

*Exposure to violence and public health:
Lessons and implications from the St.
Louis, Missouri Police-Prosecutor
Partnership Initiative*

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Support

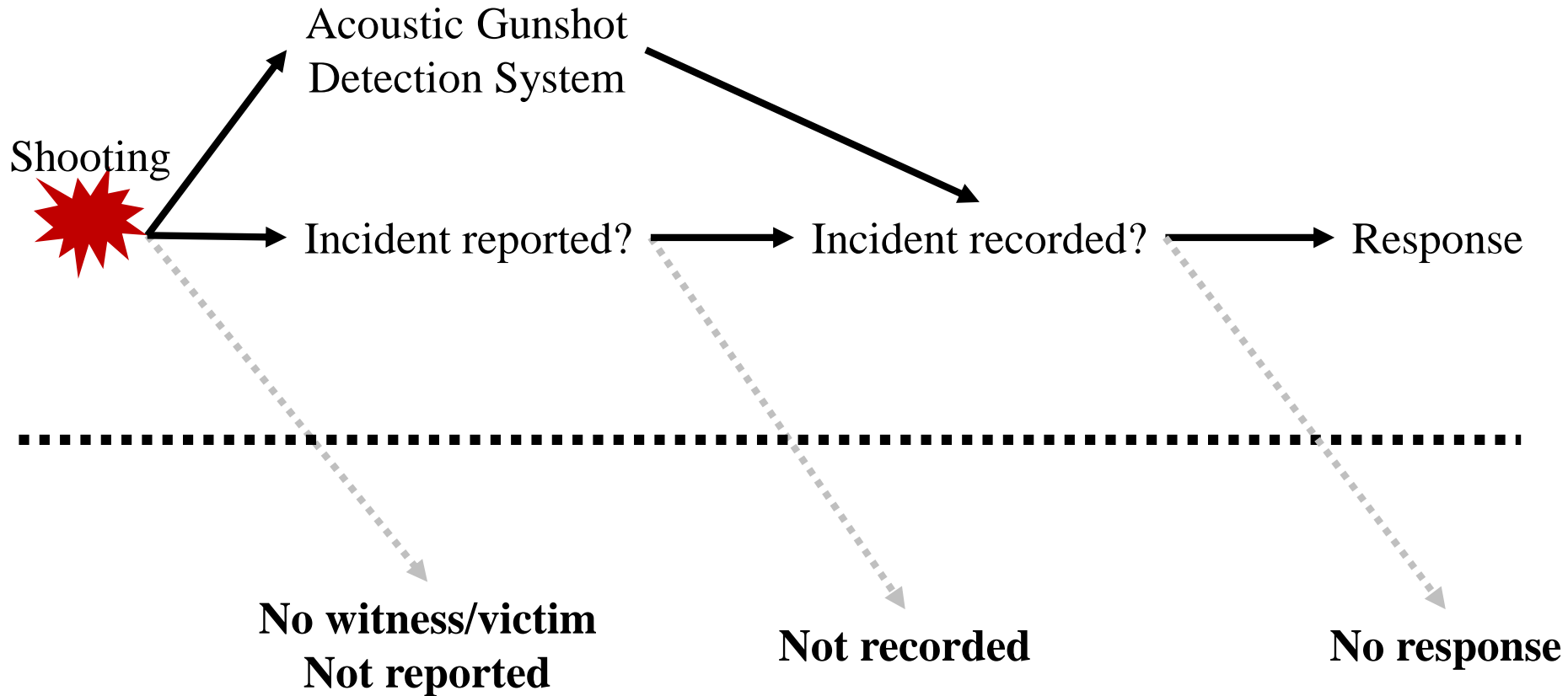
- St. Louis Metropolitan Police Department
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- Creating Whole Communities Collaboration at the University of Missouri – St. Louis

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Gun Violence

- Seeing gun violence as a public health problem
- Police-Prosecutor Partnership (3PI)
 - Reduce gun violence
 - Apprehend offenders (often relies on witness/victim cooperation)
 - Arrest
 - Conviction
 - Increase access to victim services and community outreach

Dark Figure of Gun Crime



Research on Gun Crime: Individuals and Networks

- Social Networks Increase Risk
 - Not a random event.
 - Transmitted like an epidemic
 - Victimization is concentrated in small, identifiable networks
- Fear of Gun Violence and Retaliation Fuels Gun Carrying and Use

Research on Gun Crime: Community Factors

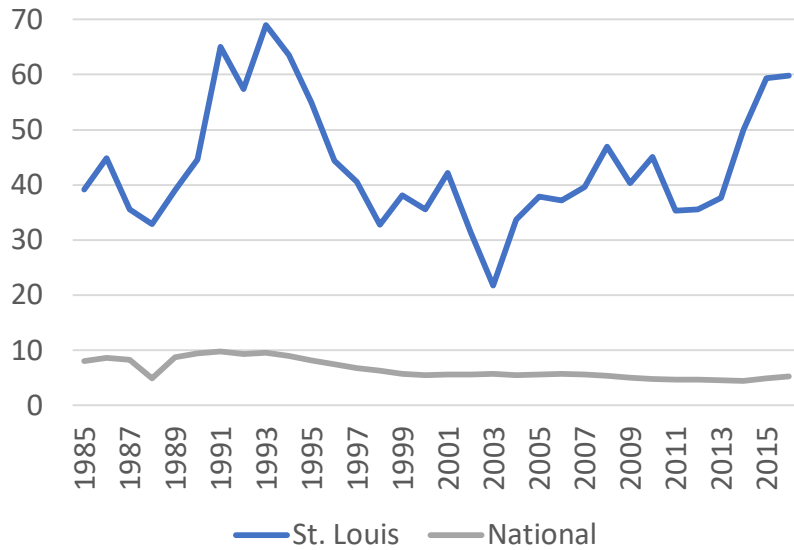
- **Social Concentration of Gun Violence**
 - Gun violence is concentrated in most American cities.
 - Communities with high levels of violence are not islands.
 - Patterns of gun crime shift over time.

Gun Crime Data in St. Louis

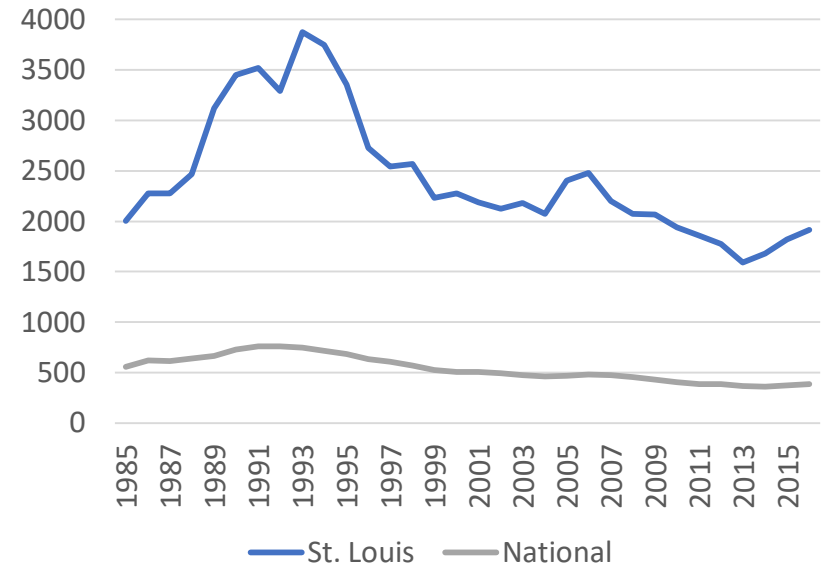
- Concentration
 - Citizen reports
 - 911 calls
 - Cooperation
 - Acoustic Gunshot Detection System alerts (ShotSpotter)
- Spread
 - Ballistic evidence (National Integrated Ballistics Intelligence Network)
 - Social network analysis

Violent Crime - Overview

Homicide Rates
per 100,000 population



Violent Crime Rates
Per 100,000 population

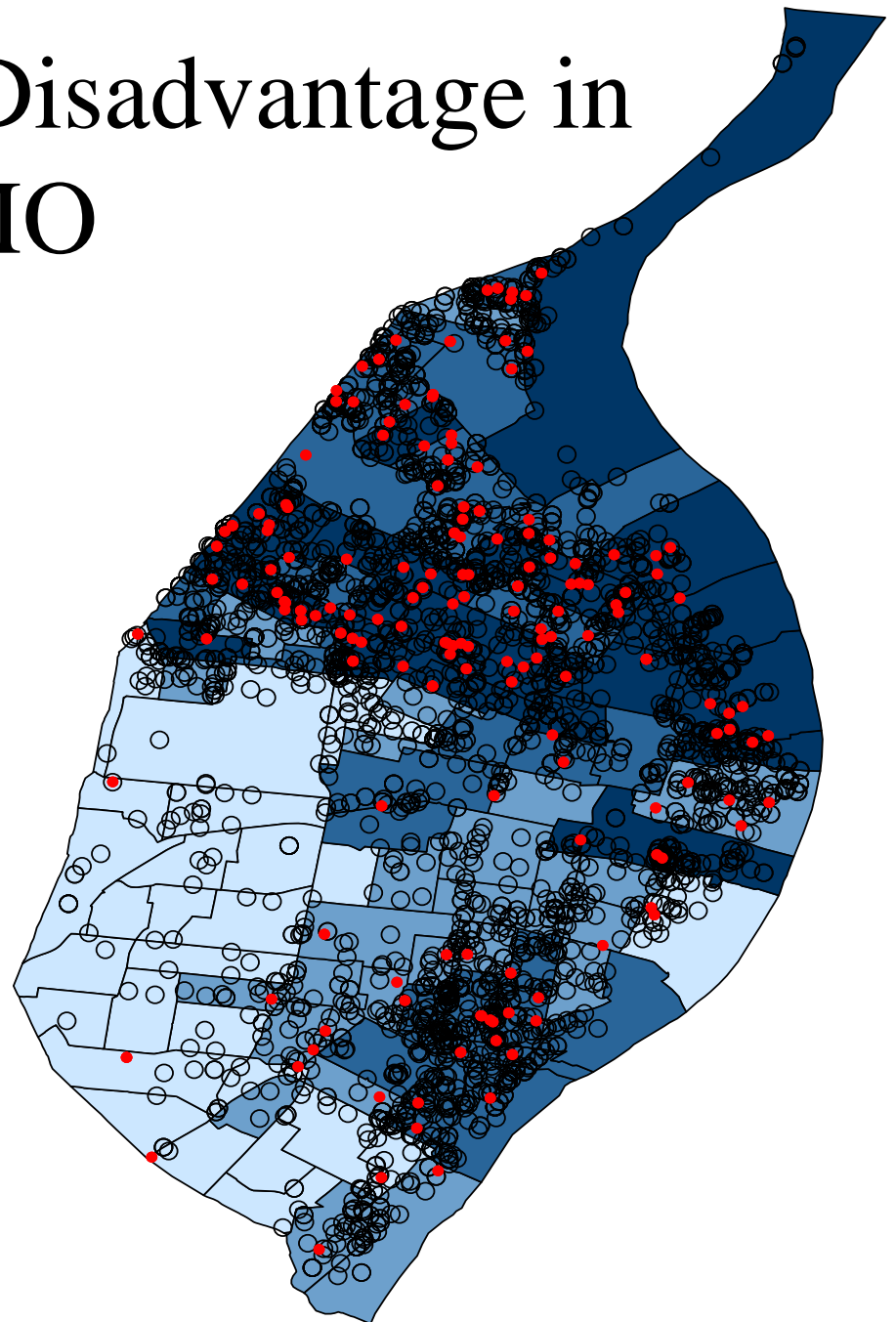
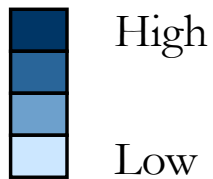


Gun Violence and Disadvantage in City of St. Louis, MO

Gun Violence (2018)

- Nonfatal (N=3,264)
- Homicide (N=174)

Disadvantage (2010 census)



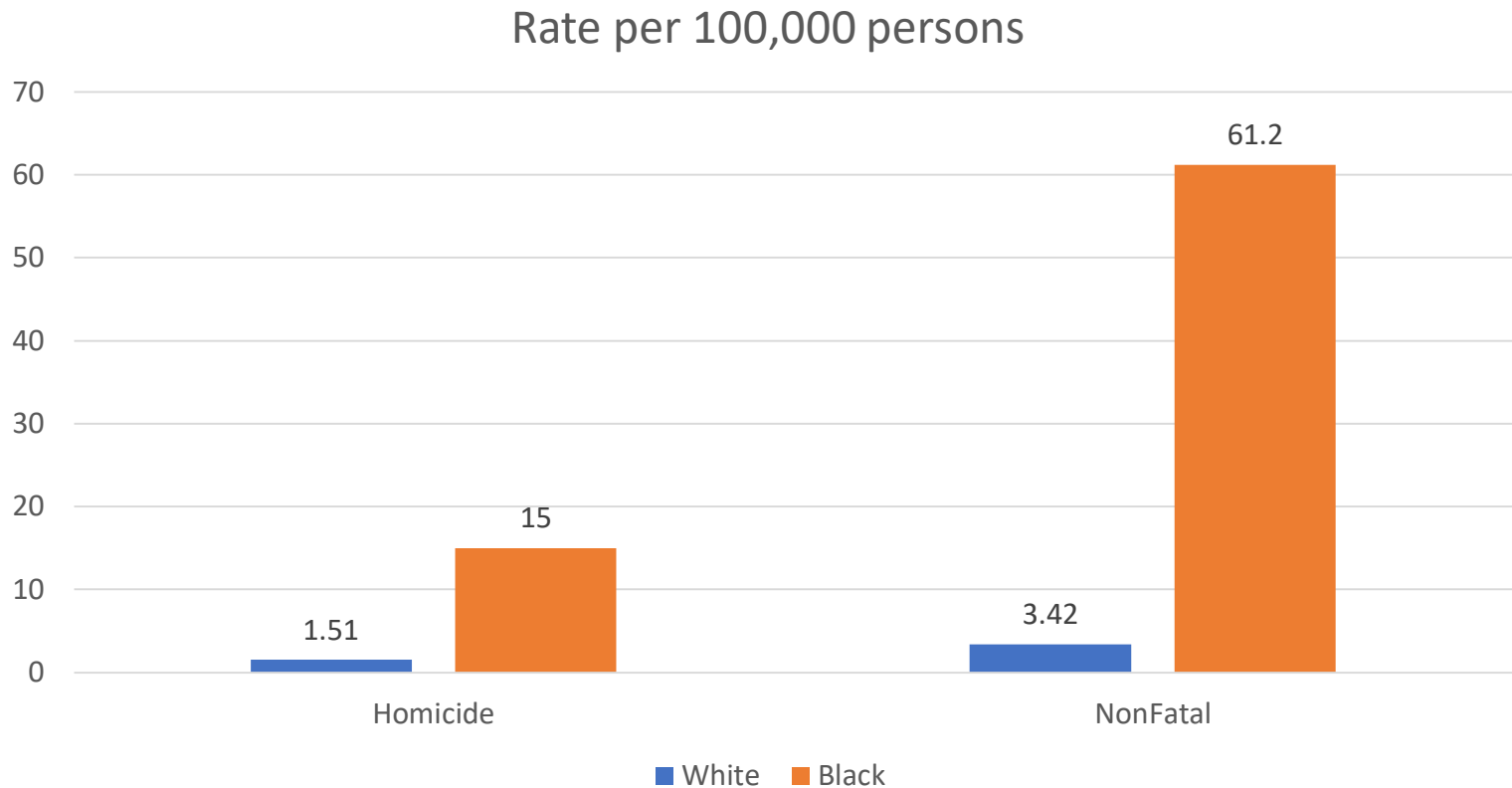
The Decision to Call the Police

- Victim reporting is a central part of the criminal justice system.
- What are the predictors of cooperation with a nonfatal gun assault?
- Individuals weigh the cost and benefits of calling the police

Study

- Data on nonfatal shootings in St. Louis and Indianapolis in 2014 & 2015
 - Nonfatal gun assaults
 - Unlawful attack
 - Penetrating injury
 - Cooperation
 - 57% of the nonfatal victims cooperated with the investigation.

Fatal and Nonfatal Firearm Injuries by Race (Kalesan, 2017)



Victim Cooperation

Heard Shots Felt Pain

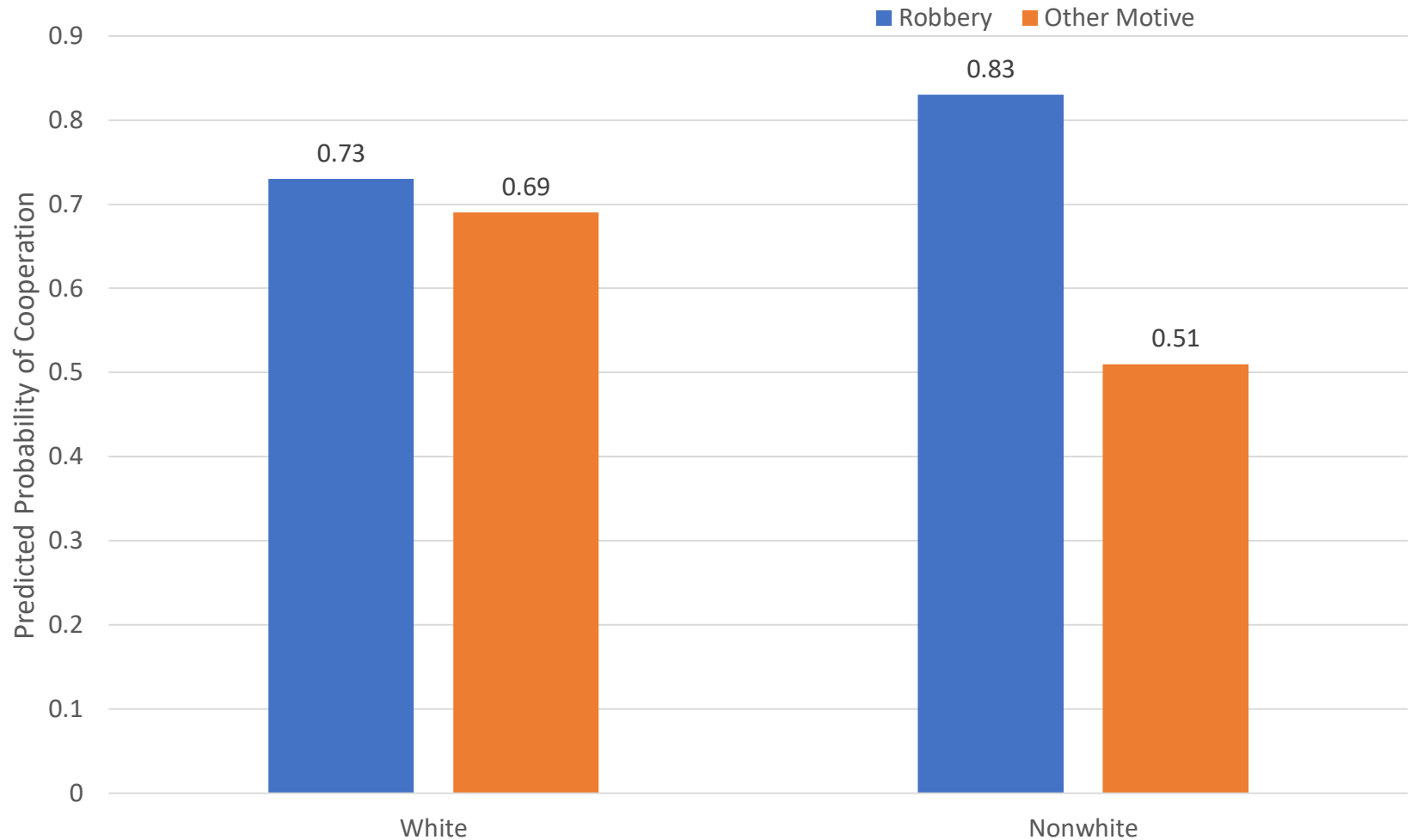
The victim was vague in where the incident occurred. He said he was walking down the street when he heard multiple shots being fired. He said he feared for his safety and ran to a convenience store where he realized he'd been shot. He then contacted a cousin, who he refused to identify to police, to drive him to the hospital. He claims he did not see what direction the shots were fired from or who shot him.

- Approximately 6 weeks after the current incident, the victim was a suspect in a murder. The homicide is gang-related and one in a series of retaliatory gang homicides

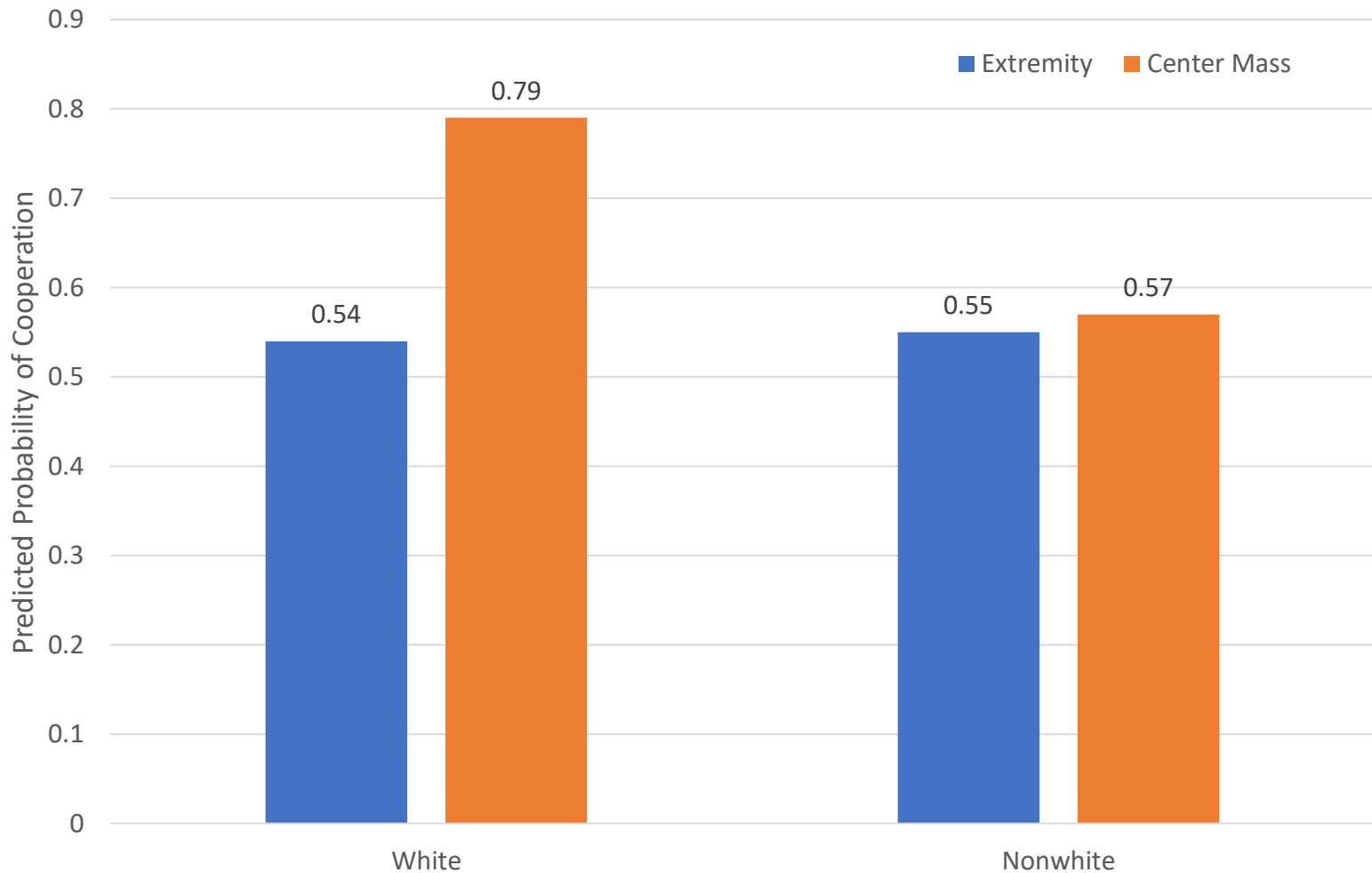
Results

- **Predicting Cooperation with the Investigation**
 - + Males
 - Older persons
 - Interpersonal disputes
 - Drugs
 - Concentrated Disadvantage

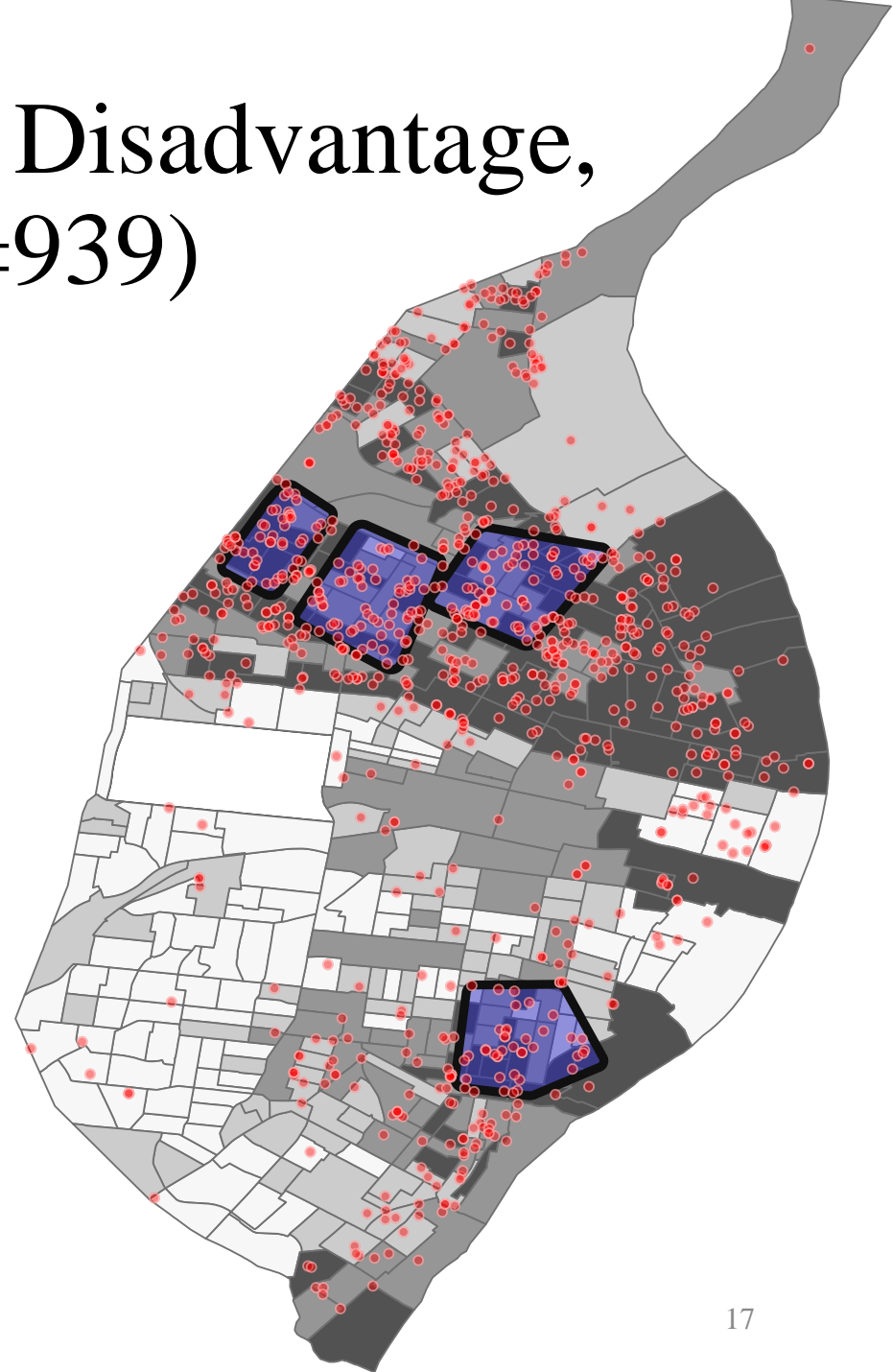
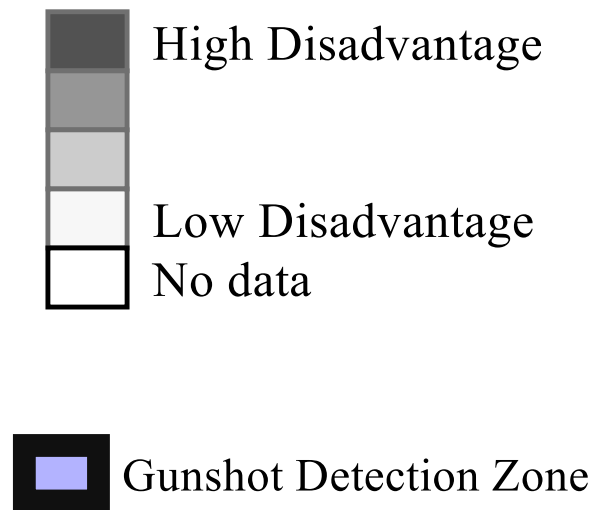
Predicted Probabilities of Cooperation: Race and Shooting Motive



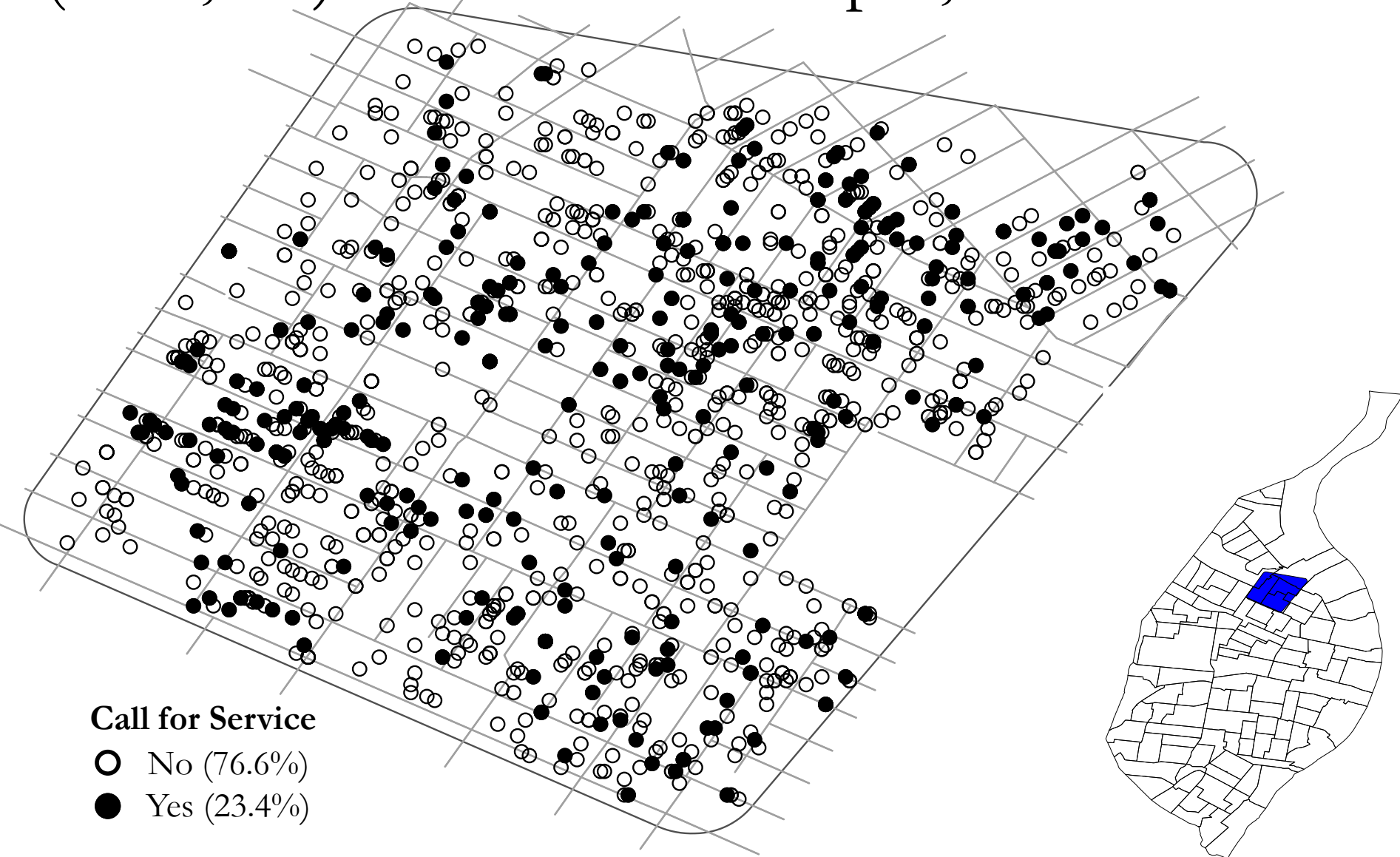
Predicted Probabilities of Cooperation: Race and Wound Severity



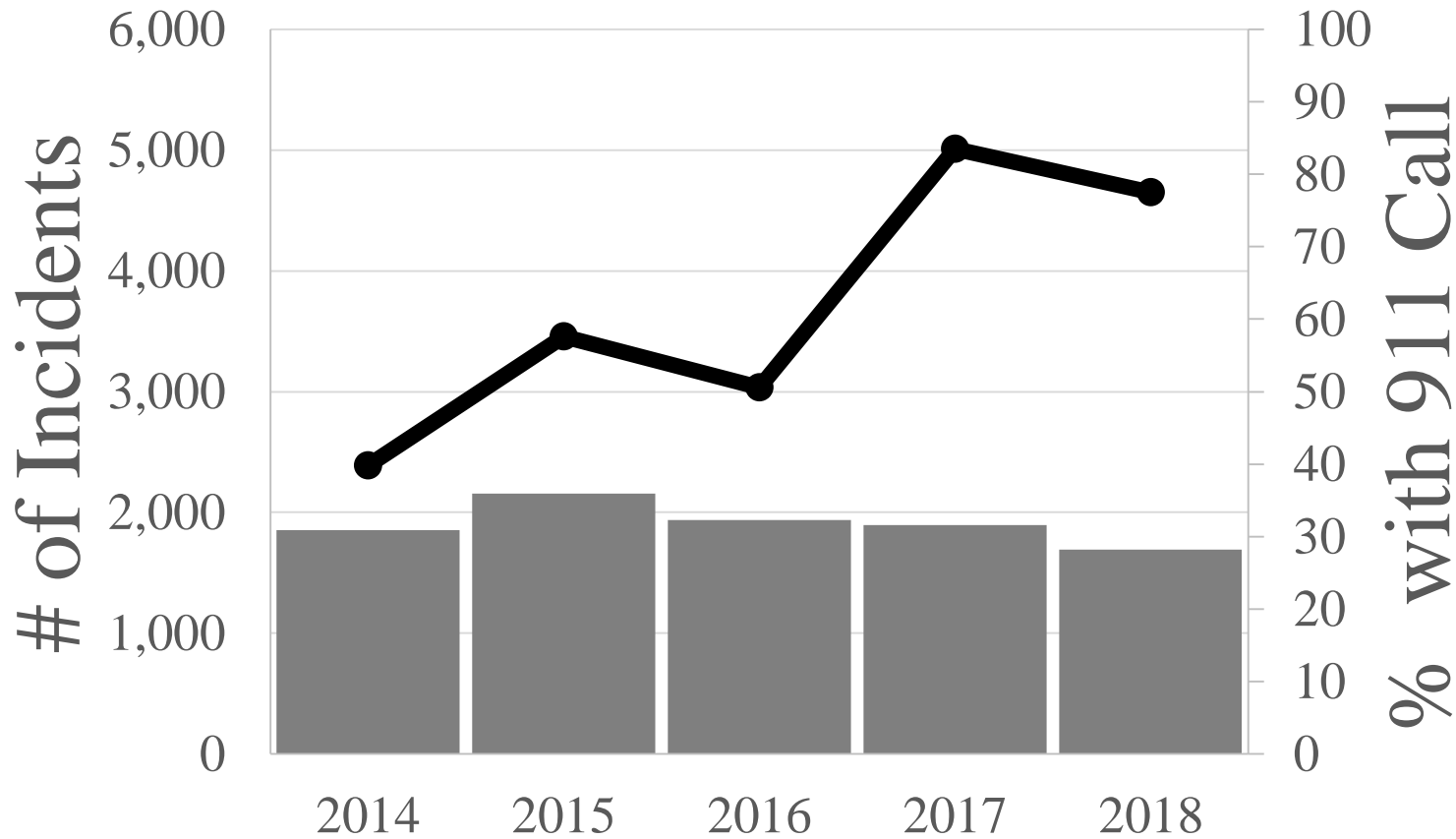
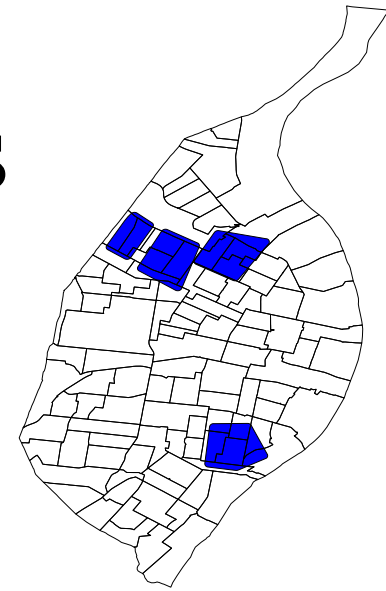
ShotSpotter Zones, Disadvantage, and Homicides (N=939) 2014-2018



Gunfire Incidents Detected by ShotSpotter (N=1,356) in St. Louis Hot Spot, 2017



Gunfire in ShotSpotter Zones 2014-2018



Implications

- Our understanding of even serious forms of violence can be hampered by non-reporting.
 - Our understanding of known incidents can be hampered by non-cooperation.
- Violence and guns travel via social networks in ways we largely still do not understand.
- Exposure to violence might be much higher than official data would imply.
- Might this suggest a need for trauma-informed policing practices?

Adaptations to Trauma

- **Changes in brain chemistry**
 - Effects most pronounced when trauma experienced in adolescence
 - Intrusive Thoughts - Sleep Difficulties
 - **Memory Loss**
 - Stress hormones suppress parts of the brain for memory
 - **Hypervigilance – Startle Response**
 - Anxiety and Anger
 - **Avoidance and Reduced Concentration**
 - Substance Use

Victim Centered Programming

- Victim Services
 - St. Louis Crime Victim Advocacy Center

- The St. Louis Area Hospital-Based Violence Intervention Program

Thank you for listening

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