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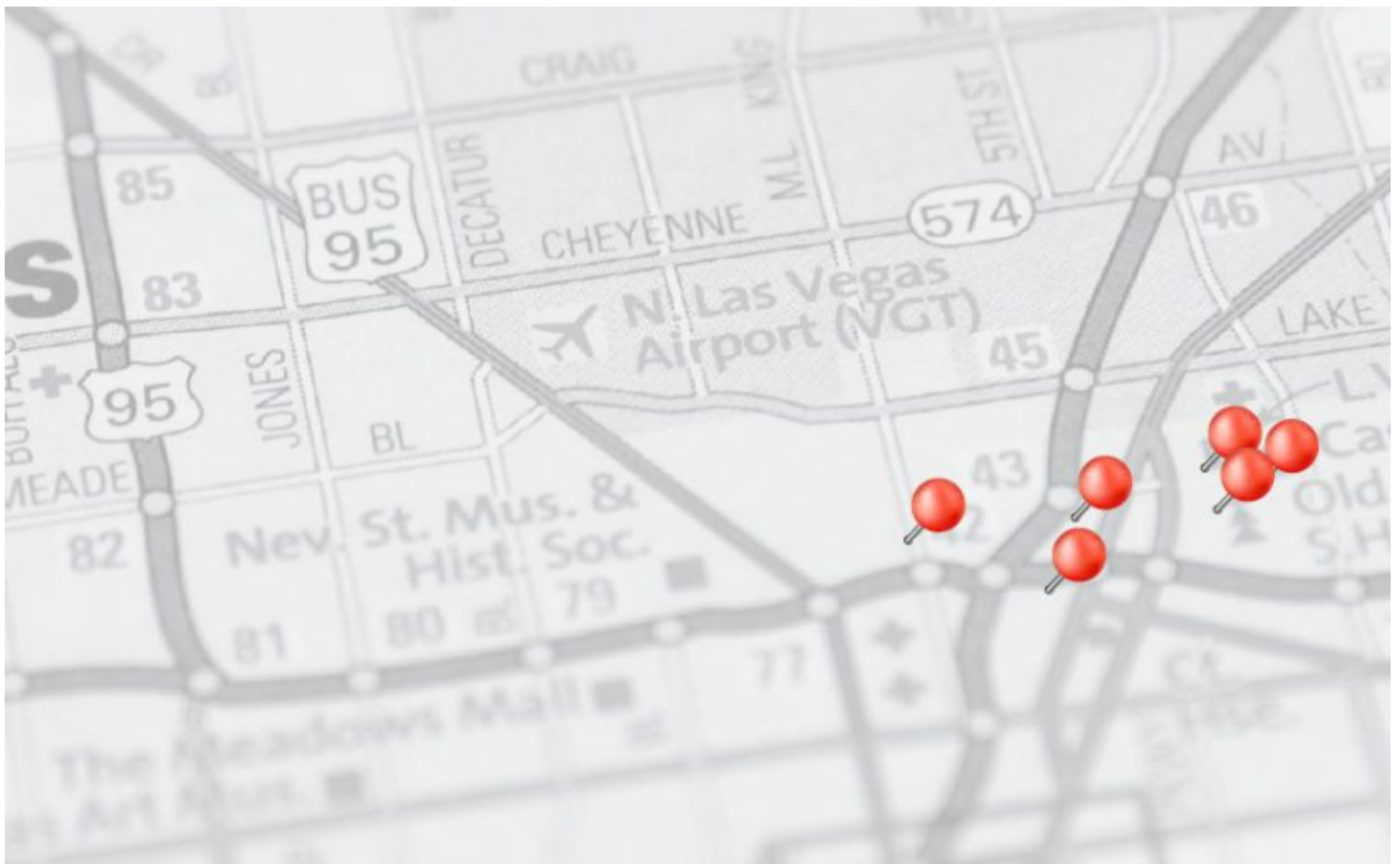
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# Crime Place Networks in Las Vegas

A New Violence Reduction Strategy

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In 2017, the Las Vegas, Nevada, Metropolitan Police Department (LVMPD) adopted a series of interventions designed to reduce gang and gun violence across Las Vegas. In partnership with the International Association of Chiefs of Police/University of Cincinnati (IACP/UC) Center for Police Research and Policy and with evaluation funding provided by the Laura and John Arnold Foundation, the LVMPD implemented three violence reduction strategies: (1) focused deterrence (offender notification sessions); (2) hot spot patrols; and (3) place network investigations (PNI), also known as place-based investigations of violent offender territories (PIVOT), which is the focus here.

## Place Network Investigations

The PNI strategy is grounded in the assumption that crime is not random, and police resources can be directed to disrupt crime concentrations.<sup>1</sup> A large evidence base confirms that crime concentrates across places, victims, and offenders. This evidence has prompted police administrators to adopt focused policing strategies; for example, hot spots policing in high-crime places, initiatives to protect high-risk

victims, and repeat offender deterrence strategies. The importance of the place-crime connection, in particular, is widely acknowledged by both researchers and practitioners. Early research reported that just 3 percent of addresses in Minneapolis, Minnesota, accounted for 50 percent of calls for service in a given year, and this finding has been replicated and supported by decades of subsequent research reporting similar patterns of crime concentrations across multiple types of places and units of analysis.<sup>2</sup>

Researchers and practitioners have had remarkable success in reducing violence by employing focused deterrence strategies that disrupt offender networks. Using social network analysis, police identify and target specific offenders for enhanced deterrence efforts or incapacitation. Research evidence suggests that interventions targeting offender networks can lead to substantial reductions in violence across cities.<sup>3</sup> While police interventions targeting individual high-crime places can significantly reduce incidents of crime at particular locations, recent theoretical advances suggest that, like offenders, places might function together as part of a larger network.<sup>4</sup>

A recent hypothesis proposed by those responsible for developing the PNI violence reduction strategy is that crime place networks provide the “infrastructure” needed to operate illicit markets.<sup>5</sup> Locations that form crime place networks lack effective place management.<sup>6</sup> Violent incidents result from offender interactions that take place at these unmanaged locations as they engage in activities related to the operation of illicit markets (e.g., drug, weapon, or human trafficking).

While crime maps depict places where crime occurs, crime place networks include at least three other types of locations used by offenders that do not always or regularly come to the attention of police. Drawing from recent advances in crime place theory, the PNI strategy attempts to uncover four types of places (known as CS4) that constitute crime place networks:<sup>7</sup>

1. Crime Sites—specific places where crime occurs
2. Convergent Settings—public places where offenders routinely meet
3. Comfort Spaces—private meeting, staging, and supplying locations
4. Corrupting Spots—places that encourage criminal activity in other locations

Given that police data reflect only places where crimes occur (i.e., crime sites), the other three locations in crime place networks—convergent settings, comfort spaces, and corrupting spots—often remain hidden and free of targeted police investigations. Investigations and subsequent efforts to dismantle crime place networks form the basis of the PNI strategy.

## PNI Model Overview

First developed to address shooting and violent crime hot spots in Cincinnati, Ohio, the PNI strategy follows the SARA (scanning, analysis, response, and assessment) model of problem-solving to uncover and address crime place networks.<sup>8</sup>

### Phase One: Scanning (Data Analyses)

In the first phase, analyses are conducted to determine how and where violence, particularly gun violence, clusters across the jurisdiction. In Cincinnati, analysis revealed that more than 40 percent of all shooting victims were shot within 23 geographically small areas, called micro-locations. These micro-locations spanned approximately two square blocks and made up only 1.4 percent of the city's land mass. Further analysis revealed that violent crime and officer injuries were also disproportionately concentrated in these locations.<sup>9</sup>

FIGURE 1: THE SARA MODEL OF PROBLEM-SOLVING



### Phase Two: Analysis (Investigation)

The second phase involves investigations of offender and crime place networks. Offender networks can be investigated and addressed through complementary strategies (e.g., focused deterrence). To identify crime place networks, the PNI strategy requires officers use a wide variety of investigative techniques to uncover offender movement patterns and ownership or management practices in and around known crime sites. For example, interviews with patrol officers, detectives, specialized units (e.g., violent crime, gang, vice, homicide), crime analysts, city and county department personnel, community members, and service personnel (e.g., postal service workers) can identify crime place network locations, their owners, and key players in the offender networks who use these locations. To build civil and criminal cases against place owners, managers, and serious offenders, investigations might require observational activities (e.g., temporary surveillance cameras, site observations, or undercover officers), as well as the use of additional sources of information (e.g., security personnel, management personnel, or labor contractors) and confidential informants.

### **Phase 3: Response (Solutions)**

Once locations within a crime place network are identified, the third phase involves biweekly meetings with a citywide PNI Investigative Board. The PNI Investigative Board consists of representatives from various city departments and community organizations (e.g., fire, traffic and engineering, buildings, health, treasury, parks and recreation, public services, and community improvement organizations). Board members hold leadership roles and can leverage resources within their respective departments and organizations. Police investigators present their findings to the board, and members provide additional information about the identified locations from their respective departments/agencies. The PNI Investigative Board can dismantle the place network through various means, including using legal remedies to revoke business licenses; requiring new management practices; mandating employee training; ordering owners into court-mandated receivership; requiring changes to the physical design of a building; or, ultimately, ordering complete property abatement. The board can also prioritize city resources to more quickly

address crime-facilitating places (e.g., schedule building demolitions, reroute traffic patterns, or initiate redevelopment projects) and disrupt crime place networks.

A coordinated all-city response provides additional leverage, resources, and intervention options to effectively dismantle deeply entrenched crime place networks—the sources of persistent and chronic crime hot spots. PNI interventions block crime activities by changing the way in which places are managed and used. Interventions might involve altering parking restrictions or traffic patterns along a road commonly used in drive-by shootings or seizing and repurposing a corner store laundering money for a violent drug market. A focus on place networks, rather than individual crime sites, roots out the larger infrastructure offenders retreat to and then reemerge from once police resources are deployed elsewhere.



#### **Phase 4: Assessment (Monitoring)**

Once the crime place network has been dismantled (i.e., opportunities for violence have been blocked or place dynamics that facilitate violence have been altered at identified locations), phase four begins. In phase four, crime levels continue to be monitored, community resources are organized by the PNI Investigative Board or other local community councils and organizations, and organic neighborhood-led redevelopment can begin in the absence of persistently high levels of violence. This redevelopment makes the reestablishment of crime place networks less likely with the introduction of additional or more effective management at nearby places.

## **PNI Similarities and Differences to Other Approaches**

The PNI violence reduction strategy is similar to other successful problem-focused policing projects in at least three ways. First, PNI focuses attention on a specific problem (e.g., shootings) and calls for detailed analysis of place conditions that

facilitate similar harmful events.<sup>10</sup> Second, PNI focuses attention on criminogenic places. A vast body of evidence suggests that a small number of risky facilities or individual crime generators and attractors account for the majority of crime in any hot spot.<sup>11</sup> Third, the PNI strategy also promotes “shifting and sharing of responsibility” for solving crime problems.<sup>12</sup> Place managers are held accountable for harms that occur on their properties. Responsibility is also shifted to “super-controllers” who control local government resources.<sup>13</sup> Like most other successful crime reduction initiatives, the success of PNI requires strong law enforcement leadership and participation on the part of local government.<sup>14</sup>

However, the PNI strategy is also different from traditional policing strategies in at least three ways. First, this is one of the first place-based strategies to acknowledge that violent micro-locations are dangerous places for police. In Cincinnati, officer injuries and suspect behaviors that led to officer injuries (e.g., resisting arrest) were disproportionately concentrated in the identified violent micro-locations. Thus, persistently violent hot spots are risky for both residents and officers who respond to these locations. Second, PNI focuses on how places function as crime-facilitating networks. Long-term crime reduction is achieved by dismantling the entire physical infrastructure used by offenders, beyond places where crime occurs (crime sites). Trained investigators uncover connected networks of offender-used places that cannot be identified through calls-for-service analysis alone. These places include public and private locations used by offenders to plan and carry out crime (convergent settings and comfort spaces), as well as businesses that facilitate crime markets (corrupting spots). Third, PNI leverages all city resources to dismantle crime place networks. Championed by the mayor or city manager, PNI investigators regularly present their findings to other city department managers (e.g., representatives from departments like traffic and engineering and buildings and inspections) and the city solicitor, who can often be much better suited to design and implementation of place-focused crime prevention interventions than police.

In Cincinnati, two PNI pilot sites experienced significant reductions in violence during the first year (over 89 percent in the first site and 71 percent in the second site), and the Cincinnati Police Department reports that violence remains historically low in these areas more than three years after intervention. By 2017, the PNI strategy had been implemented in three additional sites in Cincinnati. Analyses revealed that,



across all five sites, the number of shooting victims declined by 72.46 percent over a two-year period, with 69 shooting victims reported during the pre-evaluation 24-month period and 19 shooting victims reported during the post-evaluation 24-month period.<sup>15</sup>



Given Cincinnati's initial promising results, the LVMPD command staff elected to pilot test the PNI strategy in a single location and committed to assigning an investigative unit to the project for a minimum of 12 months. Command staff, in consultation with Director of Crime Analysis Patrick Baldwin, selected a project site within the bureau's Northeast Area

Command (NEAC) for PNI implementation. The site selected for the primary focus on the intervention encompassed a specific condominium complex, small strip mall that housed a convenience store, and nearby multifamily unit housing. This site was selected for the following four reasons:

1. The location was considered a persistent hot spot within the NEAC.
2. A gang shooting involving a 16-year-old recently occurred at the complex and received considerable media and public attention.
3. The NEAC captain had strong relationships with internal and external partners who could assist with the project, including the county commissioner.
4. Other social services projects being conducted in the area (e.g., Pathway from Poverty) were seen as complementary to PNI objectives, and personnel believed these resources could be leveraged to achieve long-term sustainability in crime reductions.

The NEAC captain assigned her FLEX (Flexible Deployment) team to implement the PNI strategy and serve as the primary investigative unit. The LVMPD PNI unit consisted of a supervisory sergeant, with extensive investigative experience, and a team of officers. Typically, four to six officers were assigned at any given time to the unit. As personnel changes were made during the duration of the project, officers

were selected based on their desire to gain investigatory experience and interest in learning to conduct place network investigations. The PNI unit sergeant and his team provided regular briefings to the NEAC captain.

Researchers from the IACP/UC Center arranged to provide technical assistance and training to LVMPD's PNI investigative unit. An introductory training for investigators and internal and external partners (e.g., LVMPD's Special Investigations Section and Parole and Probation) was conducted in April 2018. The introductory training covered general place-crime principles and evidence supporting the use of PNI, as well as examples of



investigation techniques and partnerships found to be effective in addressing crime-facilitating dynamics at places. Ongoing training and assistance were provided on a biweekly basis in the form of on-site meetings or telecommunication with strategy experts and police personnel involved in Cincinnati Police Department's PNI implementation. This assistance provided the LVMPD PNI unit with information regarding effective place network investigatory tactics and evidence-based place interventions associated with violent crime reduction.

Under the direction of Captain Nichole Splinter and, subsequently, Captain Jamie Prosser, the LVMPD PNI unit uncovered the crime place network linked to the targeted hot spot. Although project limitations did not permit the LVMPD to establish a fully operational PNI Investigative Board, the investigative team and NEAC captains regularly met with stakeholders to leverage additional resources.

## **Early PNI Results**

A program review was conducted by the IACP/UC Center for Police Research and Policy under the direction of the center's director, Dr. Robin Engel. The review documented the investigative and enforcement and compliance tactics used by the LVMPD PNI unit at the pilot site. Although not exhaustive, this review identified four general investigative and response activities:

- surveillance and intelligence gathering
- external agency coordination and partnership building
- effecting changes to physical locations and place management practices
- enforcement actions

Numerous surveillance and intelligence gathering methods were used to uncover an existing crime place network. Direct site observations were conducted through overt and covert surveillance. Resident and business owner or manager interviews and surveys were conducted throughout the project period. Sources of information (e.g., postal workers, security personnel) and confidential informants were used to gather additional place-specific intelligence. Calls placed by arrestees in detention facilities and social media sites were monitored. Persons arrested in the PNI site were later interviewed by investigators. Property and crime data records were analyzed to identify place-offender connections. Phone records and GPS monitoring were used to analyze offenders' movement patterns between locations. Intelligence bulletins were created to facilitate information sharing between internal LVMPD personnel and units.

Coordination with external agencies generated additional intelligence concerning offenders and places in the PNI site. PNI investigators worked with the Gaming Control Board, Business Licensing investigators, and other personnel to investigate local business practices. Additional intelligence was gathered through meetings with Internal Revenue Service investigators, Housing and Urban Development representatives, the state attorney general's office, and Nevada Real Estate Division personnel. Coordination with a local constable led to resident education concerning eviction rights to stem illegal eviction practices.

Physical and place management changes were made to alter dynamics in crime place network locations. Additional cameras, license plate readers, additional lighting, removal of business window obstructions, and new access controls were added to network locations. In partnership with homeowners association (HOA) representatives, PNI investigators assisted in making substantial changes to the condominium bylaws. HOA bylaws were revised to require owners to provide updated tenant information 10 days prior to move-in, and new regulations instituted a \$5,000 fine leveraged against owners of properties subjected to SWAT raids that found evidence of illegal activities.

Enforcement action was taken against known offenders, as well as businesses and property owners or managers of places identified as part of the crime place network. A case was built and filed against a problematic property manager who facilitated illegal activities across multiple housing units. Controlled drug buys identified key offenders operating in the area. Targeted arrests were made as a result of operations with Parole and Probation. Businesses were cited and fined for illegal practices. Surveillance operations with internal (e.g., Special Investigations Section) and external (e.g., Gaming Control Board) partners led to citations for health violations and illegal security practices.



The number of gun-related crime incidents documented during the treatment period (May 1, 2018–April 30, 2019) were compared to the number of gun-related crime incidents that occurred during the year prior to the intervention. The 12-month to 12-month comparison allowed the analysis to control for seasonal effects. Post-intervention changes in the number of crime incidents (a reduction of 39.1 percent in the 12-month post-intervention period) suggest that the PNI strategy contributed to a decrease in gun-related violent crime at the targeted site. Additional data provided by PNI investigative personnel show that crime at the pilot site has continued to decrease over time, with no gun-related violent crimes reported between mid-September 2019 and the time at which this article was written (mid-March 2020).

## **Future Directions**

While emergency crises such as pandemics, natural disasters, terrorism activities, and other immediate threats may alter the focus of first responders to meet emerging needs, community violence has been and will remain a significant concern both during and subsequent to these situations. With potentially fewer resources available to address this issue, given the economic impact the COVID-19 pandemic will likely have on local governments, it is imperative that law enforcement continue to explore strategies that help agencies focus and prioritize existing resources. Further, there is a pressing need to identify strategies that can produce long-term, sustainable results. One such strategy could be PNI. Replication and future research

will be necessary to adequately assess the strategy's effectiveness and impact on residents, businesses, police agencies, local governments, and the larger justice system.

Moving forward, agencies interested in adopting the PNI strategy should consider the following policy implications stemming from the LVMPD PNI evaluation:

1. PNI, as implemented in Las Vegas, holds promise for reducing gun-related crime and improving community safety. PNI investigative team activities appear to have significantly altered place dynamics to decrease violence, as evidenced by available crime data, site observations, and discussions with property employees conducted by the research team.
2. To enhance PNI strategy effectiveness, it is recommended that law enforcement agencies wishing to adopt PNI establish a standing PNI Investigative Board first and gain the cooperation of local government officials to leverage necessary resources.
3. It will be necessary to implement the program across multiple sites for a sufficient period of time to fully assess the impact of the PNI strategy on gun-related violent crime. Post-intervention assessment periods should be designed to consider the lagged effect of PNI strategy interventions. ❤️

## IACP Resources

- "Cincinnati HAZARD: A Place-Based Traffic Enforcement and Violent Crime Strategy" (article)
- "The Use of Place-Based Policing Strategies to Reduce Violent Crime in Chicago Neighborhoods" (Research in Brief)
- "Place-Based Investigations to Disrupt Crime Place Networks" (Research in Brief)

## Notes:

<sup>1</sup> William Spellman and John E. Eck, "Sitting Ducks, Ravenous Wolves, and Helping Hands: New Approaches to Urban Policing," *Public Affairs Comment* 35, no. 2 (Winter 1989): 1-9.

<sup>2</sup> Lawrence W. Sherman, Patrick R. Gartin, and Michael E. Buerger, "Hot Spots of Predatory Crime: Routine Activities and the Criminology of Place," *Criminology* 27, no. 1 (February 1989): 27-56; David Weisburd, Elizabeth R. Goff, and Sue-Ming Yang, *The*

*Criminology of Place: Street Segments and Our Understanding of the Crime Problem* (New York, NY: Oxford University Press, 2012).

<sup>3</sup> Anthony A. Braga and David L. Weisburd, "The Effects of Focused Deterrence Strategies on Crime: A Systematic Review and Meta-Analysis of the Empirical Evidence," *Journal of Research in Crime and Delinquency* 49, no. 3 (2012): 323–358.

<sup>4</sup> Anthony A. Braga and David Weisburd, *Policing Problem Places: Crime Hot Spots and Effective Prevention* (New York, NY: Oxford University Press, 2010); see Lawrence W. Sherman and David Weisburd, "General Deterrent Effects of Police Patrol in Crime 'Hot Spots': A Randomized, Controlled Trial," *Justice Quarterly* 12, no. 4 (1995): 625–648; David Weisburd, *Reorienting Crime Prevention Research and Policy: From the Causes of Criminality to the Context of Crime* (presentation, National Institute of Justice Conference on Criminal Justice Research and Evaluation, Washington, DC, August 6, 1996).

<sup>5</sup> See Tamara D. Madensen et al., "Place-Based Investigations to Disrupt Crime Place Networks," *Research in Brief, Police Chief* 84, no. 4 (April 2017): 14–15.

<sup>6</sup> See John E. Eck, "Drug Markets and Drug Places: A Case-Control Study of the Spatial Structure of Illicit Drug Dealing" (doctoral dissertation, University of Maryland, College Park, 1994).

<sup>7</sup> Marcus Felson, "The Process of Co-Offending," in *Theory for Practice in Situational Crime Prevention*, eds. Martha J. Smith and Derek B. Cornish, *Crime Prevention Studies*, vol. 16 (Monsey, NY: Criminal Justice Press, 2003): 149–168; Matthew Hammer, "Crime Places of Comfort" (master's degree demonstration project paper, University of Cincinnati, OH, May 2011); Tamara D. Madensen and John E. Eck, "Crime Places and Place Management," in *The Oxford Handbook of Criminological Theory*, eds. Francis T. Cullen and Pamela Wilcox (New York, NY: Oxford University Press, 2012), 554–578.

<sup>8</sup> Ronald V. Clarke and John E. Eck, *Crime Analysis for Problem Solvers in 60 Small Steps* (Washington, DC: Office of Community Oriented Policing Services, U.S. Department of Justice, 2005).

<sup>9</sup> Cincinnati Police Department, "PIVOT: Place-based Investigations of Violent Offender Territories" (Herman Goldstein Award submission, June 2017).

<sup>10</sup> Clarke and Eck, *Crime Analysis for Problem Solvers in 60 Small Steps*.

<sup>11</sup> Ronald V. Clarke and John E. Eck, *Understanding Risky Facilities*, Problem-Oriented Guides for Police, Problem-Solving Tools Series, no. 6 (Washington, DC: Office of Community Oriented Policing, U.S. Department of Justice, 2007); John. E. Eck, Ronald V. Clarke, and Rob T. Guerrett, "Risky Facilities: Crime Concentration in Homogeneous Sets of Establishments and Facilities" in *Imagination for Crime Prevention: Essays in Honour of Ken Pease*, eds. Graham Farrell et al., Crime Prevention Studies, vol. 21 (Monsey, NY: Criminal Justice Press, 2007), 225–264; Patricia L. Brantingham and Paul J. Brantingham, "Criminality of Place: Crime Generators and Crime Attractors," *European Journal on Criminal Policy and Research* 3, no. 3 (September 1995): 5–26.

<sup>12</sup> Michael S. Scott and Herman Goldstein, *Shifting and Sharing Responsibility for Public Safety Problems*, Problem-Oriented Guides for Police, Response Guide Series, no. 3 (Washington, DC: Office of Community Oriented Policing Services, U.S. Department of Justice, 2011); Michael S. Scott, "Shifting and Sharing Police Responsibility to Address Public Safety Problems," in *Handbook of Crime Prevention and Community Safety*, eds. Nick Tilley (Portland, OR: Willan Publishing, 2005), 385–410.

<sup>13</sup> Rana Sampson, John E. Eck, and Jessica Dunham, "Super Controllers and Crime Prevention: A Routine Activity Explanation of Crime Prevention Success and Failure," *Security Journal* 23, no. 1 (February 2010): 37–51.

<sup>14</sup> Joel B. Plant and Michael S. Scott, *Effective Policing and Crime Prevention: A Problem-Oriented Guide for Mayors, City Managers, and County Executives* (Washington, DC: Office of Community Oriented Policing, U.S. Department of Justice, 2009).

<sup>15</sup> Matthew Hammer, "Place-Based Investigations of Violent Offender Territories (PIVOT): An Exploration and Evaluation of a Place Network Disruption Violence Reduction Strategy in Cincinnati, Ohio" (doctoral dissertation, University of Cincinnati, OH, 2020).

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