

Disorder and Crime in Chicago Community Areas

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Broken Windows Theory

- Posits that minor levels of disorder and subsequent higher crime levels are related (Wilson and Kelling, 1982)
 - Types of disorder: physical and social
 - Disorderly conditions break down informal social control
 - Implies a causal relationship – Disorder → Crime
 - Questions exist about the mechanism of this relationship and the veracity of the theory

Policing Strategies

- Order maintenance, disorder, broken windows, stop and frisk
- Idea that a department can prevent serious crime from occurring by stopping less serious ones
 - New York City
- Concerns with disproportionate impact on minority communities



Current Study

- How does disorder present itself in neighborhoods that have crime rates above and below the median rate in the city of Chicago?
- Goal is to see how disorder varies in its presentation in areas with more crime and less crime and which factors are correlated
- Adds to conversation surrounding the basis of certain policing strategies

Variables Defined

- Crime:
 - Index crimes collected from Chicago Police Department, provides data for all 77 community areas from the past year
- Disorder:
 - Both physical and social disorder types are measured via a pretested, accepted definition from Odgers et al. (2009)
 - “Is there any evidence of people (2 or more) loitering on the street (just hanging out or congregating for no apparent reason)?”
- Community Areas:
 - 77 geographic areas similar to neighborhoods that have been historically used by the Chicago Metropolitan Agency for Planning

Methodology

- Sample of 10 community areas by crime numbers (CPD)
 - Stratified by crime data, allows equal view of more and less crime areas
 - 10 face blocks selected from each for a total of 100
- Virtual street audit using Google Street View and 61 item disorder inventory (Sampson & Raudenbush 1999; Odgers et al., 2009)

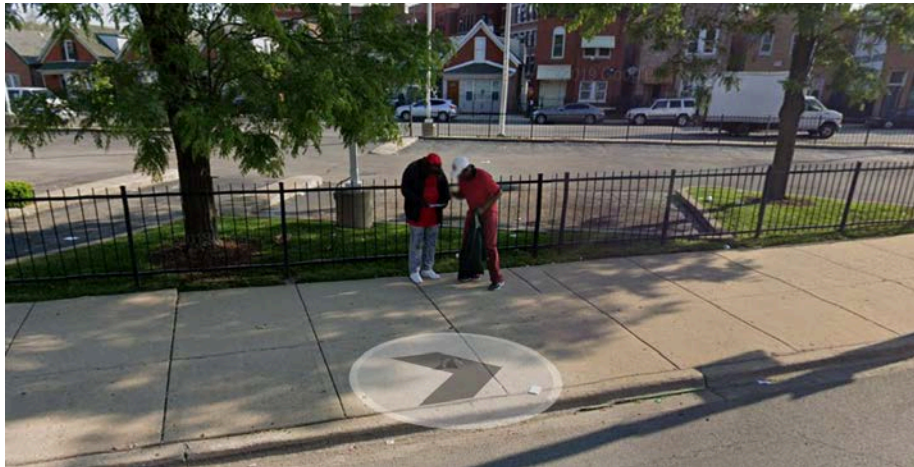


Table 1. Descriptive Statistics			
Variables	Mean	SD	Range
Street Features			
Condition	2.64	0.054	1-3
Outdoor Lighting	0.77	0.042	0/1
Number of Present Street Features	0.96	0.091	0-4
Sidewalk Features			
Condition	2.63	0.060	1-3
Physical Disorder			
Strewn Garbage	1.68	0.082	1-4
Abandoned Cars	0.03	0.017	0/1
Graffiti	0.13	0.34	0/1
Graffiti Painted Over	0.06	0.24	0/1
Vandalized Signs	0.03	0.017	0/1
Amenities			
Street Amenities Present	0.23	0.042	0/1
Number of Public Courtesies Present	0.44	0.095	1-5
Residential Units			
Condition	2.53	0.089	0-3
Garden Condition	2.23	0.010	0-3

Variables	Mean	SD	Range
Commercial and Residential Land Use			
Number of Institutions Observed	0.21	0.052	1-7
Condition of Commercial Units	0.73	0.120	0-3
Recreational Facilities			
Number of Facilities Present	0.16	0.062	1-10
Condition	0.2	0.072	0-3
Vacant Lots			
Condition	0.5	0.0916	0-3
Overall Condition of Neighborhood			
Safe Place to Live	3.81	0.116	1-5
Safe Place to Walk	3.42	0.122	1-5
Characterized By	2.75	0.11	1-5
People			
Are any Children Visible	0.288	0.063	0/1
Is There any Evidence of Loitering	0.192	0.055	0/1

Table 1. Selected Descriptive Statistics			
Variables	Mean	Standard Deviation	Range
Physical Disorder			
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Abandoned Cars	0.03	0.017	0/1
Graffiti	0.13	0.34	0/1
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Statistical Analysis (Stata)

- Ran correlations between crime rates and disorder measures
- Also ran t-tests between crime rates and disorder to test whether any observed difference in the means between above median crime and below median crime neighborhoods was statistically significant

Correlations Tests and T-Tests show that...

- Correlations find:
 - Weak correlations between visual indicators of disorder and high crime
 - While weak, the correlations were in the expected direction
 - Moderate correlations found between perception based indicators and crime
- T-tests reveal:
 - There are significant differences between higher crime neighborhoods and lower crime neighborhoods when looking at a variety of the indicators
 - Street features, graffiti, litter, condition of vacant lots, loitering, perception-based questions

Implications and Concluding Remarks

- Results show that the perceptions of the observer matter more than the actual disorder measures present
- This is important in the context of the policing strategies mentioned earlier
 - Based on idea that correlation between disorder and crime is strong