Collecting Prospective Longitudinal Data at Crime Hot Spots

Brian Lawton
George Mason University

Conventional Criminology: Who Done It?

APART FROM ILLITERACY, LOW SELF ESTEEM, HOMELESSNESS, POVERTY AND A BROKEN HOME I CAN'T FIND ANY REASON FOR HIS OFFENDING BEHAVIOUR!

IT'S A MYSTERY!
New Area of Criminology that Asks: Where Done It?

“Location, location, location.”
The Criminology of Place and Hot Spots of Crime: Micro Geographic Units of Analysis

### The Street Segment (Sherman and Weisburd, 1995)

- 10th Ave.
- 11th Ave.
- 12th Ave.
- Oak St.
- Maple St.
- Spruce St.

### Cluster-- Street Segments (Weisburd et al., 2006)

![Map of crime hot spots]

**Key Findings in the Criminology of Place**

- Crime at very small units of geography is very concentrated at crime hot spots. “The Law of Concentrations”
- These hot spots of anti-social behavior are relatively stable over time, suggesting important potential for interventions to have long term influences on crime.
- At the same time there are differing developmental trends of crime at place. (crime waves and crime drops)
- These places have identifiable attributes that make them highly predictable and which provide opportunities for better understanding and more effectively ameliorating crime.
What we know

The Law of Concentrations of Crime at Place (Seattle)
Hot spots are Spread Throughout the City Landscape
So where are we now?

The First Prospective Longitudinal Study of Crime at Place

What we need to know

- Prior studies have been restricted by the retrospective nature of data collection
  - Many characteristics of places cannot be identified retrospectively.
  - There are few data sources available on the people who live in hot spot areas, or their attitudes and experiences.
  - The census which could provide important information, does not allow release of data at micro geographic levels such as street segments.
- Prior studies do not allow us to establish causality because data points are limited and often not consistent.
Prospective Longitudinal Studies would Answer Key Questions

- How does living in a crime hot spot affect individuals, and do different types of hot spots affect individuals in different ways?
  - For example, do people who live in drug hot spots as compared with predatory crime hot spots and places without persistent crime or drug problems experience fear, physical and mental health problems, and safety risks in the same way?
- What structural factors are correlated with places being crime hot spots, and do different types of hot spots have different factors that are correlated with crime?
- And just as important, what risk and protective factors, if any, predict developmental trends related to areas becoming associated with crime?
  - For example, are streets with insufficient levels of collective efficacy and residential stability, and high levels of public disorder at greater risk of becoming predatory crime or drug crime hot spots?
  - Are streets that are typified by facilities that attract potential victims (e.g. public libraries, schools, or malls), or that have transportation nodes that facilitate movement of victims and potential offenders more likely to become crime hot spots?

Study Design

The Baltimore Longitudinal Study of Drug and Crime Hot Spots
Drug Hot Spots: 1% of street segments account for 1/3 of all Emergency Calls for drug crime.

Sample

- 125 drug hot spots
  - Mean number of emergency calls for drug crimes across these segments was 36.94 (median 28.5).
  - Average number of total emergency calls for street segments in this group was 105.81 (median 55.5).
- 125 predatory crime hot spots
  - Mean number of emergency calls for predatory crime is 25.47 (median 22.0).
  - The average number of emergency calls per segment overall was 113.54 (median 99).
- 50 hotspots with both high predatory and high drug crime
  - Mean number of emergency calls for drug crime is 44.92 (median 36.0)
  - Mean number of emergency calls for predatory crime is 31.72 (median 28.5).
  - The average number of emergency calls per segment overall was 213.98 (median 180.5).
- 150 “cool” spots
  - The mean number of drug calls would be 1.86 (median 1)
  - Average number of predatory crime calls 3.98 (median 3).
**Data Collection: Survey of Households**

- Survey of Households
  - 3 waves, with 10 cases per street segment per wave. (4500 interview per wave.)
  - Face to face interviews.
  - The survey instrument contains a broad range of variables related to the topics of health, safety, drug use, community involvement and crime.

<table>
<thead>
<tr>
<th>Drug Hot Spots</th>
<th>Pedestrian Hot Spots</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Overall Health</td>
<td>2.10</td>
</tr>
<tr>
<td>Health Problems</td>
<td>2.00</td>
</tr>
<tr>
<td>Any Illegal Drug Use</td>
<td>0.03</td>
</tr>
<tr>
<td>Of Felt High Drug Use</td>
<td>18.13</td>
</tr>
<tr>
<td>Frequency of Drinking Alcohol In an Average Week</td>
<td>1.02</td>
</tr>
<tr>
<td>N</td>
<td>11</td>
</tr>
</tbody>
</table>

**Data Collection: Physical Observations**

- We also will collect information concerning the physical layout and architectural attributes of the street segments in order to better understand the relationship between the physical environment and behavioral patterns in hot spots.
- The physical observation instrument will have a number of focus areas.
  - visual indicators of drug activity (drug paraphernalia) and prostitution (e.g. condoms on the street).
  - measures of broader signs of physical disorder, such as burned-out or abandoned buildings, litter, graffiti, broken windows, structural damage and abandoned vehicles.
  - observations will be collected of known ecological risk factors for anti-social behavior (e.g. bars, transportation nodes).
  - information concerning the amount and nature of commercial establishments, industrial buildings, and residential structures will be collected.
Data Collection: Archival Data

| Table 2: Archival Data Available at Individual, Address or Street Segment Level |
|---------------------------------|----------------------------------------|
| **Agency Name**                 | **Data Available**                     |
| Baltimore City, Office of Information Technology | Commercial Property (current market value, assessed value, number of units, etc.) |
| | Residential Property (current market value, assessed value, number of units, etc.) |
| Open Baltimore                  | City Street Fire, County Boundaries, and Block Boundaries |
| Baltimore City, Transportation | Street lighting                        |
| | Maintenance/Highways           |
| Real Property search engine     | Property addresses for Baltimore City, date sold, date purchased |
| Baltimore City, Public Schools  | Student achievement, residency data, (data request required) |
| | Health Department              |
| | Housing Authority of Baltimore |
| | MTSSA                          |
| | | Business licenses, employees, revenue |

Data Collection: Qualitative Field Studies

- Qualitative data collection for this project includes:
  - ecological mapping
  - direct observation of street segments (including the businesses, individuals and groups within them)
  - and in-depth, semi-structured interviews.
- We will first choose a random sample of 50 street segments from each of the three study groups, for a total of 150 street segments.
Data Collection: Systematic Social Observations

- Prosocial activities
- Pedestrian activities
- Indicators of disorder
- Social atmosphere of the block
- Street conditions
- Events that occur during the observation period
  - Public disorder and anti-social behavior
  - Guardianship

Schedule

- Physical Observations- In progress
- Qualitative Research- Beginning next week
- Survey Collection- Beginning in August
- Systematic Social Observations- Beginning in August
Impact of Findings

- Trends of these segments
  - Indicators of when a segment is improving/worsening

- Link between crime and health concerns
  - Role for other services to play a part
    - Health care
    - Emergency services

- Consider other measures of improvement other than those related to crime

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David Weisburd, Co-PI (George Mason University)
Brian Lawton, Co-PI (George Mason University)
Amelia Haviland (Carnegie Mellon University)
Justin Ready (Arizona State University)
Danielle Rudes (GMU)
Kathy Sikkema (Duke)
Andrea Cantora (University of Baltimore)