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

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University of Nevada, Las Vegas

Providence, RI
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Population: 298,800
1000 sworn – 125 civilian personnel

2016 Violent Crime Rates
Per 100,000

<table>
<thead>
<tr>
<th>City</th>
<th>Violent Crime Rate</th>
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<tbody>
<tr>
<td>National</td>
<td>386.3</td>
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<tr>
<td>Columbus</td>
<td>521.7</td>
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<tr>
<td>Louisville</td>
<td>675.8</td>
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<td><strong>Cincinnati</strong></td>
<td><strong>910.1</strong></td>
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</tbody>
</table>
Cincinnati Shootings

Average 410
+2 StDev 459
Violent Crime Clusters
(23 micro-locations)

Systemically Violent Locations: Identified 29Dec15
**Systematically violent locations identified using shooting, robbery, gun offenses, 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 6+ adjacent cells (100x100') of concentrated gun violence.
<table>
<thead>
<tr>
<th>Square Miles</th>
<th>Part I Crimes</th>
<th>P1 Violent Crimes</th>
<th>Shooting Victims</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.4%</td>
<td>14.4%</td>
<td>25.7%</td>
<td>42.6%</td>
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</tbody>
</table>

- **Systemically Violent Locations**
- **All Other Locations**

The data highlights a significant increase in violent crimes in systemically violent locations compared to all other locations, with a shooting victim rate that is 40 times higher.
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
Violent Networks
4 Types of Crime Places
(Madensen & Eck, 2013)

- **Comfort Spaces**
  - Hammer, 2011

- **Crime Sites**

- **Corrupting Spots**

- **Convergent Settings**
  - Felson, 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

Rockdale Ave
Hutchins Ave
Lexington Ave
Forest Ave
Reading Rd

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
Place Network Investigation

- **Crime Site** – Most violent proprietary location in Avondale neighborhood
- **Convergent Settings** – Lincoln Statue, Lexington Supermarket
- **Comfort Spaces** – Specific apt. units, Nearby residences
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

1. Leave apartment
2. Pick-up product
3. Distribute product
4. Money drop-off
5. Hang out/eat
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7. Avoid police patrol
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14. Seek shelter
P.I.V.O.T.
Place-based Investigations of Violent Offender Territories

Identify Locations

Places

Offenders

Disrupt Networks

Sustain Reductions

SCANNING

ANALYSIS

RESPONSE / ASSESSMENT
<table>
<thead>
<tr>
<th>City Planning</th>
<th>Buildings &amp; Inspections</th>
<th>Community &amp; Economic Development</th>
<th>Health Department</th>
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<tbody>
<tr>
<td>Fire Department</td>
<td>Law Department</td>
<td>Environment &amp; Sustainability</td>
<td>Public Services</td>
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<tr>
<td>Transportation &amp; Engineering</td>
<td>Keep Cincinnati Beautiful</td>
<td>Cincinnati Recreation Commission</td>
<td>Parks Department</td>
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<tr>
<td>Community Partnering Center</td>
<td>Port Authority</td>
<td>Community Development Corporations</td>
<td>Local Community Councils</td>
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</table>

Neighborhood Enhancement Program
P.I.V.O.T.
Place-based Investigations of Violent Offender Territories
East Westwood: Place Network

Baltimore / McHenry Place Network Identification

- **Place Type**
  - Crime Site
  - Convergent Setting
  - Corrupting Spot
  - Comfort Place
  - Available Comfort Space

- **Legend**
  - Red: Crime Site
  - Orange: Convergent Setting
  - Blue: Corrupting Spot
  - Green: Comfort Space

Source: CPD Investigative Intelligence; Keo Cincinnati Beautiful
Westwood: Place Network
Gun Violence Metric
Weighted by incident type and data source

- Shooting Incidents: 20 pts
- Robberies: 10 pts
- Gun Offenses: 5 pts
- Shots Fired Calls-for-Service: 1 pt

RMS
CAD
Gun Violence Metric
Weighted by distance and time

Dataset

- 0 – 27.9 days ago = $1.0 \times$ weight
- 28 – 55.9 days ago = $0.8 \times$ weight
- 56 – 111.9 days ago = $0.6 \times$ weight
- 112 – 167.9 days ago = $0.4 \times$ weight
- 168 – 224 days ago = $0.2 \times$ weight
Site #1: East Westwood

Overall Trends

Rest of city = - 8.7%
E. Westwood = - 88.9%
Site #2: Westwood

Overall Trends

Rest of city = - 7.9%
Westwood = - 71.4%
East Westwood

Weekly Shooting Offenses: Baltimore / McHenry

1 year, 22 days

days without a shooting
Weekly Shooting Offenses: Harrison / McHenry

271 days without a shooting

160 days without a shooting
Implementation: Success & Failure

City Commitment & Resources
• Politics – Time for implementation
• Leadership turnover

Legal & Academic Partners
• Lack of legal competency in place litigation
• Limited availability/Disinterest in research/No crime analysis

Deployment Resources
• Inadequate staffing levels
• Relegated to “specialized” unit

Intelligence Resources
• Fail to assign “elite” investigators
• Expense (CIs, equipment)

Training (Agency buy-in)
• Time/expense/expertise
• “Hug a thug”
Current/Future Efforts...

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

<table>
<thead>
<tr>
<th>Investigation Phase/Step</th>
<th>Community (UC)</th>
<th>Executive Team (PSD)</th>
<th>Analyst (CA)</th>
<th>Command Staff (BC, CIC, OC, CEC, IC)</th>
<th>Officers (PO, SO)</th>
<th>Dispatch (CC)</th>
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<td>Review problems</td>
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<td>Assign problems</td>
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<td>Develop goals/Measures</td>
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<td><strong>Investigative Process</strong></td>
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<td>Select investigative teams</td>
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<td>Lead investigative teams</td>
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<td>Report investigative process</td>
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<td>Review investigative process</td>
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<td>Gather Plus One data</td>
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<td>Extend investigative phase</td>
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<td>Review policy/procedure</td>
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<td>Identify interventions</td>
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<td>Develop action plan</td>
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<td>Approve action plan</td>
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<td>Produce Crime Bulletin</td>
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<td>Implement action plan</td>
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<td>Perform Plus One interventions</td>
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<td>Conduct Plus One analysis</td>
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<td>Obtain community input</td>
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<td>Report/monitor impact</td>
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<td>Produce evaluation reports</td>
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<td>Review evaluation findings</td>
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**Legend**
- APC: Assistant Police Chief
- BC: Bureau Commander
- CA: Crime Analyst
- CC: Communication Center
- CEC: Community Engagement Commander
- CIC: Criminal Investigations Commander
- IC: Inspections Commander
- OC: Operations Commander
- PC: Police Chief
- PO: Police Officer
- PSD: Public Safety Director
- SO: Security Officer
- UC: University Community/Partners
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