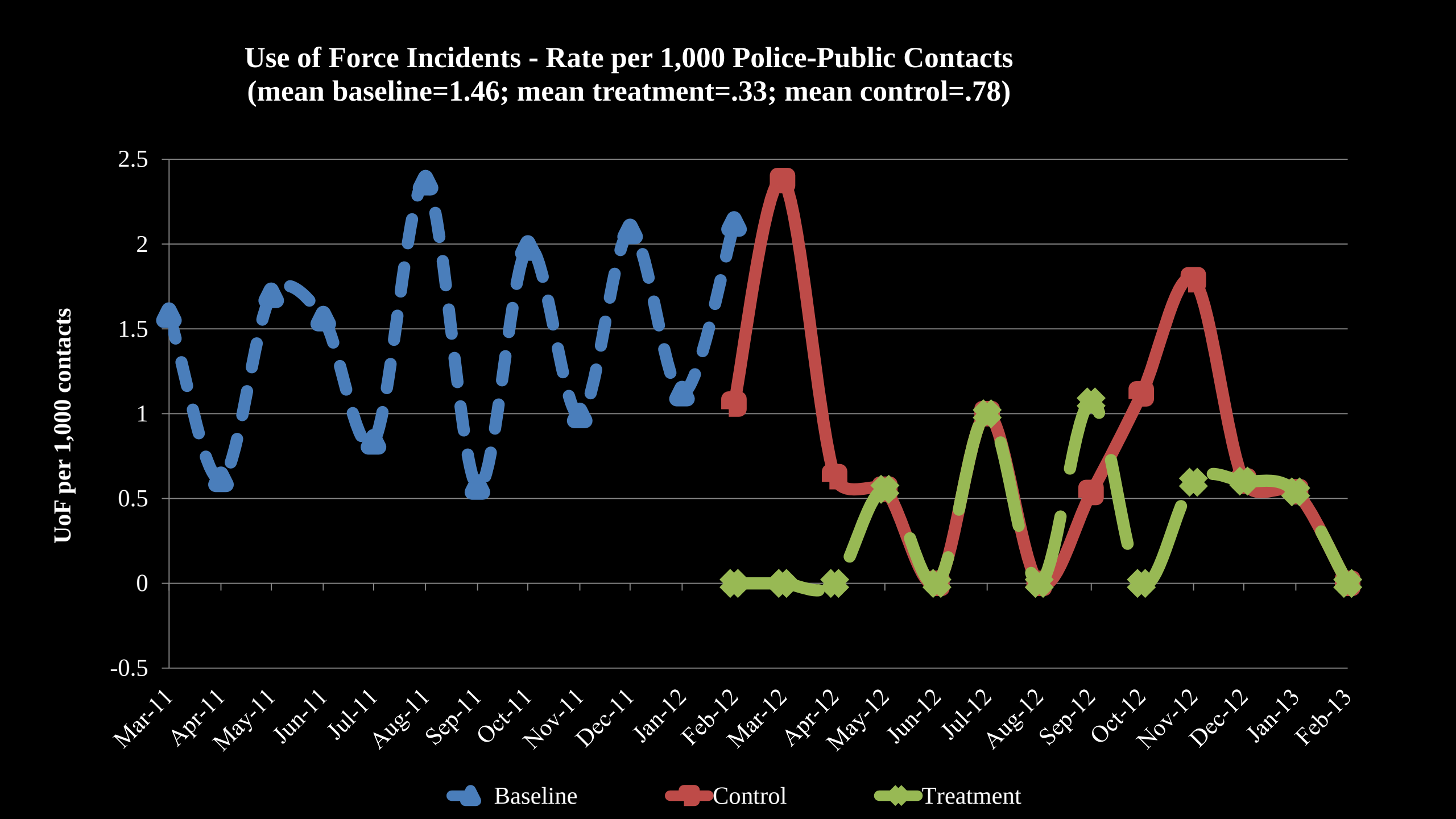
Control = 17

Experiment = 8

Use of Force (UOF) by Patrol Officers at the Rialto Police Department

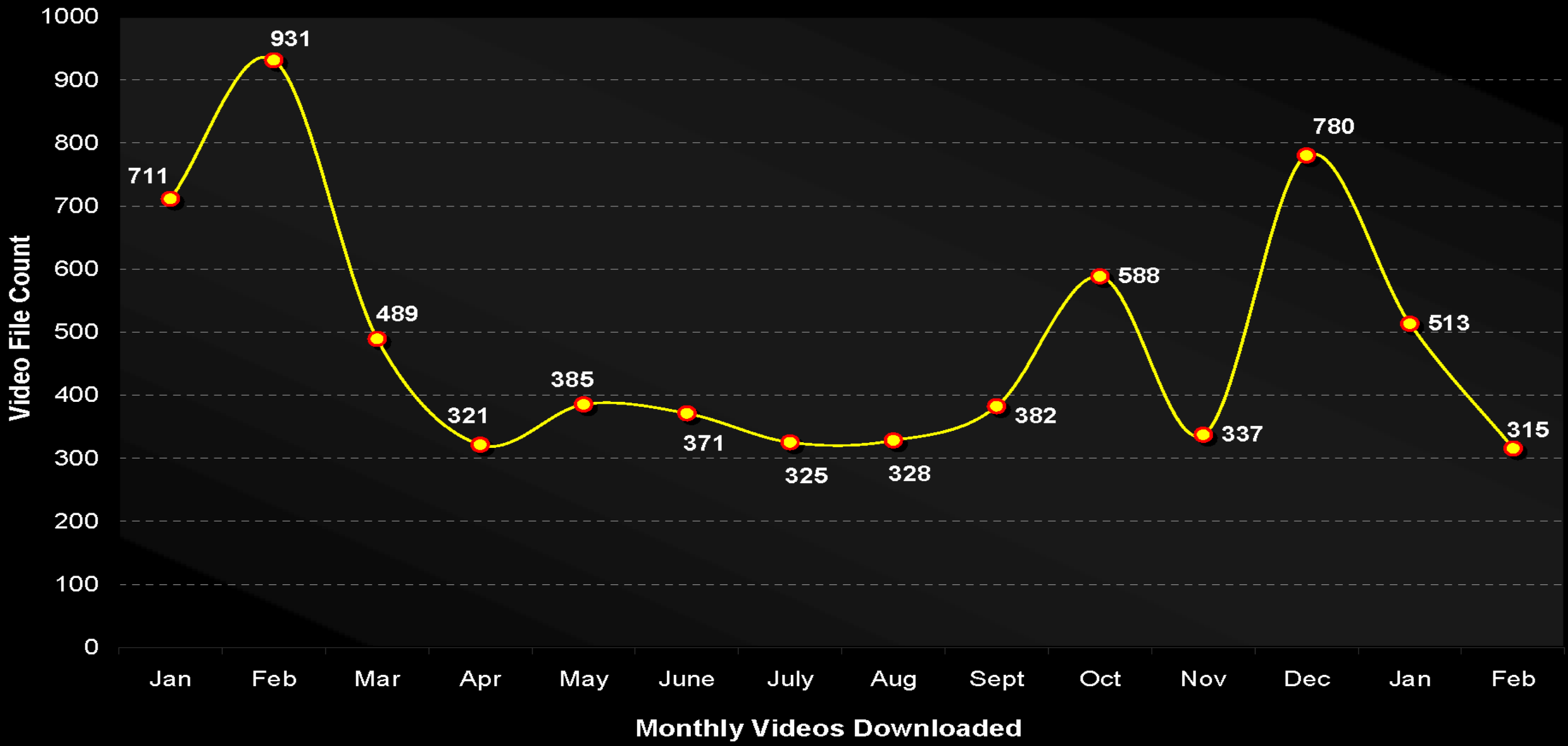
(January 1, 2011 - February 12, 2013)




Use of Force Incidents - Rate per 1,000 Police-Public Contacts
(mean baseline=1.46; mean treatment=.33; mean control=.78)
UoF per 1,000 contacts
2.5
2
1.5
1
0.5
0
-0.5
Mar-11
Apr-11
May-11
Jun-11
Jul-11
Aug-11
Sep-11
Oct-11
Nov-11
Dec-11
Jan-12
Feb-12
Mar-12
Apr-12
May-12
Jun-12
Jul-12
Aug-12
Sep-12
Oct-12
Nov-12
Dec-12
Jan-13
Feb-13
Baseline
Control
Treatment

Video File Downloads for the Rialto Police Department

(Jan 1, 2012 - Feb 12, 2013)

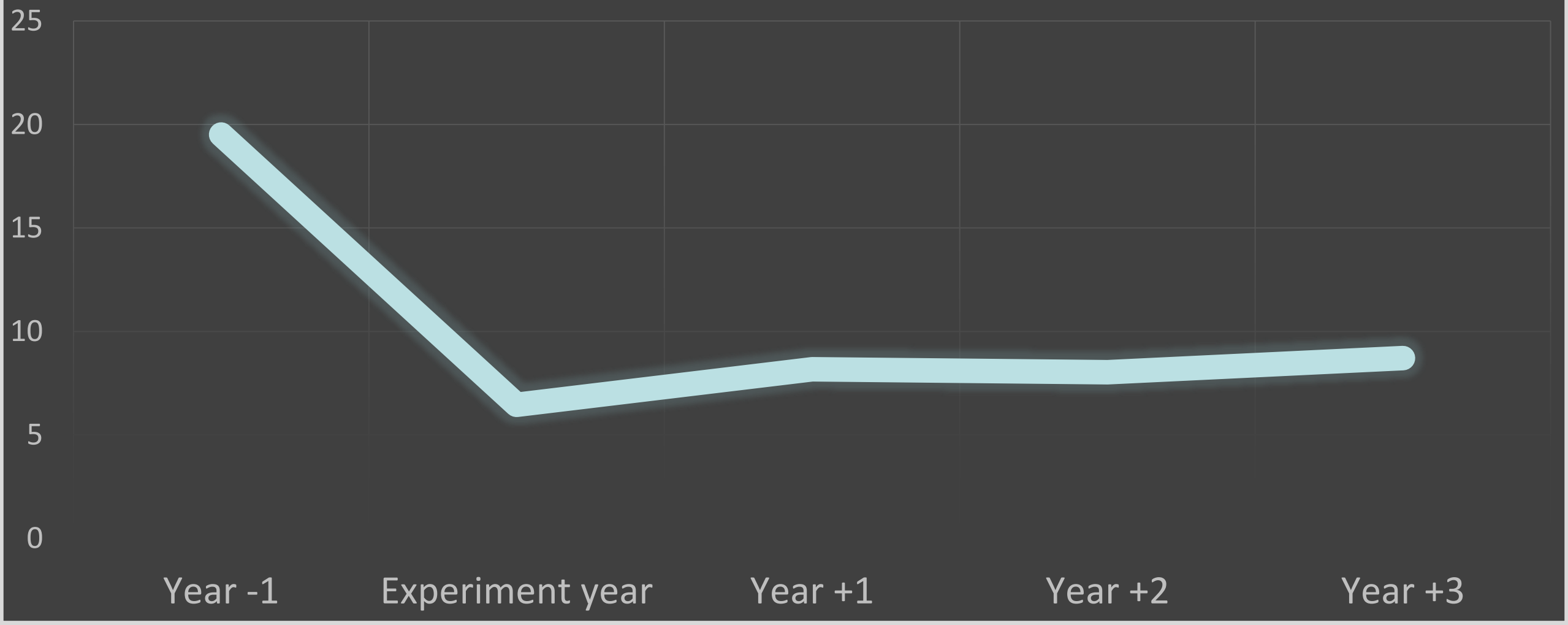


Is Rialto, CA Unique?

- Over time
- Between Jurisdictions?

Average Number of Use of Force Incidents per 1,000 Arrests

F=12.496; p<.001



Source: Sutherland, A., Ariel, B., Farrar, W. and De-Anda, R. (2017). Postexperimental Follow-Ups—Fade-out versus Persistence Effects: The Rialto Police Body-Worn Camera Experiment Four Years On

The Cambridge University Replication Studies (CURS)

Barak Ariel, with

Alex Sutherland, Darren Henstock, Josh Young, Paul Drover, Jayne Sykes, Simon Megicks, Ryan Andersen, Justice Tankebe and Gabriela Sosinski

The Cambridge University Replication Studies (CURS)

- **Ariel, B.**, Sutherland, A., Henstock, D., Young, J., Drover, P., Sykes, J., Megicks, S., and Henderson, R. (*forthcoming* 2017). Paradoxical Effects Of Self-Awareness Of Being Observed: Testing The Effect Of Police Body-Worn Cameras On Assaults Against Officers Journal of Experimental Criminology
- **Ariel, B.**, Sutherland, A., Henstock, D., Young, J., and Sosinski, G. (forthcoming 2017). 'The Deterrence Spectrum: Explaining Why Police Body-Worn Cameras 'Work' Or 'Backfire' In Aggressive Police-Public Encounters" Policing: A Journal of Policy and Practice
- Henstock, D. and **Ariel, B.** (2017). 'Testing the Effects of Police Body-Born Cameras on Use of Force during Arrests: A Randomized Controlled Trial in a Large British Police Force'. European Journal of Criminology [Impact Factor: 1.141, Jerusalem Criminology Journals Ranking: B].
- **Ariel, B.**, Sutherland, A., Henstock, D., Young, J., Drover, P., Sykes, J., Megicks, S., and Henderson, R. (2016). '"Contagious Accountability" A Global Multisite Randomized Controlled Trial on the Effect of Police Body-Worn Cameras on Citizens' Complaints Against the Police'. Criminal Justice and Behavior
- **Ariel, B.**, Sutherland, A., Henstock, D., Young, J., Drover, P., Sykes, J., Megicks, S., and Henderson, R. (2016). 'Increases in police use-of-force in the presence of body-worn cameras are driven by officer discretion: a protocol-based sub-group analysis'. Journal of Experimental Criminology, 12(3): 453–463
- **Ariel, B.**, Sutherland, A., Henstock, D., Young, J., Drover, P., Sykes, J., Megicks, S., and Henderson, R. (2016). 'Wearing Body-Cameras Increases Assaults Against Officers and Does Not Reduce Police Use of Force: Results From A Global Multisite Experiment'. European Journal of Criminology

Overall Multi-Site Study Design: 2 Million Residents Worldwide

- Planned 12 month experiments
- 11 independent tests in 6 English speaking PDs
- Police shift as the unit of analysis (5,692 shifts randomly assigned 50%-50%)
- 2,000,000 patrol hours
- A wide range of outcomes

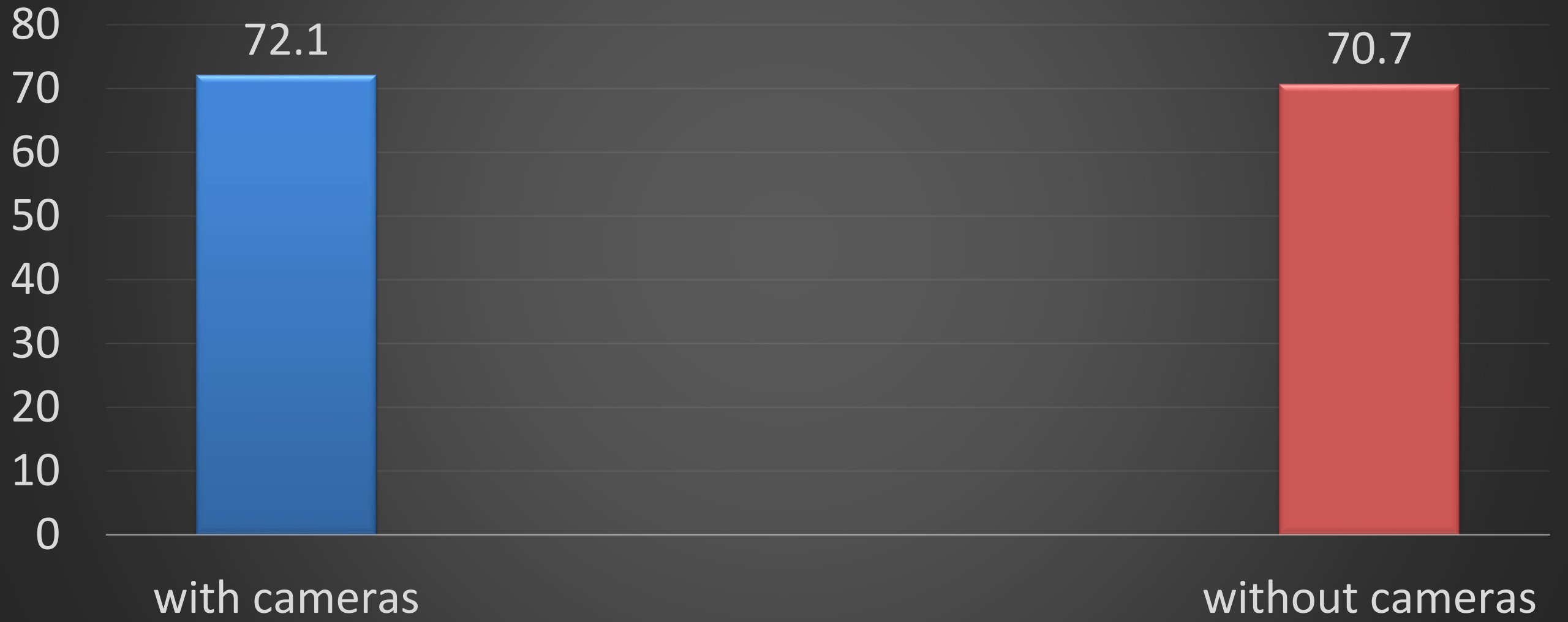
Treatment Plan

- use BWCs
- notification
- no discretion
- record everything,
- but store evidence only

Control Plan

- no BWCs + no notification

Average number of use of force incidents per department (N=11)



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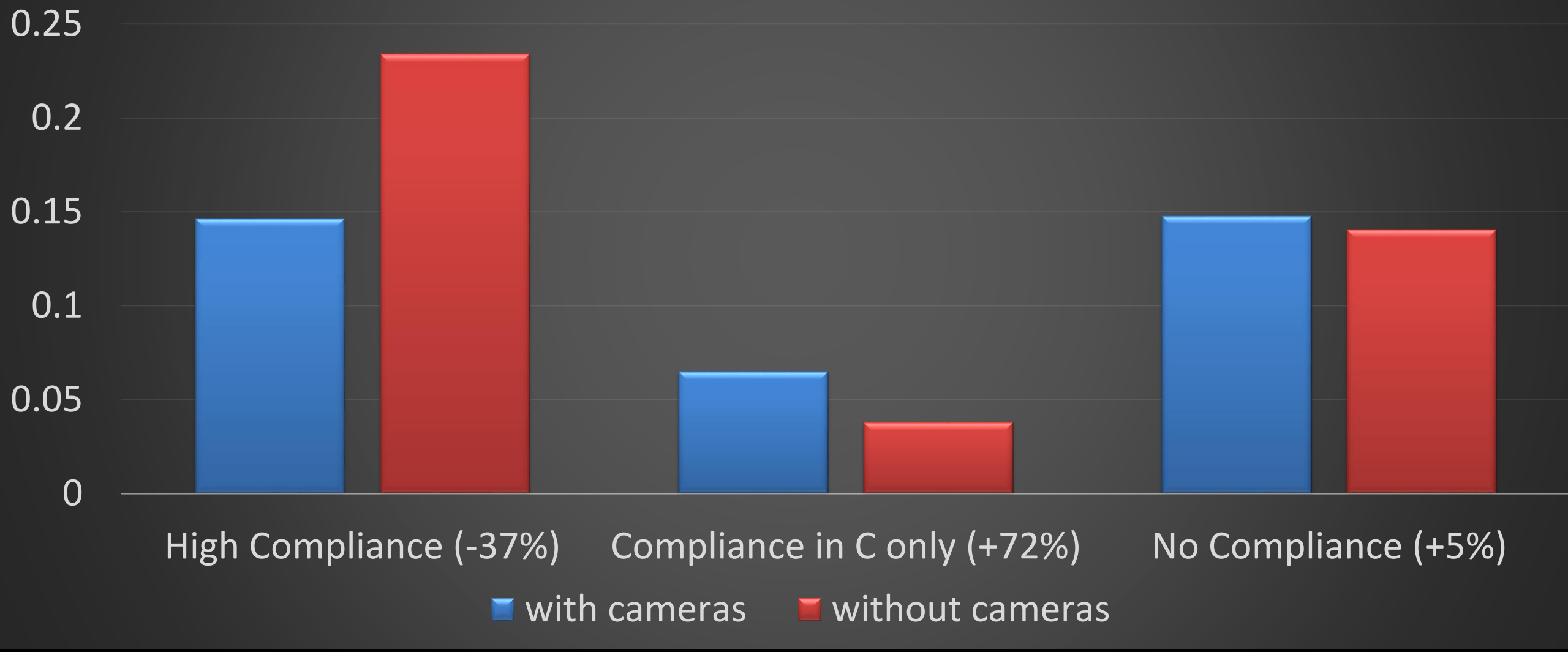
Use of Force Rates per Shift, Broken Down into Compliance Regimes



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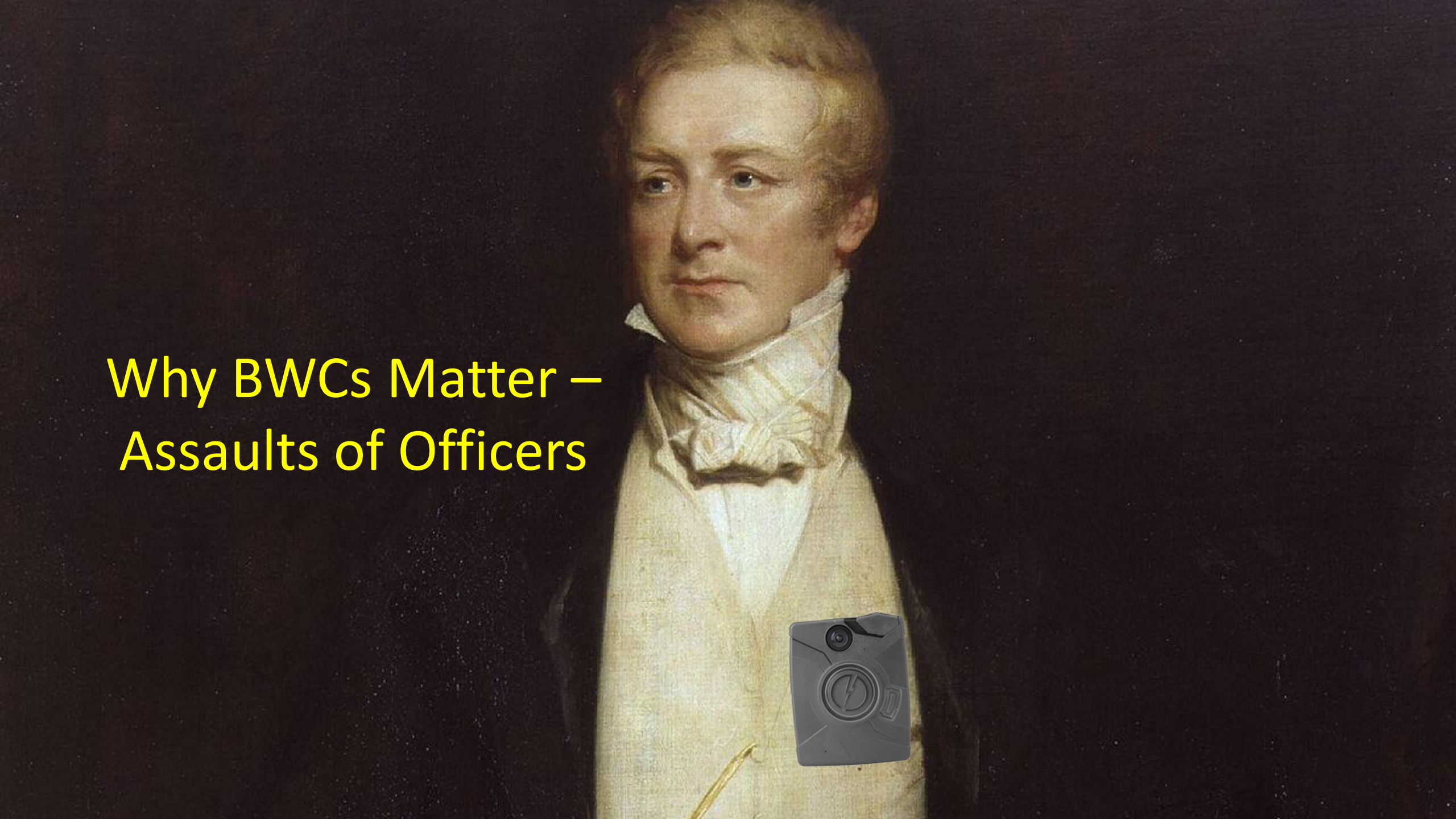
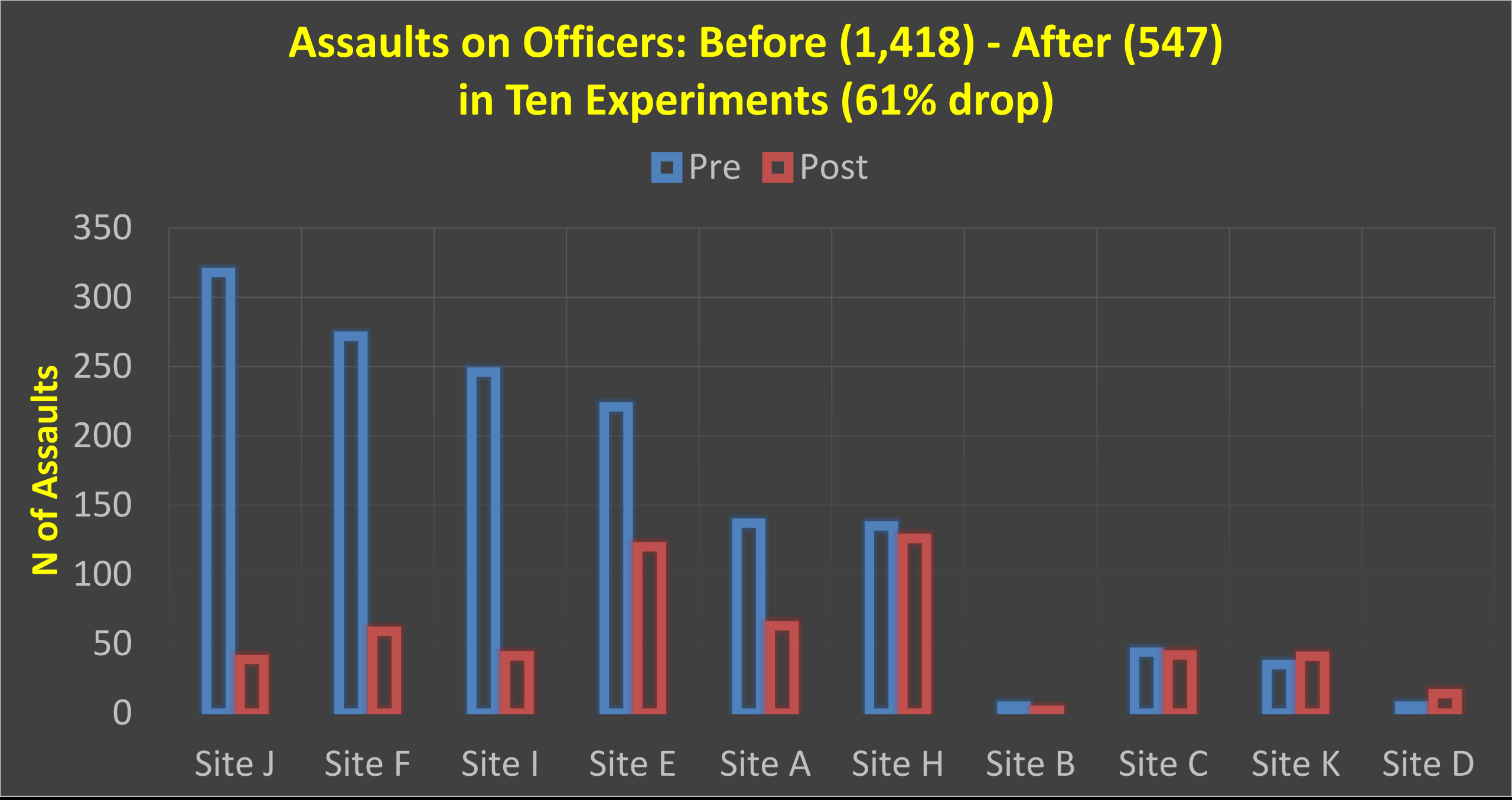
Why BWCs Matter – Assaults of Officers



Assaults on Officers: Before (1,418) - After (547) in Ten Experiments (61% drop)



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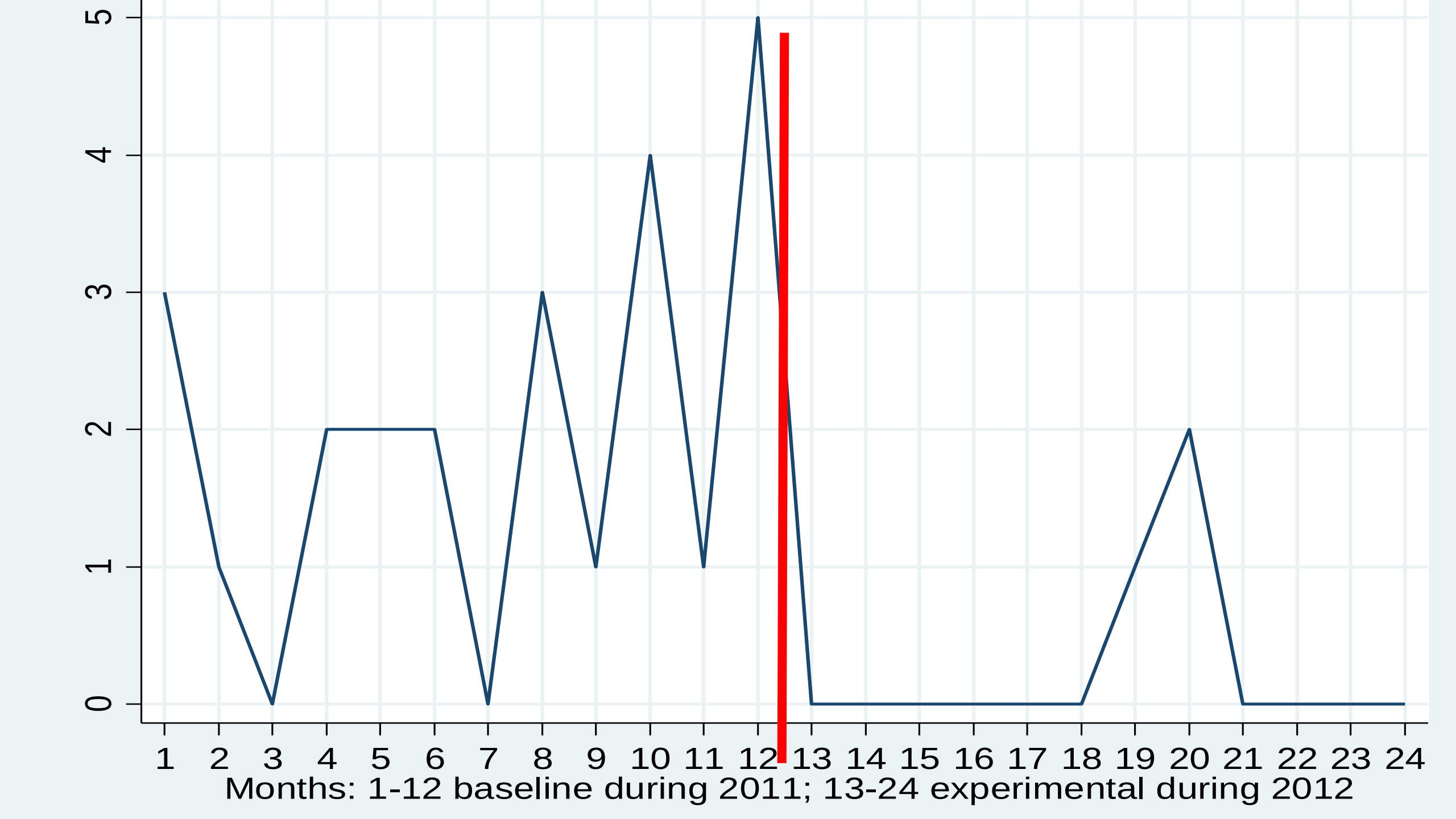
Why BWCs Matter – Complaints

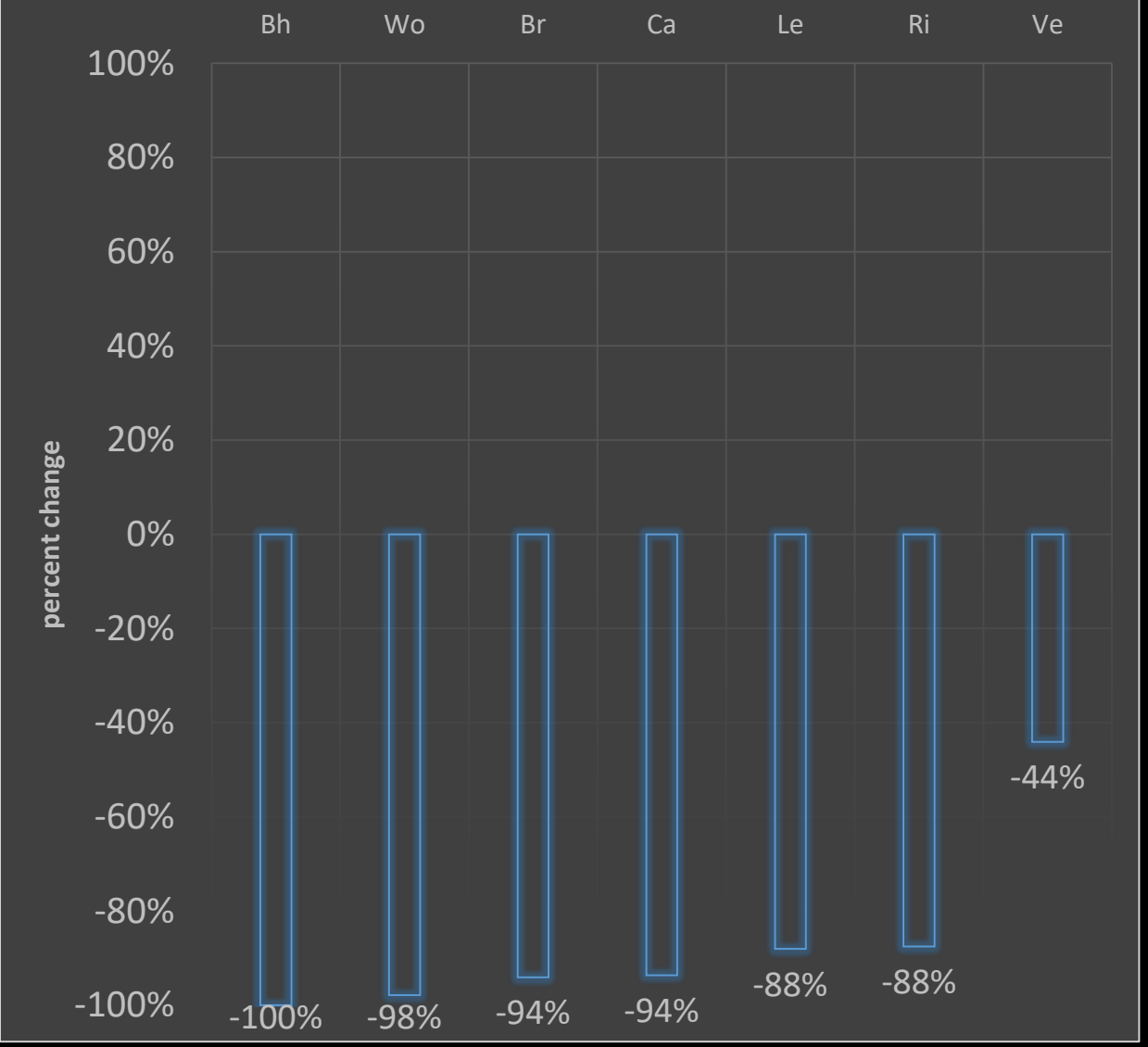
Each complaint against the police has a social and financial cost

Taken together, the research evidence suggests that more can be done to improve the quality of police-public interactions…

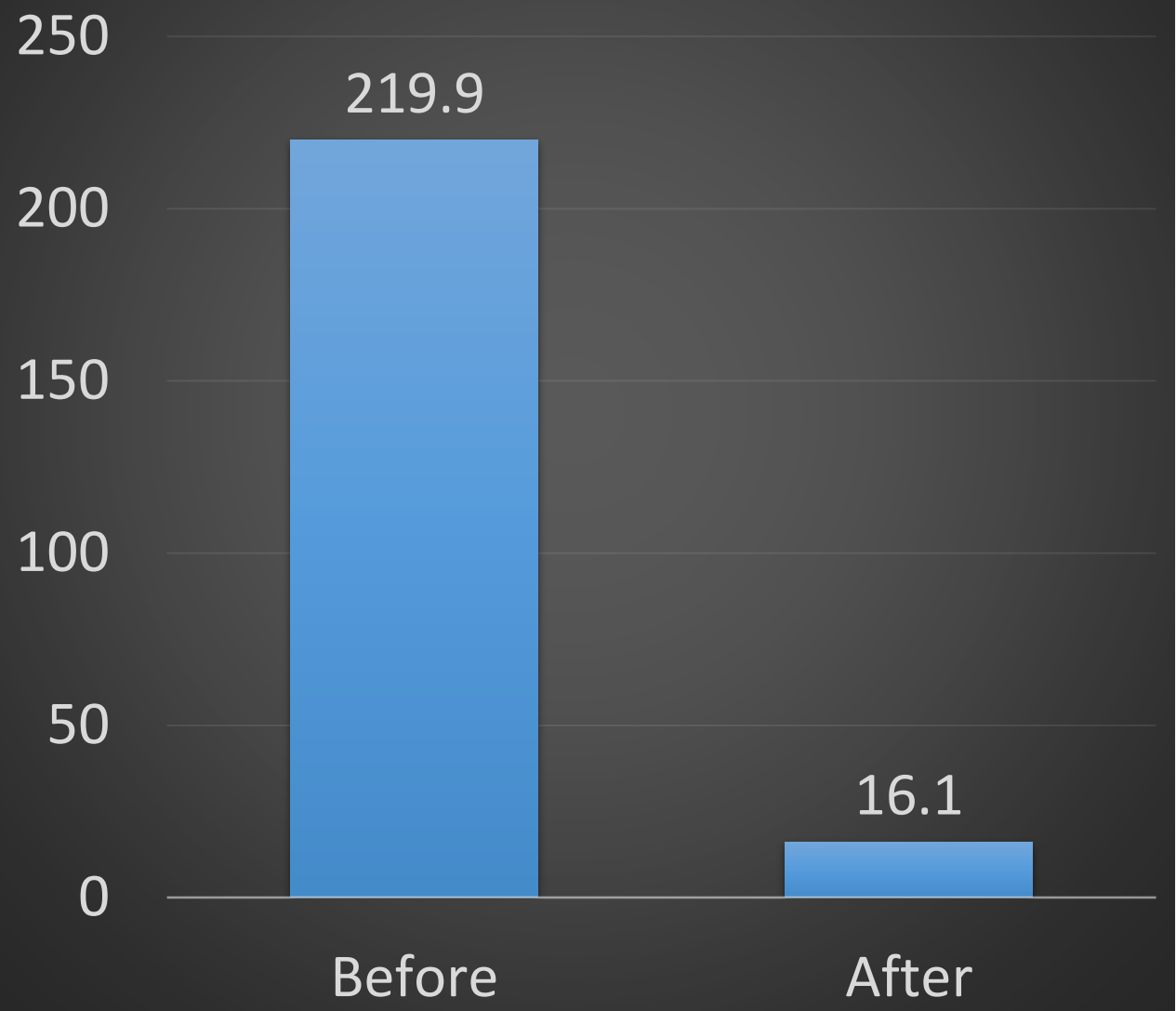
…body worn cameras might be one tool for achieving this.


0
1
2
3
4
5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
Months: 1-12 baseline during 2011; 13-24 experimental during 2012

Complaints Filed Against Police Officers (7 Experimental Sites): Before-After Percent Changes



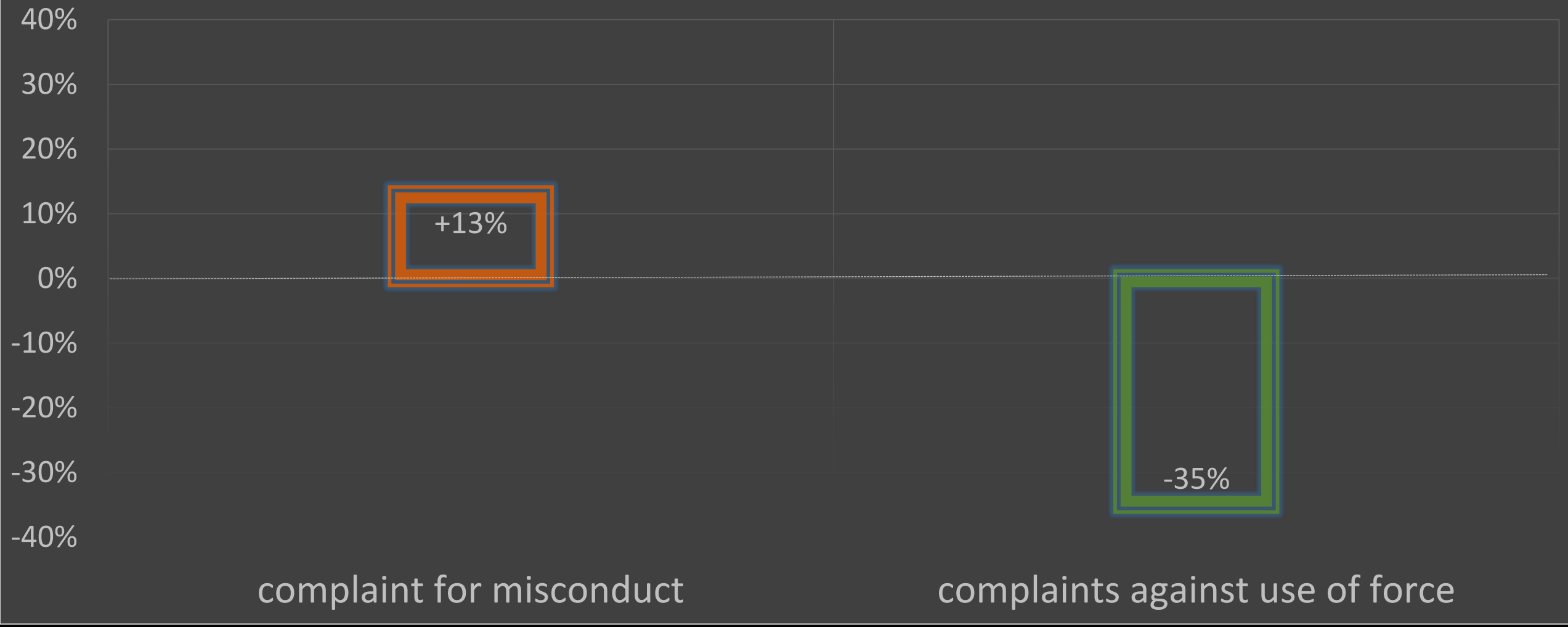
Average Number of Complaints per Department (7 forces): Before and After



Ariel, B., Sutherland, A., Henstock, D., Young, J., Drover, P., Sykes, J., Megicks, S., Henderson, R. (2017). "Global Multi-Site Randomized Controlled Trial Shows that Police Body-Worn-Cameras Reduce Citizen's Complaints against the Police: A Case of "Contagious Accountability"?" ***Criminal Justice and Behavior***

what *kinds* of complaints

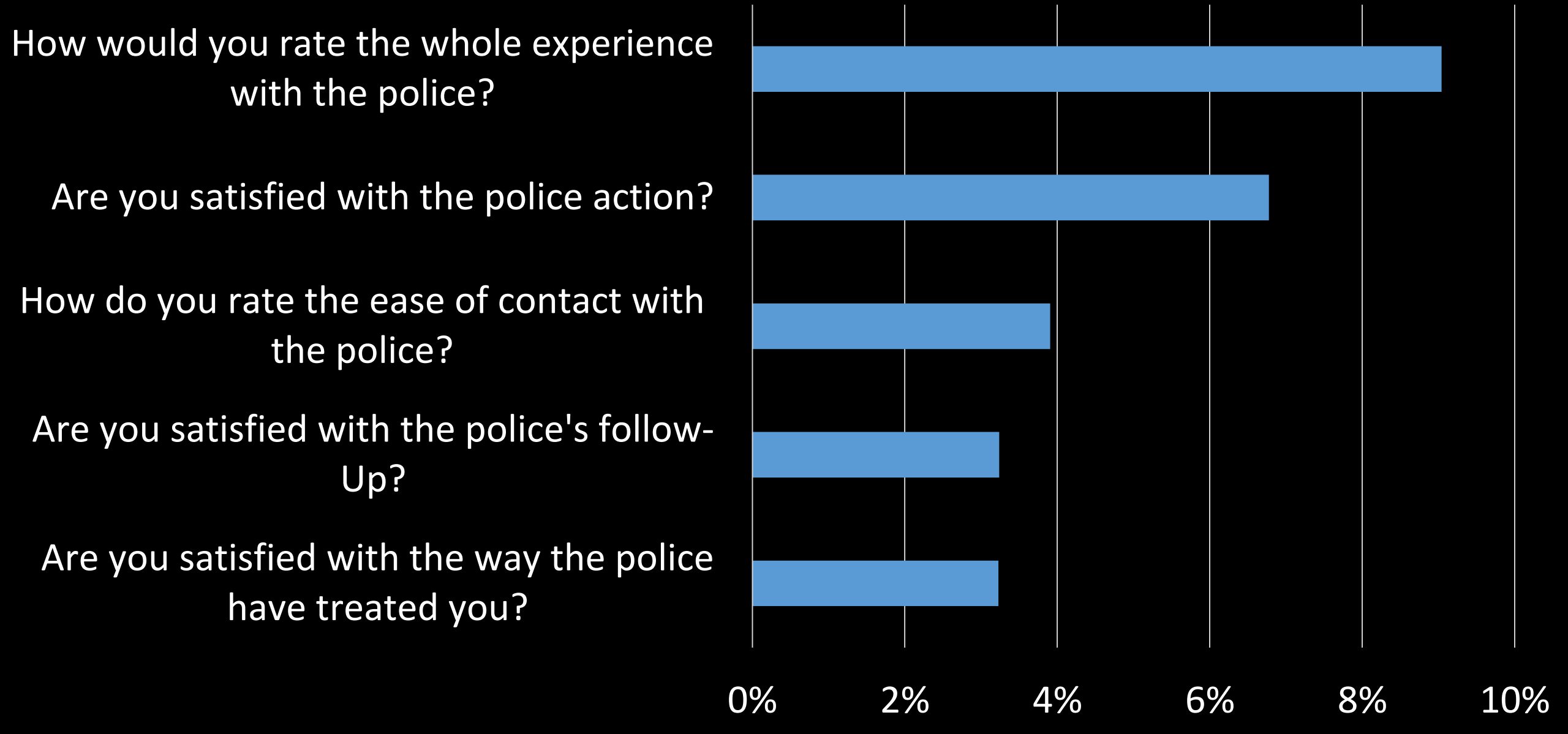
Denver PD: Odds of a complaint in Treatment District compared to the Odd of a complaint in the Comparison Districts



Source: Ariel, B. (2017). 'The Effect of Police Body-Worn Videos on Use of Force, Complaints and Arrests in Large PDs'. Journal of Criminal Law and Criminology, 106(4): 729-768

Why BWCs Matter – Victim Satisfaction

Victim Satisfaction Survey: % Improvement when BWCs are in use

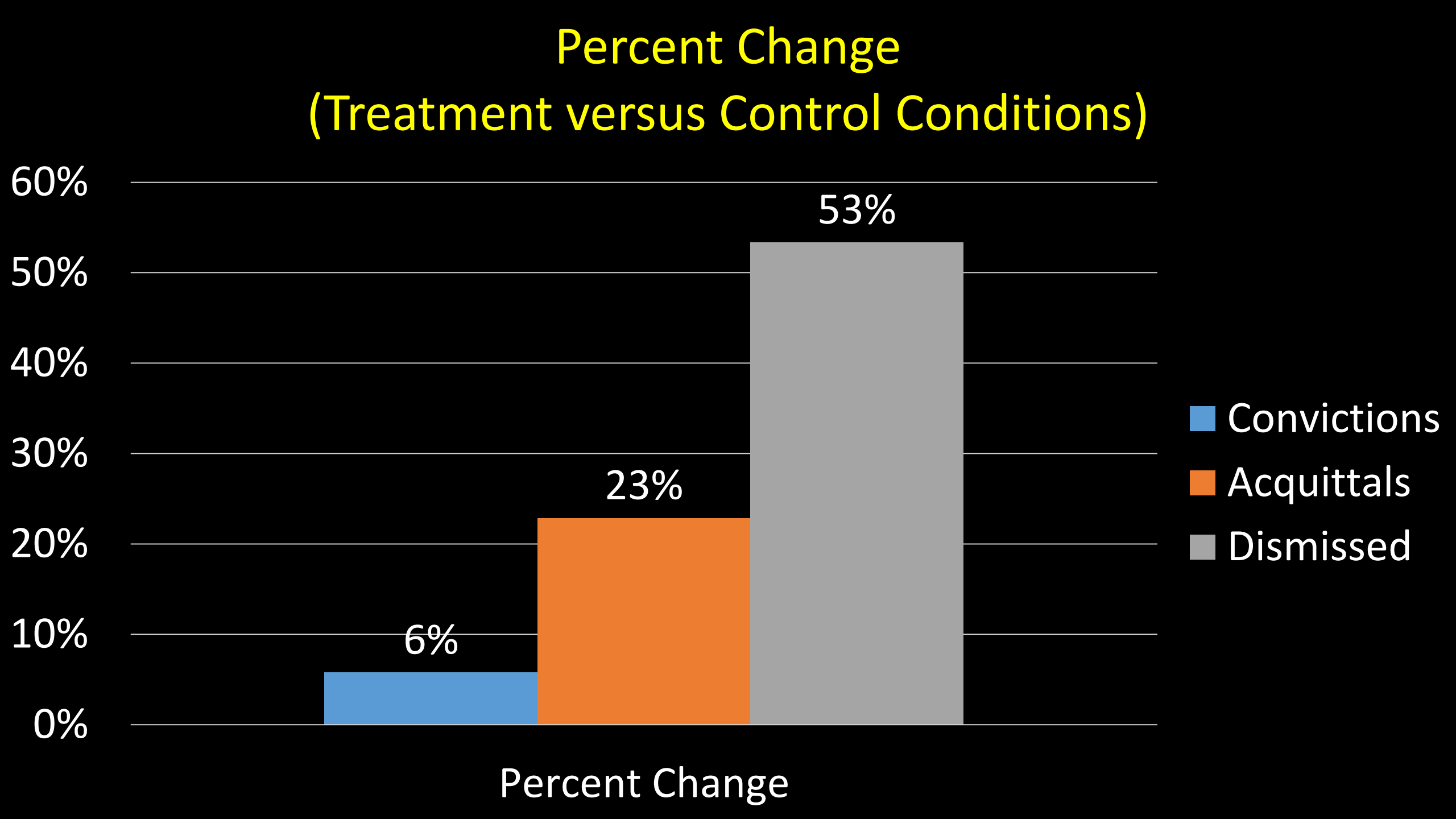


Why BWCs Matter – Court Outcomes

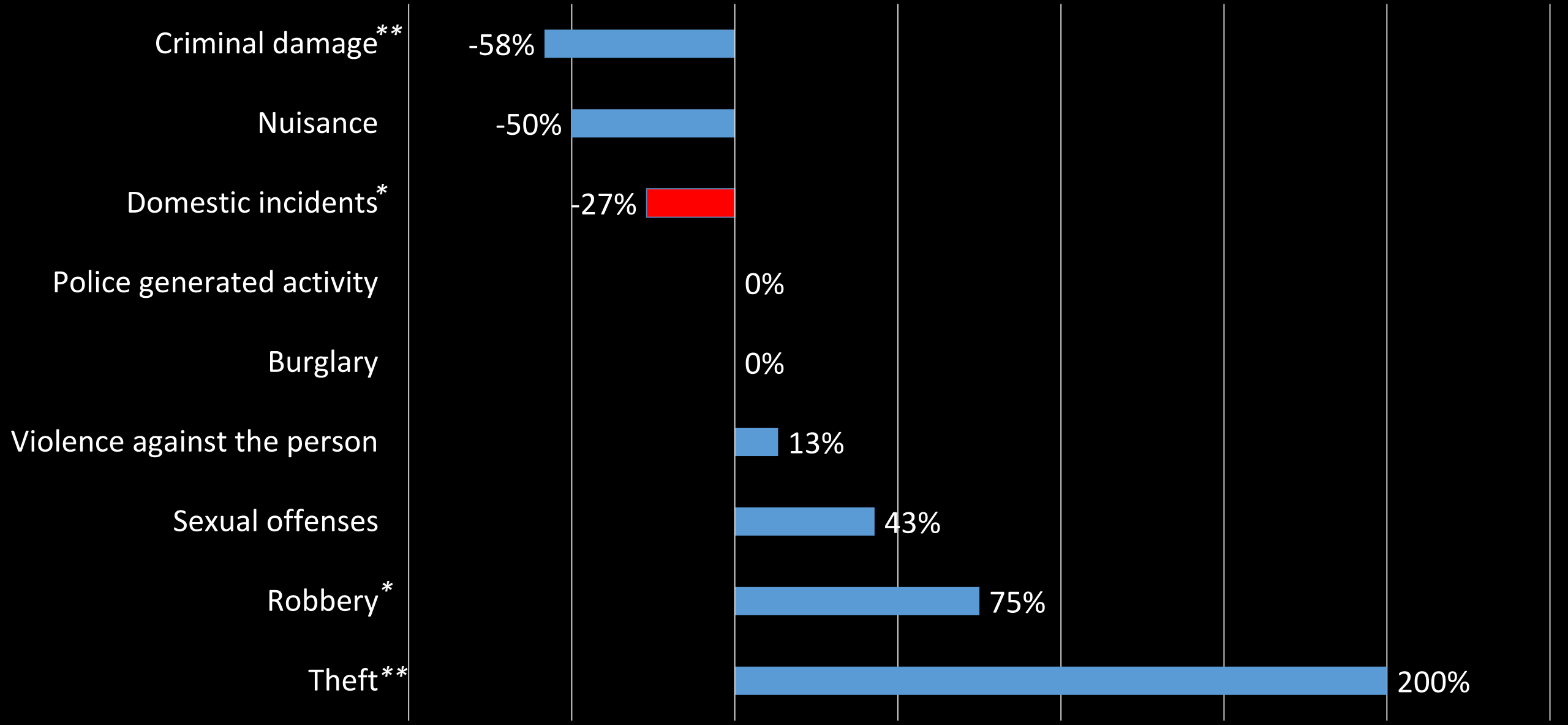
Experiment I

Site features

- 200,000 residents, 83% Whites
- One of UK's top 50 cities in terms of size
- Crime rate higher than average for the force area
- Calls for service received between May 2014 – May 2015
- 38,406 incidents
- 12-months follow-up period
- 120 frontline officers
- 728 shifts

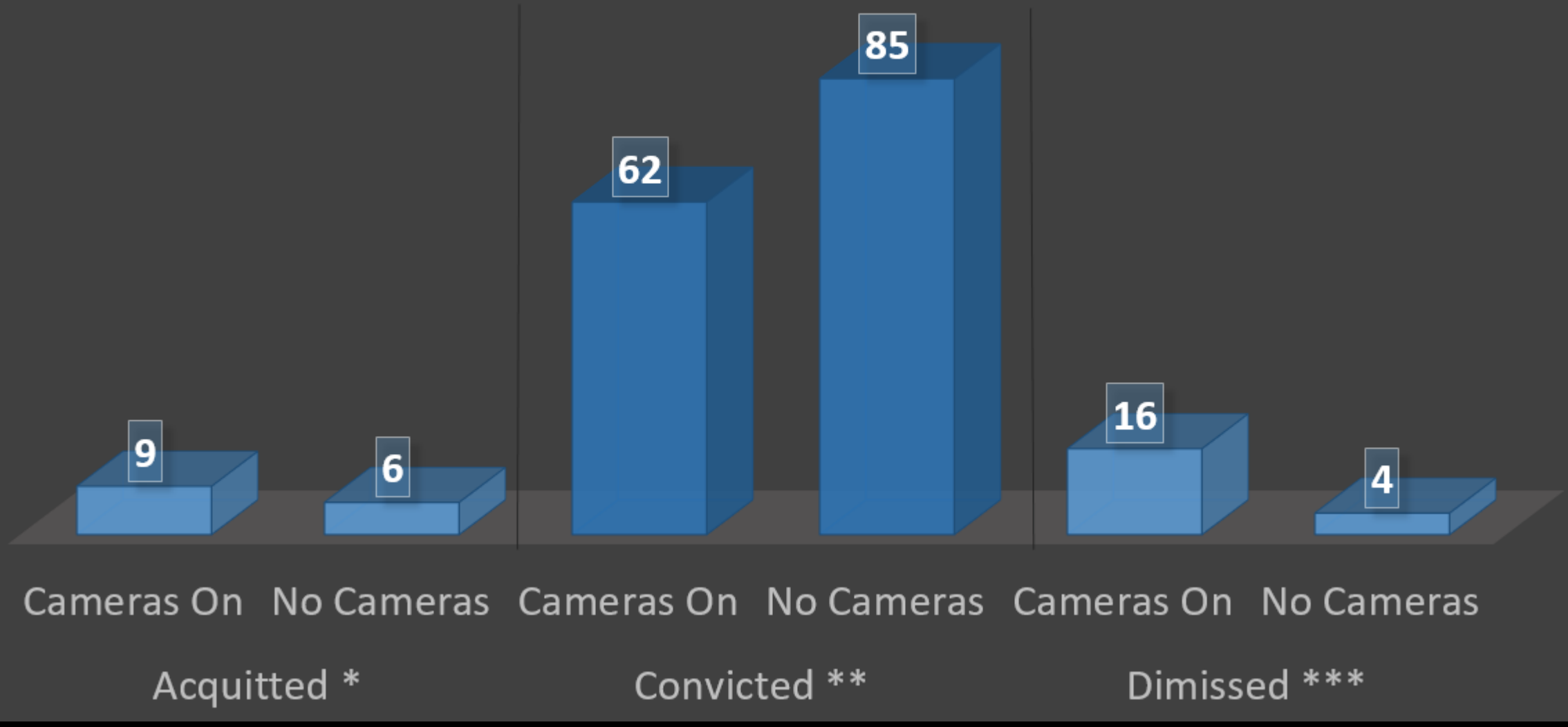

Percent Change
(Treatment versus Control Conditions)
60%
50%
40%
30%
20%
10%
0%
53%
23%
6%
Convictions
Acquittals
Dismissed
Percent Change

Percent Change - Convictions within Crime Categories



(p≤.10; ** p≤.05; ***p≤.01; positive change indicates more convictions in treatment conditions)*

DOMESTIC VIOLENCE COURT OUTCOMES – RATES PER 10,000 INCIDENTS



** p≤.10; ** p≤.05; ***p≤.01; based on binary logistic regression models with robust estimators*

Experiment II

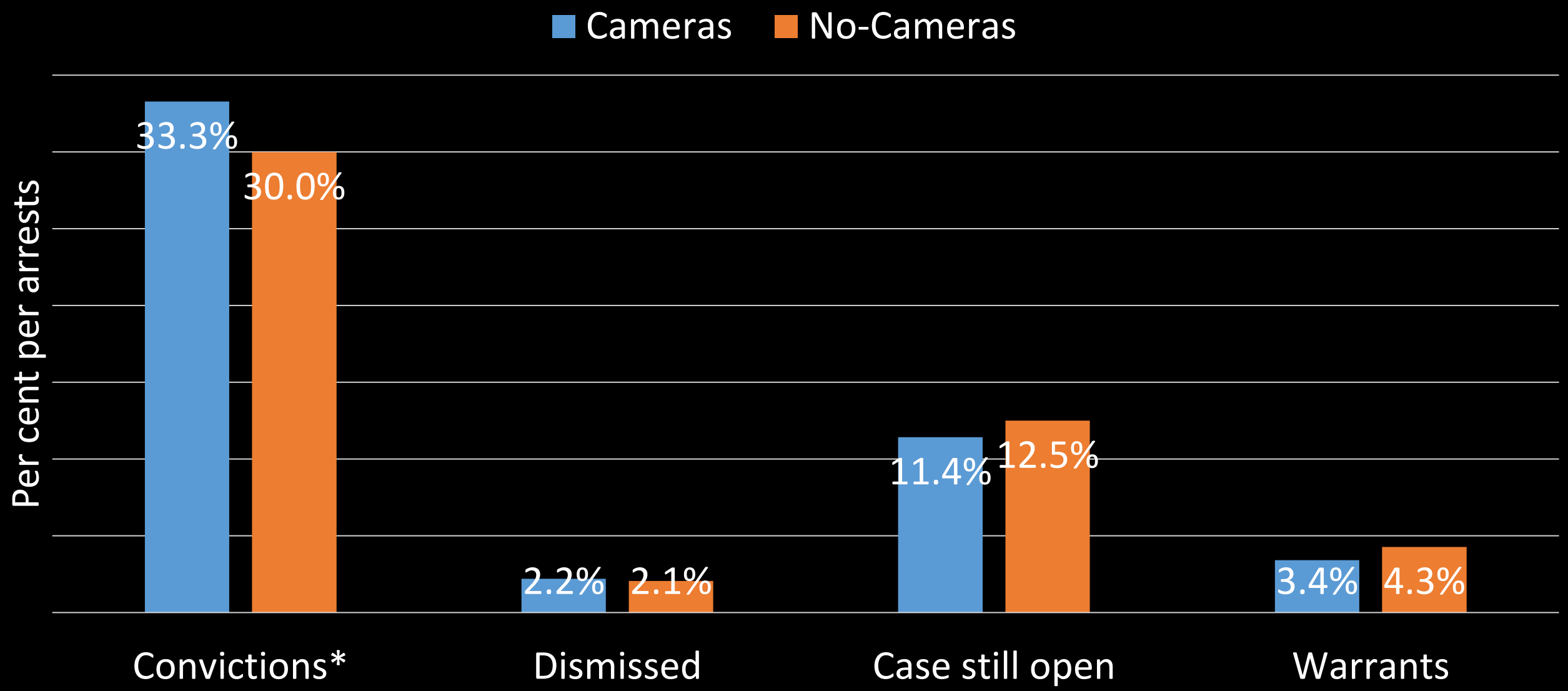
Site features

- 100,000 residents, 76% Whites

- Crime rate lower than average for the county area (approx. 3 crimes for 1,000 residents)
- Calls for service received between June 2014 – June 2015
- 2,586 arrests
- 12-month follow-up period

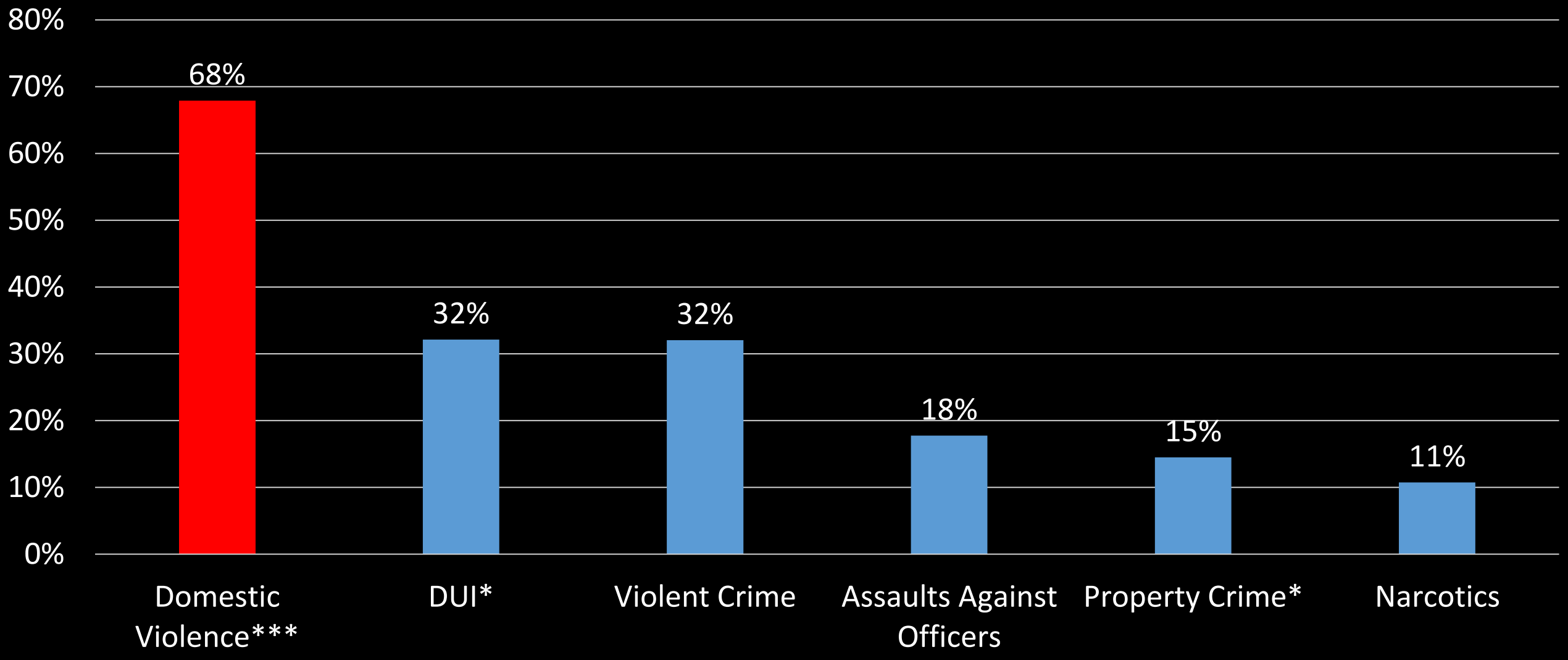
- 105 frontline officers
- 734 shifts

Overall Court Outcomes: Treatment vs. Control Conditions (percent per arrest)



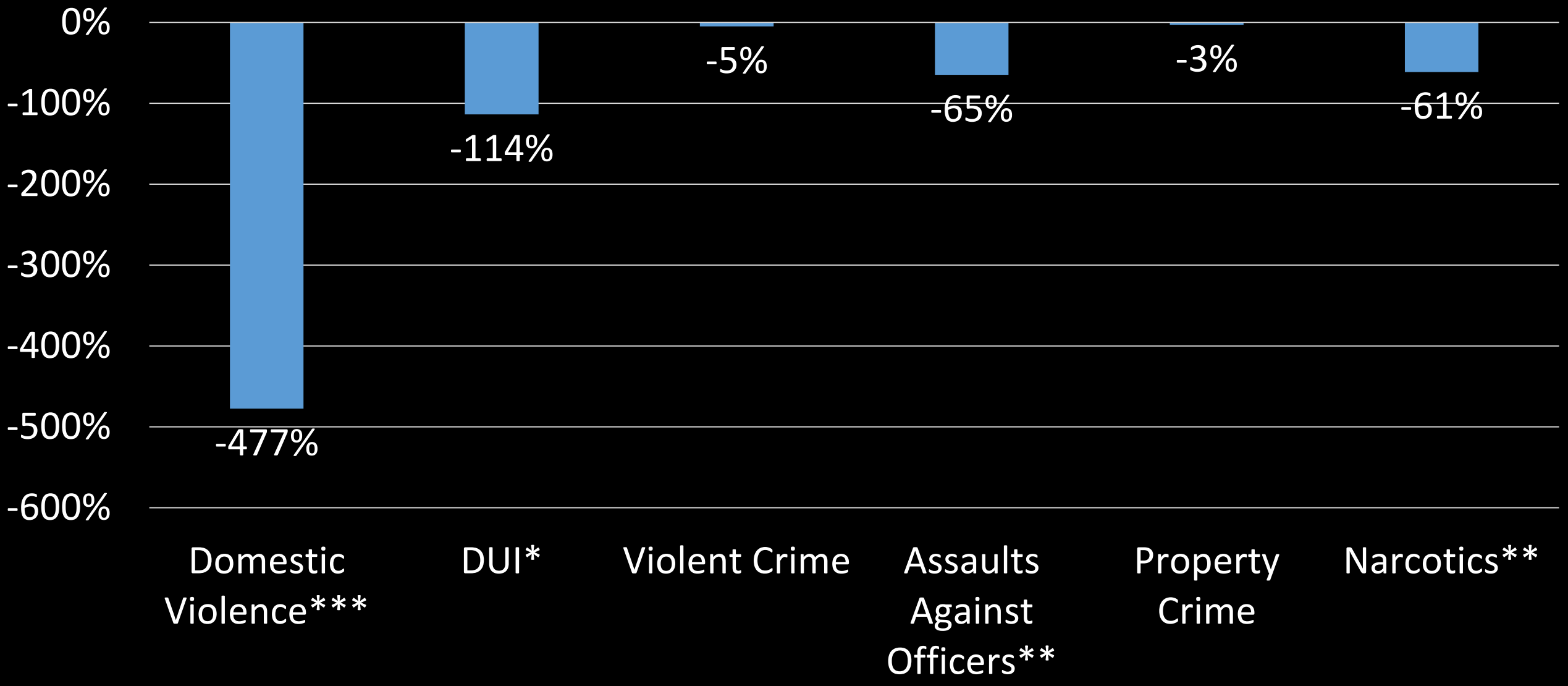
** p≤.10; ** p≤.05; ***p≤.01; based on independent samples t-tests for proportions with bootstrapping*

Effect of BWCs on Convictions: Percent Change (Treatment vs. Control)



** p≤.10; ** p≤.05; ***p≤.01; based on independent samples t-tests for proportions with bootstrapping*

Effect of BWCs on Cases Still Open after 12 months: Percent difference (Treatment vs. Control)



** p≤.10; ** p≤.05; ***p≤.01; based on independent samples t-tests for proportions with bootstrapping*

A tale of two experiments—all about compliance and implementation

UK Experiment

- **Weak treatment fidelity**

US Experiment

- **'Moderate' treatment fidelity**

Rate of breaches

DUI Test of a Drunk Driver

Unstable single-shot vs. multiple viewpoints


POLICE
POLICE

Prevalence and Rationale

- Currently, more than 20,000 law enforcement agencies utilise the Taser X-26 model as a strategic part of their mission to promote public safety, as well as officer safety

- The appeal of less-than-lethal technologies is that they are deployed with the intent not to kill, but to incapacitate temporarily

- **These devices give law enforcement a momentary window to gain control over uncooperative and uncontrollable subjects**

Should all frontline officers wear TASERs?

- Loads of opinions
- Good arguments for it, good arguments against it
- Will frontline officers use it too much?
- No evidence in British forces
- No controlled evaluations ANYWHERE

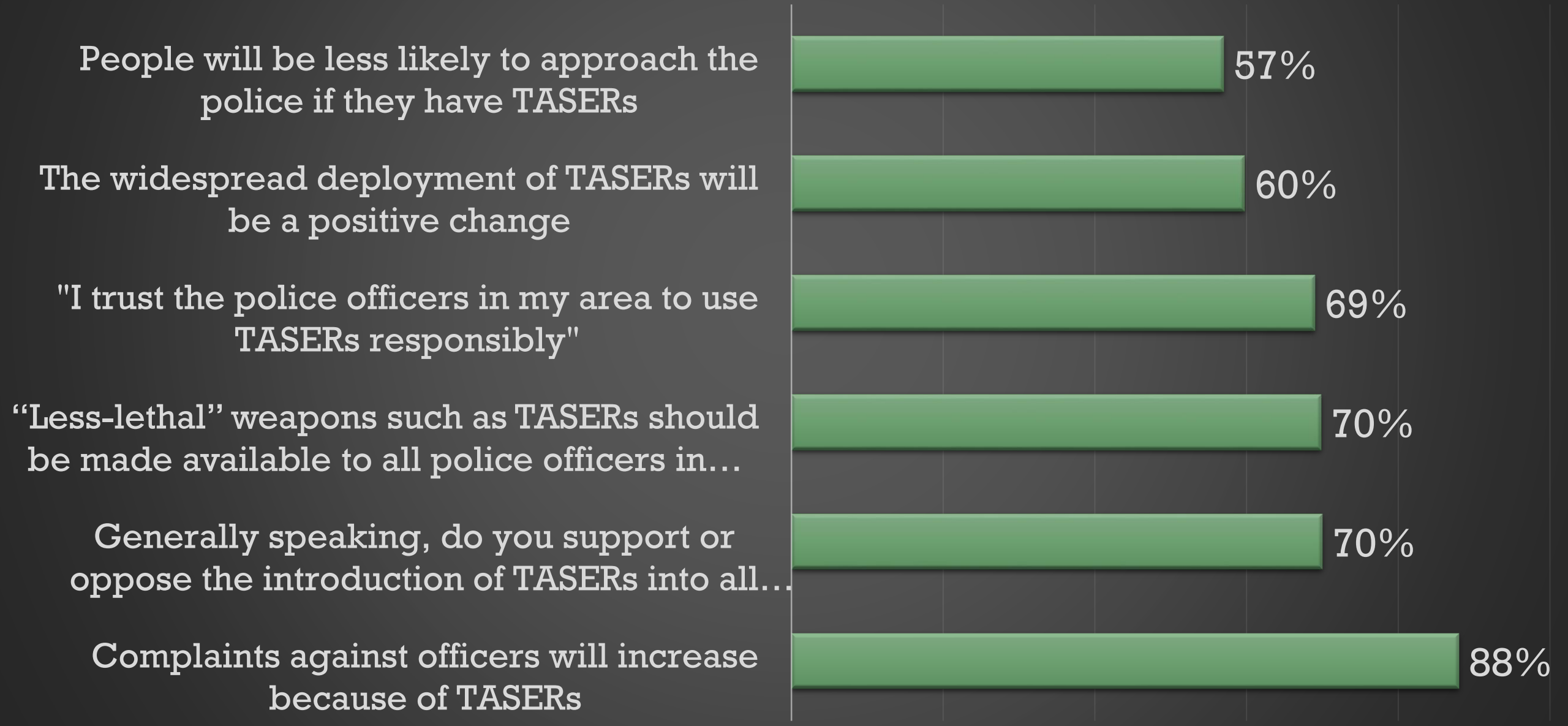

2017-08-08 T19:53:17Z
AXON BODY 2 X81088232
POLICE ACTIVITY

The City of London Police TASER Experiment

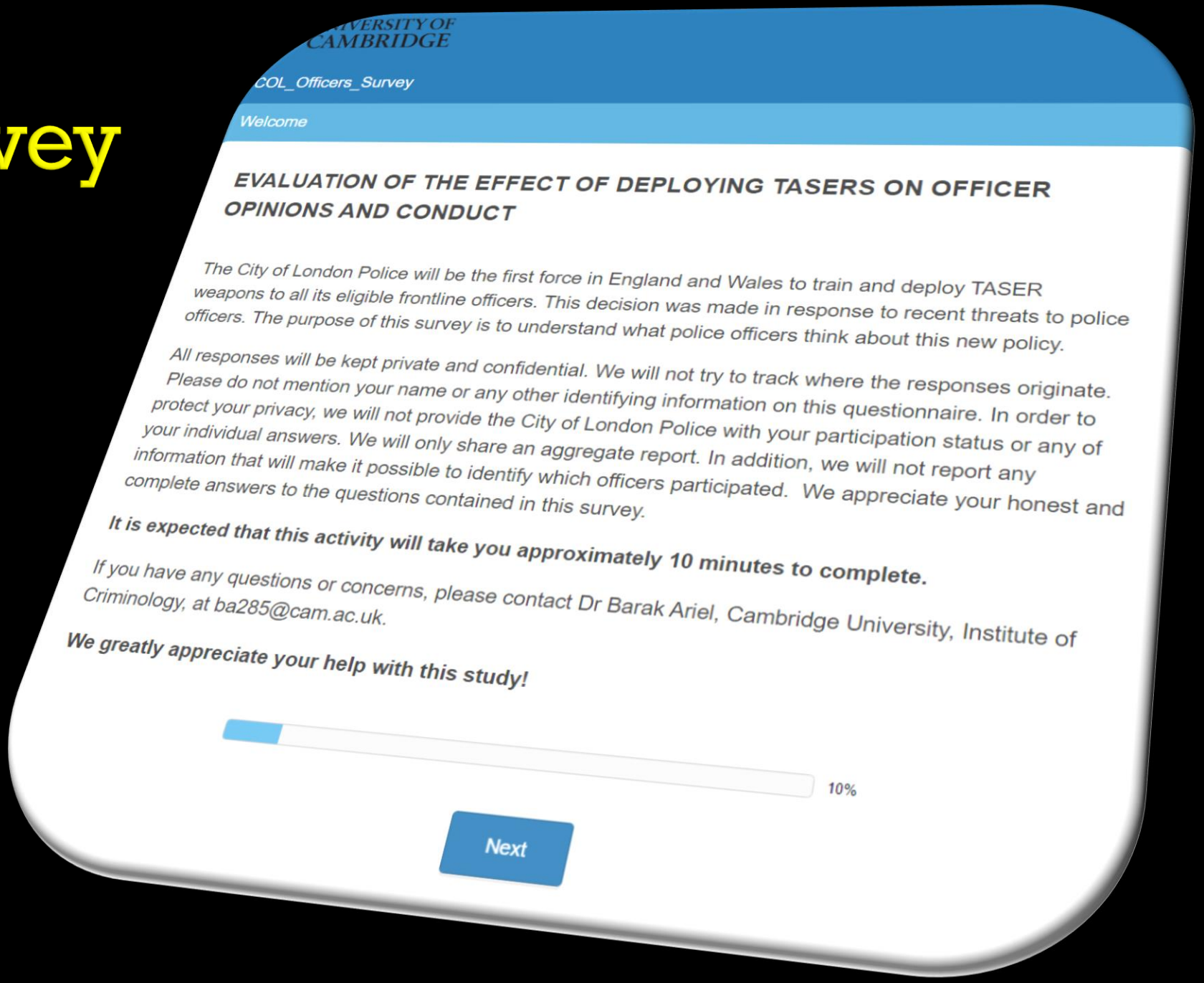
The city of London Police TASER Experiment

- The first of its kind, ANYWHERE!
- Produced evidence for the benefit of all forces
- A wide range of questions:
  - How often do frontline officers use Tasers?
  - Do Tasers lead to higher rates of assaults of officers?
  - Do Tasers lead to higher rates of suspects and officers' injuries?
  - Will use of force (other than Taser) go down?

Public Sentiment
(2,000 respondents nationwide)



Officers' Survey



Experimental Procedure

- Training to 84 frontline response officers ; 58 officers (69%) certified
- Standard operating procedures were put in place
- Random allocation of 678 temporal clusters
- All outcome variables were recorded independent of the experiment
- 6 months RCT

Random Allocation of 678 police shifts

- Weekly random assignment
- Limited spill-over of treatment to control conditions:
  - ‘Treatment clusters’ → 58 Taser-equipped officers (approximately 40% of all officers during the shift)
  - ‘Control clusters’ → 0 Taser-equipped officers patrolled the City of London
- ‘Treatment officers’ were assigned to ‘treatment clusters’, not to ‘control clusters’; however occasionally they were, but 0 deployment with Taser equipment during ‘control clusters’

Results

City of London Police Offices rarely used Tasers

- During the experimental period, police officers “used” TASERs in police operations nine times
- BUT applied electric shocks to suspects “only” twice (a rate of 1 per 3,000 incidents)
- The remaining “uses” included encounters in which officers either de-holstered or pointed the TASER at suspects

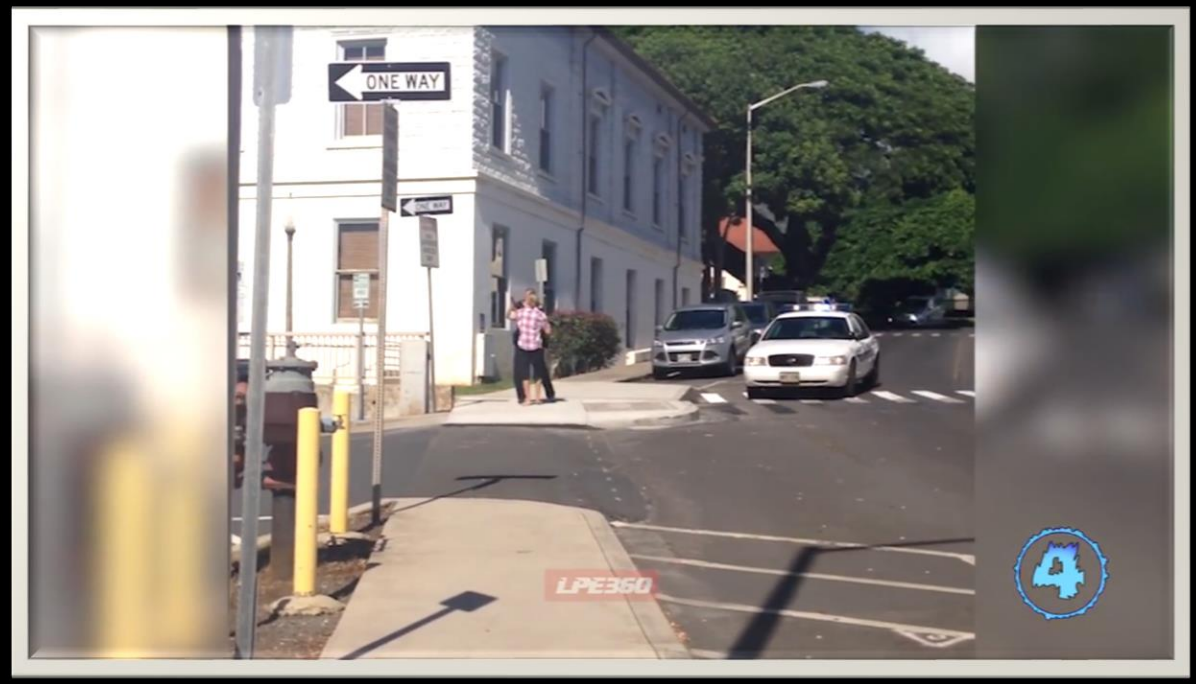
However, a different story emerged in terms of the rate of use of force per 1,000 incidents (per temporal cluster)

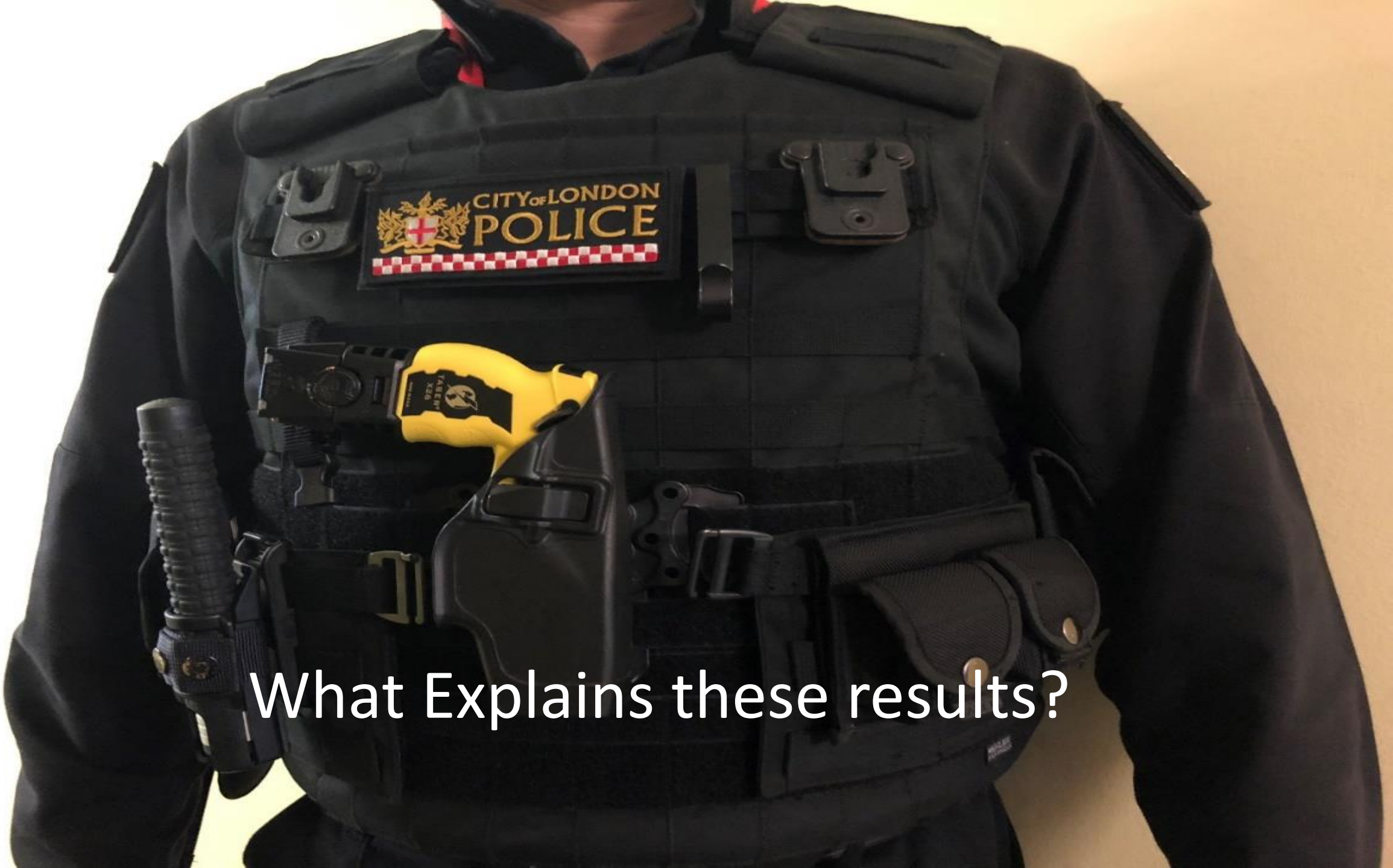
- TASER-carrying officers → force increased by 48% compared to control conditions ($p<.001$)

Assaults of Officers and Suspect Injuries

- 0 recorded **Injuries** to suspects

- Significant doubling of **assaults** on police officers in the line of duty compared to control conditions →0.4 physical assaults versus 0.2 per 1,000 incidents in treatment and control conditions





What Explains these results?

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The General Aggression Model

- The outcomes can be contextualised within the General Aggression Model (GAM) (Anderson & Bushman 2002) → **hostile appraisals facilitate aggression**
- The "Weapon Effect" → Mere presence of weapons is an aggressive cue; increases "aggressive thoughts, hostile appraisals, and aggression, suggesting a cognitive route from weapons to aggression"(Benjamin et al. 2017)
- The appropriate response is consequently a 'fight or flight' dilemma and, under certain circumstances, **the behavioural manifestation is assault, violence and aggression**

- Taser is no different → the "less-than-lethal weapon effect"

Policy Implications

- ("Use" of Taser should be deconstructed → the data are there; there is no need to collapse all applications of Taser into a binary registry of 'use')

- Training (!)

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- Training (!)

- Concealing Tasers

UK Police Uniforms Over Time

1850

1891

1980

2018

2019

What Police Wear and Why It Matters: Tasers, Cameras, Uniforms and Experimental Criminology