



Police and the Microgeography of Crime

Scientific Evaluations on the Effectiveness of Hot Spots and Places

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Abstract

This Technical Note suggests that the focus of policing should be on very small geographic units of analysis, such as street segments or small groups of street blocks. Crime at place is not simply a proxy for larger area or community effects; indeed, basic research evidence suggests that crime primarily occurs at very small geographic units of place. This research is reinforced by strong experimental evidence of the effectiveness of place-based policing in reducing crime and disorder so as not to displace crime to nearby areas. In addition, the perception of legitimacy should be a key component of place-based policing programs.

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Introduction

A series of rigorous evaluations undertaken over the past two decades have shown that the police force can be an effective instrument to address crime and disorder in small units of geography with high rates of crime (Braga, Papachristos, and Hureau, 2012a; NRC, 2004; Weisburd and Eck, 2004). These areas are typically referred to as “hot spots” and police tactics in these areas are usually referred to as “hot spots policing” or “place-based policing.” This contrasts with traditional policing and crime reduction, which relates more to people (Weisburd, 2008). Police, for example, respond to the call of citizens and then identify and arrest criminals, and while their focus may be on the offender, their focus centers on the crime hot spot.

Geography has always played a role in police strategy, with the resource allocations, patrol areas, response to calls, and carrying out of duties being determined by precincts within districts. Place-based policing, on the other hand, relates to much smaller areas of geography than those typically taken into account, such as specific addresses or street blocks within a neighborhood or community. By concentrating resources on these micro-units of geography, the effect of crime prevention can be maximized.

This report details the evidence from research that provides the rationale for hot spots policing. It will first explain the reasons why place-based policing is effective in the prevention of crime by briefly reviewing the literature that shows the close link it has to specific regions on the microgeographic level. This will be followed by a discussion regarding the potential of this “coupling” to reduce crime, with the definition of crime hot spots and the strategies that relate to place-based policing. The empirical evidence for hot spots policing and the different approaches to address high-crime areas will be subsequently reviewed. Finally, the significance of

evaluations by citizens regarding the success of hot spots policing efforts will be taken into account.

The Link between Crime and Locality

Crime usually relates to criminals and the reasons behind their actions. Questions that arise include how to prevent people from becoming criminals, how should society act against street crime, and what kinds of punishment should be imposed—questions that have been posed by both scholars and the police, in general. Recent research points to a promising new approach to crime, which would include the characteristics of microgeographic areas, or crime hot spots, rather than the approach of focusing on the criminals, themselves.

In the late 1980s, several studies were undertaken with regard to significant regional clusters of crime at the micro-level (Brantingham and Brantingham, 1999; Crow and Bull, 1975; Pierce, Spaar, and Briggs, 1988; Sherman, Gartin, and Buerger, 1989; Weisburd et al., 2004; Weisburd, Maher, and Sherman, 1992; Weisburd and Mazerolle, 2000; Weisburd, Morris, and Groff, 2009). Perhaps the most influential of these is Sherman, Gartin, and Buerger's (1989), analysis of emergency calls from street addresses during a single year. They find that only 3.5 percent of the addresses in Minneapolis, Minnesota, generated 50 percent of all calls to the police. Weisburd et al. (2004), using 14 years of crime-incident data in Seattle, discover that only 4.5 percent of the street segments generated 50 percent of incidents and that less than 1 percent of the hottest street segments resulted in more than 20 percent of crime. Clearly, crime was not distributed randomly across regions; the concentrations suggested that specific factors couple crime to locality.

While traditional criminology assumes that crime is weakly “coupled” to place, this finding was somewhat of a revelation. Many disciplines use the varying strength of coupling to

identify the extent to which parts of a system are linked or are dependent upon others (Orton and Weick, 1990; Weick, 1976). With regard to criminal justice, the terms “tight coupling” and “loose coupling” are used frequently in studies relating to the criminal justice system (Hagan, Hewitt, and Alwin, 1979; Maguire and Katz, 2002; Manning, 1982; Thomas, 1984). In this case, criminologists have usually neglected to recognize the strong relationship between crime and locality, even though it has been clear that crime occurs in specific environments.

Sutherland (1947), for example, recognized the importance of place in the crime equation, when presenting his theory of differential association between individuals. He noted, in his introduction to crime, that “a thief may steal from a fruit stand when the owner is not in sight but refrain when the owner is in sight; a bank burglar may attack a bank which is poorly protected but refrain from attacking a bank protected by watchmen and burglar alarms” (1947: 5). Nonetheless, as did other early criminologists (e.g., Hirschi, 1969; Merton, 1938; Sykes and Matza, 1957), Sutherland did not view place as a relevant focus in the study of criminology. This was the case, in part, because the crime opportunities that were provided by places were assumed to be so numerous as to make concentration on specific places of little use in theory or policymaking. In turn, criminologists have traditionally assumed that situational factors play a relatively minor role in explaining crime, compared with the “driving force of criminal dispositions” (Clarke and Felson, 1993: 4; Trasler, 1993).

The findings relating to high crime patterns at place suggest a tight coupling of crime with the locality where they occur and, therefore, there is a significant relevance between the situation and the opportunity in crime. Moreover, the research that shows that crime may not only be concentrated in a few places, but also in clusters that remain stable over time, reinforces the concept of strong coupling. Spelman (1995), for example, examines the calls for service in

Boston from schools, public housing projects, subway stations, parks, and playgrounds. He finds evidence of a high degree of crime constancy in the worst of these localities during a three-year period. Taylor (1999) reports a similar finding regarding crime and the fear of crime from 90 street blocks in Baltimore, Maryland, using a panel design with data collected in 1981 and 1994 (see also Taylor, 2001). A study, conducted by Weisburd, Bushway, Lum, and Yang (2004), not only confirms the concentration of crime at place, but it also establishes that static clusters can take place over a long period of time. Using a group-based linear analysis, Nagin (1999; 2005) and Nagin and Land (1993) identify a remarkable degree of stability in crime patterns at street segments, especially in relation to the most serious “hot spots” of crime in the city.

Tight Coupling and Crime Prevention

This tight coupling of crime to locality provides justification for effective crime prevention by hot spots policing. If crime is concentrated and remains stable in a few hot spots within a city, police effort should focus on those specific areas rather than span across the city. The tight coupling of crime to place, however, is refuted by crime displacement (Reppetto, 1976). A Campbell Collaboration systematic review on hot spots policing, conducted by Braga, Papachristos, and Hureau (2012a) (see also Braga, 2007) finds displacement is an unlikely outcome in hot spots studies. A similar set of findings has emanated from a more recent and general Campbell Collection review of place-based police prevention efforts (Bowers et al., 2012). While the displacement hypothesis is based on the assumption that people and crime are loosely coupled to place and will move easily to other places, empirical literature on crime localities, suggests the opposite.

Juvenile activity spaces, for example, are not found on every block, but may be located on a limited or specific number of street segments within a city (Weisburd et al., 2009). Spatial

displacement would be unlikely when preventing juvenile crime at a shopping mall, given the improbability of another mall being at a nearby location. At the same time, knowing that offenders tend to stay close to home suggests that crime in one place may not move to another beyond where it is located (Bernasco and Block, 2009; Brantingham and Brantingham, 1993; Wiles and Costello, 2000). The capacity for crime varies from block to block (Weisburd et al., 2009). This suggests that cracking down on crime around, for example, a specific block where there are several businesses, will not cause crime to shift to nearby blocks that may be mainly residential.

The close relationship that crime has on locality implies that police should focus on hot spots, with a shift from the arrest and prosecution of offenders to a reduction in the opportunities for crime. The notion that police focus too much on law enforcement is not new and has been taken into account by Goldstein (1979), when he introduced the concept of problem-oriented policing. He and others have, for more than 30 years, attempted to impel police to focus less on arrest and prosecution and more on solving crime; this has, at best, been partially heeded to, although there is substantial evidence to suggest that law enforcement and the arrest of offenders remain the primary tools of policing, even within the innovative approach of hot spots or problem-oriented policing (Braga and Weisburd, 2006). This is no surprise, given the culture of the police force, where policing is primarily based on the individual offender and his/her arrest.

Place-based policing can provide an opportunity to shift from the offender to the crime locality within the crime-prevention equation. Police would then focus on improving places in lieu of simply processing offenders. Success would be measured by whether or not localities become safer for residents, visitors, or employees, compared to the number of arrests made. Weisburd, Groff, and Yang (2012; 2013), for example, find that collective efficacy is an

important predictor of whether or not a street segment in a city will become a crime hot spot. Following the research that has been conducted primarily at the community level (see Sampson, 2004; Sampson, Raudenbush, and Earls, 1997), this finding implies that by increasing collective efficacy, the tendency of a block to be a crime hot spot will be reduced. Police, therefore, should not only continue to deter crime, but they should also enhance the collaborative nature of such “behavior settings” (see Wicker, 1987: 614).

Hot Spots and Non-Hot-Spot Neighborhoods

It is important to explore where hot spots of crime are distributed geographically across cities to establish whether or not it is necessary for police to focus their efforts on places at the micro level. If all crime hot spots were concentrated in only one or two neighborhoods, for example, neighborhood patrol beats could be as effective as the hot spots approach to addressing crime concentration.

Evidence to date suggests that crime hot spots are found throughout cities. Weisburd and Mazerolle (2000), for example, identified 56 drug markets in Jersey City, New Jersey. Although the drug markets were more concentrated in socially disadvantaged areas, they were also found to be in more established and wealthier areas. Weisburd and Mazerolle argue that “good” neighborhoods can also include “bad” areas. More important is that most of the areas within the substantially disadvantaged neighborhoods were relatively free of serious drug problems.

Weisburd, Groff, and Yang (2012) examine the distribution of crime hot spots in Seattle. While hot spots may be more prevalent in areas of high activity, such as within a central business district, they are also located in different kinds of neighborhoods, including in higher concentrations within a region, where there is a significant proportion of crime-free locations. The authors concluded that a significant amount of crime information could be missed when

focusing on larger areas, such as neighborhoods. The overall findings suggest that narrowing the spotlight on street segments or micro-places is a better approach, compared to that on neighborhoods or communities.

Defining Crime Hot Spots for Practical Crime Prevention

Crime hot spots are small units of geography with high rates of criminal activity. The specific geographic area that makes up a hot spot varies across studies, ranging from individual addresses or buildings (e.g., Sherman, Gartin, and Buerger, 1989) to single street segments (i.e., both sides of a street from intersection to intersection (e.g., Sherman and Weisburd, 1995) to small groups of street segments with similar crime problems, such as a drug market (e.g., Weisburd et al., 2006). Hot spots are smaller than the units that police departments typically use for dividing up patrol resources (e.g., patrol beats, zones, or sectors). Hot spots can be considered as micro places, differentiating them from larger geographic units, such as communities and neighborhoods that have traditionally been of interest to criminologists when discussing crime and place (see Weisburd, 2008).

There is no firm rule as to how much crime there is in a micro-place before it can be categorized as a hot spot. This varies across studies, based on the overall rate of crime in a jurisdiction. In the studies described below, hot spots are typically defined by a ranking list of the highest crime locations (e.g., addresses or streets) within a city, the number of calls for service, or the number of crime incidents. Localities, therefore, are not defined as crime hot spots when they reach an absolute threshold of crime; rather, they are defined as such only when there is an extremely high level of criminal activity relative to other places in the city.

What is Hot Spots Policing?

Hot spots policing—sometimes referred to as place-based policing (see Weisburd, 2008)—covers a range of police responses that share a common focus on the locations where crime is highly concentrated. The definition of hot spots varies across studies and in context, as does the specific tactics police will use to address high-crime areas. There is more than one way to implement hot spots policing. As Weisburd (2008) notes, approaches can range rather dramatically across interventions.

A strategy for place-based policing can be the substantial increase in the time an officer spends patrolling hot spots, as in the case of the Minneapolis Hot Spots Policing Experiment (Sherman and Weisburd, 1995), although it can also be an elaborate approach to prevent crime. In the Jersey City Drug Market Analysis Program experiment (Weisburd and Green, 1995), for example, a three-step program (identifying and analyzing problems, customizing responses, and maintaining crime control gains) was implemented to reduce drug-related problems. The approach taken in this problem-related experiment (Braga et al., 1999) was to develop a specific strategy for each small area that was defined as a violent crime hot spot, the results of which will be discussed in the following section.

Empirical Evidence on the Effectiveness of Hot-Spot Strategies

The evidence base for the effectiveness of hot spots policing to reduce crime and disorder is especially strong. As the National Research Council (NRC, 2004: 250) review of police effectiveness notes, “studies that focused police resources on crime hot spots provided the strongest collective evidence of police effectiveness that is now available.” The Braga, Papachristos, and Hureau (2012a) systematic review mirrors this conclusion; while not every hot spots study has shown statistically significant findings, the vast majority have (20 of 25 tests

from 19 experimental or quasi-experimental evaluations) reported a noteworthy reduction in crime or disorder. This suggests that when police focus in on crime hot spots, the impact on crime can be significant. In the meta-analysis by Braga, Papachristos, and Hureau (2012a; 2012b), the overall mean effect was 0.184, implying that the benefit of the hot spots approach was more beneficial than that for controlled areas. As Braga (2007: 18) has concluded, “extant evaluation research seems to provide fairly robust evidence that hot spots policing is an effective crime prevention strategy.”

As has been noted, a determining factor is that there was little or no evidence to suggest that spatial displacement was of major concern in hot spots interventions. Spatial crime displacement is the notion that efforts to eliminate specific crimes at a place will simply cause criminal activity to move elsewhere, thus negating any crime control gains. Braga, Papachristos, and Hureau (2012) find significant evidence of spatial displacement in only one study (Ratcliffe et al., 2011), wherein the amount of displacement was far less than the main crime prevention benefit of the intervention. In nearly every study, therefore, crime did not simply shift from hot spots to nearby areas (Weisburd et al., 2006). Indeed, a more likely outcome of such interventions is a diffusion of crime control benefits (Clarke and Weisburd, 1994) in which the areas surrounding the target hot spots also show a decrease in crime and disorder. Displacement is not inevitable, in part—as noted earlier—due to the tendency of hot spots having specific features that make them attractive targets for criminal activity, features that may not exist on neighboring blocks.

The experimental evidence regarding hot spots policing is discussed below and it relates, where possible, to the tactics that appear to be the most effective in addressing crime hot spots. The literature has not provided much guidance on the methods police officers should use at hot

spots to most effectively reduce crime. As Braga (2007: 19) notes, “Unfortunately, the results of this review provide criminal justice policy makers and practitioners with little insight on what types of policing strategies are most preferable in controlling crime hot spots.” The update to Braga’s (2007) review by Braga, Papachristos, and Hureau (2012a; 2012b) provides some additional guidance, suggesting that problem-oriented hot spots interventions may be somewhat more effective than simply increasing police presence, although the authors caution that these comparisons are based on only a small number of studies.

The first randomized experiment on hot spots policing, the Minneapolis Hot Spots Policing Experiment (Sherman and Weisburd, 1995), used the computerized mapping of crime calls to identify 110 hot spots of roughly street-block length. Police patrol was doubled for the experimental sites over a 10-month period. Officers were not given specific instructions on what activities to engage in, while at these localities, but were simply requested to increase patrol time. Their activities included substantially more proactive problem-solving efforts, as well as simply sitting in their patrol car at the center of the assigned hot spots street segment. The study resulted in a significant reduction (by 7.2 percent to 15.9 percent) of soft-crime calls (e.g., disturbances, drunks, noise, vandalism) and observed disorder in the treatment group compared to the control group. Based on the time of day, hard-crime calls (e.g., burglaries, auto thefts, assaults) declined by 2.6 percent to 5.9 percent.

The overall results imply that an increase in police presence could have a significant effect on crime, particularly with regard to disorder and less serious crime, a major change from the traditional impact of police efforts on crime. Another significant study by Kelling et al. (1974) finds that neither the doubling nor tripling of patrol beats nor the removal of patrol beats had any significant impact on crime or victimization. Based on the above literature, random

patrol beats, therefore, do not deter crime. Since crime considerably occurs within cities, it makes little sense to strategically rely on the random distribution of police resources across large geographic areas, in terms of efficiency and effectiveness (Weisburd and Telep, 2010). The Minneapolis study and the other hot spots studies suggest that police can impact crime prevention by appropriately focusing their resources on the locations where crime is the most concentrated.

A significant decrease in crime and disorder also has been reported in five other random controlled experiments that tested for a more customized, problem-oriented approach (Braga and Weisburd, 2010) relating to crime hot spots. In the case of Jersey City's violent localities (Braga et al., 1999), while the response varied by hot spot, they included an element of vigorous order, with most localities improving facilities (e.g., removal of trash, improved lighting) and increasing drug enforcement. The treatment hot spots resulted in a statistically significant reduction of total crime incidents and crime calls, compared to the control hot spots. Social and physical observation data indicated an improvement in evident disorder in 10 out of 11 treatment areas, compared to the control sites after the intervention.

In the Jersey City Drug Market Analysis Program experiment (Weisburd and Green, 1995), a step-by-step problem solving model was compared to more generalized police enforcement in drug hot spots. The treatment group underwent a three-stage intervention; (i) the planning stage included the collection of data relating to the physical, social, and criminal characteristics of each area; (ii) the implementation stage included the coordination of efforts to conduct a crackdown at the hot spot locality and the use of other tactics to address underlying problems; and (iii) the maintenance stage included an attempt to continue the positive impact of the crackdown. Compared to the control sites, the sites under experiment had a significantly

smaller increase in disorder calls, especially in those relating to public morality and people under suspect.

In their study, Mazerolle, Price, and Roehl (2000) include an evaluation of a civil remedies initiative in the face of high crime areas and blocks. The intervention involved a police officer and a police force service technician visiting the locality in question to identify and analyze the situation, contact the property owner or manager and, ultimately, address the problem. This meant pressuring a third party (e.g., the landlord of the relevant building) to improve property conditions or face possible civil action. The results show a significant reduction in drug calls at the treatment hot spots, compared to the control localities.

Likewise, in Lowell, Massachusetts, a problem-oriented policing intervention to address disorder was associated with a 20 percent reduction in crime and calls for service (Braga and Bond, 2008). Systematic observations confirmed the official crime data results, reflecting a large reduction in social and physical disorder at the treatment places in comparison with those controlled.

The Braga and Bond (2008) experiment included a mediation analysis to assess which hot spots strategies were most effective in reducing crime. Results show that situational prevention strategies made the strongest impact on crime and disorder. These strategies relate to physical, organizational, and social environments that make crime possible, centering attention on efforts to disrupt the situational dynamics that allow for crime by, for example, increasing the risk and efforts of potential offenders or reducing the lure of potential targets (see Clarke, 1995). Such approaches are often important in hot spots interventions, particularly with regard to solving issues, such as securing lots, razing abandoned buildings, and eliminating graffiti. While an increase in misdemeanor arrests did contribute to the crime control gains in the treatment hot

spots, there was neither an effect on the situational efforts nor did social service interventions have a significant impact on crime and disorder. This suggests that the strategy of situational crime prevention is important to address crime in hot spots, but that aggressively maintaining order through increased misdemeanor arrests may not be the most effective way to prevent crime in high disorder places. The potential negative consequences of intensive enforcement in the form of the decreased perception of police legitimacy are discussed below (Braga and Weisburd, 2010).

More recently, a noteworthy study in Jacksonville, Florida (Taylor, Koper, and Woods, 2011), for the first time, compared various hot spots treatments in the same investigation, with one treatment group receiving a more standard saturation patrol response and the second receiving a problem-oriented response that focused on officers analyzing problems in the hot spots and responding with a more customized solution. Conclusions for the saturation patrol hot spots show a decrease in crime (although not statistically significant), which lasted only during the intervention period and disappeared quickly thereafter, while for the problem-oriented hot spots, crime did not significantly decline during the intervention period (within 90 days following the experiment, street violence declined significantly by 33 percent). These results are evidence that problem-oriented approaches may be more effective than simply increasing patrols in high-crime areas. They also imply that, while problem-solving approaches may take more time to show the benefits, they may be long lasting in nature.

Braga and Weisburd (2010) detail the preference of problem-oriented policing as a strategy for long-term crime reduction in chronic hot spots. They recognize that, while enforcement agencies may use a problem-solving approach, they tend to revert more to traditional enforcement responses. Drawing upon the results of Braga and Bond (2008) and other

studies, Braga and Weisburd argue that “situational” problem policing is not only more innovative, but is more likely to result in significant crime control benefits. As they conclude, “Based on the available empirical evidence, we believe that police departments should strive to develop situational prevention strategies to deal with crime hot spots. Careful analyses of crime problems at crime hot spots seem likely to yield prevention strategies that will be well positioned to change the situations and dynamics that cause crime to cluster at specific locations” (Braga and Weisburd, 2010:182–183).

Two other recent experiments shed new light on the effectiveness of particular approaches to handle crime hot spots. While the initial Minneapolis study did not include a systematic examination of officer activities at the hot spots, subsequent analyses by Koper (1995) provide some insight into how much time officers should be spending at hot spots to maximize residual deterrence. Koper analyzes observational data on nearly 17,000 instances when police drove through or stopped at a hot spot and examines the time from when the officer(s) left the location until the next occurrence of criminal or disorderly behavior. Using survival analysis techniques, he finds that each additional minute of time that officers spent at a hot spot increased the survival time by 23 percent. Survival time, in this case, refers to the amount of time after officers left a hot spot before disorderly activity occurred. The ideal time spent at a hot spot was 14 to 15 minutes; after 15 minutes, there were diminishing returns and increased time did not lead to greater improvement in residual deterrence. This phenomenon is often referred to as the “Koper curve,” as graphing the duration response curve shows the benefits of increased officer time spent at the hot spot until a plateau point is reached at around 15 minutes (Koper, 1995: Figure 1). As Koper (1995: 668) notes, “police can maximize crime and disorder reduction at hot spots by making proactive, medium-length stops at these locations

on a random, intermittent basis.” Koper (1995) argues for an approach in which police will travel between hot spots, spend about 15 minutes in each hot spot to maximize residual deterrence, and move from hot spot to hot spot in an unpredictable order. Such an approach will motivate potential offenders to recognize greater risks of offending in these areas, since police enforcement could increase at any given moment.

These recommendations may be why an experimental hot spots intervention at crack houses in Kansas City had quickly decaying effects (Sherman and Rogan, 1995a). The crackdowns at the drug locations led to significant, but modest, improvements in the experimental street blocks, but they were only one-time events and, hence, the residual deterrence was limited. Within a few weeks, crime returned to these same streets.

Koper’s (1995) recommendations were recently applied to the design of a hot spots policing experiment in Sacramento, California. Officers were explicitly instructed to rotate between treatment group hot spots and to spend about 15 minutes in each hot spot. Results suggest the Koper (1995) approach to policing had a significant impact on crime. The treatment group had significantly fewer calls for service and Part 1 crime incidents than had the control group, when comparing the three-month period of the experiment in 2011 to the same period in 2010 (Telep, Mitchell, and Weisburd, 2012).

Ratcliffe et al. (2011) evaluated the impact of foot patrol at crime hot spots in a randomized experiment in Philadelphia, Pennsylvania. Foot patrol has traditionally been viewed as an effective strategy for reducing fear of crime, not actual crime. Results suggest significant declines in violence at the treatment hot spots, compared to the control sites. The intervention was particularly effective for those hot spots that reached a threshold of violence (i.e., the hottest). Overall, the 12-week intervention prevented a net total of 53 violent crimes in the target

areas, which suggests the importance of reconsidering the effectiveness of foot patrol when it is intensively used in high-crime microgeographic places.

Hot Spots Policing and Police Legitimacy

In summary, the empirical research is highly supportive of the effectiveness of hot spots policing in terms of reducing crime and disorder. Effectiveness, however, is also dependent on public perception of the legitimacy of police actions (NRC, 2004; Tyler, 1990). Police need the support and cooperation of citizens to effectively combat crime and maintain social order in public spaces. Legitimacy, in this case, refers to the public belief that there is a responsibility and obligation to voluntarily accept and defer to the decisions made by the authorities (Tyler, 1990). A number of scholars have recently argued that intensive police intervention, such as hot spots policing, could erode citizens' perception of the police (e.g. see Kochel, 2011; Rosenbaum, 2006). Rosenbaum (2006), for example, argues that enforcement-oriented hot spots policing runs the risk of weakening police vis-à-vis community relations, with aggressive tactics creating a rift between them—the latter may consider themselves to be the targets rather than partners. This is particularly relevant in high-crime minority communities, where perception of the police tends to be negative. This has implications for the effectiveness of crime control on hot spots, according to Tyler (1990) who has argued that legitimacy is an important predictor of long-term compliance with the law. If hot spots policing interventions weaken the perception of legitimacy, then the short-term crime control gains from intervention might be offset by a long-term increase in criminal offences.

Despite the argument that intensive intervention, such as hot spots policing, will have a negative impact on police legitimacy, there is very little evidence to support this. Hinkle and Weisburd (2008) find that police crackdowns on crime and disorder hot spots led residents, in the

areas targeted, to become more fearful of crime. That study, however, is based on a correlational design in which the affected hot spots areas had overall levels of crime higher than the comparison localities used in the study. In addition, there is developing evidence from other studies that residents in crime hot spots, who are subject to focused police attention, welcome the concentration of police efforts in their localities (e.g., Chermak, McGarrell, and Weiss, 2001; Corsaro, Brunson, and McGarrell, 2010). A study linked to the Kansas City Gun Experiment (Sherman and Rogan, 1995b), for example, finds that the community in the treated neighborhood strongly supported intensive patrols and perceived an improvement in their quality of life (Shaw, 1995).

Braga and Bond (2008) examine community reaction to the problem-oriented policing initiative in Lowell. Data from interviews revealed that the community considered that there were improvements relating to social and physical disorder and that there were an increased number of contacts with the police. No statistically significant differences, however, are found with regard to fear of crime, the perception of police tactics, or behavior of the citizens. Recent studies from three cities in San Bernardino County, California, also has find that a broken-windows-style intervention at hot spots had no impact on the resident perception of police legitimacy (Weisburd et al., 2011).

It is certainly important to consider the evaluation of legitimacy as a key outcome measure of hot spots policing interventions. This would require more attention to questions relating to procedural justice, which refers to the ways in which the police interact with citizens, including in which their strategies give citizens the sense that they are being treated fairly and that they are listened to (Tyler, 2004; Tyler and Huo, 2002). Braga and Weisburd (2010) and Weisburd and Braga (2013) argue that hot spots policing programs can incorporate procedural

justice components in order to not only increase the legitimacy perception but also to enhance crime control effectiveness. Field experiments need to be tested on whether or not a procedurally just hot spots policing approach would have these outcomes.

Conclusions

This Technical Note suggests that the focus of policing should be on very small geographic units of analysis, such as street segments or small groups of street blocks. Crime is tightly coupled to micro-geographic places or crime hot spots which offer a stable target for police intervention, contrasting with the constant moving targets of criminal offenders. Crime at place is not simply a proxy for larger area or community effects; indeed, basic research evidence suggests that crime primarily occurs at very small geographic units of place. This research is reinforced by strong experimental evidence of the effectiveness of place-based policing in reducing crime and disorder so as not to displace crime to nearby areas. In addition, the perception of legitimacy should be a key component of place-based policing programs.

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