Analyzing Crime Displacement & Diffusion

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“We know that they (offenders) will go to other places to commit crime, but as long as it is outside of our jurisdiction, we don’t care.”

Police Officer
Forms of Displacement

• **Crime displacement** - the shift of crime due to the preventive actions of the individual or society; five types:
  - Spatial
  - Temporal
  - Target
  - Tactical
  - Offense

• Sometimes a 6\textsuperscript{th} is id.ed: Perpetrator or Offender
Displacement reversed

• **Diffusion of benefits** - the opposite of displacement.
  • “the spread of the beneficial influence of an intervention beyond the places which are directly targeted, the individuals who are the subject of control, the crimes which are the focus of intervention or the time periods in which an intervention is brought” (Clarke & Weisburd, 1994: 169).
Table 1: The Extent of Displacement and Diffusion by Type

<table>
<thead>
<tr>
<th>Type</th>
<th>Examinations Frequency (%)</th>
<th>Displacement</th>
<th>Diffusion of Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency (%)</td>
<td></td>
<td>Frequency (%)</td>
</tr>
<tr>
<td>Spatial</td>
<td>272 (47%)</td>
<td>62 (23%)</td>
<td>100 (37%)</td>
</tr>
<tr>
<td>Offense</td>
<td>140 (24%)</td>
<td>36 (26%)</td>
<td>22(16%)</td>
</tr>
<tr>
<td>Target</td>
<td>80 (14%)</td>
<td>26 (33%)</td>
<td>19 (24%)</td>
</tr>
<tr>
<td>Tactical</td>
<td>49 (9%)</td>
<td>11 (22%)</td>
<td>6 (12%)</td>
</tr>
<tr>
<td>Temporal</td>
<td>31 (5%)</td>
<td>11 (36%)</td>
<td>5 (16%)</td>
</tr>
<tr>
<td>Total</td>
<td>572</td>
<td>146 (26%)</td>
<td>152 (27%)</td>
</tr>
</tbody>
</table>

¹ Column percentages are reported (e.g., percent of the overall number of inspections (n = 572).
² Row percents are reported (e.g., percent of those inspections of specific displacement/diffusion type).
³ Does not equal the number of studies in the review (i.e. 102) since several studies examined multiple forms and multiple inspections of displacement/diffusion.

Source: Guerette and Bowers (2010).
Predictors of Displacement

- Extent of displacement is determined by three factors:
  1. Offender motivation
  2. Offender familiarity
  3. Crime opportunity
Offender Motivation

Opportunistic Offenders
(94 percent)

Chronic/ Career Offenders
(6 percent)
Figure 1: Familiarity Decay and Crime Displacement

Level of Displacement

High Opportunity Familiarity  Low Opportunity Familiarity

Crime
Thus, displacement may not occur since:

• Offenders “how to” knowledge is bounded.
• Offenders less likely to offend when unfamiliar conditions exist.
• Motivated offenders will have learning and search curve, that takes time.
• Opportunistic offenders are likely to desist from crime.
• Some offenders have “time windows” to commit crime.
• Illicit markets often informally regulated (i.e. turf zones).
Types of Displacement

• Benign displacement –
  • the argument that changes from displacement may benefit society.

• Malign displacement –
  • idea that efforts aimed at reducing crime may prompt an increase in offending or result in more serious consequences.
Forms of Benign Displacement

• The crime shift is less in volume.

• Crime shift is less serious (such as the shift to petty thefts from robbery).

• Crime shift is less impactful on the community, which can occur three ways:
  1. The concentration of crime is redistributed across a larger pool of victims.
  2. The crime is transferred away from more vulnerable groups of the population, such as children and the elderly.
  3. The crime is relocated to places where the community impact is less harmful.
Anticipatory Benefits (another form of diffusion)

- the reduction of crime prior to the actual implementation of an intervention.
What this means for you

• Managing Displacement
  • Reduce the harm of crime
  • Protect vulnerable populations
  • Shift the impact of crime

• Look for Diffusion of Benefit Effects
Figure 1. Relationship of Displacement and Diffusion to an Observed Intervention Effect

- Size of Intervention Effect

- Malign Displacement (Intervention Effect Outweighed by Displacement)
- Benign Displacement (Intervention Effect Eroded by Displacement)
- No Displacement or Diffusion (Intervention Effect Not Influenced by Displacement or Diffusion)
- Some Diffusion (Intervention Effect Amplified by Diffusion)
- Substantial Diffusion (Intervention Effect Surpassed by Diffusion)
Understanding Your Displacement Potential

Analyze

• Offenders
• Location
• Victims

Determine

• Volume of any crime shift
• Severity of that crime
• Level of harm incurred
Figure 2:
Illustration of Response, Displacement/Diffusion Area, and Control Area Used to Determine Spatial Displacement and Diffusion Effects
Figure 3: Illustration of Response, Two Displacement/Diffusion Areas, and Control Area Used to Determine Spatial Displacement and Diffusion Effects in a Field Setting
<table>
<thead>
<tr>
<th>Criterion</th>
<th>Purpose</th>
<th>Rationale</th>
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<tbody>
<tr>
<td>Logical interrelatedness and/or</td>
<td>To ensure the observation is valid.</td>
<td>Reduces risk of false conclusions.</td>
</tr>
<tr>
<td>proximity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proportionate in size</td>
<td>To increase the accuracy of your measures.</td>
<td>Improves detectability.</td>
</tr>
<tr>
<td>Contamination Free (Exclusivity)</td>
<td>To help ensure the observation is an effect of the response.</td>
<td>Helps rule out other possible influences or causes.</td>
</tr>
</tbody>
</table>
Displacement Distances

• Three general categories
  • Proximal
  • Moderate
  • Distal
Measurement Design

Response area
O₁
O₂

Buffer area(s)
O₁
O₂

Control area
O₁

Pre    Post
O₁    X    O₂
O₁    O₂
O₁
Calculating Displacement / Diffusion Effects

• Series of formulas to do this
  • Gross Effect (GE)
  • Net Effect (NE)
  • Weighted Displacement Quotient (WDQ)
  • Total Net Effect (TNE)
  • Weighted Displacement Difference (WDD) allows for significance testing

• https://popcenter.asu.edu/sites/default/files/tools/pdfs/displacement.pdf
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