

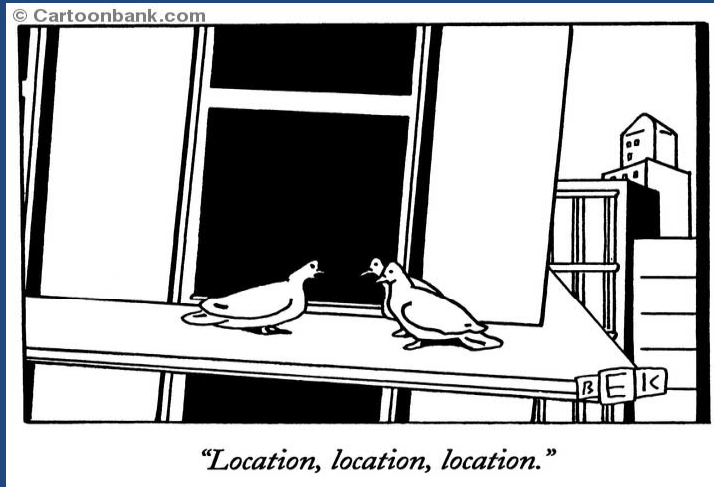
Collecting Prospective Longitudinal Data at Crime Hot Spots

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Conventional Criminology: Who Done It?



New Area of Criminology that Asks: Where Done It?

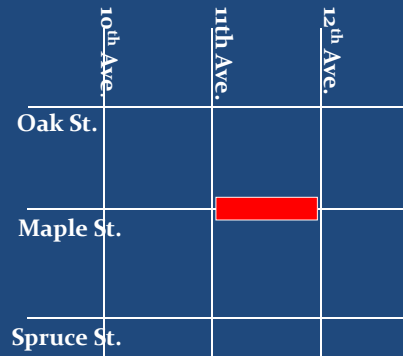


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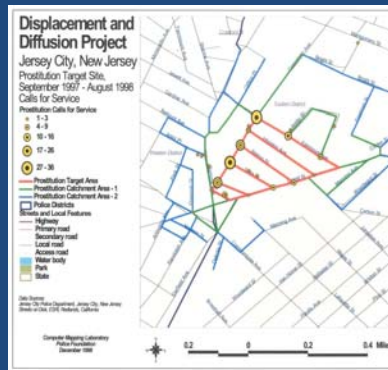


The Criminology of Place and Hot Spots of Crime: Micro Geographic Units of Analysis

The Street Segment (Sherman
and Weisburd, 1995)



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

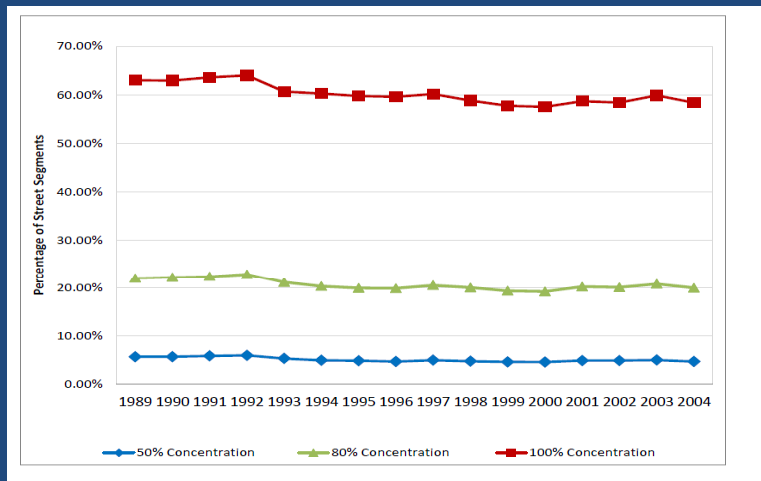


Key Findings in the Criminology of Place

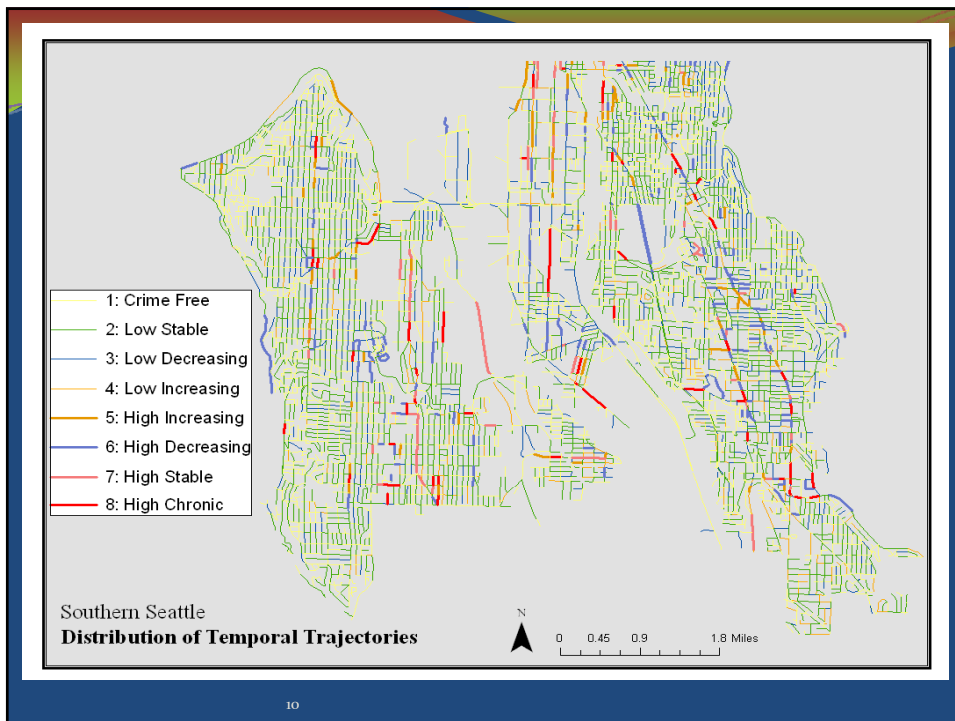
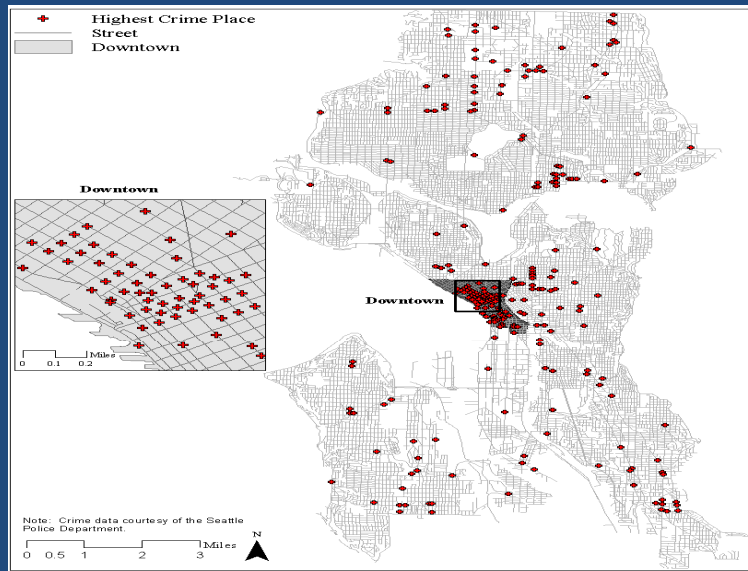
- Crime at very small units of geography is very concentrated at crime hot spots. “The Law of Concentrations”
- These hot spots of anti-social behavior are relatively stable over time, suggesting important potential for interventions to have long term influences on crime.
- At the same time there are 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

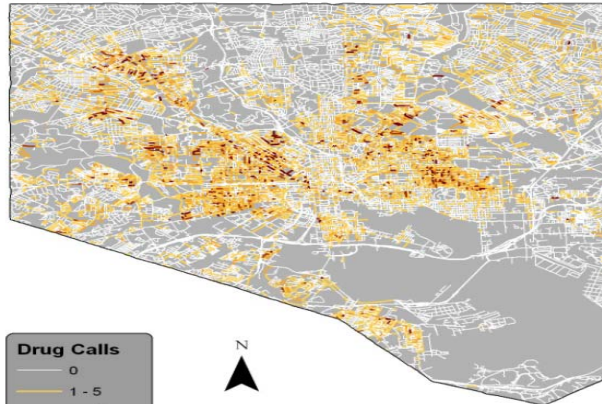
- How does living in a crime hot spot affect individuals, and do different types of hot spots affect individuals in different ways?
 - For example, do people who live in drug hot spots as compared with predatory crime hot spots and places without persistent crime or drug problems experience fear, physical 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.

Figure 1: Narcotics Related Calls for Service:
Baltimore City, 2008



Data Source: Baltimore PD, 2008

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 95.5).
- 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 1: Selected Pilot Study Results

	Drug Hot Spots		Predatory Hot Spots	
	Mean	SD	Mean	SD
Overall Health	2.18	1.33	1.30	0.48
Health Problems	2.36	4.97	0.40	0.70
Any Illegal Drug Use	0.64	0.50	0.60	0.52
Age of first Illegal Drug Use	16.13	7.42	18.50	4.72
Frequency of Drinking Alcohol in an Average Week	1.82	2.32	1.44	1.59
N	11		10	

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
Department of Assessments and Taxation (SpecPrint)	Commercial Property (owner, assessed value, number of units, etc.) Residential Property (owner, assessed value, number of units, etc.)
Maryland Department of Planning FINDER database: MdProperty view	Airports, Bus stations/ other mass transit, Commercial and Industrial Property use codes and descriptions, Civic organizations, Community centers, Detention centers, Fire departments, Historic areas, Hospitals, nursing homes, other medical facilities, Hotels, Housing authority properties, Housing types (apartment, high rise, townhouse, subsidized apartments), Libraries, Liquor stores, Museums, Parks, Parking lots/ garages, Police Stations, Rail lines, Rail stations, Recreation center, Residential housing (number of dwellings, type of construction), Restaurants, bars, and taverns, Retail stores, Schools, Shopping areas, Street maps, Universities, Zoning boundaries
Baltimore City Office of Information Technology	City Street File County Boundaries Tract, Block group and Block Boundaries
Baltimore City Transportation/Maintenance Division	Street lighting
Open Baltimore	311 Service requests
Baltimore Department of Planning	Churches/School Locations Commercial Properties Land Use
Real Property search engine	Property addresses for Baltimore City, date sold, sale price
Baltimore City Public Schools	Student achievement Truancy data (Data request required)
Aristotle.com	Voter registration data
Baltimore City Health Department	Infectious Disease Data , Risk Factors, Substance Abuse , Youth Health (Data request required)
Housing Authority of Baltimore City	Housing Code Violations Section 8 housing Vacant buildings
InfoUSA	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

Collecting Prospective Longitudinal Data at Crime Hot Spots

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