

# Understanding Crime-Place Networks: Responses to Persistent and Violent Offender Territories

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Providence, RI

28<sup>th</sup> Annual Problem-Oriented Policing Conference

November 5-7, 2018

Population: 298,800

1000 sworn – 125 civilian personnel

## 2016 Violent Crime Rates

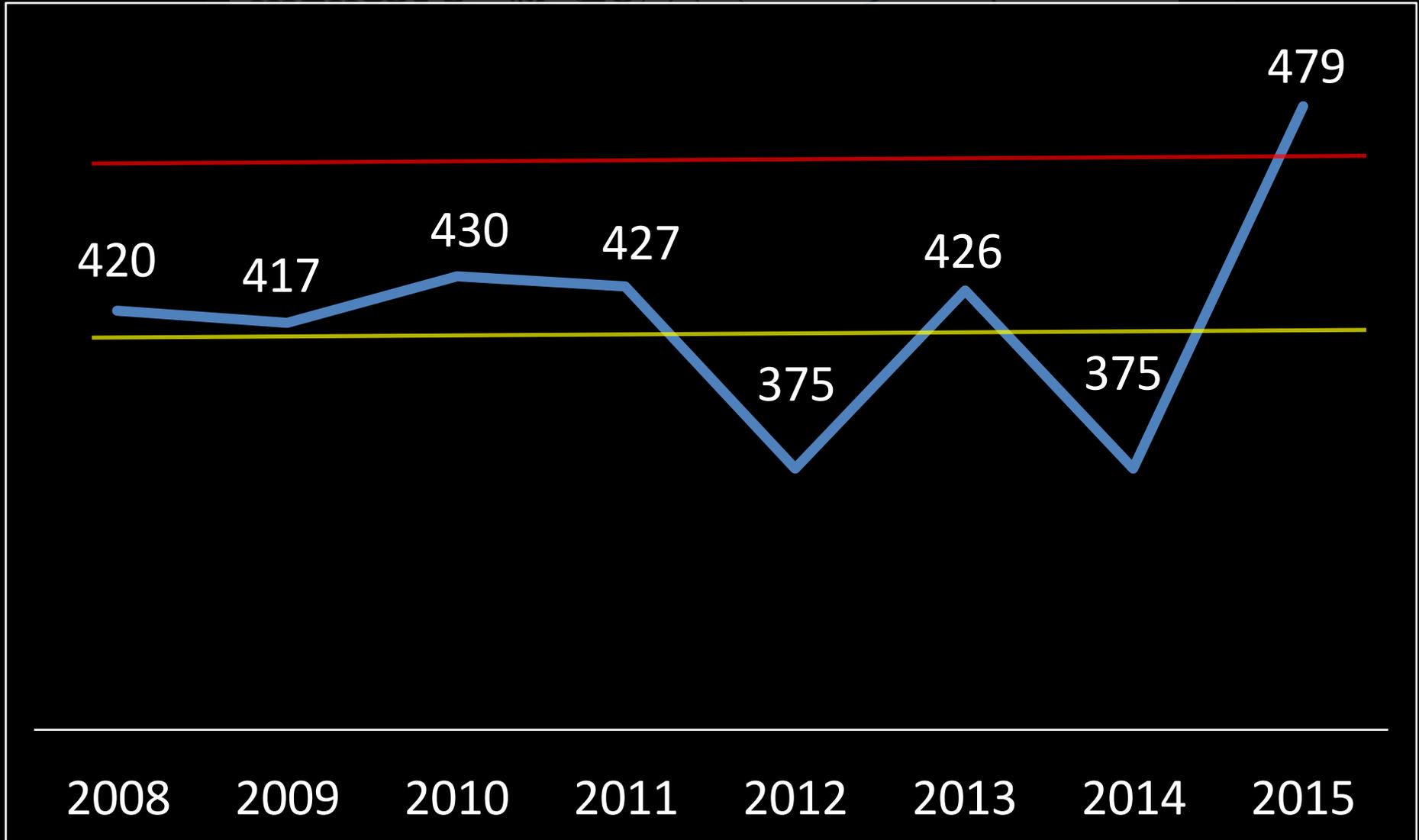
Per 100,000

National	386.3
Columbus	521.7
Louisville	675.8
<b>Cincinnati</b>	<b>910.1</b>



**Cincinnati, Ohio**

# Cincinnati Shootings



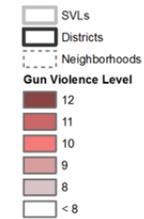
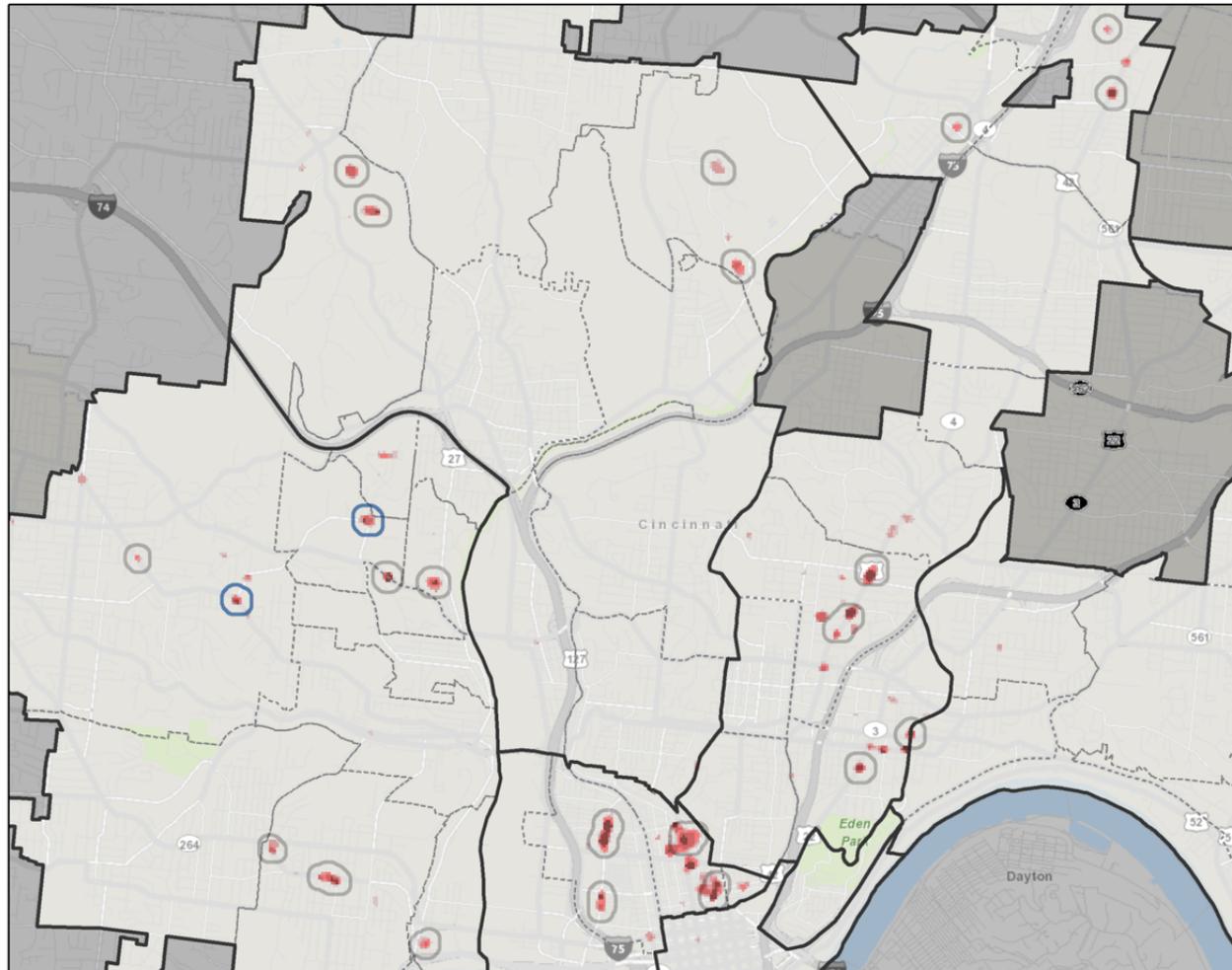
Average 410

+2 StDev 459

# Violent Crime Clusters (23 micro-locations)

## Systemically Violent Locations: Identified 29Dec15

\*\*Systemically violent locations identified using shooting, robbery, gun offense, and weapons-related calls-for-service data

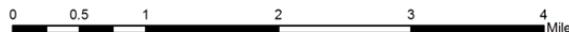


23 total locations were identified using 1/3/5 yr periods of shootings, robberies, offenses committed with a gun, and weapons-related CFS.

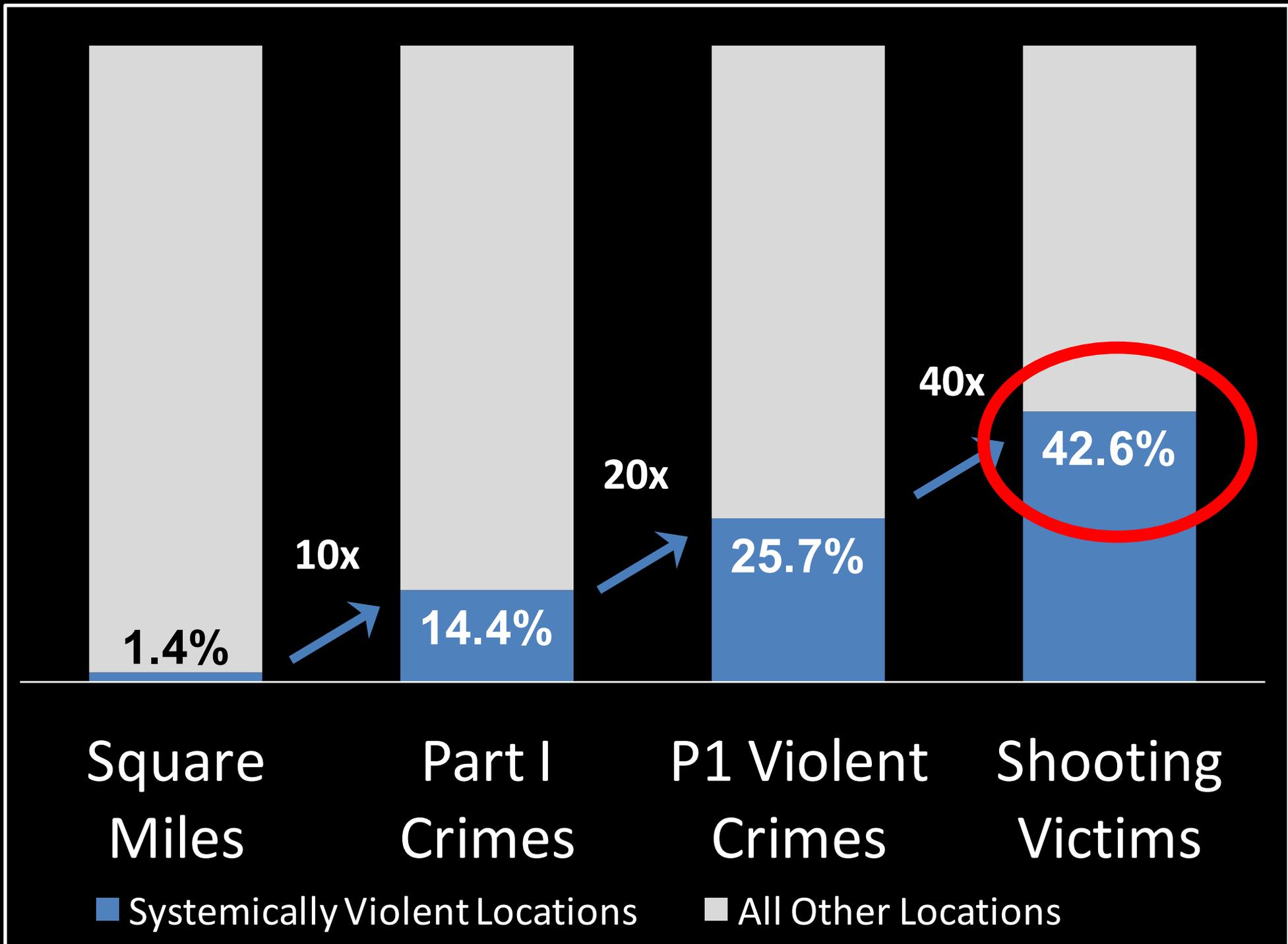
SVLs were identified using a 400 ft buffer around clusters of 8+ adjacent cells (100'x100') of concentrated gun violence.



Data prepared on: 5/26/2017



Prepared by: SCRM B. Christenson



# Officer Safety

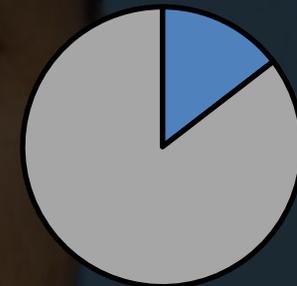
## Micro Hotspots 2012-2015

- 67 of 460 officer injuries
- 1,516 of 6,315 non-compliant behaviors
  - obstruction of official business
  - resisting arrest
  - assaults on police officers

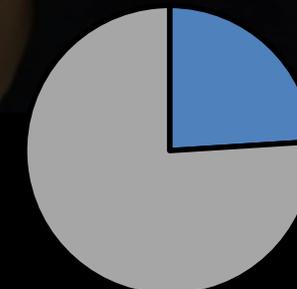
1.4%



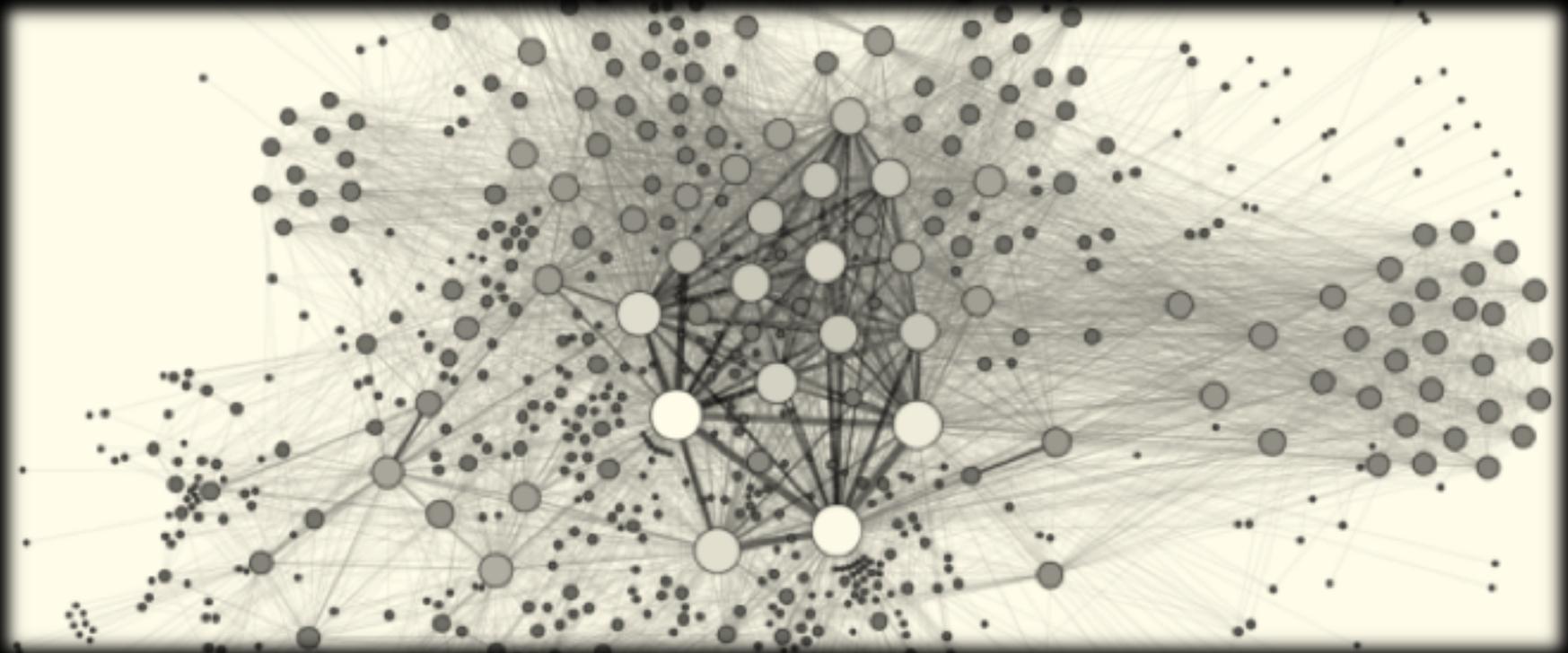
14.6%



24.0%

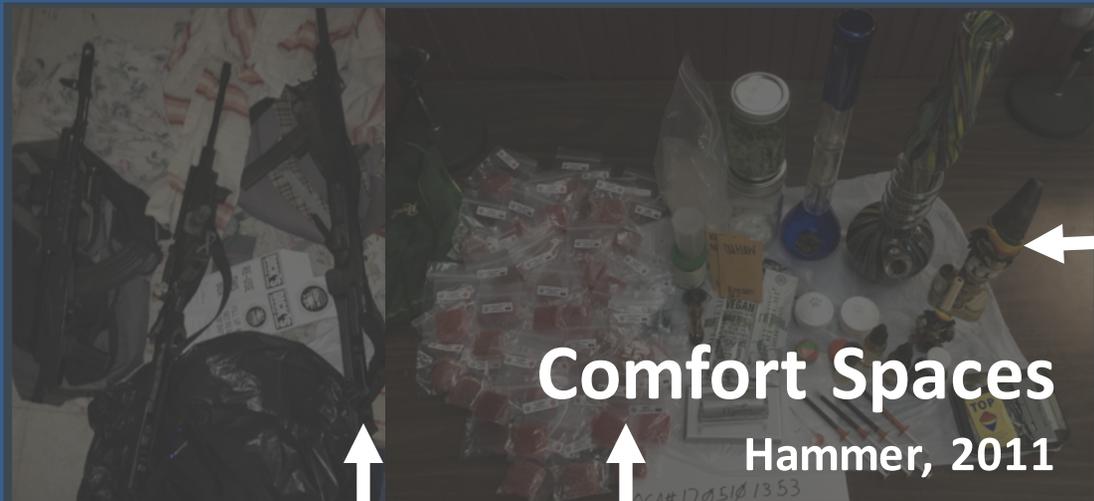


# Violent Networks



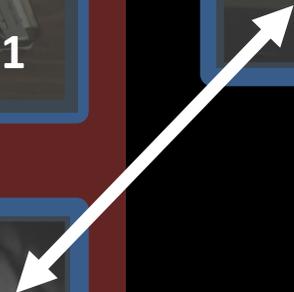
# 4 Types of Crime Places

(Madensen & Eck, 2013)



What we see  
on crime maps

What is unseen  
without systematic  
investigations



Why do almost all persistent hotspots eventually reappear, even after targeted police interventions?



# Place-Based Investigation Example



Poinciana Apartments  
3522 Reading Road

# Afghanistan Gang Territory

Forest Ave

Reading Rd

Lexington Ave

Hutchins Ave

Rockdale Ave



# Place Network Investigation



○ Crime Site – Most violent proprietary location in Avondale neighborhood

# A Day in the Life...

1

- Leave apartment

2

- Pick-up product

3

- Distribute product

4

- Money drop-off

5

- Hang out/eat

6

- Distribute product

7

- Avoid police patrol

8

- Observe site

9

- Distribute product

10

- Pick-up product

11

- Obtain weapons

12

- Dog fighting/gambling

13

- Retaliatory shooting

14

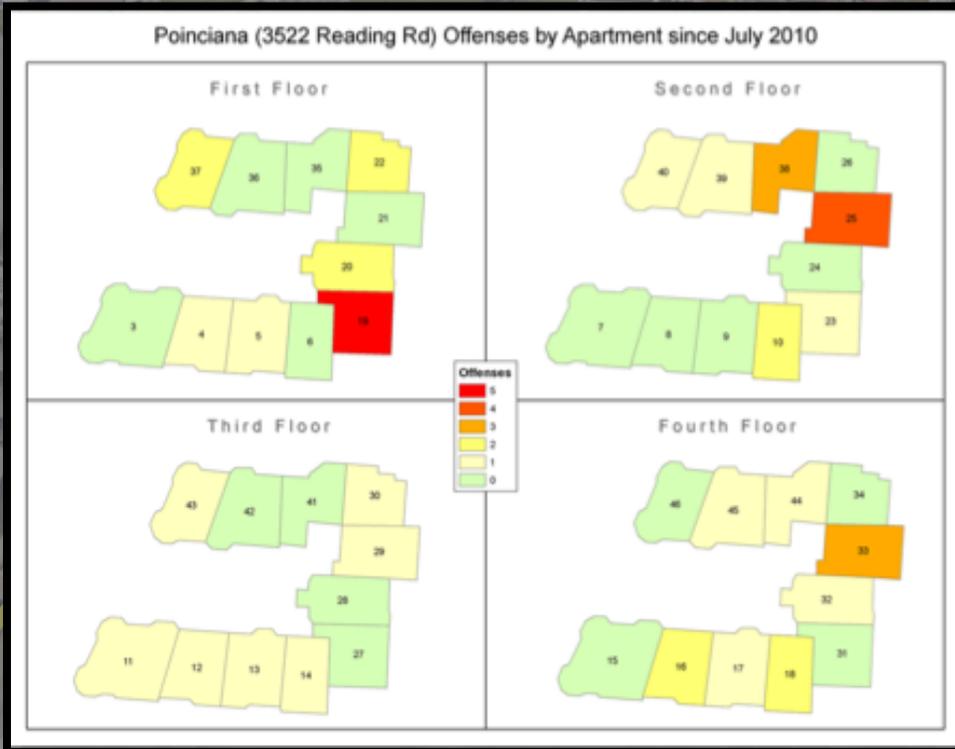
- Seek shelter

# Place Network Investigation



- Crime Site – Most violent proprietary location in Avondale neighborhood
- Convergent Settings – Lincoln Statue, Lexington Supermarket

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- Comfort Spaces – Specific apt. units, Nearby residences

# Place Network Investigation



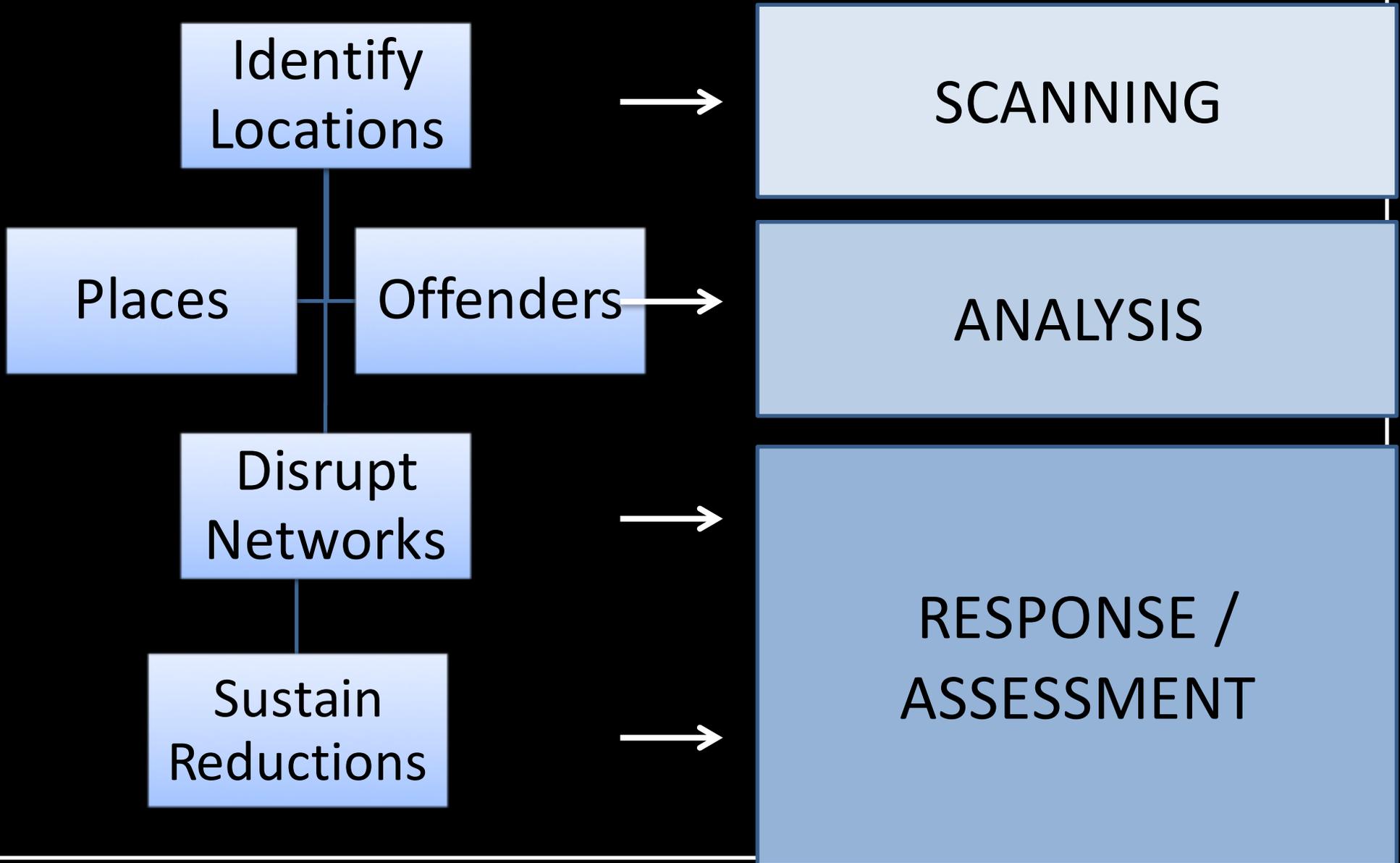
- Crime Site – Most violent proprietary location in Avondale neighborhood
- Convergent Settings – Lincoln Statue, Supermarket
- Comfort Spaces – Specific apt. units, Nearby residences
- Corrupting Spots – Nearby businesses (some facilitators)

# A Day in the Life...At Places



# P.I.V.O.T.

## Place-based Investigations of Violent Offender Territories



# All-City P.I.V.O.T. Team

City Planning

Buildings &  
Inspections

Community &  
Economic  
Development

Health  
Department

Fire  
Department

Law  
Department

Environment  
&  
Sustainability

Public  
Services

Transportation  
& Engineering

Keep  
Cincinnati  
Beautiful

Cincinnati  
Recreation  
Commission

Parks  
Department

Community  
Partnering  
Center

Port  
Authority

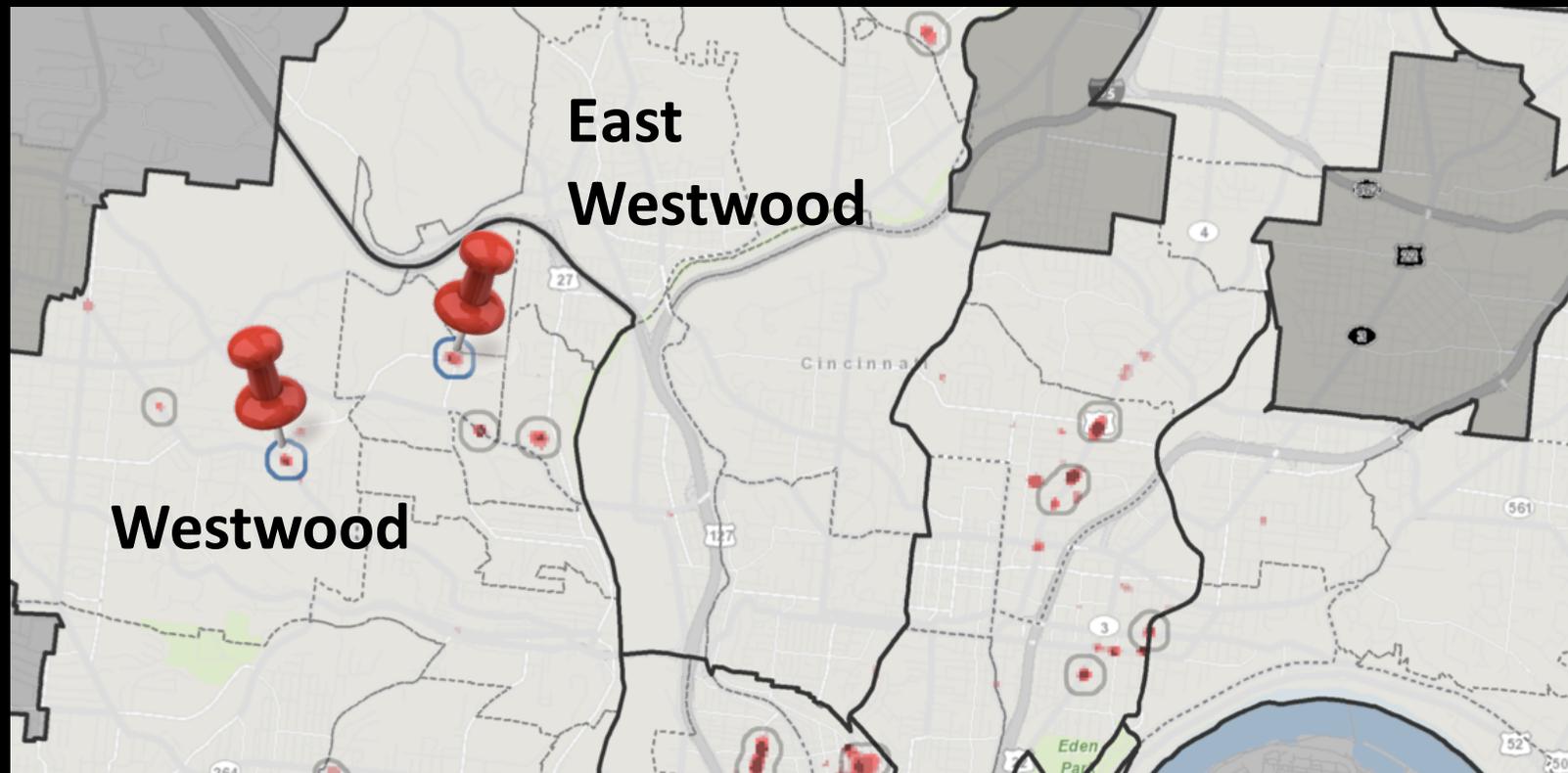
Community  
Development  
Corporations

Local  
Community  
Councils

Neighborhood Enhancement Program

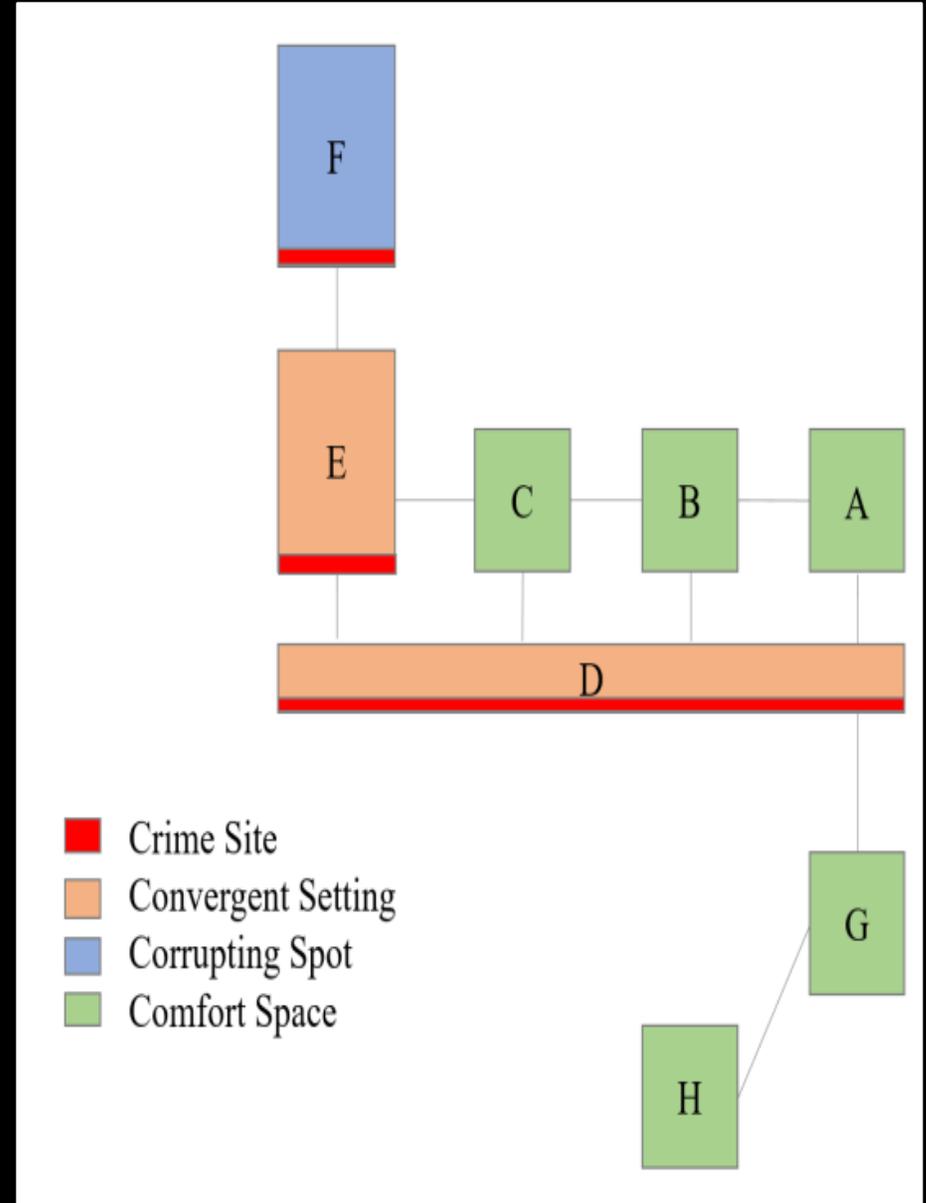
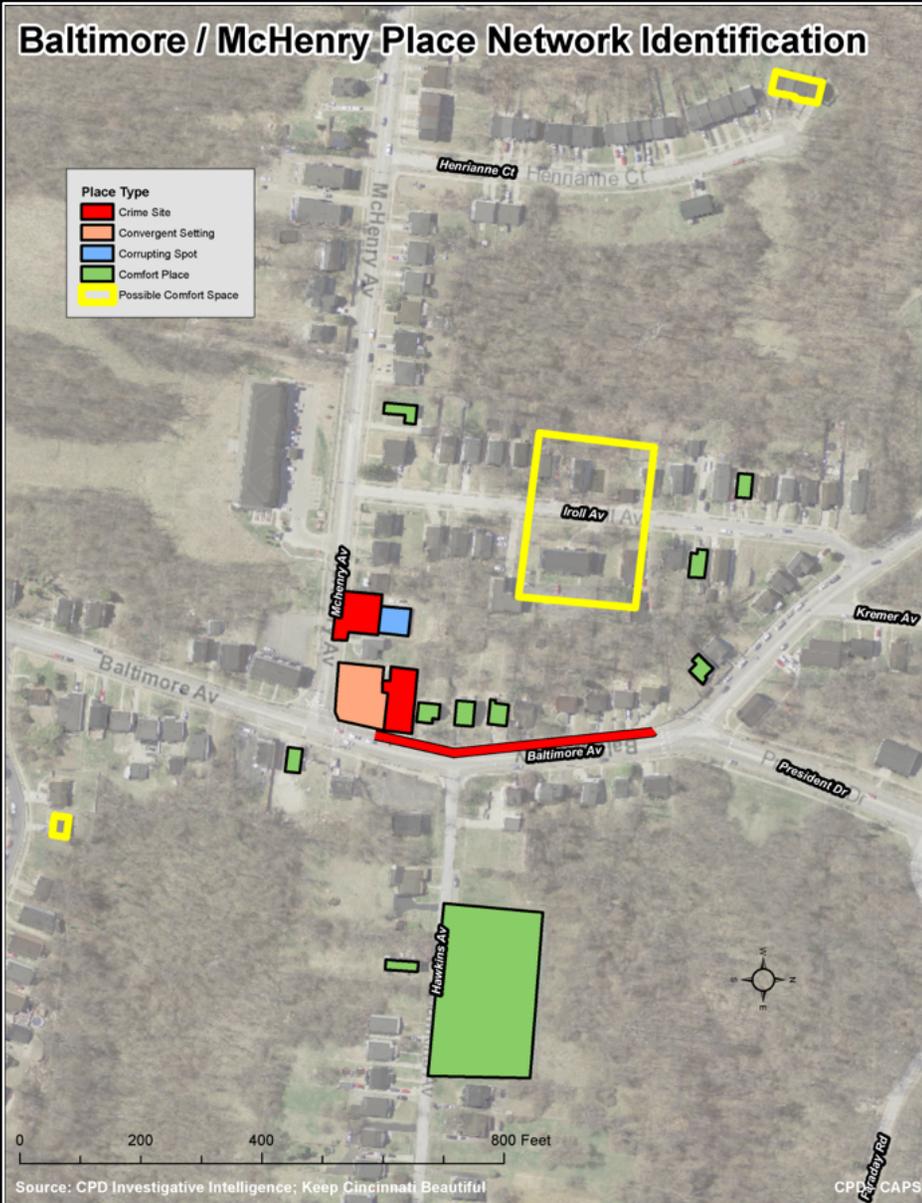
# P.I.V.O.T.

## Place-based Investigations of Violent Offender Territories

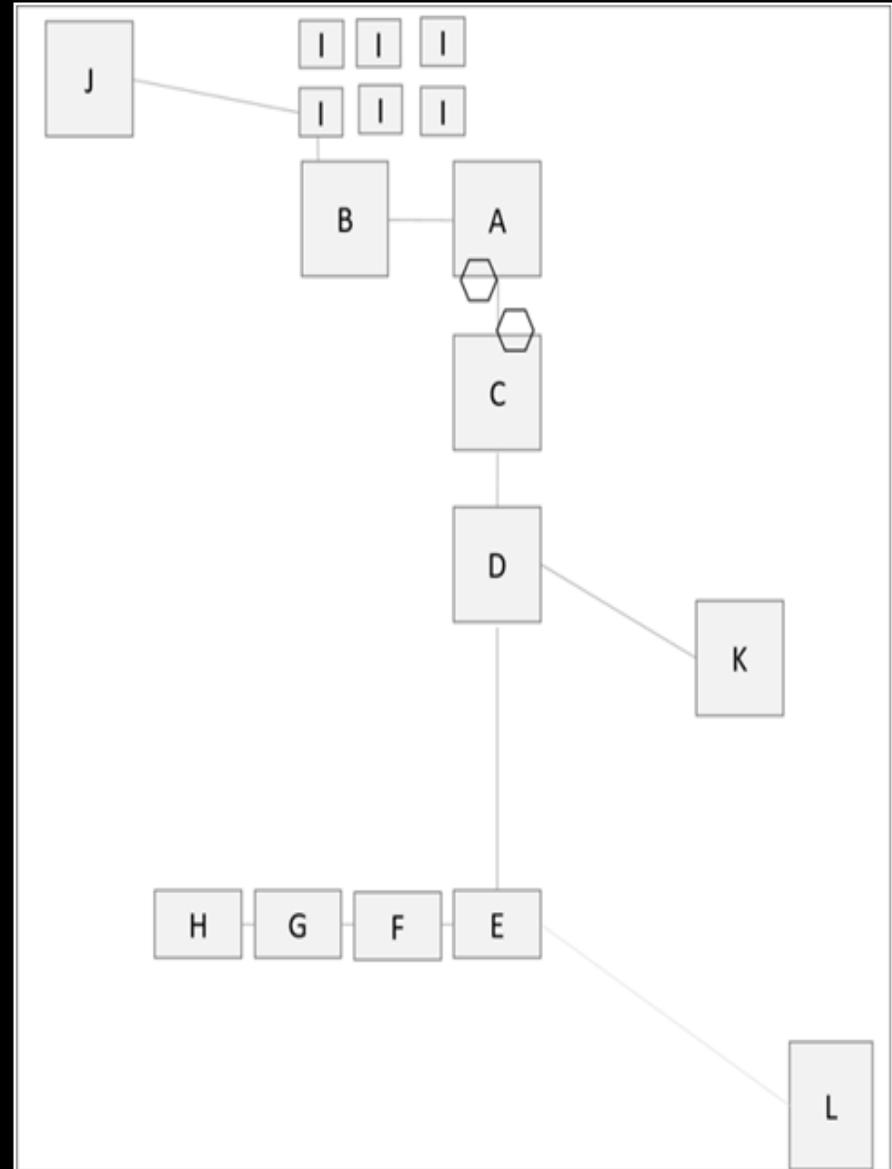
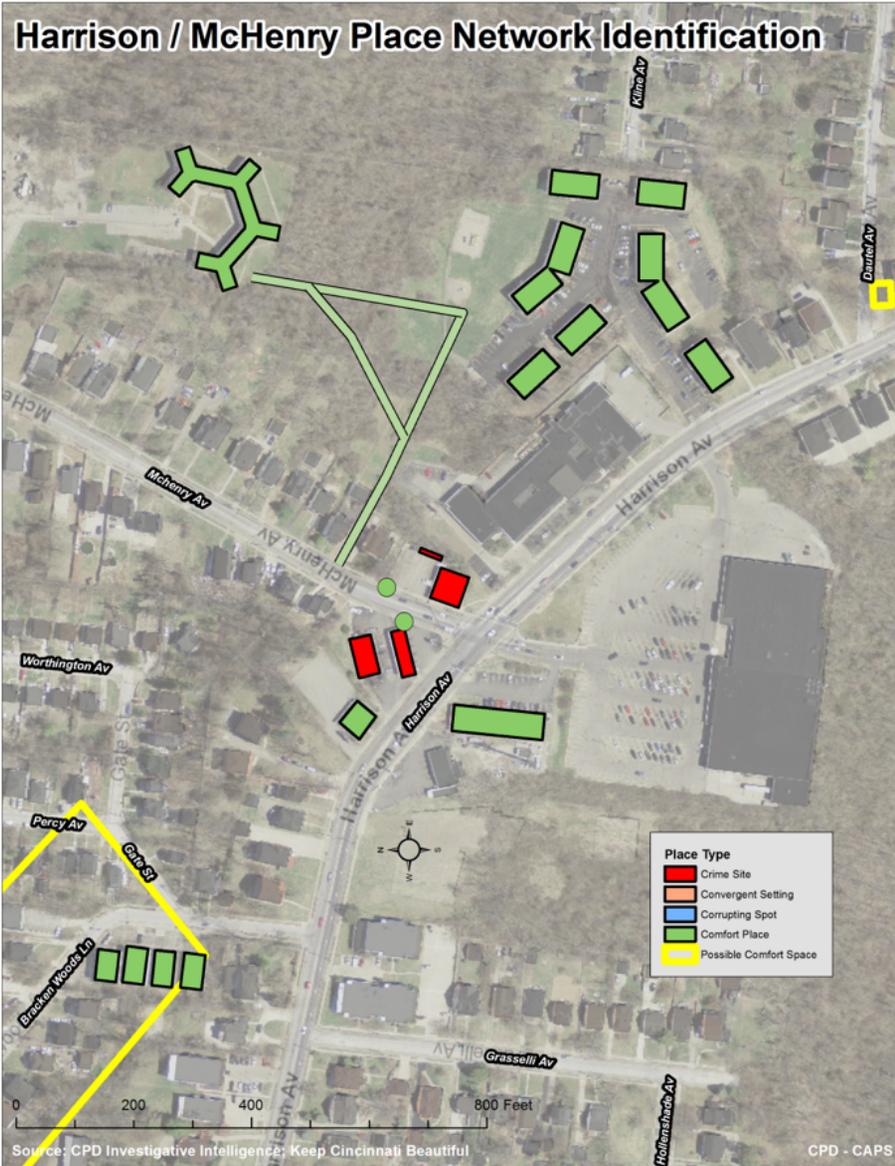


# East Westwood: Place Network

Baltimore / McHenry Place Network Identification

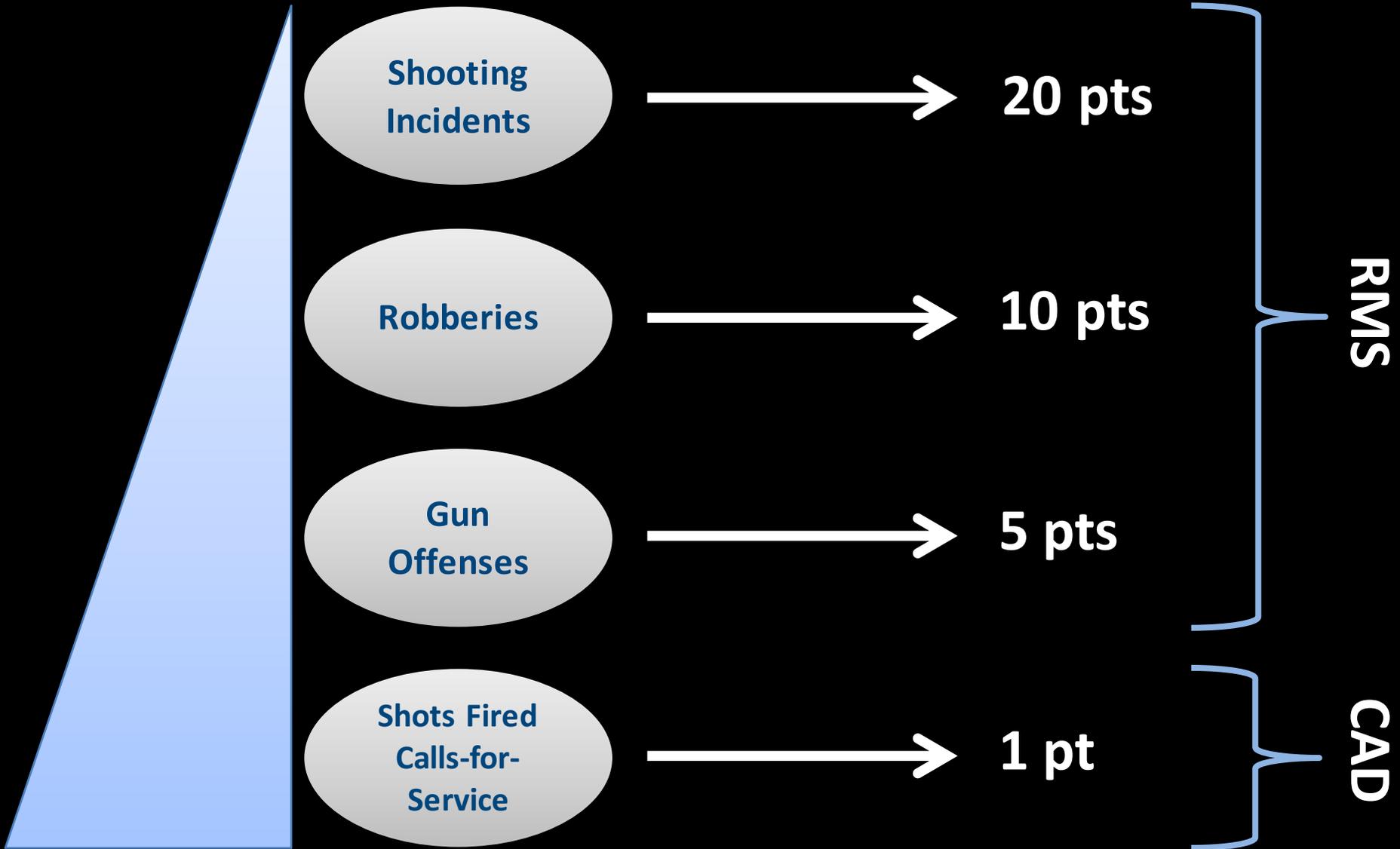


# Westwood: Place Network



# Gun Violence Metric

Weighted by incident type and data source



# Gun Violence Metric

Weighted by distance and time

Dataset

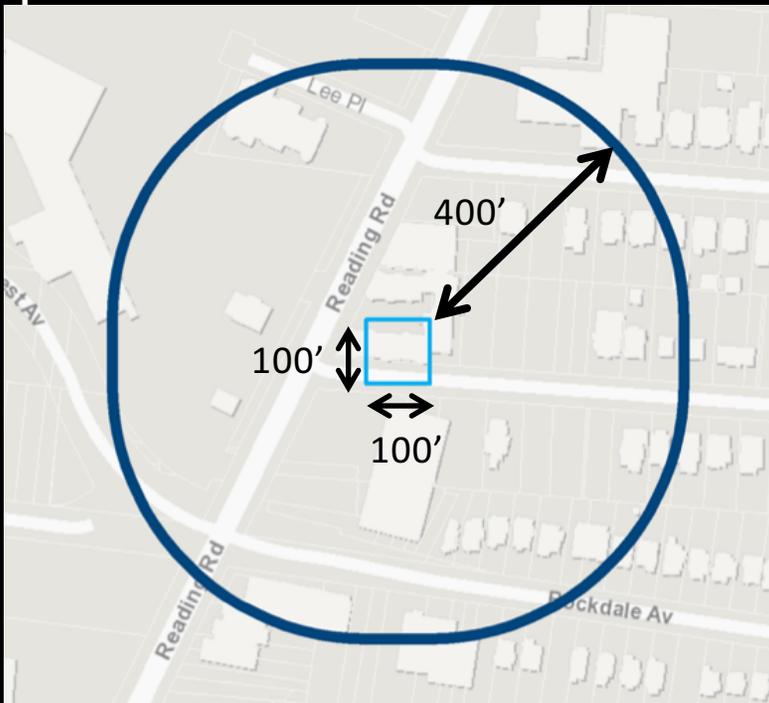
0 – 27.9 days ago = **1.0** x weight

28 – 55.9 days ago = **0.8** x weight

56 – 111.9 days ago = **0.6** x weight

112 – 167.9 days ago = **0.4** x weight

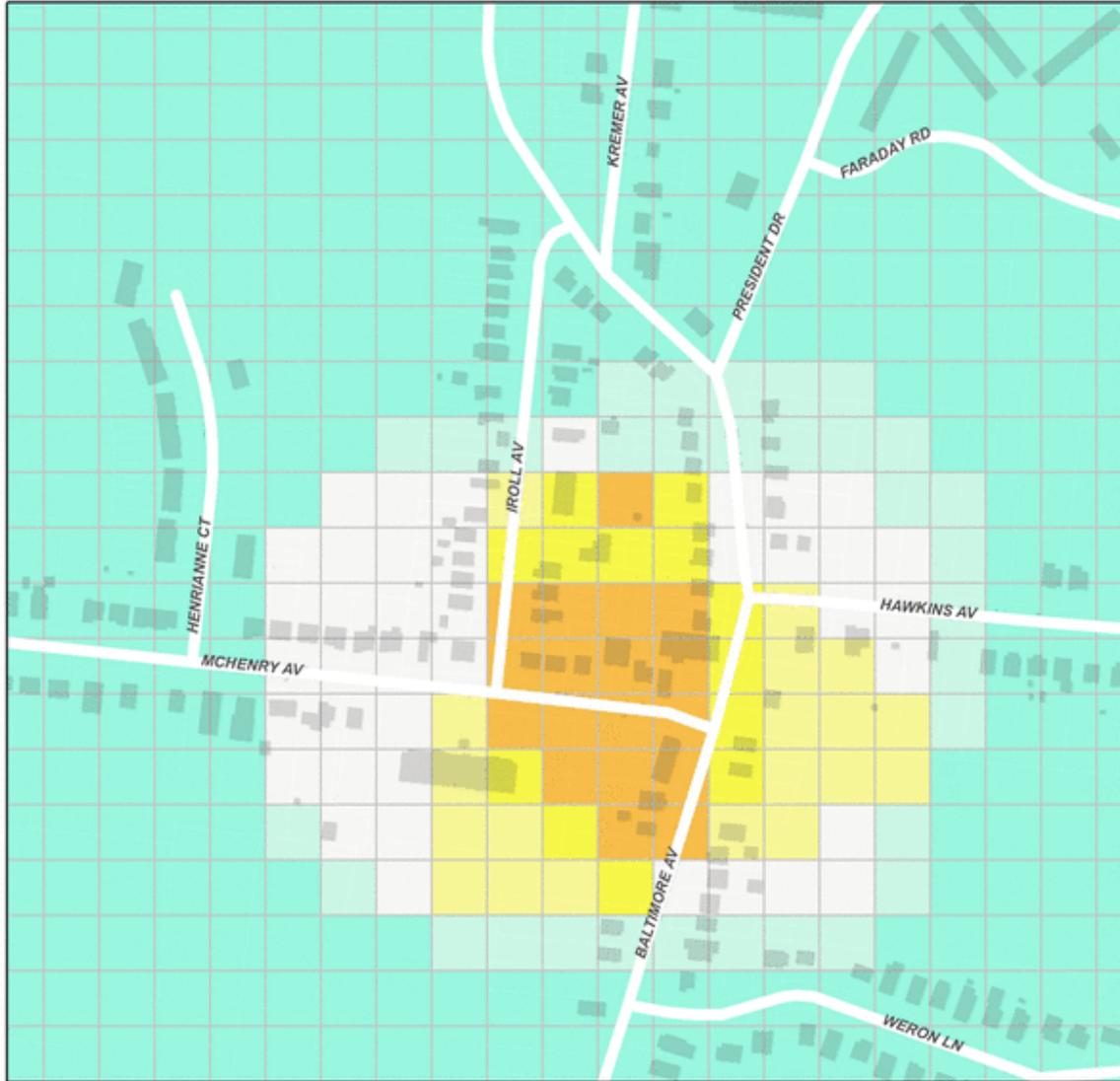
168 – 224 days ago = **0.2** x weight



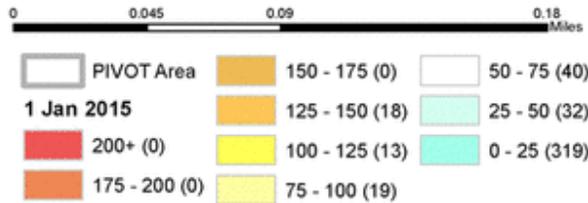
# Baltimore/McHenry Violence Scores January 1, 2015



\*Violence Score is a composite metric derived from shootings, robberies, gun offenses, and weapon-related calls-for-service



Data prepared on: 9/21/2017



Prepared by: SCRM B. Christenson

# Site #1: East Westwood

## Overall Trends

Rest of city = - 8.7%

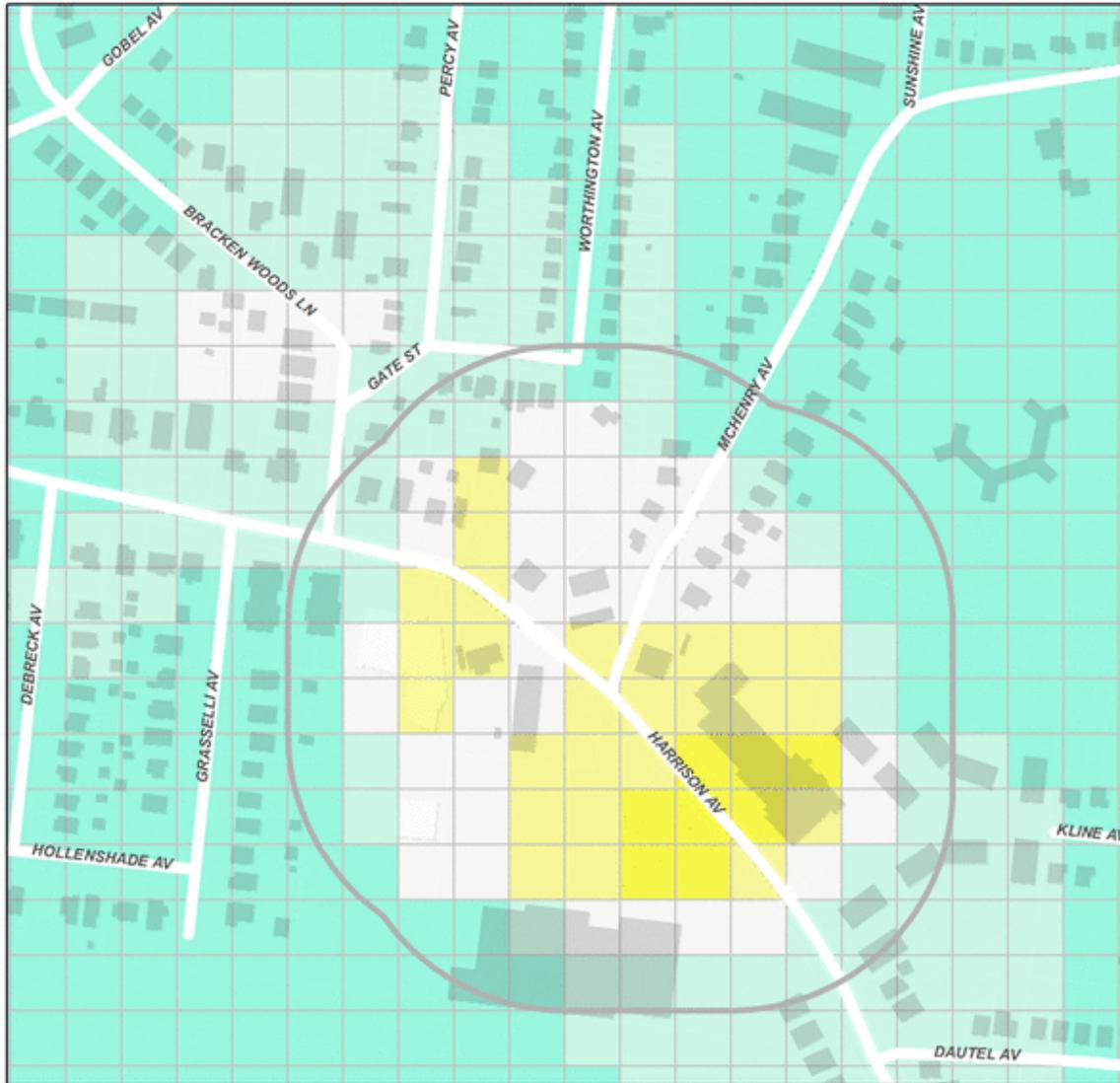
E. Westwood = - 88.9%

# Harrison/McHenry Violence Scores

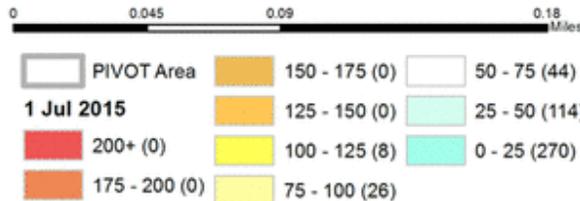
## July 1, 2015



\*Violence Score is a composite metric derived from shootings, robberies, gun offenses, and weapon-related calls-for-service



Data prepared on: 9/21/2017



Prepared by: SCRM B. Christenson

# Site #2: Westwood

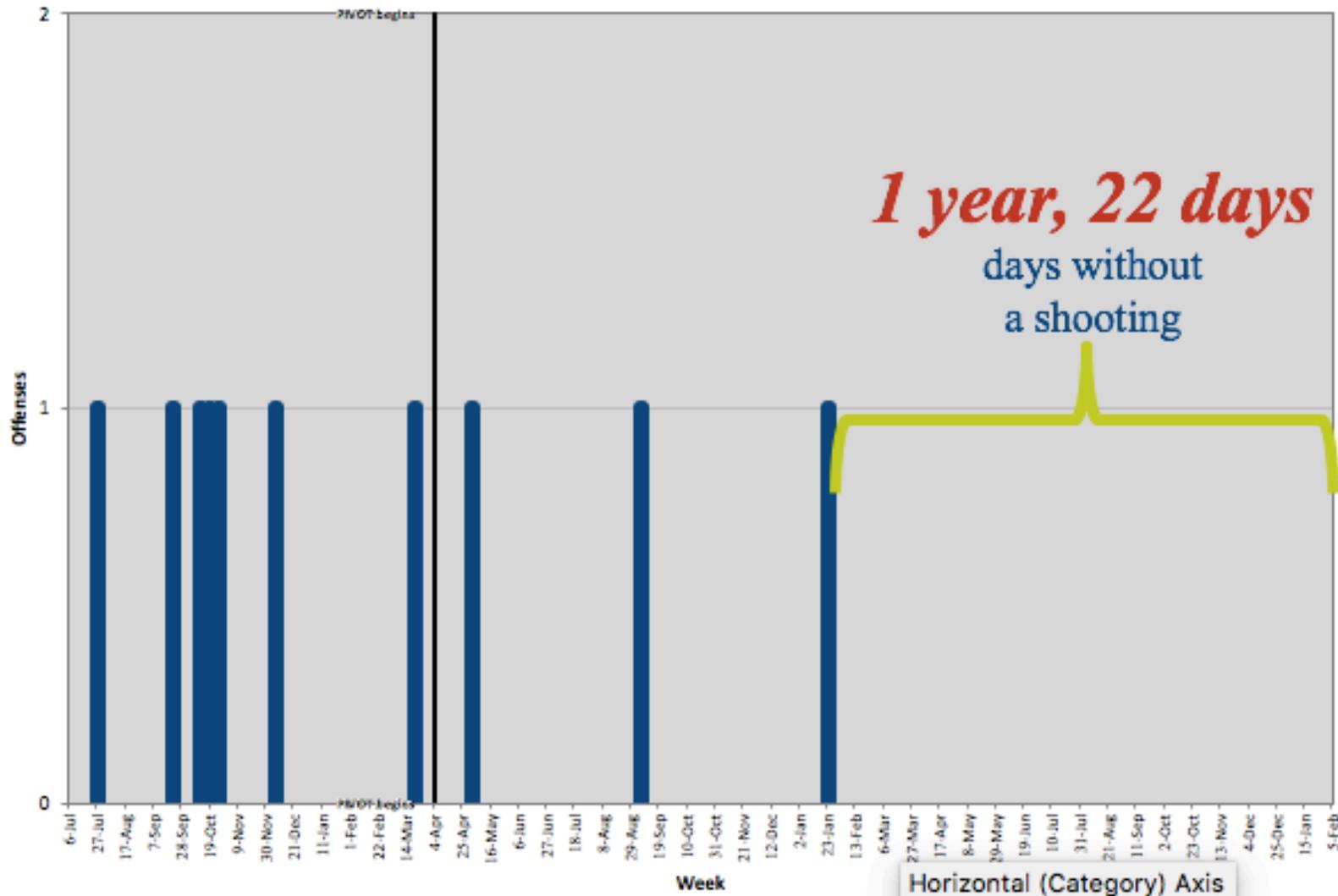
## Overall Trends

Rest of city = - 7.9%

Westwood = - 71.4%

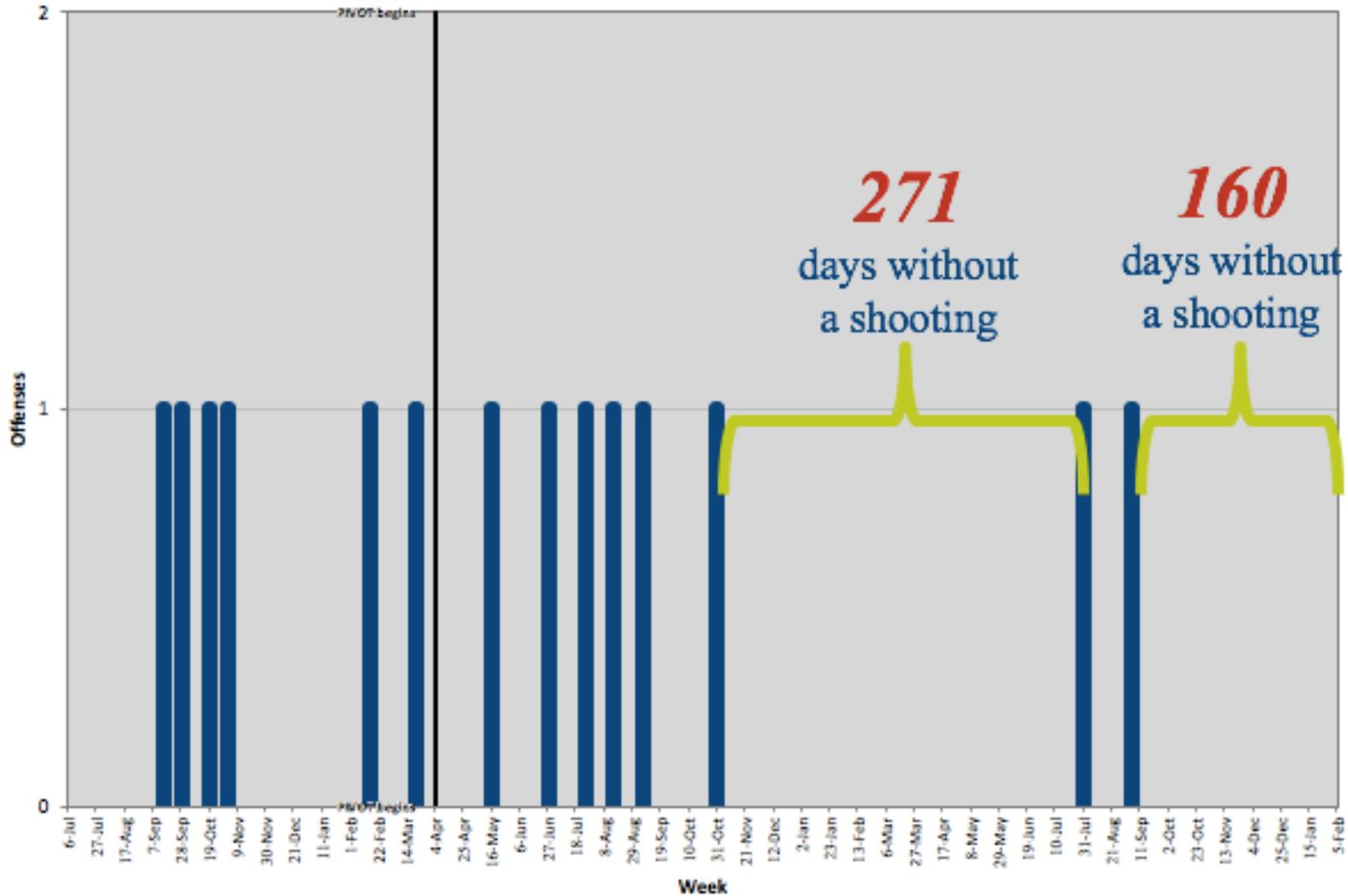
# East Westwood

Weekly Shooting Offenses: Baltimore / McHenry

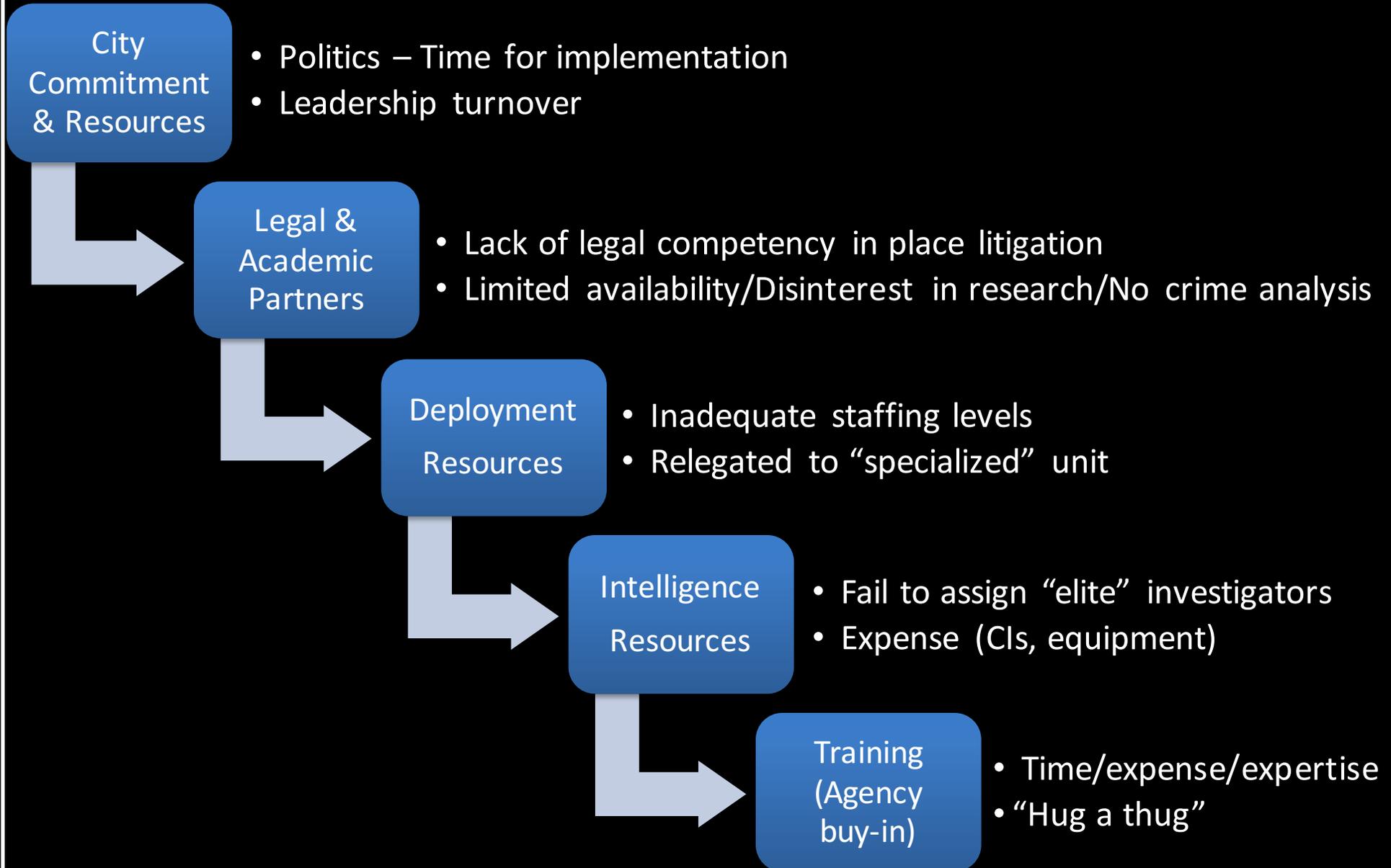


# Westwood

Weekly Shooting Offenses: Harrison / McHenry



# Implementation: Success & Failure



# Current/Future Efforts...

- Reimaging Problem-Oriented Policing
  - Problem-solving as Investigations
  - UCPD Tactical and Strategic Investigations Procedure

## Tactical and Strategic Investigations

Investigation Phase/Step	Community	Executive Team		Analyst	Command Staff					Officers		Dispatch																
	UC	PSD	PC/APC	CA	BC	CIC	OC	CEC	IC	PO	SO	CC																
<b>Problem Identification</b>																												
Report problems	•	•	•	•	•	•	•	•	•	•	•																	
Review problems			•	•	•																							
Assign problems			•																									
Develop goals/measures					•																							
<b>Investigative Process</b>																												
Select investigative teams					•																							
Lead investigative teams						•	•																					
Report investigative process					•																							
Review investigative process		•	•		•																							
Gather Plus One data										•	•	•																
Extend investigative phase					•																							
Review policy/procedure									•																			
Identify interventions	•			•	•	•	•																					
<b>Investigative Intervention</b>																												
Select interventions	•					•	•																					
Develop action plan						•	•																					
Approve action plan			•		•																							
Produce Crime Bulletin				•																								
Implement action plan						•	•																					
Perform Plus One interventions										•	•	•																
Document activities						•	•																					
Conduct Plus One analysis				•																								
Obtain community input	•								•																			
Report/monitor impact	•			•	•																							
<b>Investigative Evaluation</b>																												
Initiate evaluation phase		•	•	•	•	•	•																					
Produce evaluation reports	•			•	•	•	•	•	•																			
Review evaluation findings	•	•	•	•	•	•	•	•	•	•	•																	
<b>Legend</b>	<table style="width: 100%; border: none;"> <tr> <td style="width: 25%;">APC: Assistant Police Chief</td> <td style="width: 25%;">CEC: Community Engagement Commander</td> <td style="width: 25%;">OC: Operations Commander</td> <td style="width: 25%;">PSD: Public Safety Director</td> </tr> <tr> <td>BC: Bureau Commander</td> <td>CIC: Criminal Investigations Commander</td> <td>PC: Police Chief</td> <td>SO: Security Officer</td> </tr> <tr> <td>CA: Crime Analyst</td> <td>IC: Inspections Commander</td> <td>PO: Police Officer</td> <td>UC: University Community/Partners</td> </tr> <tr> <td>CC: Communication Center</td> <td></td> <td></td> <td></td> </tr> </table>												APC: Assistant Police Chief	CEC: Community Engagement Commander	OC: Operations Commander	PSD: Public Safety Director	BC: Bureau Commander	CIC: Criminal Investigations Commander	PC: Police Chief	SO: Security Officer	CA: Crime Analyst	IC: Inspections Commander	PO: Police Officer	UC: University Community/Partners	CC: Communication Center			
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# Current/Future Efforts...

- Reimaging Problem-Oriented Policing
  - Problem-solving as Investigations
  - UCPD Tactical and Strategic Investigations Procedure
- PIVOT takes on...
  - Las Vegas: Early wins and sub-networks
  - Wildlife conservation
- IACP/UC/UNLV Partnership
  - CBCR TTA Provider

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For more information on CPD PIVOT:  
<http://www.cpdpivot.com>