



A Randomized Trial Comparing Problem Solving and Saturation Patrol at Hot Spots of Violence

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Police Executive Research Forum

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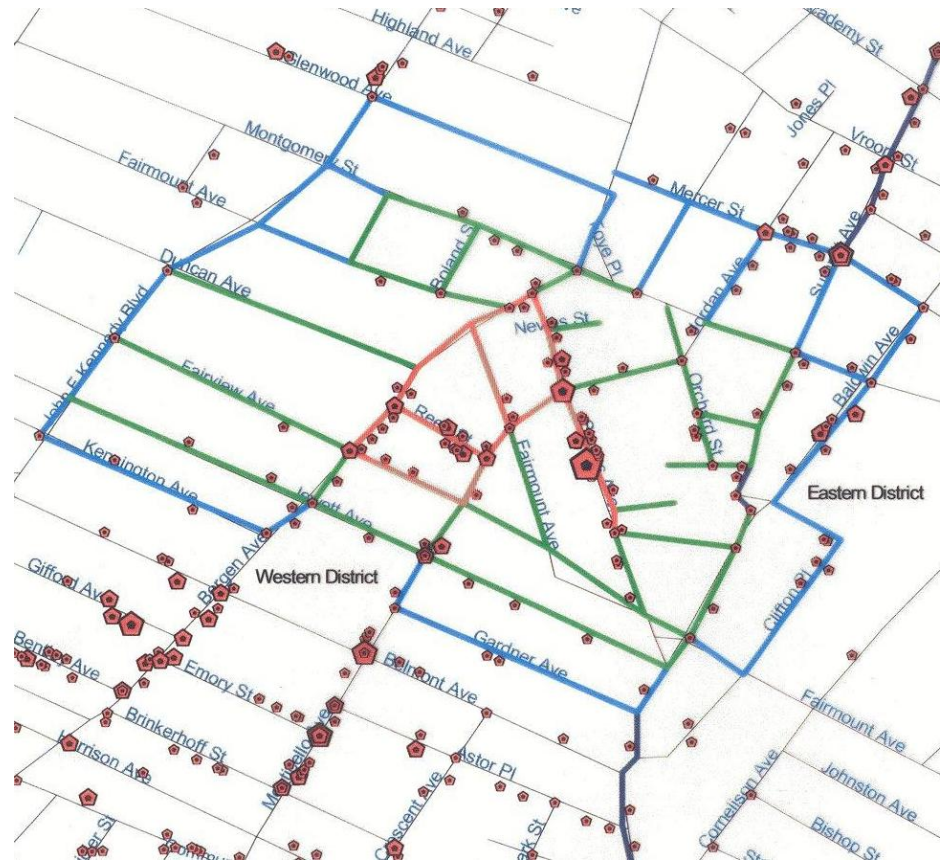
Funded by the U.S. Bureau of Justice Assistance

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Cambridge University


Crime Concentration and “Hot Spots”

- ▶ Half of crime occurs at 5% or less of street blocks and addresses

(e.g., Sherman et al., 1989;
Weisburd et al., 2004)



Hot Spot Places

- ▶ Offenders, targets, absence of guardianship converge
 - ▶ Places with facilities and features putting them at higher risk
 - ▶ Examples: bars, convenience stores, parks, bus depots, apartment buildings, adult businesses, etc.
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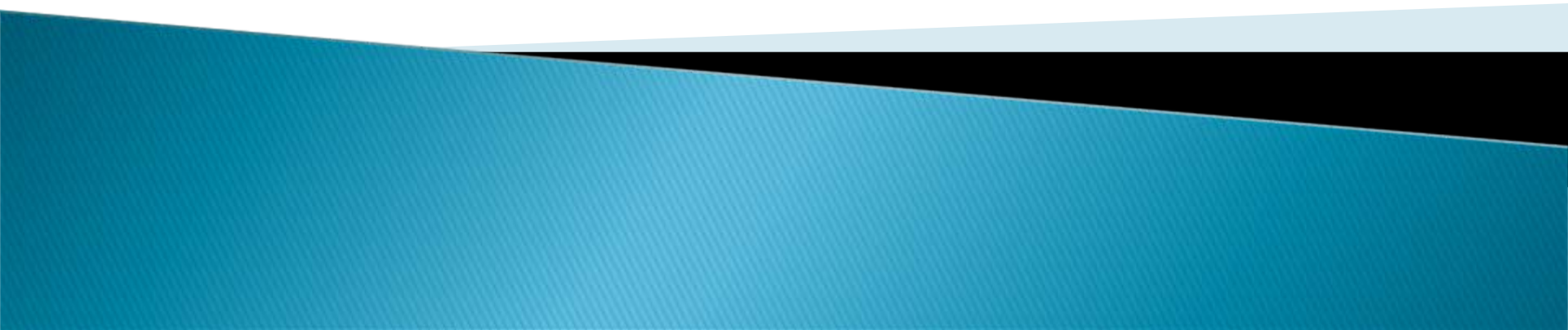
Advantages to Focusing on Hot Spots

- ▶ Concentrate on places where crime is most likely
- ▶ Generate more visible presence and greater perceptual effects
- ▶ Easier to change conditions that contribute to crime
 - Situational crime prevention
 - Working with place managers or “guardians”

Studies Indicate Hot Spots Policing Reduces Crime

- ▶ Braga (2007) review of 9 rigorous studies focused on hot spot “places”
 - Strategies included directed patrol, crackdowns, problem-solving
 - Crime reductions in 7 of 9 studies
 - No obvious signs of displacement
 - Some diffusion of benefits to nearby areas

What Strategies are Most Effective for Hot Spots?



PERF-JSO Experiment

- ▶ Randomized hot spots experiment with Jacksonville, FL Sheriff's Office (JSO)
- ▶ Testing the effectiveness of problem-solving v. saturation patrol v. normal operation at 83 hot spots of violence

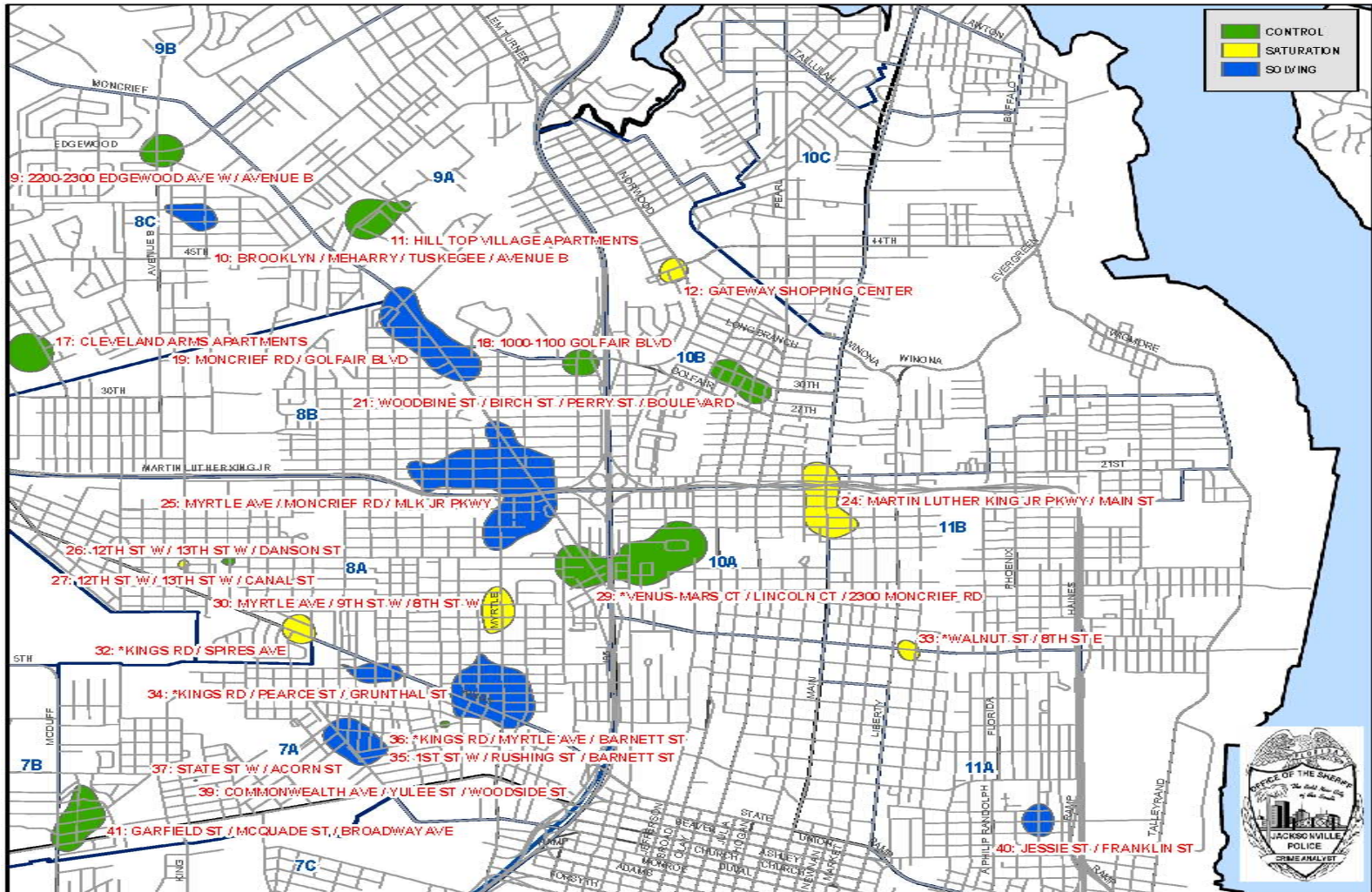
Study Location: Jacksonville, FL

- ▶ Consolidated city–county government
- ▶ Population = 851,000, area = 841 sq. mi.
- ▶ 123 murders in 2007
 - Ranked 13th among U.S. cities
- ▶ Partnership with PERF launched in 2007 to address violence
 - Funded by U.S. Bureau of Justice Assistance

Hot Spot Identification

- ▶ 83 hot spots identified based on non-domestic violence, 2006–May 2008
 - Average size of 0.02 square miles
 - Average of 26 violent street crimes per year (serious and minor)
 - Variety of locations: problem intersections and blocks, apartments, stores, hotels, bars and entertainment

View of Selected Hot Spots




Date Created: August 1, 2008

Jacksonville Sheriff's Office Crime Analysis Unit (JLR)

Experimental Conditions

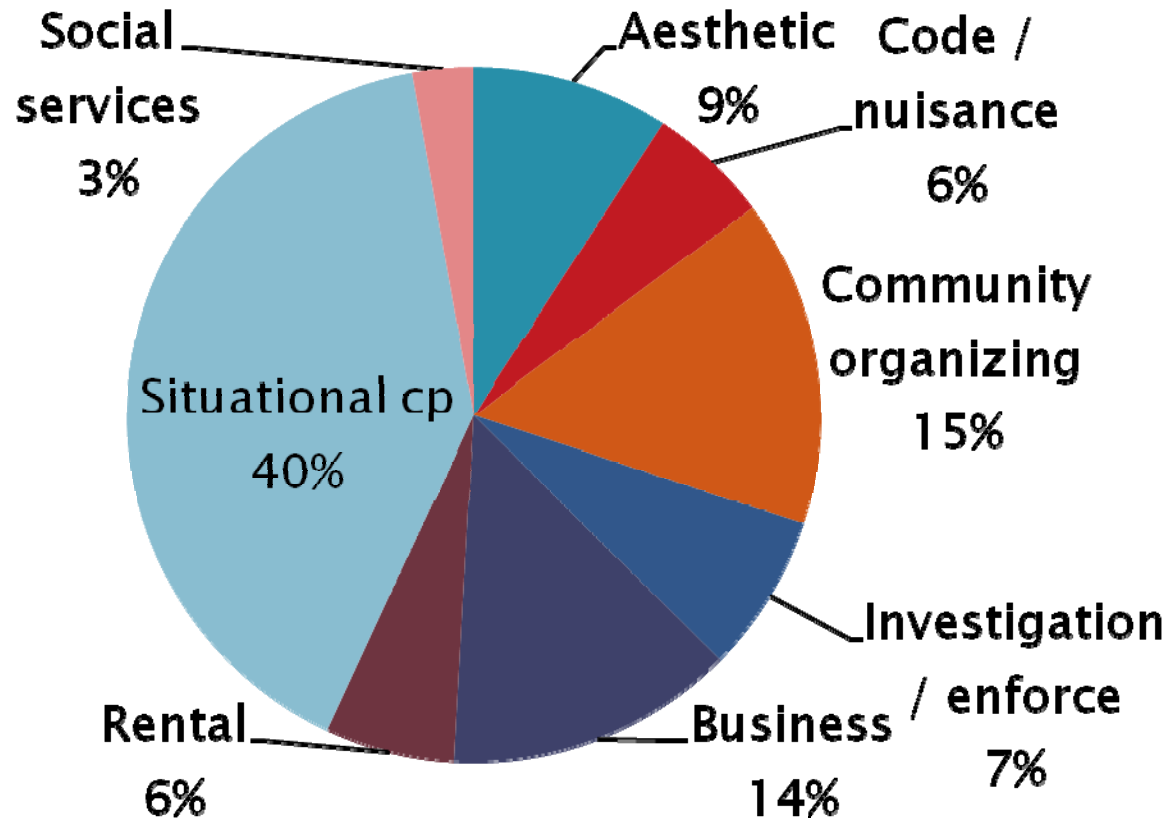
(90-day trial: Jan. 11–Apr. 11, 2009)

- ▶ 22 Problem-oriented policing (POP) hot spots
 - ▶ 21 Saturation patrol hot spots
 - ▶ 40 Control hot spots (normal operations)
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Problem-Oriented Policing Intervention

- ▶ Team of officers and crime analyst assigned to each spot
 - 60 officers and 4 crime analysts
 - Trained in POP and intelligence-led policing
- ▶ Address underlying factors; leverage community partners; employ response; assess results
 - Documented projects for JSO command staff
- ▶ Officer feedback very positive

Problem-Solving Activities



Saturation Patrol Intervention

- ▶ On duty and overtime officers
- ▶ Deployed at high-risk times
 - Pairs of officers working 1–3 hot spots
 - Officer-hours averaged 53 per week (per spot)
- ▶ Patrol, door to door contacts, investigation (traffic stops, pedestrian checks, etc.)
 - 191% increase in self-initiated activities
 - 85% increase in field interviews

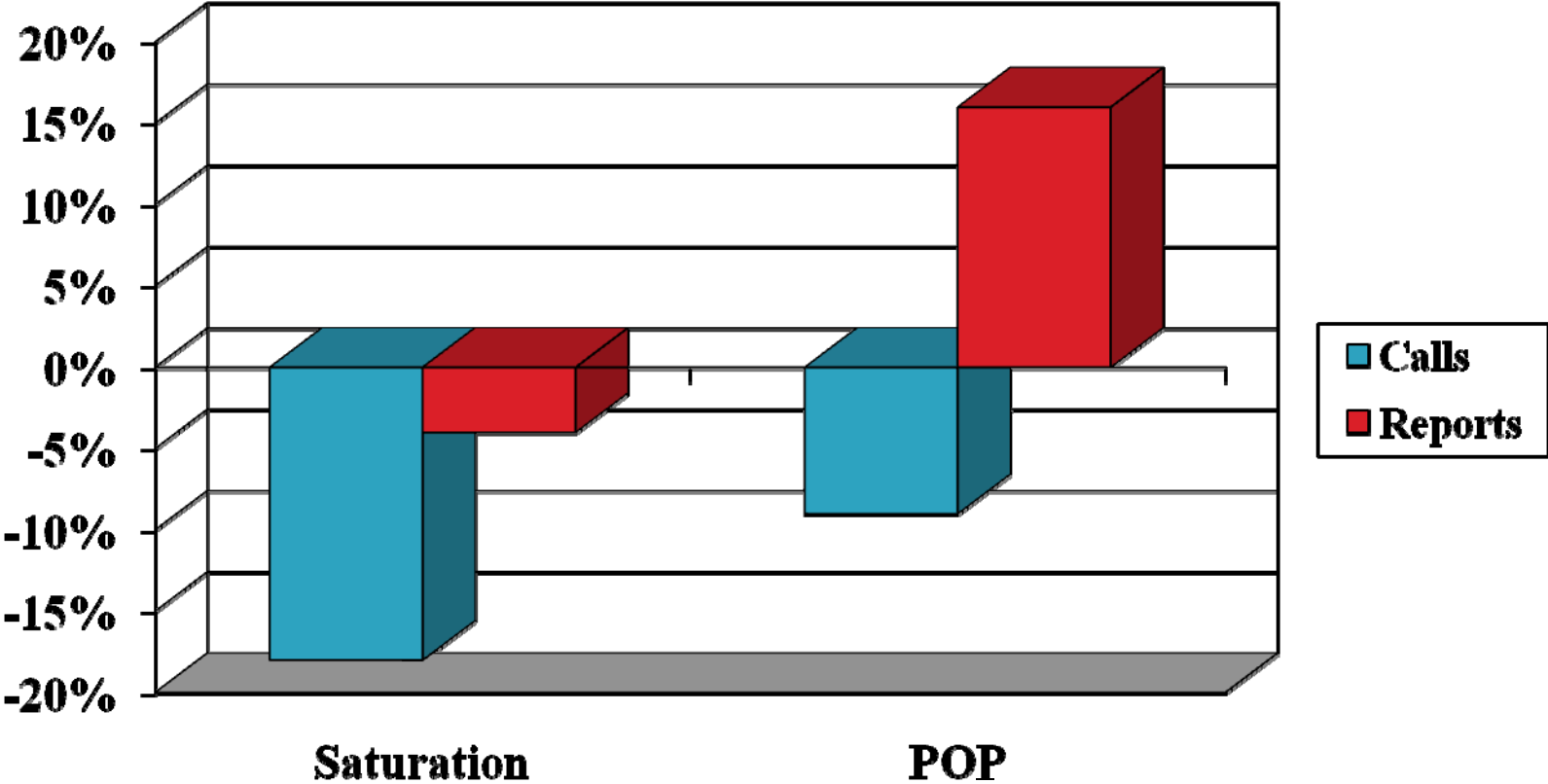
Evaluation Design

- ▶ Examine impacts during 90-day intervention period and 90-day post-intervention period
- ▶ Outcomes measures:
 - Serious violent crime
 - **Serious non-domestic (street) violence**
 - Serious property crime
- ▶ Data sources:
 - Calls for service
 - Incident reports

Hypotheses

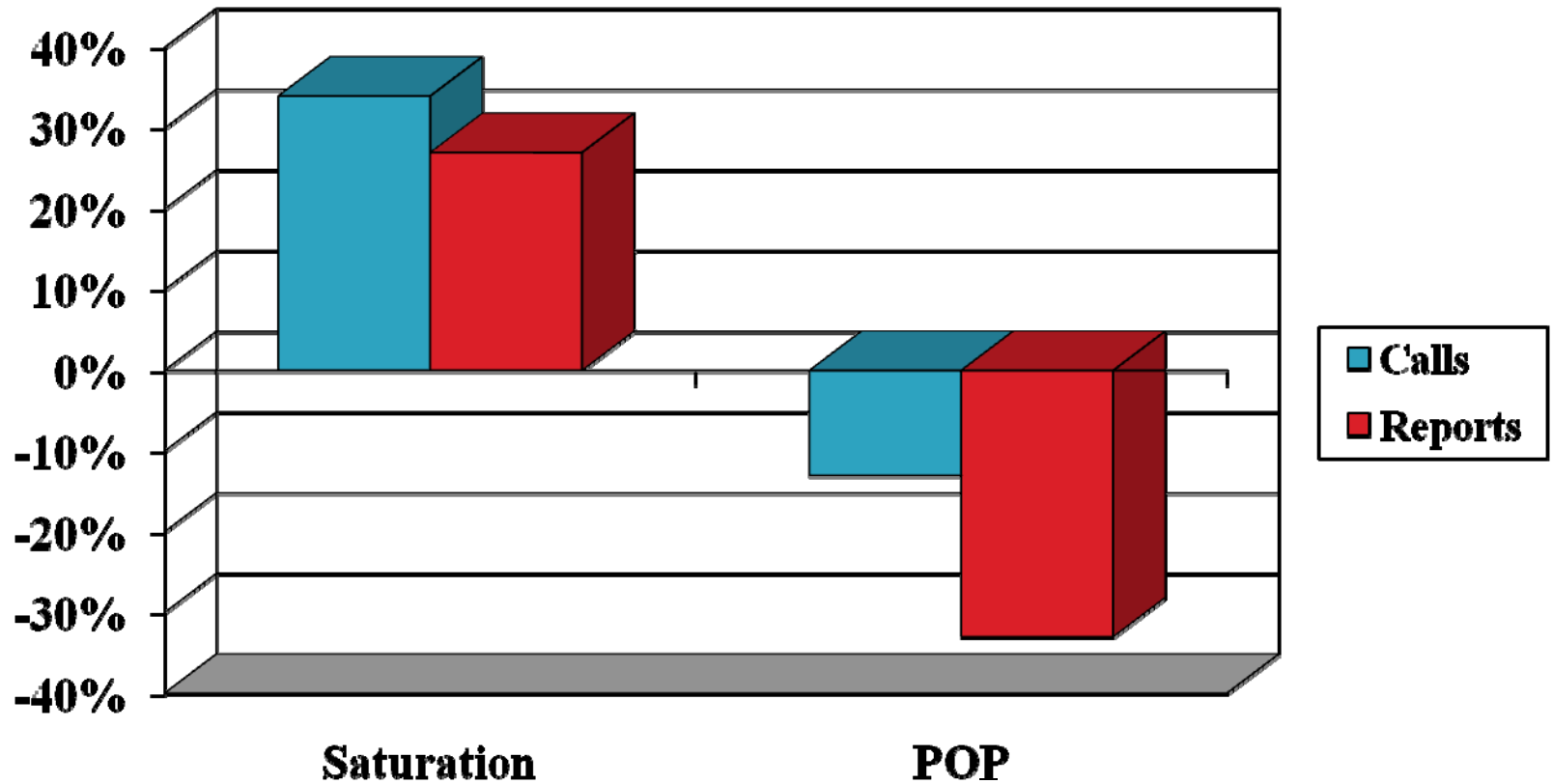
- ▶ Saturation may have stronger initial effects that fade over time
- ▶ POP effects may occur more slowly but persist over time

Non-Domestic Violence Declined in Saturation Spots During the 90-Day Intervention Period



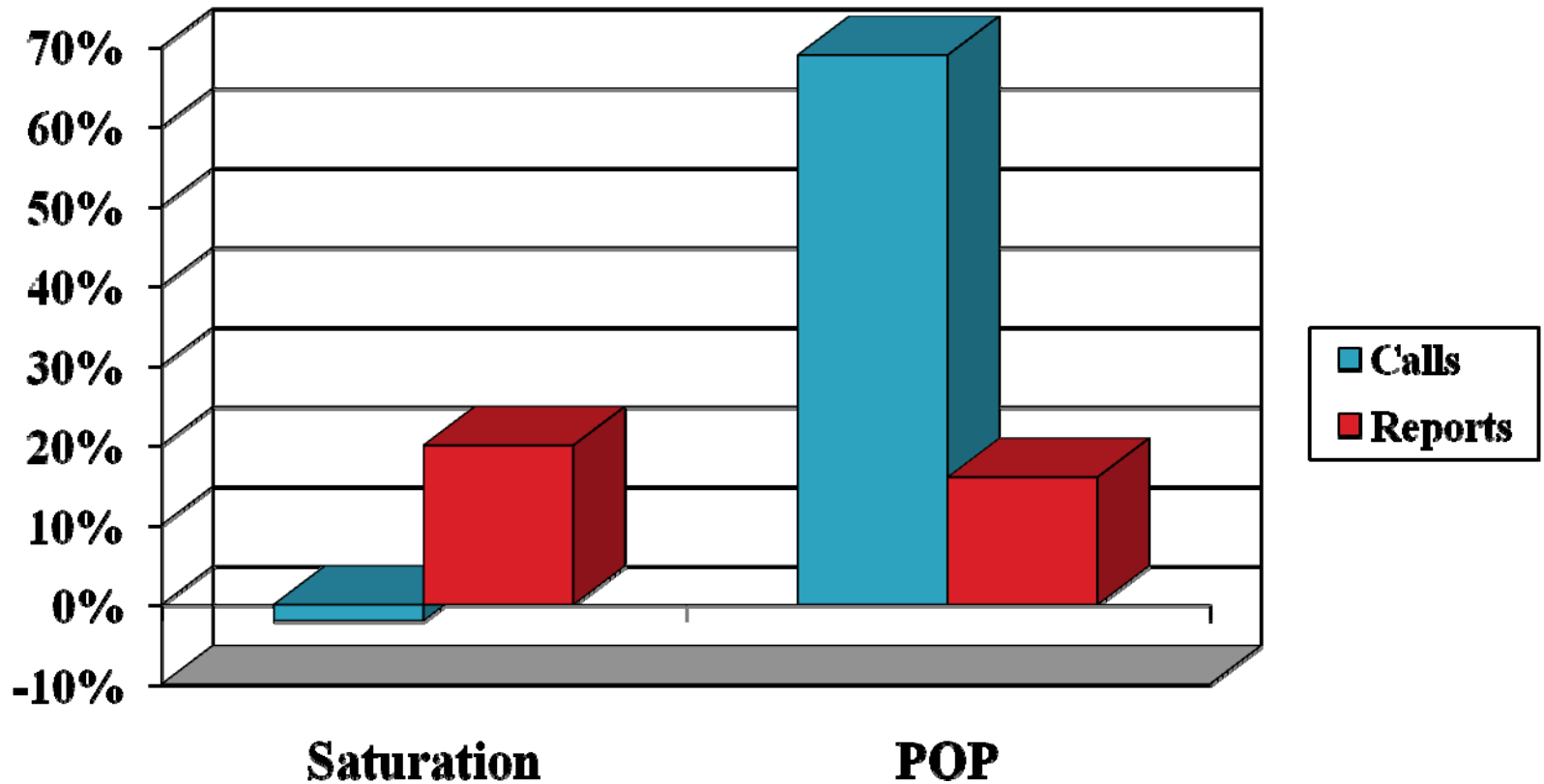
Regression-adjusted estimates of changes relative to control spots

Non-Domestic Violence Declined in POP Spots During 90-Day Post-Intervention Period



Regression-adjusted estimates of changes relative to control spots

Displacement to Areas Near POP Spots—Or Reporting Effects?



90-day post-intervention period. Regression-adjusted estimates of changes relative to control spots.


Examining Effects from Types and Dosages of Activities (In Progress)

- ▶ Preliminary results:
 - Code enforcement / nuisance abatement reduced violence by up to 68%
 - Investigation / patrol enforcement reduced violence by up to 76%
 - Situational crime prevention reduced violence by up to 19%
 - More days and hours per week of police presence reduced violence

Summary

- ▶ Saturation may have reduced violence 4% to 20% but effects decayed quickly
 - Ongoing dosage analysis
- ▶ Problem-oriented policing reduced violence up to 33%
 - Larger and more lasting effects
 - More crimes prevented per officer-hour based on incident reports
 - Nuisance abatement, targeted investigation, and situational crime prevention most effective
 - Some displacement or reporting effects

Implications

- ▶ Further support for effectiveness of police efforts focused on hot spots
 - ▶ Reorient patrol around hot spots (problem blocks, intersections, places)
 - ▶ Use problem-solving at hot spots for larger and longer-term crime reductions
 - ▶ Monitor for displacement or reporting effects in nearby areas
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Published results:

A randomized controlled trial of different policing strategies at hot spots of violent crime.

By B. Taylor, C. Koper, and D. Woods

Journal of Experimental Criminology
2011 Vol. 7:149–181.