



P.I.V.O.T.

Place-Based Investigations of Violent Offender Territories

27th Annual Problem-Oriented Policing Conference

October 2-4, 2017

Houston, Texas

Population: 298,800

1000 sworn – 125 civilian personnel

2016 Violent Crime Rates

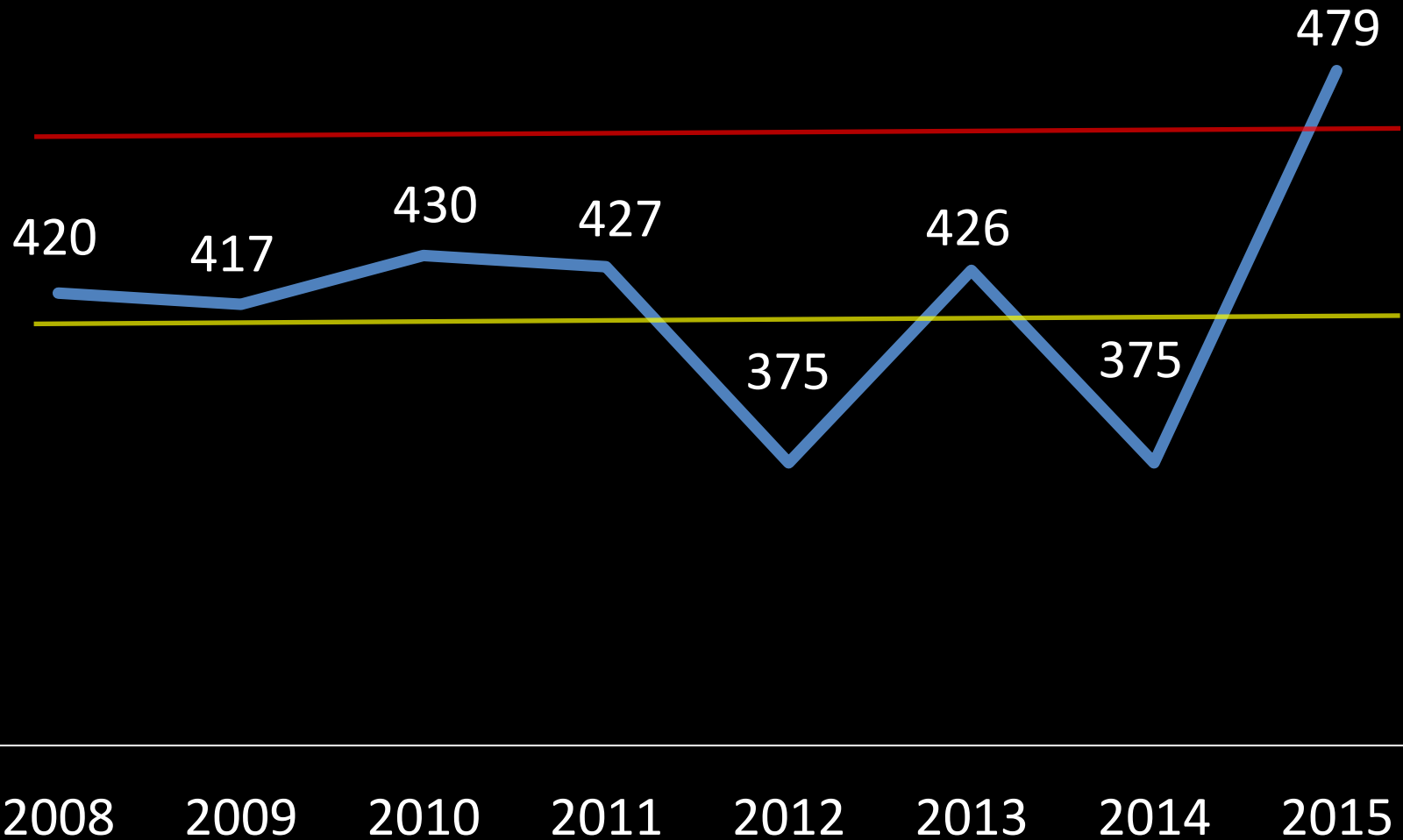
Per 100,000

National	386.3
Columbus	521.7
Louisville	675.8
Cincinnati	910.1



Cincinnati, Ohio

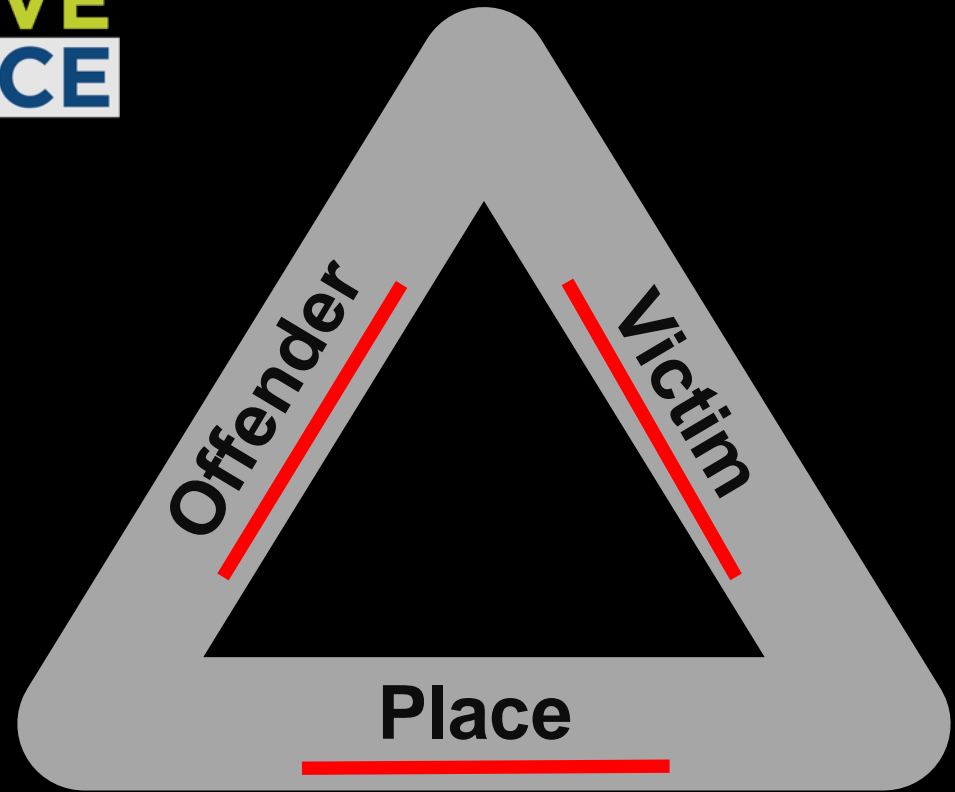
Cincinnati Shootings



Average 410

+2 StDev 459

CINCINNATI INITIATIVE TO REDUCE VIOLENCE



New Violence Reduction Strategy

1. Grounded in crime-place theory
2. Evidence-based
3. City-wide response

P.I.V.O.T.

Place-based Investigations of Violent Offender Territories

East Westwood



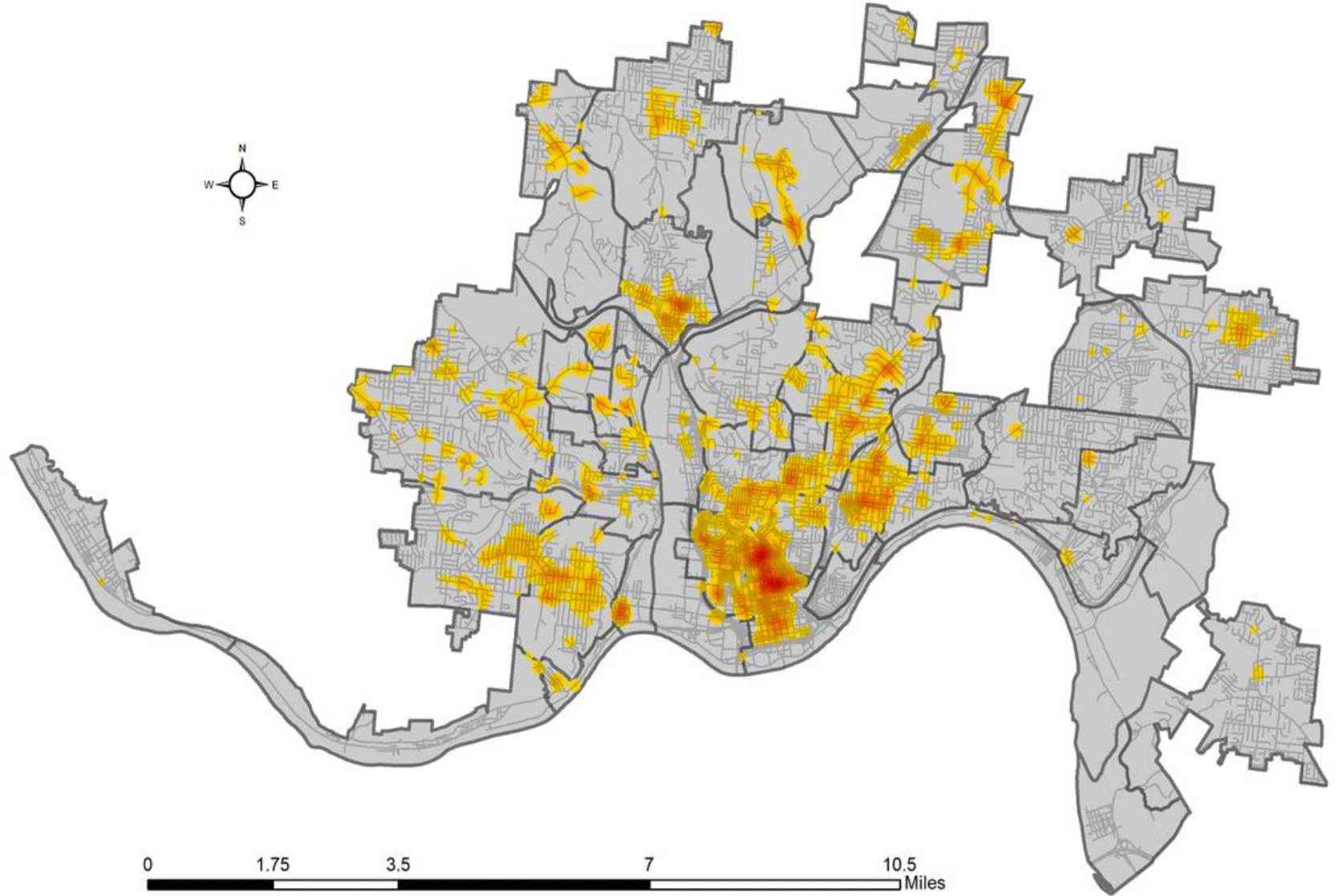
Westwood



Hyde Park

Scanning

Cincinnati Violent Crime Density: 2011



Source: Cincinnati Police Department

Crime Analysis & Problem Solving Squad
Cincinnati Police Department

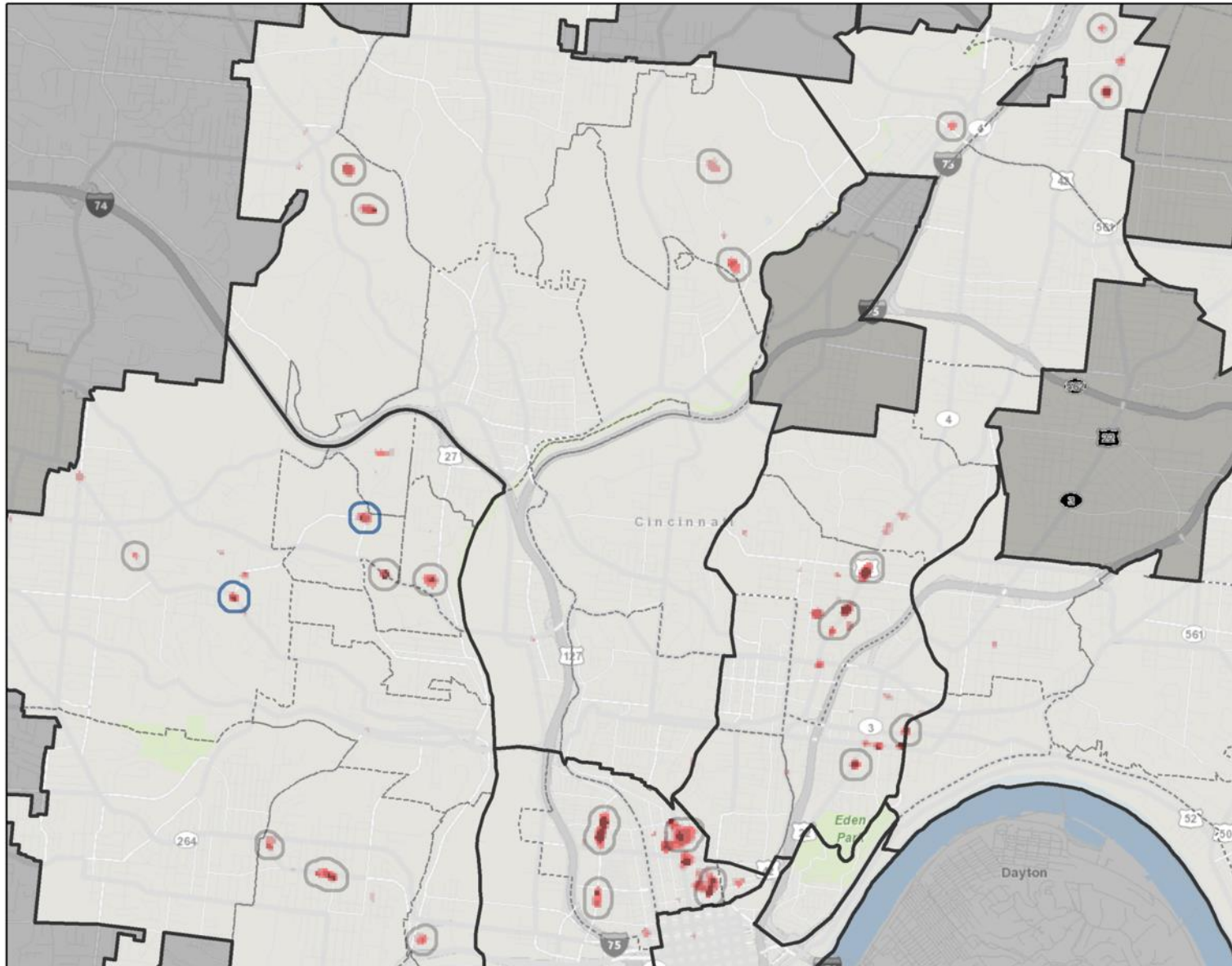
Violence Clustering

- Violence is concentrated across places, offenders, victims
 - 80-20 Rule
- Most violent crime, across any city, occurs in small, identifiable micro-locations



Systemically Violent Locations: Identified 29Dec15

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

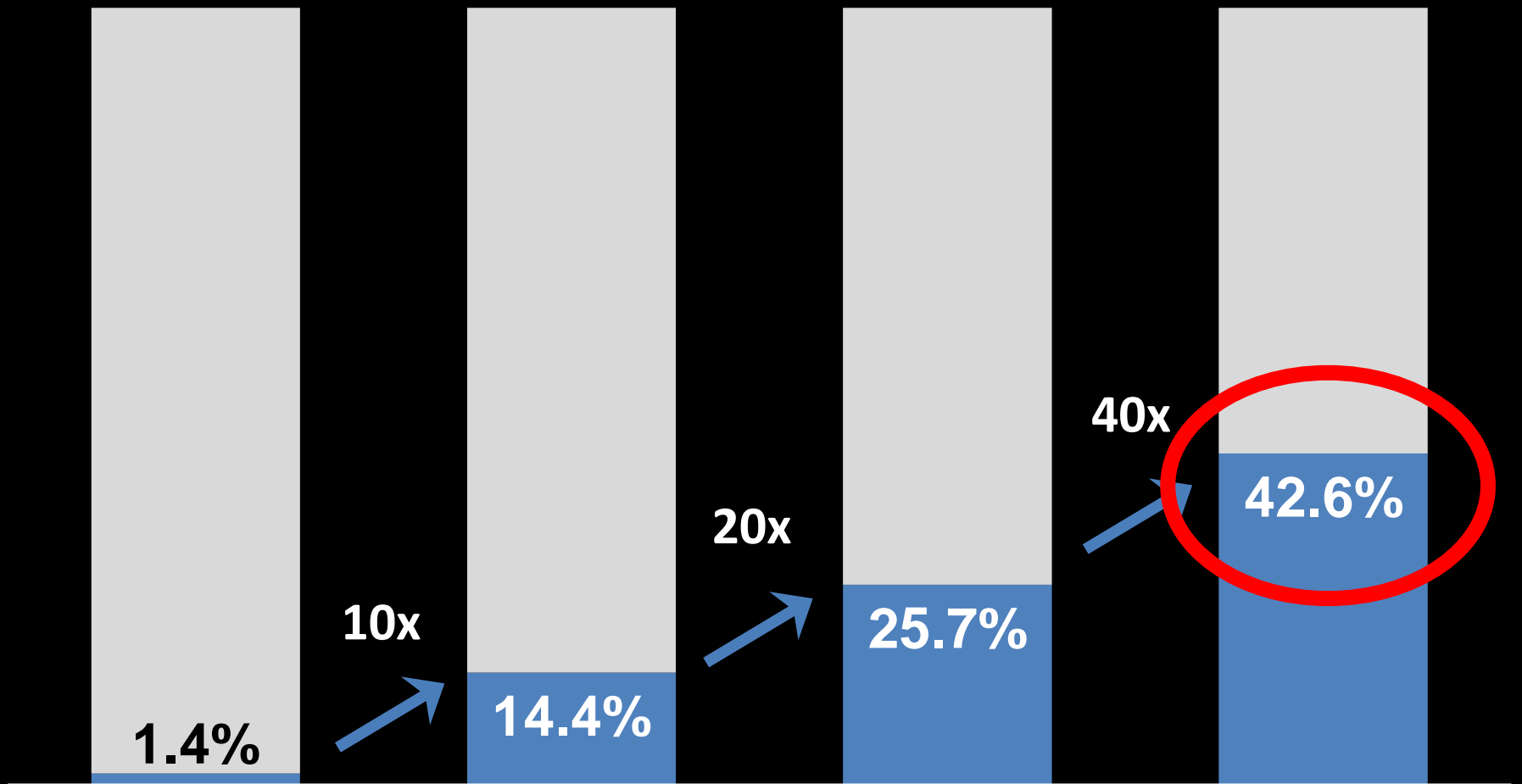


- SVLs
 - Districts
 - Neighborhoods
- Gun Violence Level**
- 12
 - 11
 - 10
 - 9
 - 8
 - < 8

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.





Square Miles

Part I Crimes

P1 Violent Crimes

Shooting Victims

■ Systemically Violent Locations

■ All Other Locations



City of Cincinnati - Cincinnati Police Department
Community Survey
 PIVOT – Place-based Investigations of Violent Offender Territories

Interviewer name: _____
 Interview date: ____/____/____ Interview time: ____:____ am / pm
 Building Address: _____

INTRODUCTION

I am a volunteer community member who is helping the City of Cincinnati and Cincinnati Police Department conduct a survey of residents in your neighborhood. The purpose of the survey is to learn more about your community and find ways to reduce crime in this area. Can I ask you a few questions?

Q1. How safe do you feel living in this neighborhood? (read the options below)

Very Safe	Fairly Safe	A Bit Unsafe	Very Unsafe
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q2. I will read you a short list of crimes. Please tell me how worried you are about them happening to you or your family living in this neighborhood. Are you very worried, somewhat worried, or not at all worried that somebody might:

	Very worried	Somewhat	Not at all	Don't Know
a. Break into your building, or try to break in, and steal things?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Steal your vehicle, or things in it, or damage it?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Vandalize your building or do damage to it?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Try to rob you or take money or your belongings directly from you through force?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Try to assault or hurt you?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q3. I will read you a list of common community problems. Please tell me how much of a problem you think each one is in this neighborhood. Tell me whether you think the problem is a big problem, somewhat of a problem, or not a problem at all.

	Big problem	Somewhat	Not at all	Don't Know
a. Noisy neighbors or loud parties	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. People hanging around in the complex that don't belong	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Vandalism, graffiti, or other damage to property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. People using or dealing drugs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Lack of activities for young people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Vacant buildings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q4. Are you very worried, somewhat worried, or not at all worried about the safety of children who play outside in this neighborhood?

Very Worried	Somewhat Worried	Not At All Worried	Don't Know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

n = 412

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

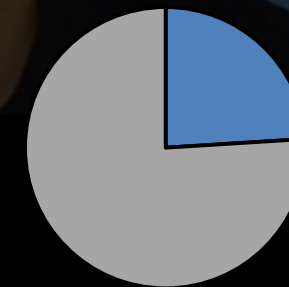
1.4%



14.6%



24.0%



Analysis

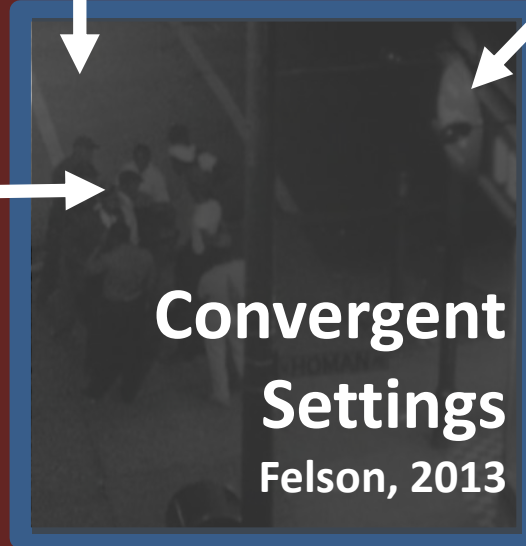
Why do almost all persistent hotspots eventually reappear, even after targeted police interventions?



Analysis Question #1

4 Types of Crime Places

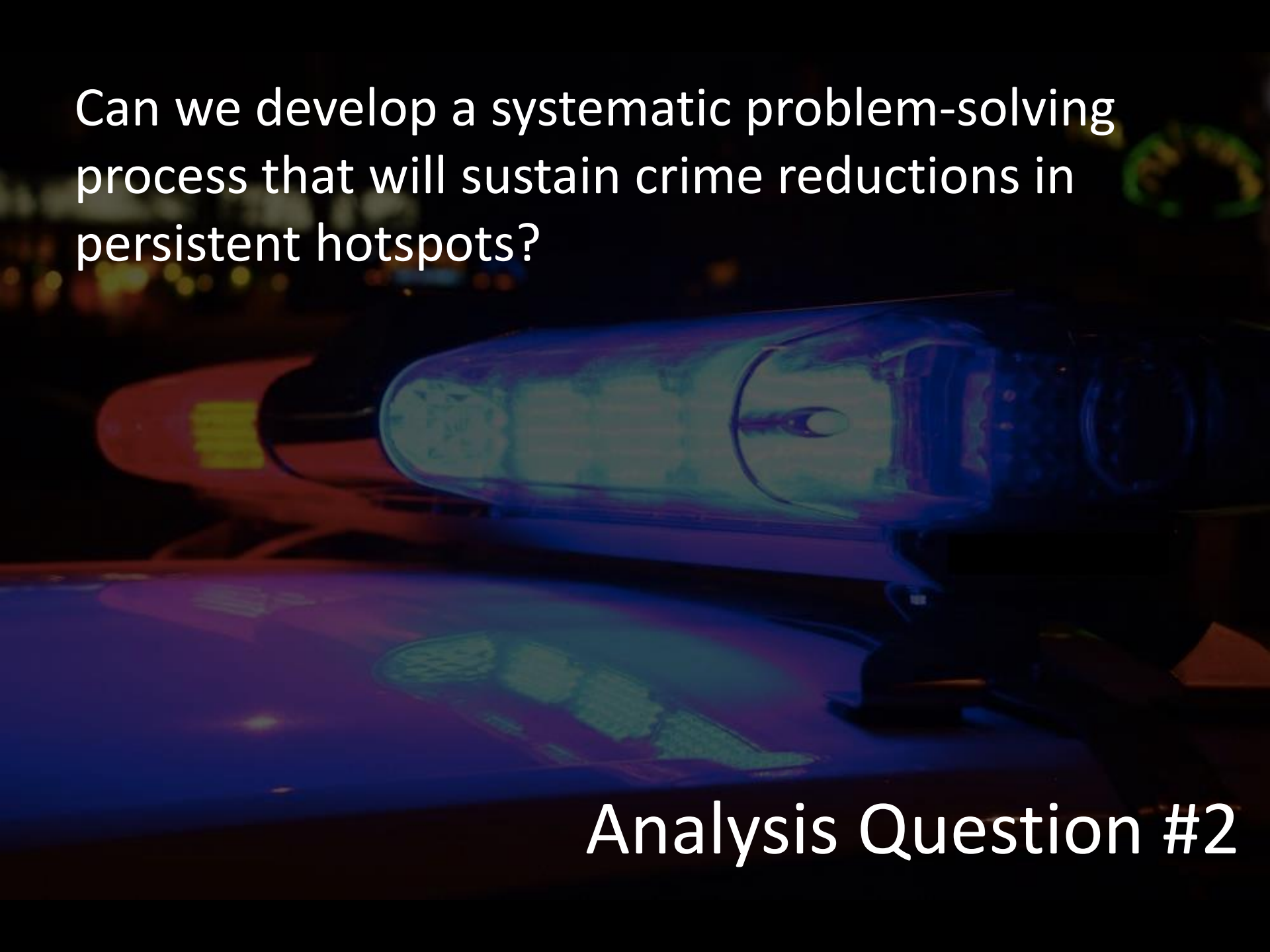
(Madensen & Eck, 2013)



What we see
on crime maps

What is unseen
without systematic
investigations

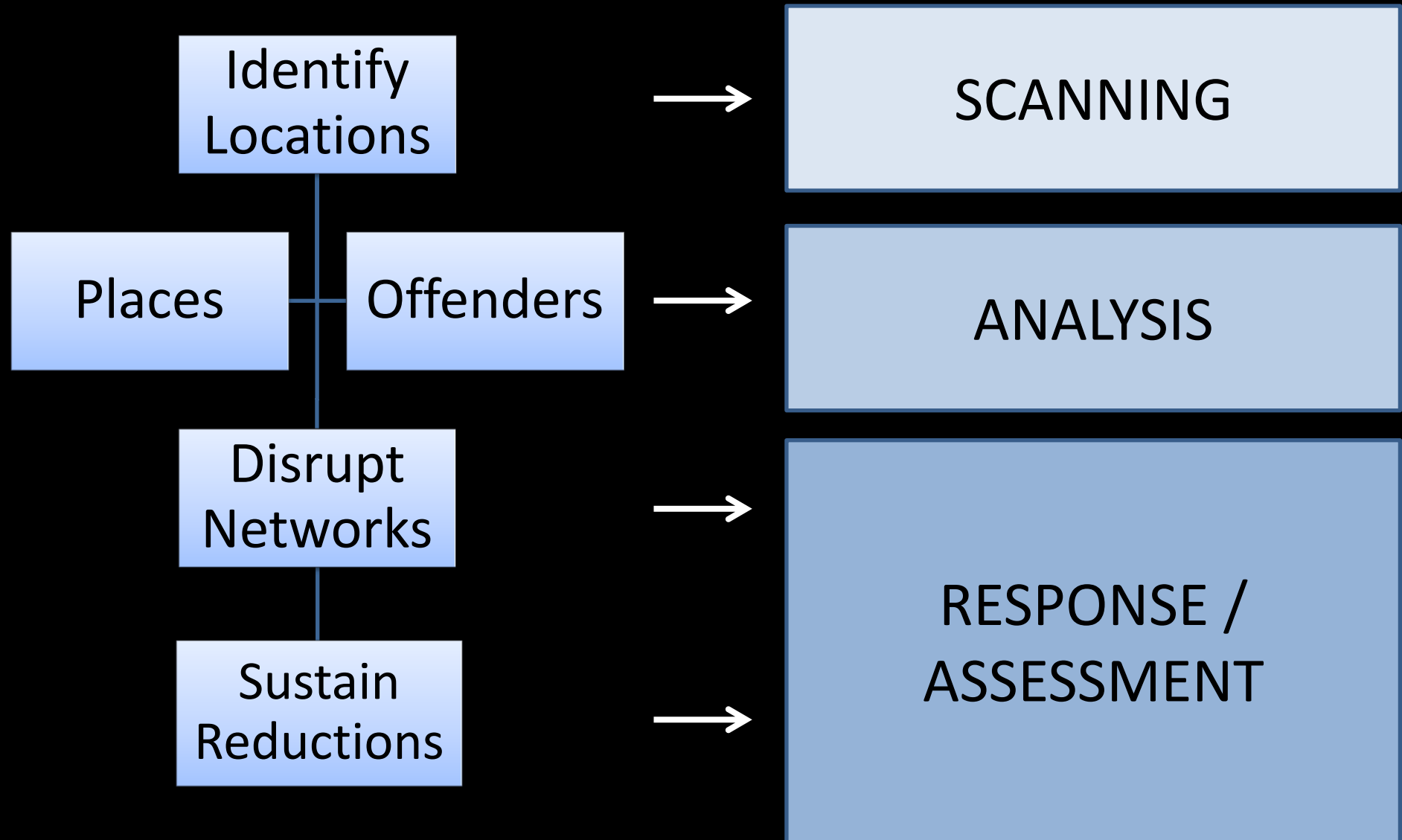
Can we develop a systematic problem-solving process that will sustain crime reductions in persistent hotspots?



Analysis Question #2

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

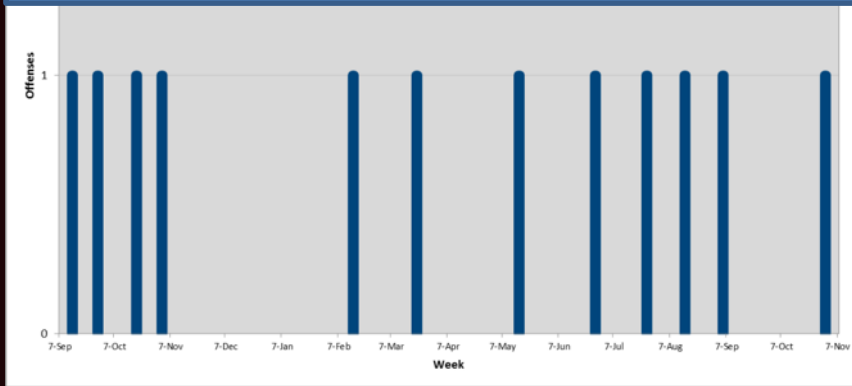
Community
Development
Corporations

Local
Community
Councils

Neighborhood Enhancement Program

How can we more effectively monitor real-time changes in violent hotspots (when gun violence is a relatively rare event)?

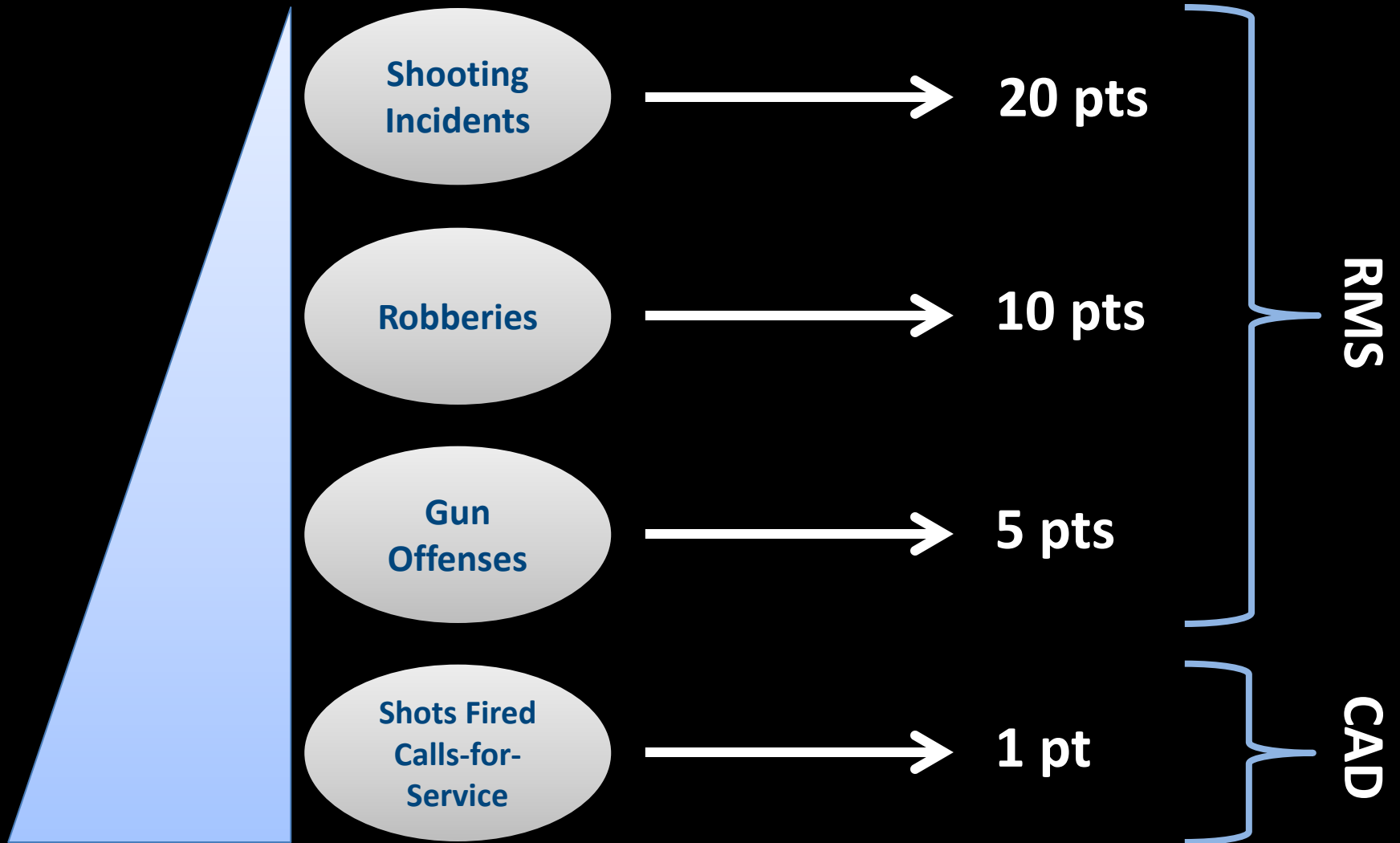
Weekly Shooting Offenses



Analysis Question #3

Gun Violence Metric

Weighted by incident type and data source



Gun Violence Metric

Weighted by distance and time

Dataset

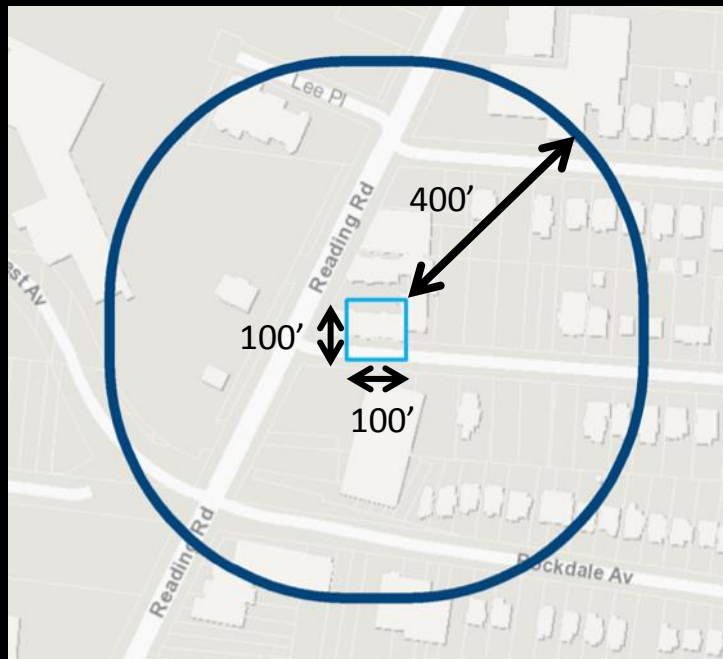
0 – 27.9 days ago = **1.0** x weight

28 – 55.9 days ago = **0.8** x weight

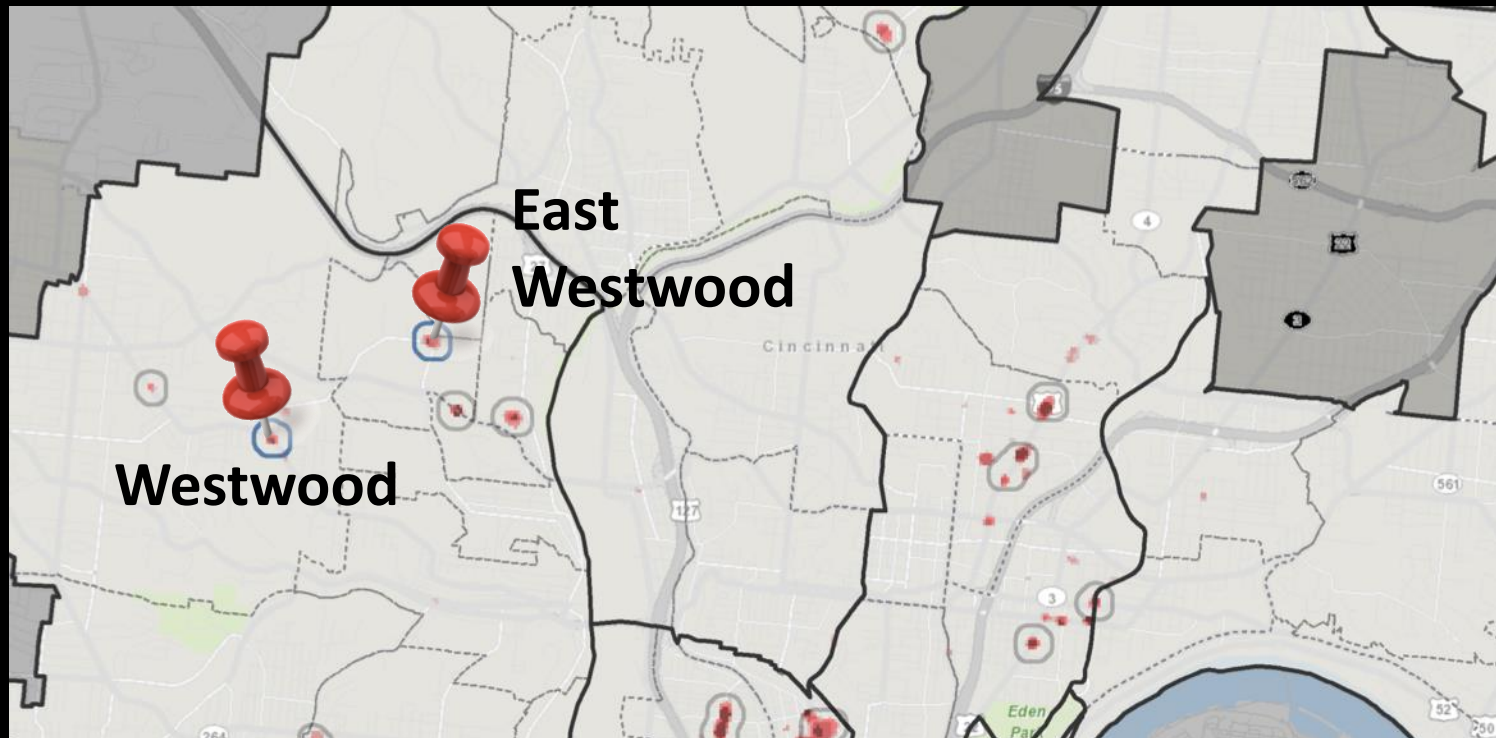
56 – 111.9 days ago = **0.6** x weight

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

168 – 224 days ago = **0.2** x weight



Will police investigations uncover the crime-place networks that theory and research suggest drive these chronic hotspots?

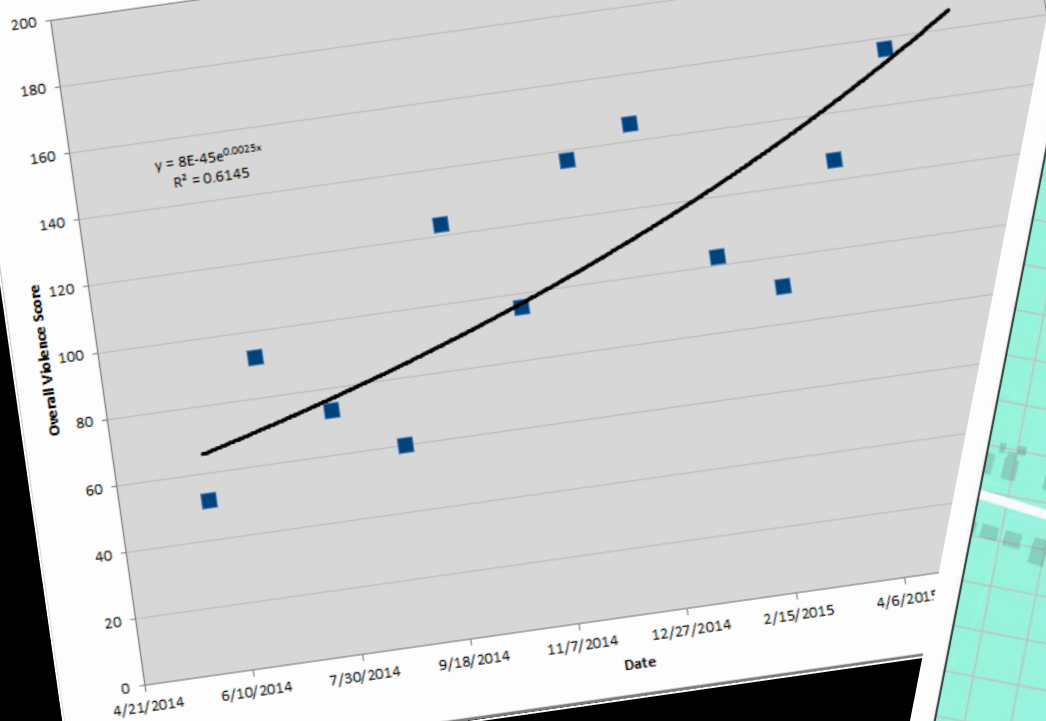


Analysis Question #4



Site #1: East Westwood

Gun Violence Score at Baltimore Av & McHenry Av: 1Jun14 - 1Jun15



Baltimore/McHenry Violence Scores June 1, 2015

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

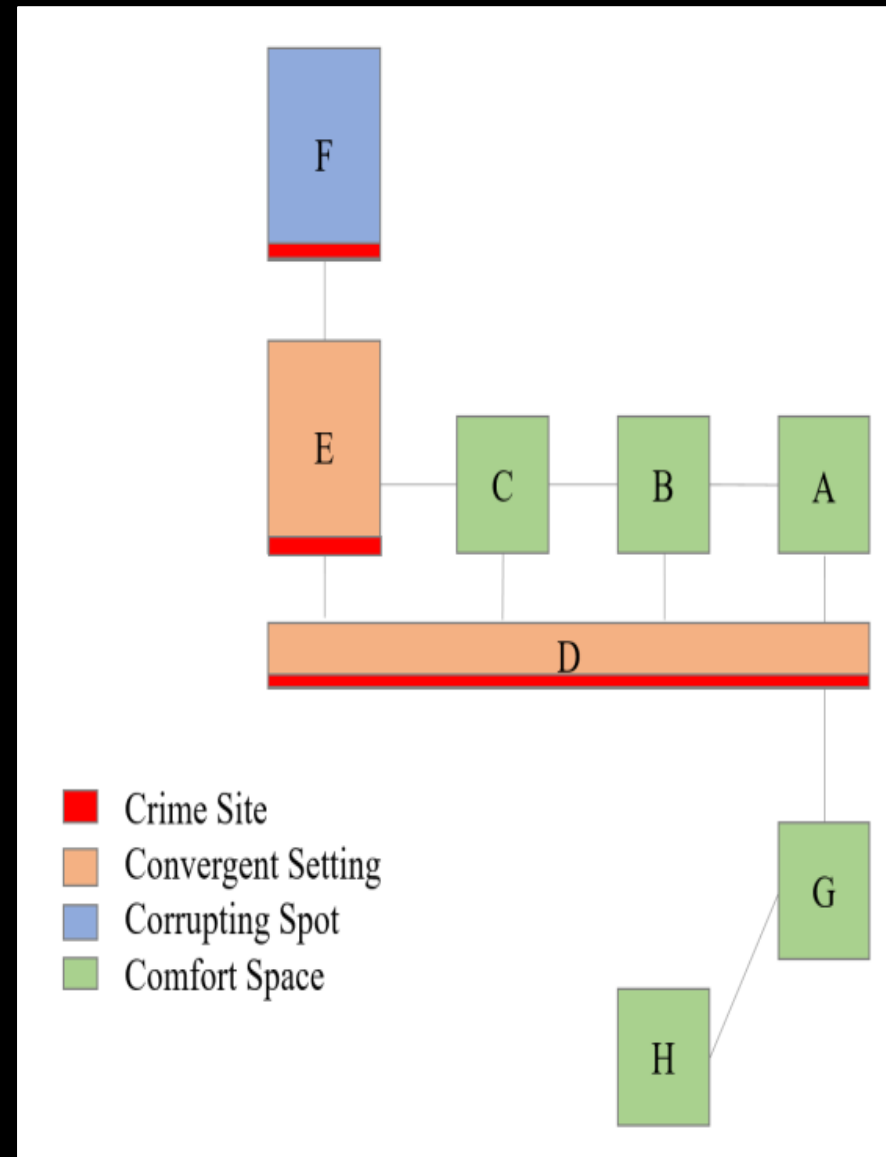
city of CINCINNATI
POLICE



East Westwood



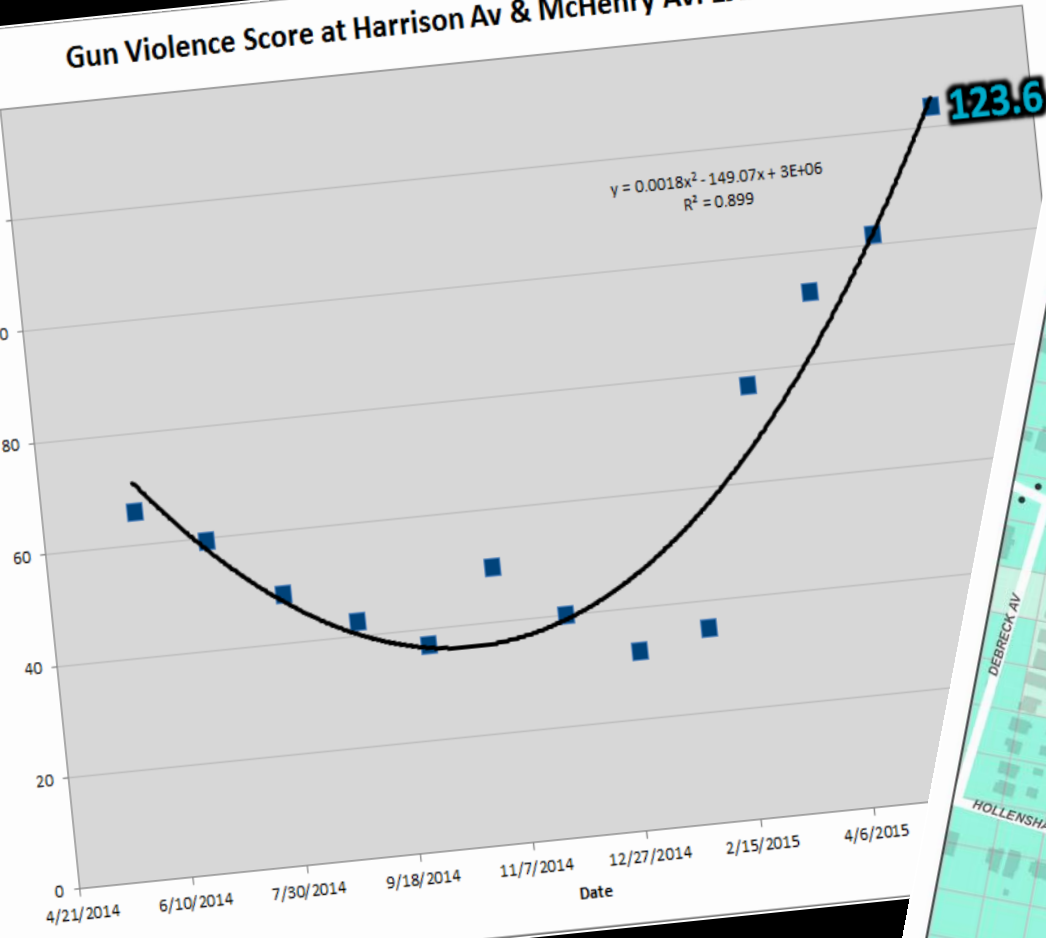
East Westwood: Place Network



Site #2: Westwood

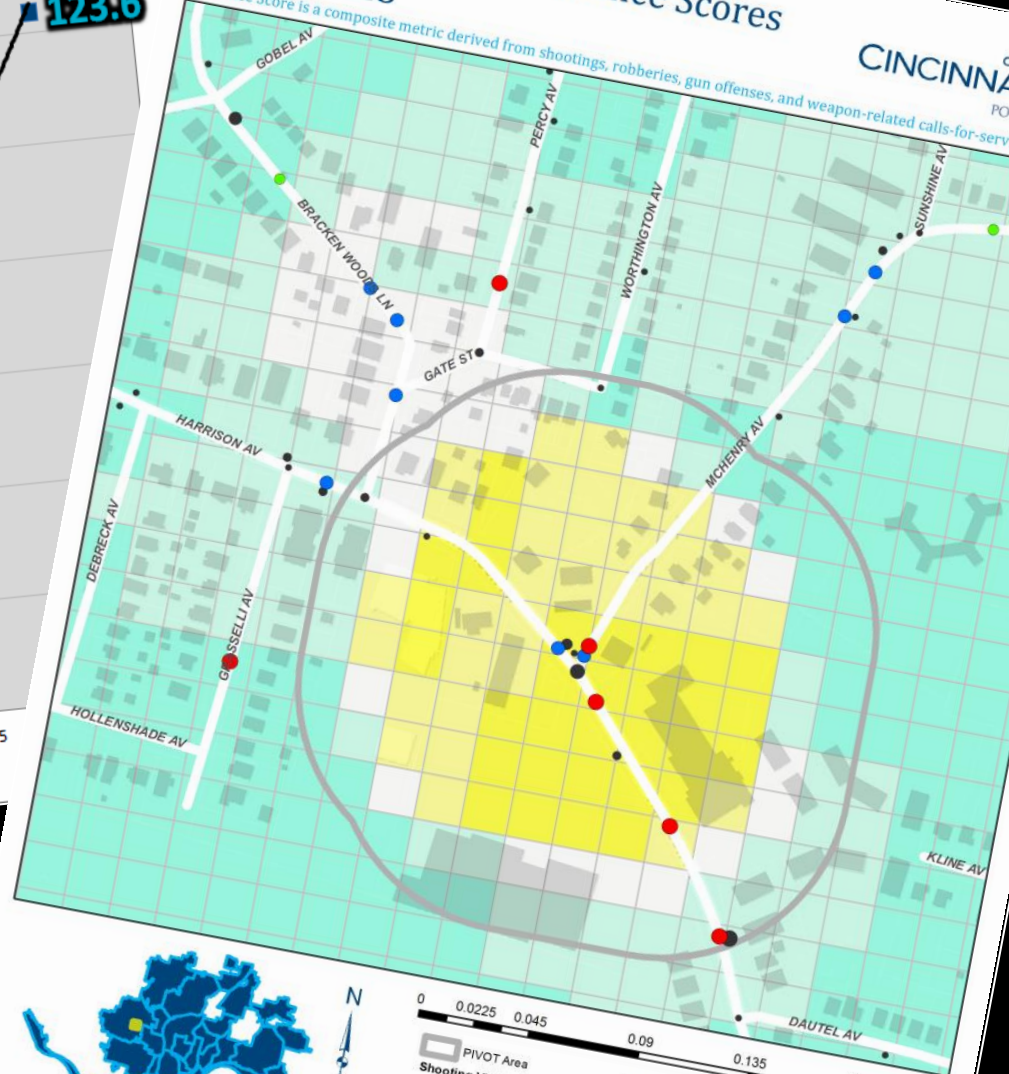


Gun Violence Score at Harrison Av & McHenry Av: 1Jun14 - 1Jun15

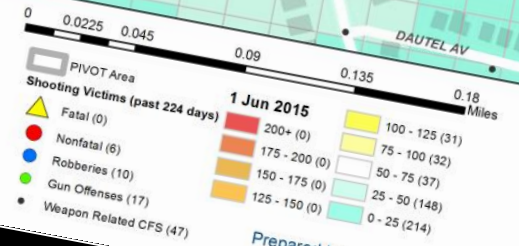


Harrison/McHenry Violence Scores June 1, 2015

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

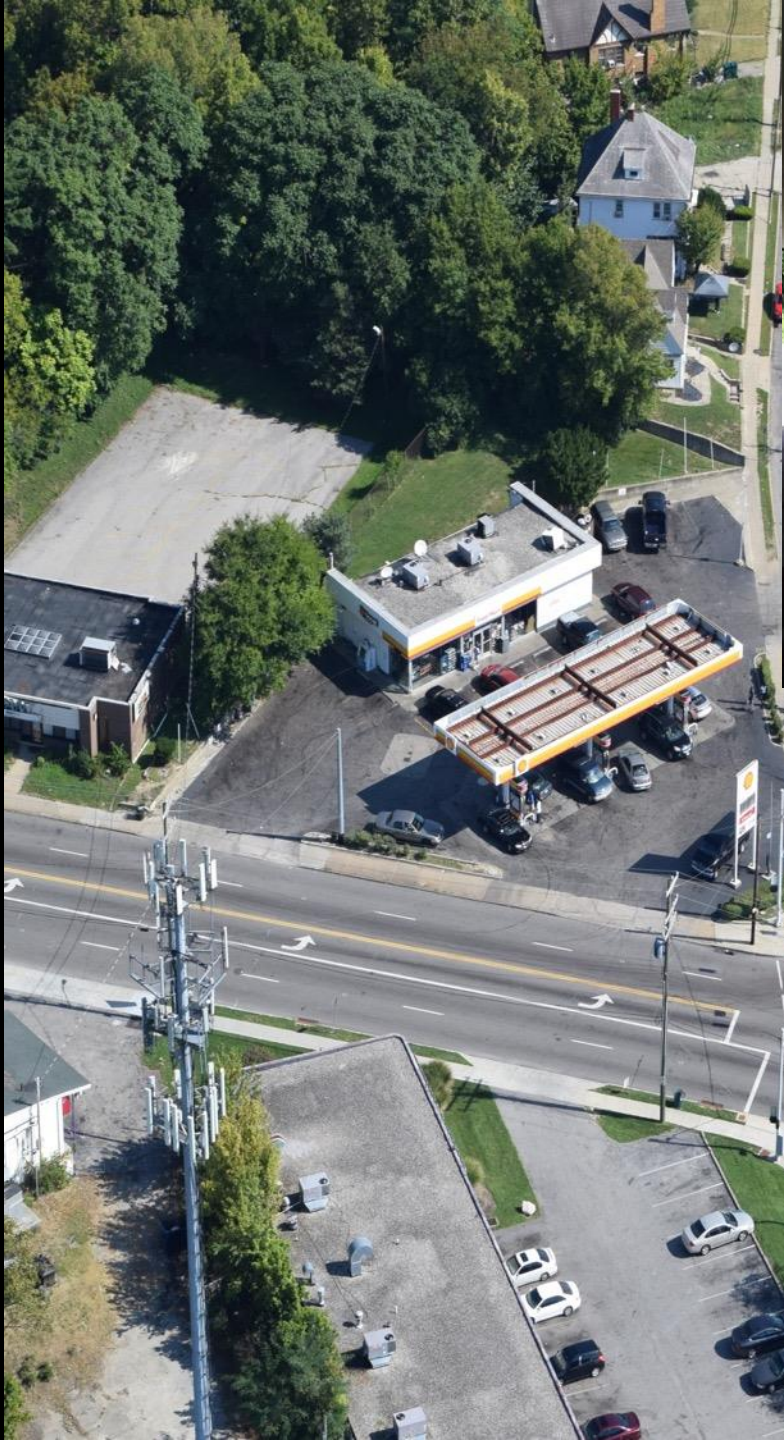


Data prepared on: 9/22/2017

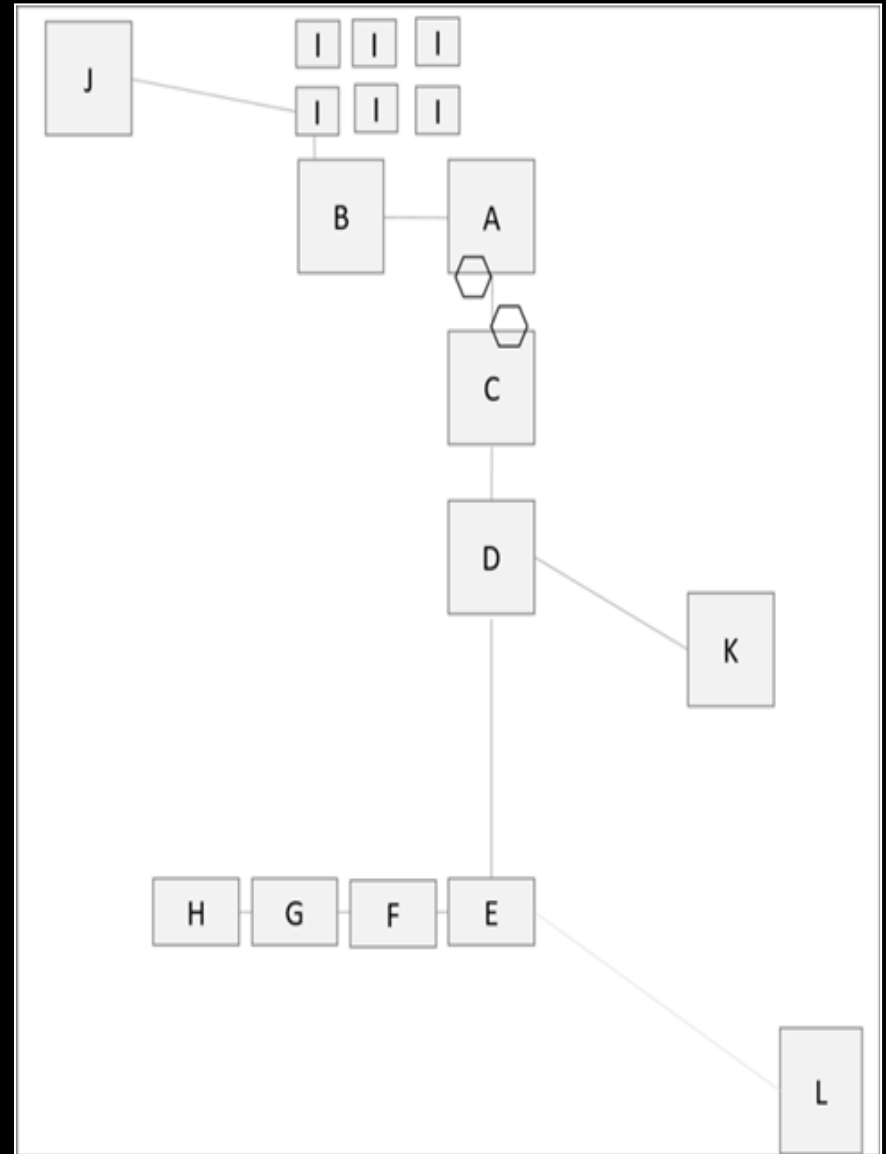


Prepared by: SCRM B. Christenson

Westwood

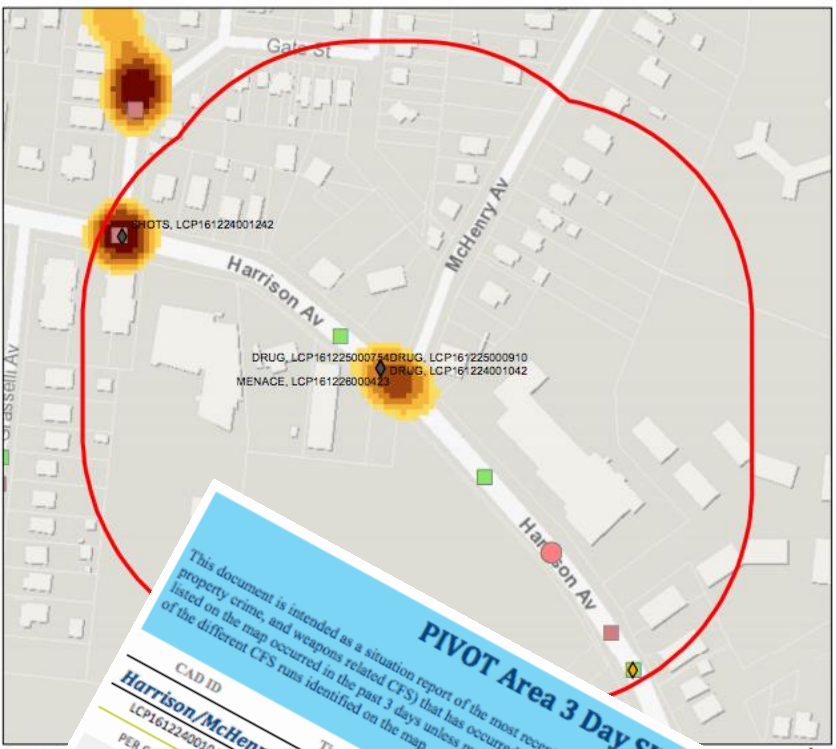


Westwood: Place Network

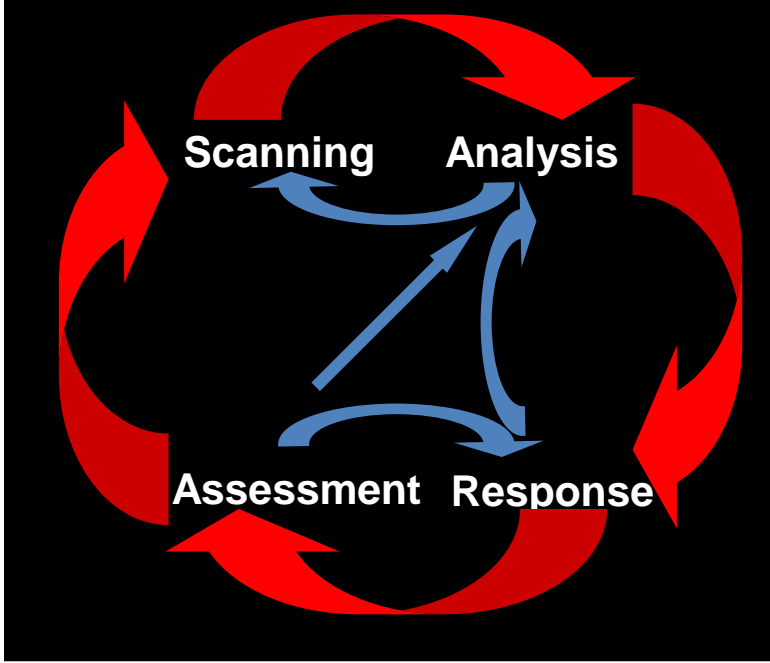


Response/
Assessment

PIVOT Area of Interest: Harrison/McHenry



- Legend**
- Shootings (Past 3 Days)**
- Fatal
 - Nonfatal
- Shootings (Past 90 Days)**
- Fatal
 - Nonfatal
 - Part 1 Arrests
 - Part 2 Arrests
 - Part 1 Offenses
 - Reactive CFS
- Active PIVOT Locations 1**
- Violent Crime (Past 90 Days)
 - Property Crime (Past 90 Days)
- Weapons-related CFS**
- Per SQMI - Past 90 Days
- High
 - Medium
 - Low

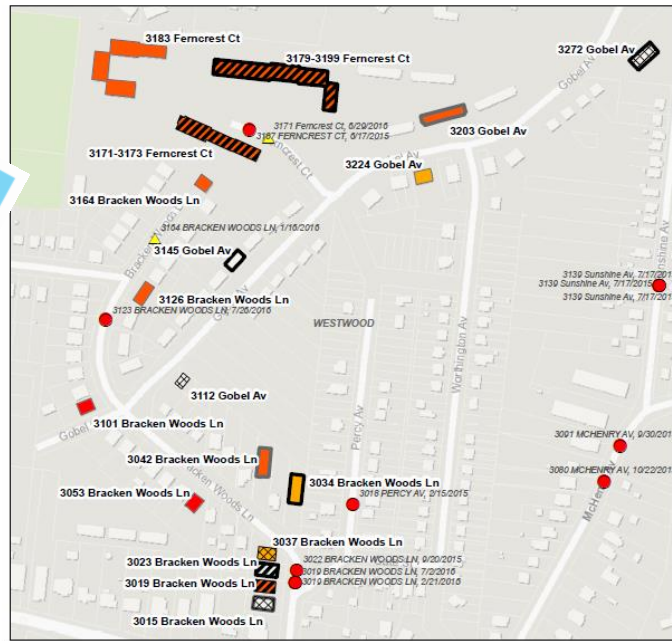


This document is intended as a situation report of the most recent activity (shootings, arrests, offenses, CFS, violent crime, property crime, and weapons related CFS) that has occurred in and around the current PIVOT locations. Please note all activity listed on the map occurred in the past 3 days unless marked otherwise. The information below provides narratives/descriptions of the different CFS runs identified on the map.

PIVOT Area 3 Day SITREP

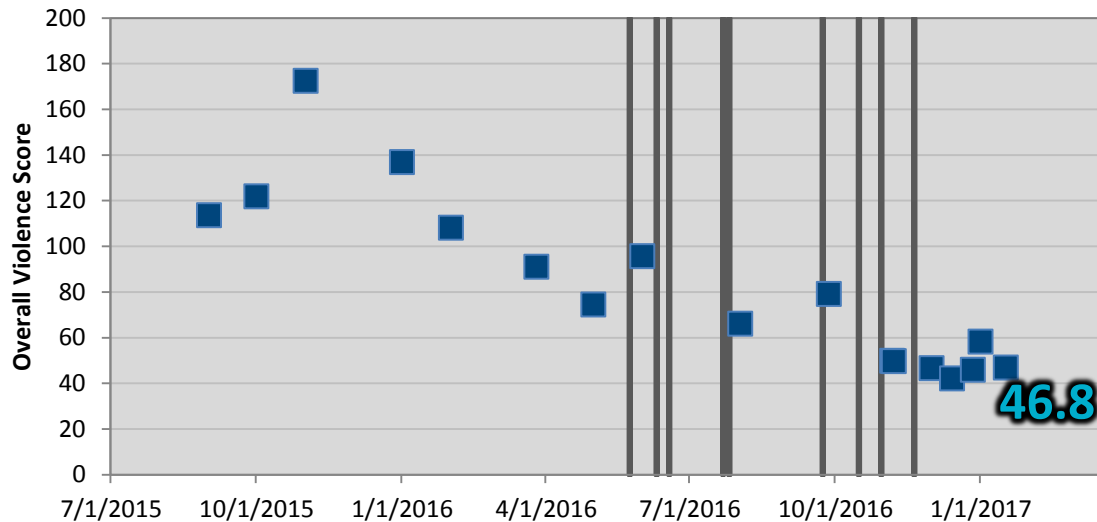
CAD ID	Time	Type	Address	Apt	Disp.
Harrison/McHenry					
LCP161224001042	12/24/2016 7:47:19 PM	DRUG	2454 HARRISON AV		
PER CALLTAKE BOTH PARTIES PRESENT					
305/5/4/THIN/BLK LEATHER JKT/RED-WHI SHI/RED PNTS/NO WEAPONS SEEN					
TRYING TO CCESS NEW LINEUP TO DISPATCH UNITS					
Subject: PER 3420, CB AND SEE IF PO ARE STILL NEEDED AND					
Original Location : SHELL-HARRISON/MCHENRY-OUTSIDE LOC					
Norm Mail Attach Dt: 16/12/24 Tr: 20:07 Com: CH03 Oper: ROSING, ADAM					
KNOWN TRESP SELLING DRUGS OUTSIDE LOC, SUBJ IS					
Incident Closed: 16/12/24 20:26					
IF SUBJ IS STILL IN THE LOT - THANKS					
3420 ADV - SINGLE BEAT 3 CAR AVAIL - HOLD FOR COVER					
CONT TO HOLD PER 3420					
AC, COMP STILL ONSC					
Incident Initiated By: CP/CLAUS, NIKKI					
224001242					
OTS HEARD	12/24/2016 11:08:49 PM	SHOTS	BRACKEN WOODS LN/HARRISON AV		
FURTHER HEARD					
HEARD BY NBRIS AS WELL					
ed By: CP/RUECKERT, KELLY					
12/25/2016 7:16:14 PM		DRUG			
10 UPDATE Dispo					
ENTERING					

Bracken Woods: Top 10 Identified PIVOT Buildings



- Legend**
- Shootings: Past 2 Years**
- FATAL
 - NONFATAL
- Arrests**
- Weapons Arrests
 - Drug/Narcotics Arrests
- CFS**
- Weapons-related CFS
 - Illicit Goods/Services Market CFS
- Offenses**
- Part 1 Violent Crime
 - Part 1 Crime
 - Part 1 & 2 Crime
 - Burglaries/B&E Crime

Site #1: East Westwood Responses



8) 2347 Baltimore
(Condemned/Demolition
11/30/16)

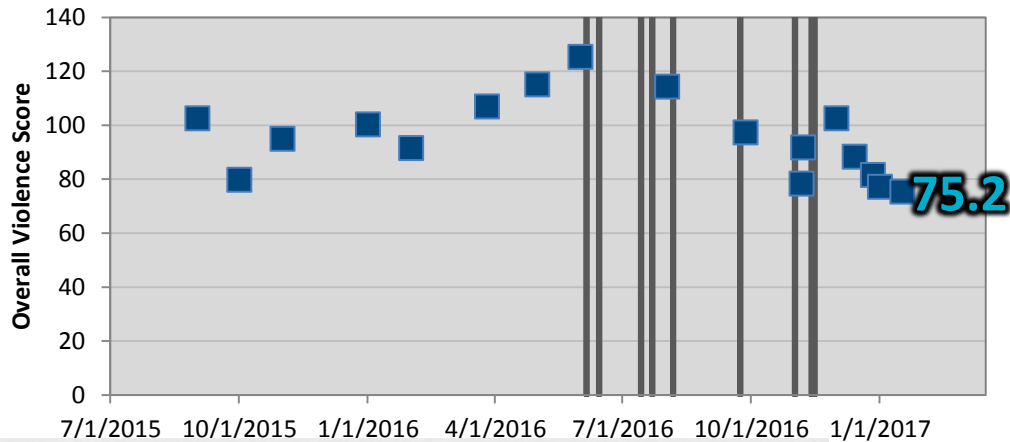
9) 1875 Hawkins –
Demolition

* Based on observations/facts-to-date



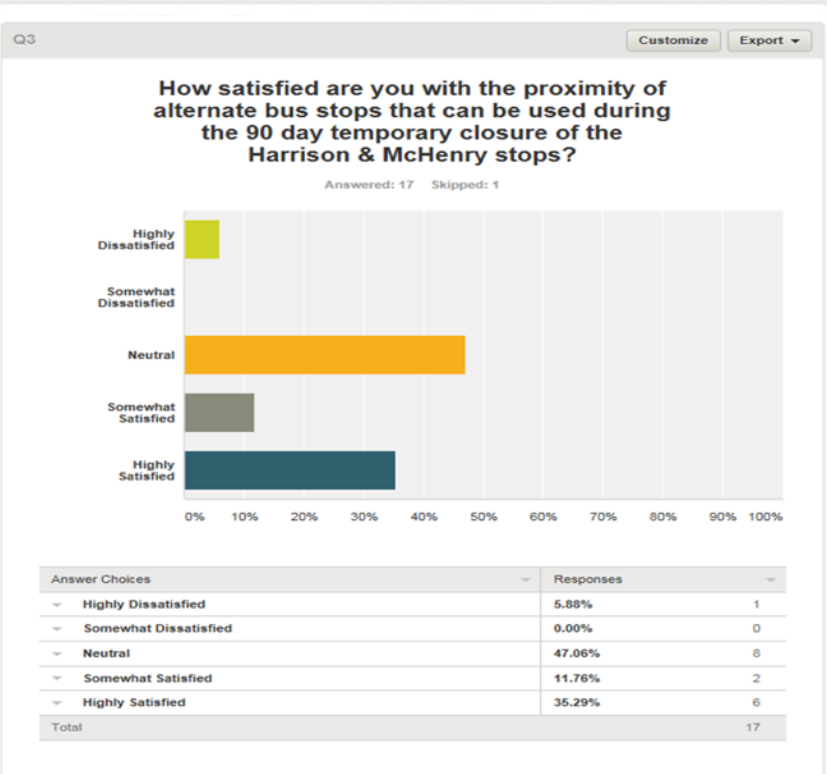
- 1) Parking Restrictions (6/24/16)
- 2) Control asserted* at 2323 Baltimore (7/19/16)
 - Property transferred
- 3) Control asserted* at 2321 Baltimore (8/26/16)
- 4) Control asserted* at 2315 Baltimore (11/16)
- 5) Directed Patrols (Phase I & II – 8/22, 10/24/16)
- 6) Light Tower Intervention (12/21/16)
- 7) Ongoing Intervention with 2311 Baltimore (7/16-current)

Site #2: Westwood Responses



- 1) Problem Solving Project, Shell Station (7/6/16-12/29/16)
- 2) U.S. Market Search Warrant (7/15/16)
- 3) Bus Stop Closure (8/14/16)
- 4) U.S. Market Closure (9/6/16)
- 5) Directed Patrols (Phase I & II – 8/22/16, 10/24/16)
- 6) 3014 McHenry Intervention (12/14)
- 7) High Profile Camera/Signs (12/2/16)
- 8) Bracken Woods Problem Solving Project (12/16)

* Based on observations/facts-to-date





LOCAL
12
NEWS

Neighborhood Enhancement Program (NEP)

2017 – New Partnership with P.I.V.O.T.



EST. 2008

- Collaborative effort to improve quality of life in a focused community area
- Community members commit to work with the City, nonprofit agencies, and corporate partners to utilize strategies and focus stakeholders to improve identified areas
- 4-month pre-planning; 90-day blitz focused on “signature projects”
- Progress measured 30, 60, 90 days, & 1 year after



COMING SOON
BASKETBALL IN FEBRUARY



Home of the Prairie
At Third Presbyterian Church

COMING SOON
CHILDREN'S PLAYGROUND



At Third Presbyterian Church

Welcome
East Westwood /
Westwood
NEP Kickoff







ANY
TIME
← TOW ZONE →

EW WE CARE
**BLOCKWATCH
AREA**
WE CALL POLICE
East Westwood Improvement Association, Inc.



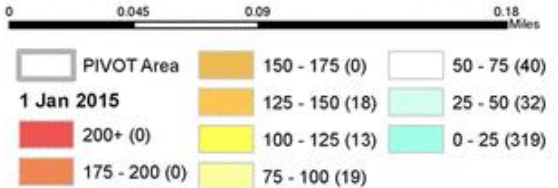
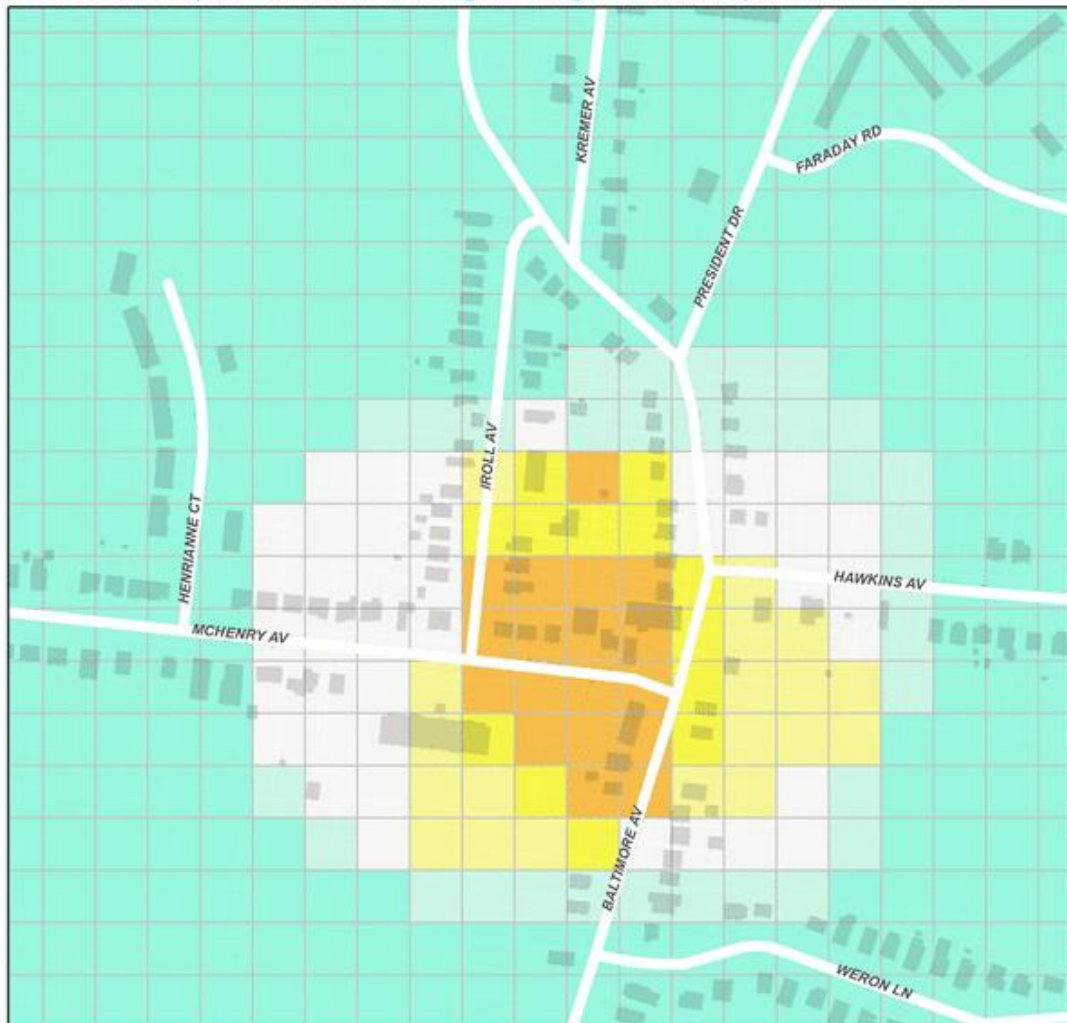
PivotPoint Documentary

Continued Assessment

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

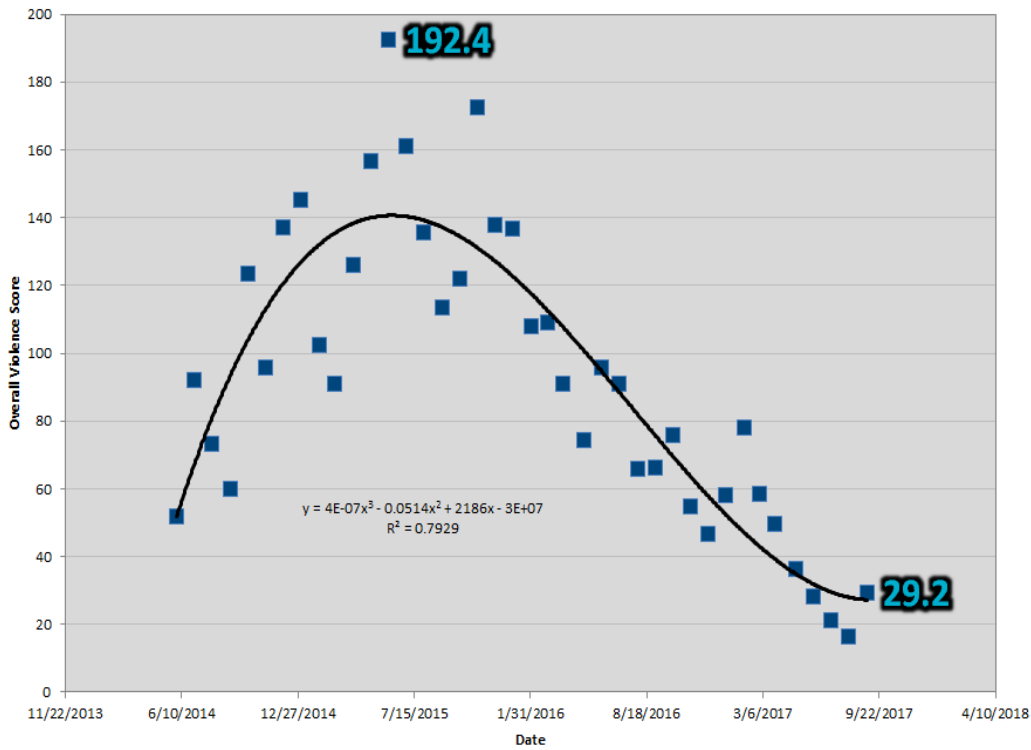
Overall Trends

Rest of city = - 8.7%
E. Westwood = - 88.9%

Weighted Displacement
Quotient = -0.139

Target area improved; slight
increase in the buffer area

Gun Violence Score at Baltimore Av & McHenry Av: 1Jun14 - 1Sep17



Baltimore/McHenry Violence Scores September 1, 2017



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

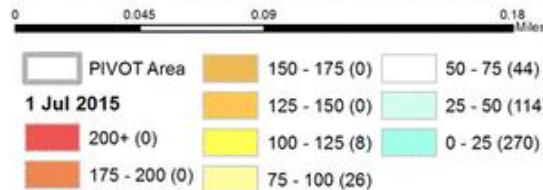


Color	Score Range	Count
White	PIVOT Area	
Red	200+ (0)	
Orange	175 - 200 (0)	
Yellow	150 - 175 (0)	
Light Green	125 - 150 (0)	
Light Blue	100 - 125 (0)	
Light Yellow	75 - 100 (0)	
Light Cyan	50 - 75 (0)	
Light Green	25 - 50 (43)	
Light Blue	0 - 25 (398)	

Data prepared on: 9/25/2017

Prepared by: SCRM B. Christenson

East Westwood



Site #2: Westwood

Overall Trends

Rest of city = - 7.9%

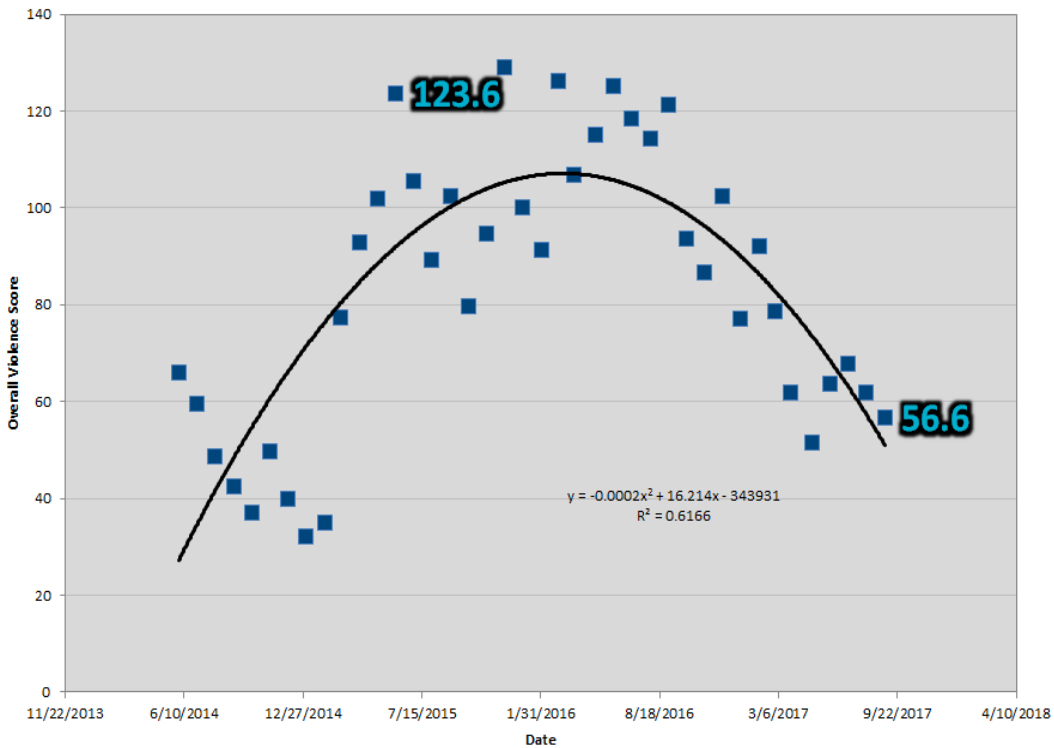
Westwood = - 71.4%

Weighted Displacement

Quotient = 0.811

Buffer area improved;
strong evidence of diffusion
of benefits

Gun Violence Score at Harrison Av & McHenry Av: 1Jun14 - 1Sep17

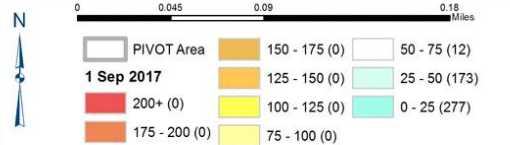
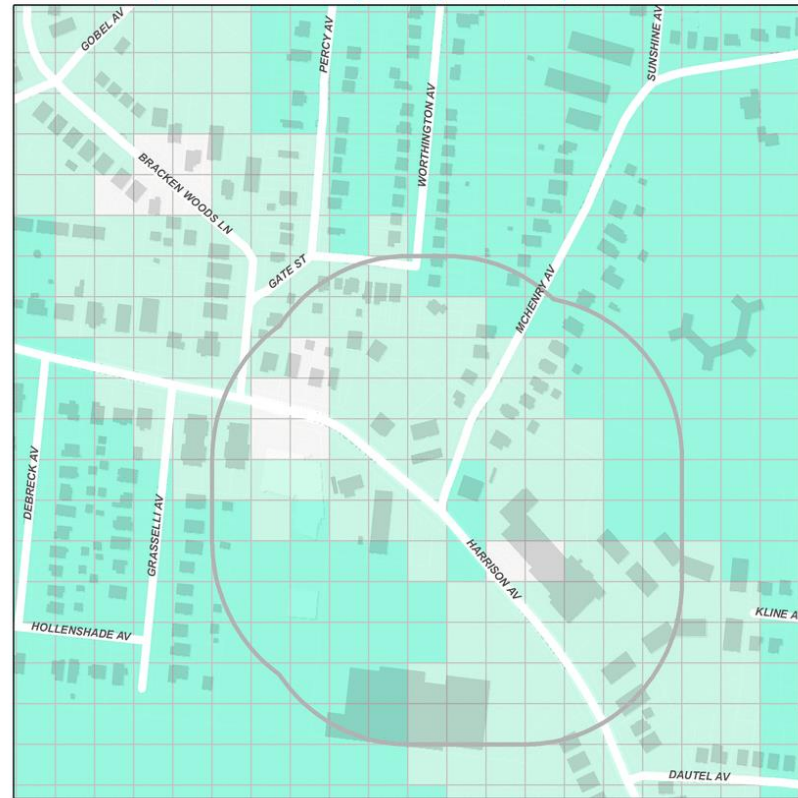


Westwood

Harrison/McHenry Violence Scores September 1, 2017



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

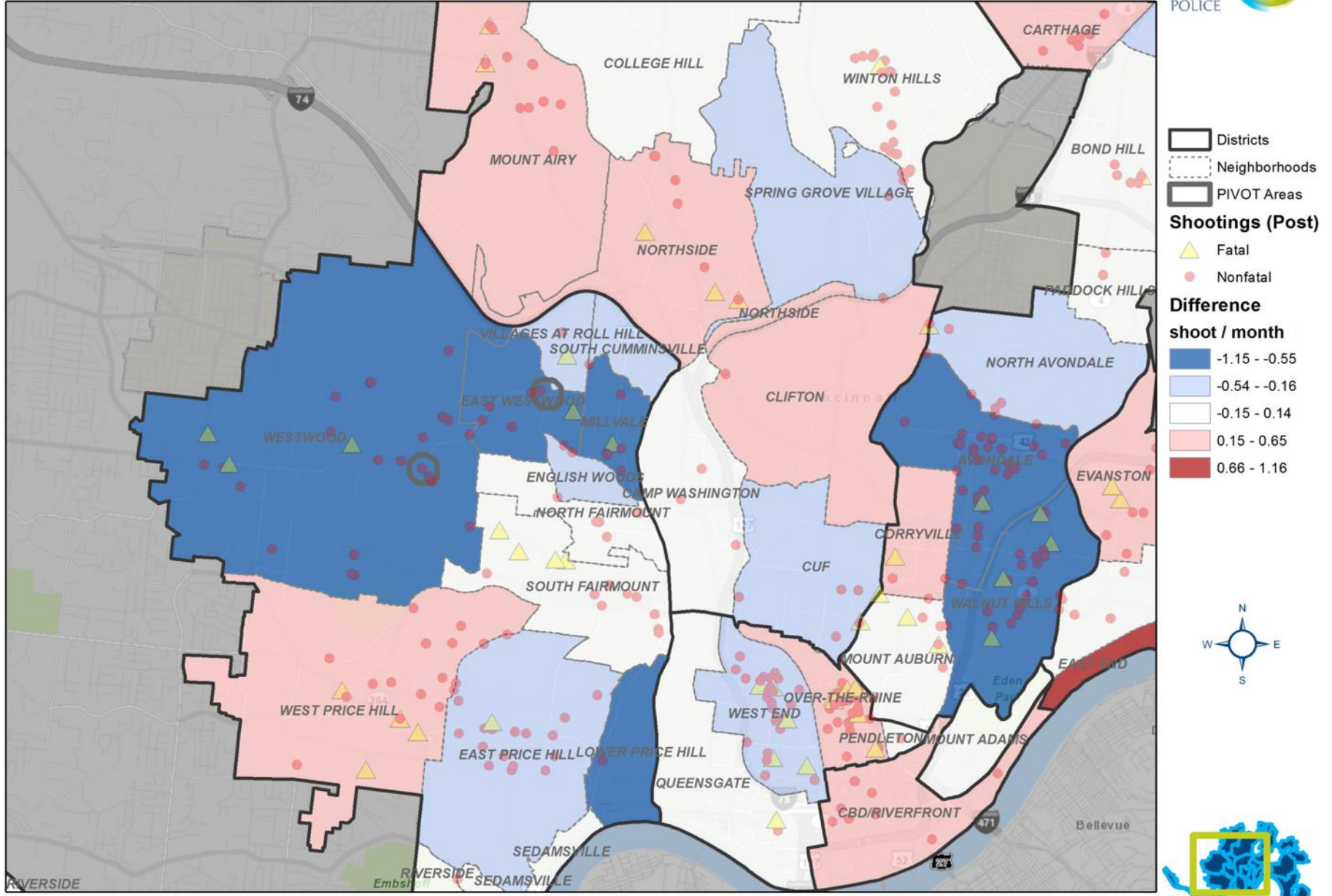


Data prepared on: 9/25/2017

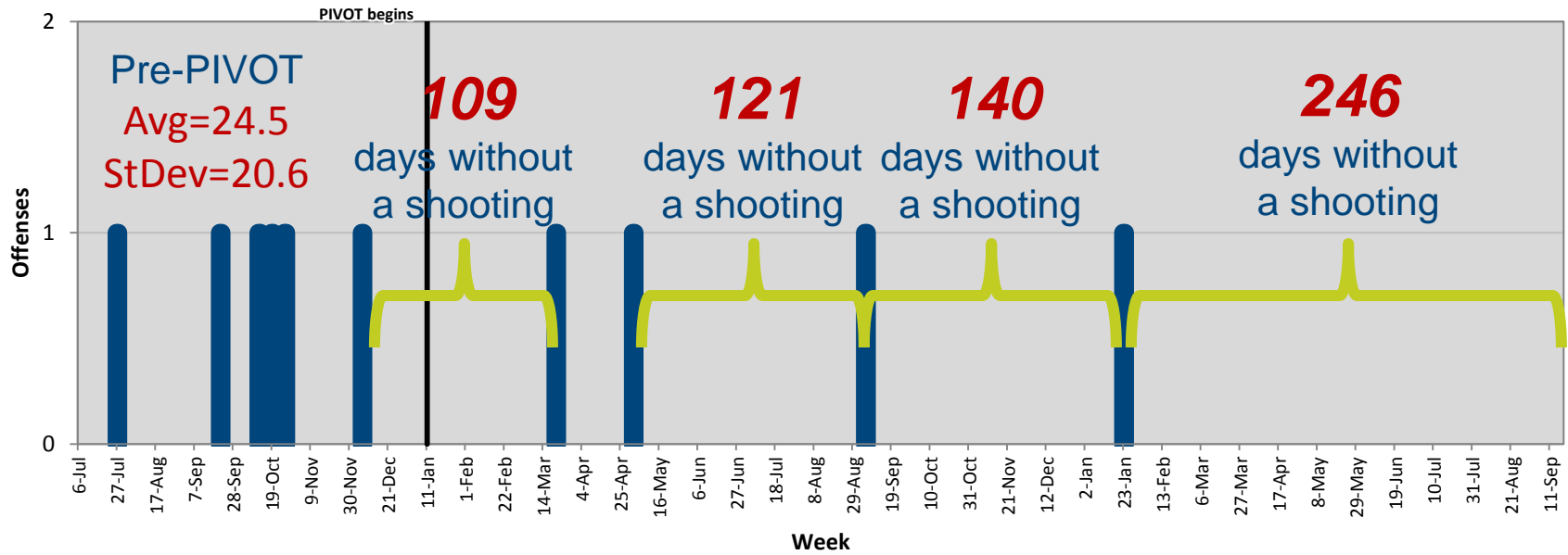
Prepared by: SCRM B. Christenson

Neighborhood Shootings Per Month: Pre v. Post PIVOT

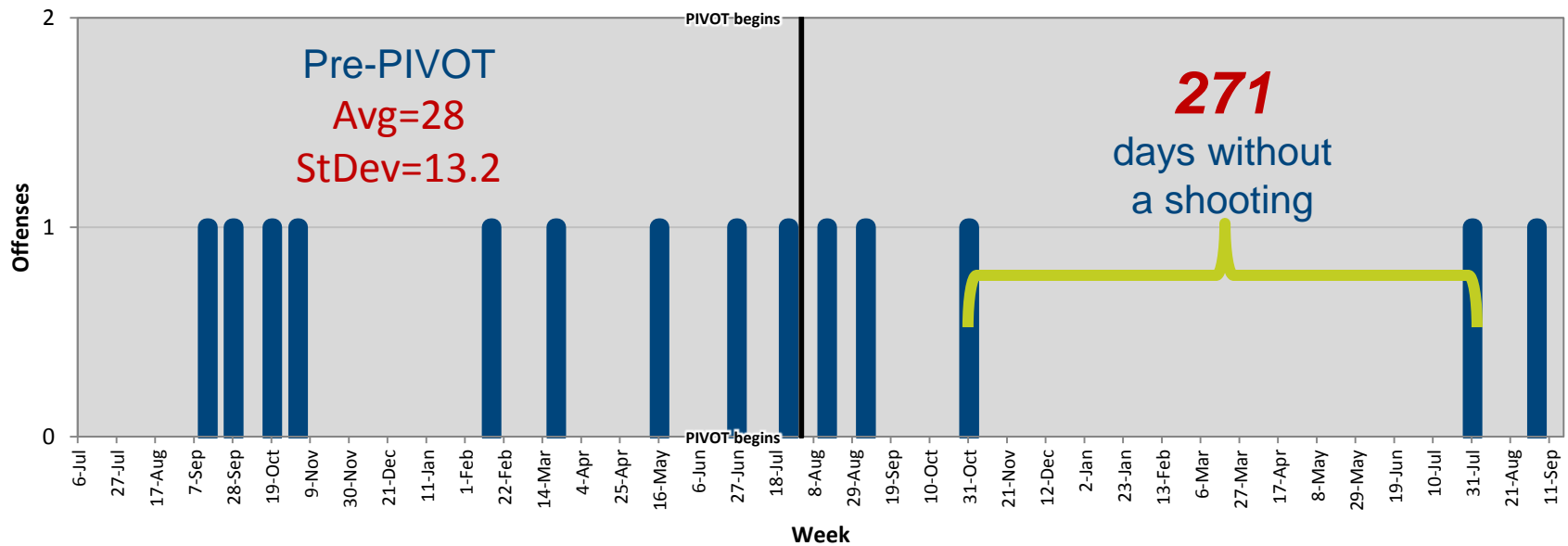
*Pre-PIVOT shootings/month calculated using shootings 8/1/2014 - 7/31/2016; Post-PIVOT shootings/month calculated using shootings 8/1/2016 - 9/30/2017



Weekly Shooting Offenses: Baltimore / McHenry (East Westwood)



Weekly Shooting Offenses: Harrison / McHenry (Westwood)



Post-Project Community Surveys

East Westwood/Westwood

% of residents that...

Pre

Post

Implementation Challenges

- Staffing
 - Buy-in from All-City P.I.V.O.T. Team members
 - Length of investigations and responses
-

Future Directions

- Current P.I.V.O.T. location
 - Avondale
- Continued NEP partnership



Key
“Takeaways”

Place-Based Investigations of Violent Offender Territories

Lt. Matthew Hammer, M.S.

Cincinnati Police Department

Senior Crime Analyst - Blake Christenson, M.A.

Cincinnati Police Department

NEP Manager – Ethel Cogen, B.U.P.

City of Cincinnati – Department of Community and Economic Development

Dr. Tamara D. Madensen

University of Nevada, Las Vegas

For more information:

<http://www.cpdpivot.com>