

CHAPTER 3

Effectiveness of Police in Reducing Crime and the Role of Crime Analysis

Chapter 2 presents the theoretical foundation for understanding how crime and disorder occur; it also details ways to reduce opportunities and prevent problematic activity, based on theory. This chapter links these theoretical concepts with crime reduction practice by police. As discussed in Chapter 1, the primary purpose of crime analysis is to assist police; the focus of this chapter is on “what works” in policing for preventing and controlling crime and the role of crime analysis in assisting with these efforts. Importantly, research and practice have shown the most effective methods police employ to prevent and control crime are those in which crime analysis plays a vital role.

Police Effectiveness in Preventing and Controlling Crime

In the last 30 years, American policing has seen significant changes in both thinking and practice (Weisburd & Braga, 2006a). Technological advances, new perspectives on policing, and evaluations of current practices have brought about these changes. A number of police scholars as well as the National Academy of Sciences’ Committee to Review Research on Police Policies and Practice have examined existing research to determine “what works” for preventing and controlling crime in policing (Sherman et al., 1997; Skogan & Frydl, 2004; Weisburd & Eck, 2004). The following is a brief overview of the key elements and research results for the most notable police strategies—the **standard model of policing**, **community policing**, **broken windows policing**, **hot spots policing**, **Compstat**, and **problem-oriented policing**.

Standard Model of Policing

The standard model of policing encompasses strategies that come to mind when the average person thinks about what police are supposed to do. The central element of the standard model

involves enforcing the law in a broad and reactive way, primarily using police resources (Weisburd & Eck, 2004). Specifically, the strategies of the standard model of policing include the following (Sherman et al., 1997; Weisburd & Eck, 2004):

- Increased number of police officers (to increase the ability to detect crime and arrest offenders)
- Unfocused, random motorized patrols (to create a perception of a police “omnipresence” to deter crime in public places)
- Rapid response to calls for service (to increase the likelihood of catching offenders)
- Follow-up investigations by detectives (to increase the solvability of the crimes)
- General reactive arrest policies (to deter and punish specific offenders as well as deter the general public from committing crimes)

There have been only a limited number of evaluations of these strategies; the available research shows that each one of these generally applied enforcement efforts has been of limited effectiveness (Sherman et al., 1997; Skogan & Frydl, 2004; Weisburd & Eck, 2004).

Community Policing

Police scholars have touted community policing as one of the most widely adopted police strategies in the last several decades (Weisburd & Eck, 2004). However, it is difficult to define, because its definition has changed over time, and its concepts are vague. The key elements of community policing are that police must work with the community and draw from other resources outside the police to prevent and solve crime problems. According to the U.S. Department of Justice’s Office of Community Oriented Policing (2011a), community policing is

A philosophy that promotes organizational strategies which support the systematic use of partnerships and problem-solving techniques, to proactively address the immediate conditions that give rise to public safety issues such as crime, social disorder, and fear of crime. (para. 1)

Because community policing is difficult to define and has evolved from being considered a strategy to being considered a philosophy, overall it is difficult to evaluate. However, specific strategies have been used primarily to represent community policing in evaluations. One strategy is “neighborhood watch” (also called block watch), which is one of the most implemented community policing programs; it has the goal of increasing surveillance by residents and community members of their own neighborhoods. Other strategies include increasing the flow of information from the community to the police through community meetings, officers walking the “beat” and talking to residents, and storefront beat offices; and providing crime information to the public through the Internet, crime maps, letters, and “reverse 911” phone calls so they can protect themselves (Sherman et al., 1997).

The overall results of research evaluations of community policing show that neighborhood watch, community meetings, storefront offices, and newsletters do not reduce crime (Weisburd & Eck, 2004). While door-to-door visits by the police have been found to reduce crime, simply providing information about crime to the public has not been shown to prevent crime (Sherman et al., 1997; Weisburd & Eck, 2004). Consequently, overall community policing as measured by these specific strategies does not seem to increase police effectiveness at preventing crime; however, it has been shown to reduce fear of crime (Weisburd & Eck, 2004).

However, the philosophy that police should engage the community and partner with them to deal with problems is one to which most police departments in the United States adhere.

Broken Windows Policing

Broken windows policing (also called “zero tolerance” policing) is based on practical theory developed in the 1980s (Wilson & Kelling, 1982). It focuses on the strict enforcement of laws against disorderly behavior and minor offenses (considered “quality of life” offenses), such as prostitution, public urination, and aggressive panhandling (Sousa & Kelling, 2006). The intent is to prevent more serious crimes from happening. The term “broken windows” is a metaphor that alludes to the fact that if a broken window is left unfixed, it indicates that no one cares and invites more broken windows and more serious criminal behavior (Sousa & Kelling, 2006).

Research results of the effectiveness of broken windows policing have been mixed. A summary of studies in seven cities (Skogan, 1990, 1992) found no evidence that the strict enforcement of disorder ordinances reduced additional disorder or more serious crimes. Another more recent study (Kelling & Sousa, 2001) found a direct link between misdemeanor arrests and a reduction in more serious crime, but data limitations raised questions about the validity of the study’s conclusions. New York City used this type of policing intensively in the 1990s, and many NYC officials have concluded it was the reason why the crime rate dropped during that time. However, researchers have not rigorously evaluated these claims, and many cite other reasons for New York City’s crime decrease (e.g., effect of the crack epidemic as well as general crime and economic trends) (Weisburd & Eck, 2004).

Hot Spots Policing

The key idea behind hot spots policing is that a disproportionate number of crimes happens in particular areas in a city (i.e., 80/20 rule from Chapter 2). In fact, research shows this; for example, Sherman, Gartin, and Buerger (1989) found that 3% of addresses accounted for 50% of the crime calls to the police. Therefore, hot spots policing is the strategy in which police systematically identify areas within a city that have disproportionate amounts of crime and employ responses in those specific areas. Oftentimes, police implement traditional responses in hot spots, such as increased police presence and arrests (Weisburd & Braga, 2006b).

There has been a significant amount of rigorously applied research on hot spots policing, and the combined results indicate that it contributes to meaningful reductions of both crime and disorder (Braga 2008; Braga & Bond, 2008; Ratcliffe, Taniguchi, Groff, & Wood, 2011; Weisburd & Eck, 2004). Police crackdowns—more temporary applications of hot spots policing—also have been shown to work, although primarily on a short-term basis (Scott, 2004; Weisburd & Eck, 2004). When determining the effectiveness of hot spots policing, officials need to consider whether it actually prevents crime or just moves it to a different area (i.e., displacement of crime). Numerous studies have examined this and, as noted in Chapter 2, have found that complete displacement rarely occurs, which means that even when a hot spot is moved, some crime reduction has occurred.

Compstat

Compstat is the name of a specific program implemented by the New York City Police Department (NYPD) in 1994 (Silverman, 2006). However, its rapid and widespread adoption by police agencies around the United States has moved it beyond being an isolated strategy used by NYPD (Weisburd,

Mastrofski, McNally, Greenspan, & Willis, 2003), and it has been described “as perhaps the single most important organizational innovation in policing during the latter half of the 20th century” (Silverman, 2006, p. 267).

Compstat is important for two reasons: It takes the analysis of up-to-date computerized crime, arrest, and “quality of life” data to produce statistics and maps; it uses this information in regularized, interactive crime prevention and reduction strategy meetings where managers are held accountable for the crime prevention approaches they implement in their districts. The Compstat model is an attempt to synthesize an accountability structure and strategic problem solving (Weisburd et al., 2003), and many police department have implemented it because of pressure to appear progressive and successful in reducing crime (Willis, Mastrofski, & Weisburd, 2007).

To date, no one has formally evaluated NYPD’s Compstat or the national implementation of Compstat and its impact on crime; therefore, no research conclusions exist about the overall effectiveness of Compstat on crime and disorder. However, the first 3 years of NYPD’s Compstat coincided with dramatic declines in the crime rate (Silverman, 2006), and this decline, attributed to Compstat by New York City’s police and city officials, resulted in other police agencies adopting the strategy and adapting it to their own agencies. One could use this as evidence that the strategy “works.” However, in a national study of the adoption and elements of Compstat, Weisburd and his colleagues (2006) concluded that although the strategy appears to be new in its use of technology and crime analysis, the police management and response strategies remain consistent with traditional policing. After more than 17 years, Compstat is still being newly implemented by police agencies and continues to influence new police approaches to reducing crime, such as predictive policing (Beck & McCue, 2009; Uchida, 2010), the stratified model of problem solving, analysis, and accountability (Boba & Santos, 2011), integrating crime analysis into patrol (Taylor & Boba, 2011), and mission-based policing (Crank, Irlbeck, Murray, & Sundermeier, 2011).

Problem-Oriented Policing

First introduced by Herman Goldstein in his seminal 1979 article, “Improving Policing: A Problem-Oriented Approach,” problem-oriented policing (POP) is the idea that police take a proactive role in identifying, understanding, and responding to **problems** (not just incidents) in their communities. Goldstein argued that the police were too focused on means and not enough on the ends of their work. He suggested that if police were to take a more “problem-oriented focus” they could be more effective in impacting crime and disorder problems. At the same time, Goldstein argued that to be “problem oriented” the police must take a new, more systematic approach that demands they collect new data, develop new methods of analysis, identify innovative solutions, and apply measures for assessing the success of their efforts.

John Eck and William Spelman (1987) gave the approach a specific method when they developed the **SARA model** in their application of problem-oriented policing in Newport News, Virginia. The SARA model (discussed in detail in Chapter 12) includes (S)canning and defining specific problems, (A)nalyzing data to understand the opportunities that create the problem, (R)esponding to the problem using both police and nonpolice methods, and (A)ssessing whether the response has worked (Center for Problem-Oriented Policing, 2011). POP is rooted in the theories of environmental criminology and situational crime prevention (as described in Chapter 2). The analysis and strategies of POP are focused on identifying and reducing the opportunities for crime and disorder problems in specific situations.

The research results of POP efforts are a combination of work done by researchers and practitioners. The National Research Council and others have concluded that although more rigorous research needs to be conducted on POP efforts, the evidence so far shows that it is the most

promising of the police strategies (Skogan & Frydl, 2004; Weisburd, Telep, Hinkle, & Eck, 2010). In fact, those who criticize that POP has not been implemented as Goldstein originally intended—in terms of the depth of the problem identified and analyzed—conclude that even addressing problems somewhat superficially using the problem-solving process is enough to impact crime and disorder levels (Braga & Weisburd, 2006). In other words, “Perhaps simply focusing police resources on identifiable risks that come to the attention of POP projects, such as high-activity offenders, repeat victims, and crime hot spots, may be enough to produce crime control gains” (Braga & Weisburd, 2006, p. 145).

Conclusions About Police Effectiveness

The overall conclusion based on these recent reviews of policing research is that there is “strong evidence that the more focused and specific strategies of the police and the more they are tailored to the problems they seek to address, the more effective the police will be in controlling crime and disorder” (Skogan & Frydl, 2004, p. 17). This makes sense when we reflect back on Chapter 2, understanding that opportunities and crime prevention strategies are localized and specific (i.e., occur in specific crime settings). Researchers conclude that if policing is to have a prevention role, crime reduction strategies must be focused and approached in a systematic way through the problem-solving approach (Sherman et al., 1997; Weisburd & Braga, 2006a; Weisburd & Eck, 2004; Weisburd et al., 2010). Also, recent practice-based research (Boba, 2010; Santos, 2011) goes even further to put forth that accountability, as emphasized in Compstat, is integral in institutionalizing effective crime reduction efforts in police organizations (Boba & Crank, 2008; Boba & Santos, 2011; Taylor & Boba, 2011).

The Role of Crime Analysis

It is important for crime analysts to understand their role in overall crime prevention. Chapter 1 discusses the responsibilities a crime analyst has within a police department. The discussion here focuses on the larger picture of the role of crime analysis in each one of the previous policing strategies and, subsequently, in preventing crime. For each of these policing strategies, the role of crime analysis focuses on the need for specifying and understanding the activity (problem) and prioritization of response.

The standard model of policing generally applies various tactics such as patrol, arrests, and investigation, so there is little use for crime analysis beyond determining the level of staffing in particular areas and providing statistics of police performance (e.g., emergency response time, number of crime reports, number of cases investigated and solved, number of arrests). For example, if officers patrol “randomly,” crime analysis results that determine the most frequent places crime occurs is not relevant. Consequently, it is a struggle to incorporate crime analysis into police agencies that rely heavily on the standard policing model because, by definition, its role and usefulness is limited.

The role of crime analysis in community policing focuses on providing information to citizens. Crime analysts provide crime statistical information *to* community groups, neighborhood and block watch organizations, businesses, and the like to serve the goal of communicating police information to the public. Media outlets include the Internet (see Chapter 16), newsletters, newspapers, bulletins, etc. Crime analysis also assists in community policing by collecting and analyzing information *from* the public through citizen and community surveys that focus on victimization, community identified problems, satisfaction with police, and quality of life issues.

When broken windows policing is applied generally, the role of crime analysis is limited to evaluating the performance of the enforcement (e.g., conducting analysis of disorder arrests and crime) because the police are addressing activity generally across space and time. When broken windows policing focuses on particular areas and particular times, crime analysis is key in determining the areas where and times when enforcement of disorder activity would be best applied.

Crime analysis, particularly crime mapping, plays a vital role in hot spots policing. Because this strategy centers on identifying areas with a disproportionate amount of crime, crime analysis helps to determine these areas through analysis of police data with a GIS. Some argue that police officers already know where the hot spots are, thus making crime analysis unnecessary. However, researchers have found that police, in fact, do not accurately identify hot spots in every case (McLaughlin, Johnson, Bowers, Birks, & Pease, 2007; Ratcliffe & McCullagh, 2001), which warrants the use of crime analysis in hot spots policing.

As discussed in Chapter 1, Compstat has been one of the significant influences surrounding the adoption of crime analysis and crime mapping by police departments in the 1990s. The role of crime analysis is integral to the Compstat process, with the name itself (i.e., “comp” = computer and “stat” = statistics) emphasizing this point. In addition to the routine analysis produced by crime analysts that is necessary to hold managers accountable, crime mapping has become the central mechanism of communication in Compstat meetings (Ratcliffe, 2004a). In fact, many police agencies today have crime analysis and crime mapping technology simply because they implemented a “Compstat-like” program.

Finally, crime analysis plays the most integral role in problem-oriented policing and the problem-solving process (also used in community policing). Crime analysis in this context is absolutely necessary for identifying and specifying the problem at hand, analyzing data to understand why the problem is occurring, helping to develop when and where responses would be best implemented, and helping to assess the impact of the response on the problem (Boba, 2003). In essence, problem-oriented policing and problem solving *cannot* happen without crime analysis.

Consequently, crime analysis plays a role in each strategy discussed here, although a much greater role in some than in others. The importance of crime analysis in policing cannot be overstated, and unfortunately, since crime analysts have only recently been incorporated into police agencies, the discipline is still struggling with being recognized and used effectively. The remainder of this book will describe and explain a majority of what is needed for crime analysis to assist police in any and all of these policing strategies. Those crime analysis techniques that are left out focus primarily on operational functions such as staffing allocation, resource assessment, and performance measures, which are better suited for an advanced crime analysis text.

Problem Definitions and Literature

In this last section of Part I: Foundations of Crime Analysis, the units of crime analysis (levels of activity) are defined here to create a structure of focus for the rest of the book. Not only are different crime analysis techniques used to understand the nature of these different levels of activity, but different approaches are also used by police to address them. The section ends with a discussion of literature that assists in understanding and responding to crime and disorder.

Levels of Activity

The units of crime analysis center on the idea of the “problem.” The goal of crime analysis is not to understand and analyze one crime or incident at a time, but to examine problematic activity that

occurs at different levels. A “problem” is defined in many different ways. According to Herman Goldstein, a problem is either (1) a cluster of similar, related, or recurring incidents rather than a single incident; (2) a substantive community concern; or (3) a unit of police business (1990, p. 66). Clarke and Eck (2005) similarly define a problem as “a recurring set of related harmful events in a community that members of the public expect the police to address” (Step 14).

These conceptual definitions have, unfortunately, been difficult to apply in practice, and police researchers have noted that the police have had difficulty clearly defining problems, which subsequently impacts their ability to problem solve and prevent crime (Braga & Weisburd, 2006; Scott, 2000). To clarify the definition of a problem, levels of activity are distinguished here and are used as a foundation for analysis techniques discussed in the book. The categories of problematic activity are most easily understood in terms of their complexity and the temporal nature of their development. That is, simpler problems, such as combination of several incidents, are typically manifested over a very short period of time, whereas more complex problems, such as long-term problem locations, develop over a longer period of time. Although a particular problem can sit anywhere on this continuum, problems can be broken down into three categories (Boba & Santos, 2011):

1. **Immediate problems:** Incidents and serious incidents (individual calls for service and crime reports)
2. **Short-term problems:** Repeat incidents and patterns
3. **Long-term problems:** Problem locations, problem areas, problem offenders, problem victims, problem products, and compound problems

Immediate Problems

Problems considered “immediate” are isolated incidents that occur and are resolved within minutes, hours, or in some cases, days. They are responded to by patrol officers and detectives who utilize the investigative skills learned in basic police training and more intensive investigative training. Here, immediate activity is broken down into two types (Boba & Santos, 2011).

Incidents are individual events that an officer typically responds to or discovers while on patrol. Incidents are citizen- and officer-generated calls for service and include crime, disorder, or service-related tasks such as disturbances, robbery in progress, traffic accidents, subject stops, and traffic citations, all of which usually occur and are resolved within minutes and/or hours—most of the time within one shift. Police officers typically conduct the preliminary investigation and respond to incidents with the goal of resolving each incident as quickly and effectively as possible in accordance to the laws and policies of the jurisdiction and the police agency.

Serious incidents are individual events that arise from calls for service but are deemed more serious by laws and policies of the police department; thus they require additional investigation and/or a more extensive immediate response. Serious incidents are events such as rapes, hostage negotiations, homicides, traffic fatalities, or armed robbery. They occur within minutes and/or hours but may take days, weeks, or in some cases, months to resolve. Typically, detectives or specially trained personnel (e.g., homicide detectives, traffic crash investigators) conduct more comprehensive analysis and respond to these serious incidents with the goals of resolving the event according to the laws and policies of the jurisdiction and police agency and, in particular, apprehending the offender(s).

Short-Term Problems

A **repeat incident** occurs when there are two or more individual incidents that are similar in nature and happen at the same place (typically) or by the same person. Repeat incidents occur less

frequently than individual incidents since they represent clusters of incidents. These (usually) common noncriminal or interpersonal criminal incidents may, but do not always, result in a crime report, such as domestic violence, neighbor disputes, barking dogs, problem juveniles, traffic crashes, etc. The individual incidents that make up a repeat incident happen within hours, days, and in some cases weeks of one another. A repeat incident is an important level of activity, because it represents a short-term pattern of opportunity that can focus crime analysis and problem-solving techniques. Analysis and problem solving of a repeat incident focuses on identifying an address with multiple calls for service and resolving the immediate underlying issue. For example, two calls for a disturbance and one for loud noise at a particular address may be the result of a neighbor dispute over a barking dog. Once the police have identified and understood the underlying “problem” of the repeat incident, they would develop and implement a response to resolve the overall issue between the neighbors (versus just addressing the individual calls for service).

A **pattern** is a group of two or more crimes reported to or discovered by police that is treated as one unit of analysis because (1) the crimes share one or more key commonalities that make them notable and distinct, (2) there is no known relationship between victim and offender, and (3) the criminal activity is typically of limited duration (IACA, 2011b). Examples of crimes examined for patterns include stranger rape, indecent exposure, public sexual indecency, robbery, burglary, and grand theft. The police, citizens, businesses, the media, and all members of a community consider crime patterns to be vitally important because they perceive them as the most immediate threat to personal safety (i.e., offenders preying on unknown victims).

The main difference between patterns and repeat incidents is the types of data that are analyzed. Both concern activity in the short term, but a repeat incident consists of common “quality of life” or interpersonal issues, whereas patterns consist of reported crime committed by strangers. Traditionally, police officers and detectives have linked patterns together on an ad hoc basis through informal communication and the review of police reports. More recently, analysts with specific training have become central police personnel conducting pattern analysis (i.e., tactical crime analysis) (O’Shea & Nicholls, 2003). Analysis of and response to patterns are discussed in detail in Part III: Tactical Crime Analysis.

Long-Term Problems

A **long-term problem** is a set of related activity that occurs over several months, seasons, or years that stems from systematic opportunities created by everyday behavior and environment. Problems can consist of common disorder activity (e.g., loud parties or speeding in residential neighborhoods) as well as serious criminal activity (e.g., bank robbery or date rape). It is important to differentiate problems and patterns for the purposes of this book. The following are three important distinctions (IACA, 2011b):

1. *Scope and length:* Where a long-term problem is chronic in frequency and duration and may be characterized by acute spikes, a crime pattern is acute in its frequency and duration.
2. *Nature of activity:* Where a long-term problem is related to “harmful events” that may include crime, safety, disorder, or quality of life concerns (Clarke & Eck, 2005), a crime pattern is limited to a specific set of reported crimes.
3. *Response:* Where a long-term problem requires specialized strategic responses that often involve multiagency and community collaboration, a crime pattern typically requires routine operational tactics carried out primarily by the police.

Not every repeat incident or pattern is part of a larger problem; however, repeat incidents and patterns may be part of a series of related activity that, over time, become a problem. Problems, conversely,

will contain numerous patterns or repeat incidents and by first identifying these short-term issues and determining the effectiveness of the responses to them, more can be learned about the problem (e.g., interviews with offenders about why they commit those crimes, what works to resolve repeat incidents and what does not).

There are several types of long-term problems, distinguishable because oftentimes the type of analysis and police responses are different based on each type. The types of long-term problems are easily understood, because they are based on the three sides of the problem analysis triangle—place, offender, victim/target.

The first is the **problem location**, which also can be called a “risky place” (Clarke & Eck, 2005; Eck, Clarke, & Guerette, 2007). Problem locations can be an individual address (e.g., one convenience store) or a type of place (e.g., all convenience stores) at which there is a concentration of crime or problematic activity. In the problem location, various victims and offenders are involved in the activity, making the place or the type of place the focus. In this case, the analysis would focus on identifying all the activity, understanding how opportunities are created and acted upon, and understanding how that location or type of place compares to similar, nonproblematic places.

The second type of long-term problem is the **problem offender**. These can be individual people who commit a disproportionate amount of crime or groups of offenders who share similar characteristics. For the problem offenders, the key component is that one person or a group of people moves through different settings and takes advantage of different victims. For example, a city might have a problem with truancy in its high schools. These students share common characteristics in that they are not attending school, and while not in school they may be burglarizing homes, hanging out in public places, and buying or selling drugs. Analysis and responses would focus on understanding and addressing these offenders and their truancy that has resulted in a wide range of problematic behavior.

The third type of long-term problem is the **problem victim**. Similar to problem locations and offenders, these can be individual people (e.g., someone whose car has been stolen three times) or groups of victims who share characteristics (e.g., Hispanic migrant workers who are victims of robbery). For the problem victims, the key component is that one person or a group of people moves through different settings and is victimized by different offenders. Analysis and response focus on why these individuals are victimized and what aspect of their behavior makes them vulnerable. For example, in the case of the Hispanic migrant workers, the fact that they do not have vehicles and walk from place to place combined with the fact that they do not use banks but carry all their money in cash on their person makes them vulnerable to robbery.

The fourth type of long-term problem is the **problem property**. Usually, problem property is not one piece of property that is stolen repeatedly but is a class of products that share characteristics that make them attractive and vulnerable in various situations to various types of offenders. For example, copper wire is a problem property because many different types of offenders take copper from a variety of places (e.g., construction sites, cell phone towers, old homes, etc.) and turn it in for cash. Analysis and response focus on the settings in which the property is located and the opportunities that exist for crime. In the case of copper wire, often the lax practices of scrap metal buyers who do not require identification and do not ask questions of the scrap metal sellers encourage the thefts (because the metal is easy to turn into cash).

The final and most broad type is the **compound problem**: a problem that encompasses various locations, offenders, and victims and, in most cases, exists throughout an entire jurisdiction. For example, a problem may be initially identified as a theft from vehicle problem, but further analysis determines that the crime predominantly occurs in residential areas; however, no one type of location, small area, victim, or offender can be attributed to this problem. This would make it a compound problem. These types of problems require the most comprehensive analysis and response because a number of factors (e.g., offenders, locations, and victims) may contribute to the problem. However, luckily these tend to be the least frequent types of problems.

Notably, addressing immediate problems successfully helps to prevent repeat incidents and patterns (short-term problems) from surfacing, and addressing these successfully helps to prevent long-term problems from becoming significant issues. Long-term problems contain numerous incidents, significant incidents, repeat incidents, and patterns, and by systematically identifying these smaller, less complex problems and responding to them effectively, police can prevent long-term problems (Boba & Santos, 2011). This can be easily understood using a fire analogy. That is, small sparks arise and can be stomped out fairly easily; however, if they are not stomped out, they can merge and grow into small fires. If these small fires are not put out, they too can merge and create even larger fires that are even more complex and difficult to put out. Thus, as firefighters focus on sparks, small fires, and large fires simultaneously, police and crime analysts do the same with different levels of problems.

In this section, the word *problem* is used generally (e.g., immediate, short-term, and long-term problems) and specifically (e.g., problem location). All levels of activity that the police address are “problems,” which is most likely why the confusion of the word has been paramount. With problems defined by their complexity and temporal nature for this book, it is easier to apply and understand the discussion of crime analysis methods and techniques.

Literature

As noted throughout this chapter, researchers are convinced that crime analysis and the application of the scientific method will assist police in understanding and responding to crime. However, the police traditionally have functioned at a primarily tactical (short-term problem) level (McDonald, 2005). Consequently, in recent years, there has been a movement to reinvestigate the ideas and inform the practice of the problem-oriented policing movement (Clarke, 1998; Knutsson, 2003; Scott, 2000; Tilley & Bullock, 2003) through (a) publications about crime prevention (see Clarke’s *Crime Prevention Studies* series), (b) funding for problem case studies (Clarke & Goldstein, 2002; Sampson & Scott, 2000), and (c) institutionalizing problem analysis (Institutionalizing Problem Analysis Project, North Carolina State University, 2009). The dramatic increase in the number of publications that provide problem-solving guidance is rooted in environmental criminology (Eck, 2006).

Most notable is the creation of the virtual **Center for Problem-Oriented Policing (POP Center)** at www.popcenter.org. The goal of the center is to create, warehouse, and distribute relevant research and practice on problem-oriented policing and more generally crime prevention. The heart of the POP Center is the series titled “Problem-Oriented Guides for Police” that summarizes knowledge about how to reduce the harm caused by specific crime and disorder problems. The guides are meant to help prevent and improve the overall response to problems, not to investigate offenses or handle specific incidents, and they draw on research findings and crime prevention practices in the United States, the United Kingdom, Canada, Australia, New Zealand, the Netherlands, and Scandinavia. Even though laws, customs, and practices vary from country to country, it is apparent that communities everywhere experience common problems. These guides bring this information together in a succinct way appropriate for police and undergraduates.

Along with the problem guides, the POP Center offers response guides that summarize the collective knowledge from research and practice about how and under what conditions common police responses to crime and disorder do and do not work. In other words, there is a set of more general police responses, such as crackdowns, crime prevention publicity campaigns, and use of closed circuit televisions, that work more effectively in some situations than in others. These guides focus on when and how they work best.

The most relevant guides produced by the POP Center for crime analysts are the “Problem-Solving Tool Guides” that focus on explaining how various analytical methods and techniques can

be applied to improve an understanding of crime and disorder problems. They include topics such as researching a problem, analyzing repeat victimization, and assessing responses to problems. Most importantly, the guide titled “Crime Analysis for Problem Solvers” provides straightforward instruction to working crime analysts and officers conducting analysis in the context of problem solving. Finally, the POP Center provides a wealth of published literature on crime prevention, problem solving, and crime analysis in PDF format as well as learning modules and information about training and conferences.

Conclusion

The purpose of this chapter has been to provide the link between the theories of crime prevention discussed in Chapter 2 and the practice of crime analysis through the purpose and effectiveness of policing. It has also defined and distinguished different types of “problems” that will be examined and discussed separately in this book, and it has provided a central resource for information on problem solving, analysis, and crime prevention.

SUMMARY POINTS

This chapter provides an overview of the role of environmental criminological theory in guiding crime analysis. The following are the key points addressed in this chapter:

- The central element of the standard model involves enforcing the law in a broad and reactive way primarily using police resources. The model includes increasing the number of police officers, unfocused random motorized patrols, rapid response to calls for service, follow-up investigations by detectives, and general reactive arrest policies. Although these strategies have been evaluated a limited number of times, research shows that each one of these generally applied enforcement efforts have been of limited effectiveness.
- The key tenets of community policing are that police must work with the community and draw from other resources outside the police to prevent and solve crime problems. Because community policing is difficult to define, it has also been difficult to evaluate. Community policing as measured by these specific strategies does not seem to increase police effectiveness on preventing crime; however, the philosophy that police should engage the community and partner with them to deal with problems is one to which most police departments in the United States adhere.
- Broken windows policing is based on a practical theory that focuses on the strict enforcement of laws and ordinances against disorderly behavior and minor offenses, considered “quality of life” offenses, such as prostitution, public urination, and aggressive panhandling, to prevent more serious crimes from happening. Research results on the effectiveness of broken windows policing have been mixed.
- Hot spots policing is the strategy in which police systematically identify areas within a city that have disproportionate amounts of crime and employ responses in those specific areas. There has been a significant amount of rigorously applied research

on hot spots policing, and the combined results indicate that it does contribute to meaningful reductions of both crime and disorder.

- Compstat is the name of a specific program originally implemented by the New York City Police Department (NYPD) in 1994, and it has been described as perhaps the single most important organizational innovation in policing during the latter half of the 20th century. An important element of Compstat is that the analysis of up-to-date computerized crime, arrest, and “quality of life” data is used to produce statistics and maps. Another important element is that this information is used in regularized, interactive crime prevention and reduction strategy meetings where managers are held accountable for the crime prevention approaches they implement in their districts. To date, there has been no formal evaluation of NYPD’s Compstat or of the national implementation of Compstat, so no research conclusions exist about the effectiveness of Compstat on crime and disorder.
- Problem-oriented policing is the idea that police take a proactive role in identifying, understanding, and responding to problems (not just incidents) in their communities. Numerous researchers have concluded that although more rigorous research needs to be conducted on POP efforts, the evidence so far shows that it is the most promising of the police strategies.
- The problem-solving process includes scanning and defining specific problems, analyzing data to understand the opportunities that create the problem, responding to the problem using both police and nonpolice methods, and assessing whether the response has worked.
- The overall conclusion about police effectiveness by police scholars is that the more focused the police strategies are and the more the strategies are tailored to the specific problem at hand, the more effective the police will be in controlling crime and disorder.
- The standard model of policing generally applies various tactics such as patrol, arrests, and investigation, so there is little use for crime analysis beyond determining the level of staffing in particular areas and providing statistics of police performance.
- The role of crime analysis in community policing focuses on providing information to citizens. Crime analysts provide crime statistical information to community groups, neighborhood and block watch organizations, businesses, and the like to serve the goal of communicating police information to the public. Crime analysis also assists in community policing by collecting and analyzing information *from* the public.
- When broken windows policing focuses on particular areas and particular times, crime analysis becomes key in determining the areas and times where enforcement of disorder activity would be best applied.
- Crime analysis, particularly crime mapping, plays a vital role in hot spots policing by identifying areas that have disproportionate amounts of crime.
- The role of crime analysis is integral to the Compstat process, as it provides routine analysis for strategic problem solving and crime mapping capabilities in Compstat accountability meetings.
- Crime analysis plays the most integral role in problem-oriented policing and the problem-solving process. Problem analysis is absolutely necessary

for identifying and specifying the problem at hand, analyzing data to understand why the problem is occurring, helping to develop when and where responses would be best implemented, and helping to assess the impact of the response on the problem.

- The scope of problem solving within a police department varies—from small, incident-centered activity to broad patterns of routine behavior. This suggests three problem levels that are understood by complexity and the temporal nature of their development—immediate, short term, and long term.
- Problems considered immediate are isolated incidents that occur and are resolved within minutes, hours, or in some cases, days. Incidents are individual events that an officer typically responds to or discovers while on patrol. Incidents are citizen- and officer-generated calls for service and include crime, disorder, or service-related tasks. Serious incidents are individual events that arise from calls for service but are deemed more serious by laws and policies of the police department; thus they require additional investigation and/or a more extensive immediate response.
- A **repeat incident** occurs when there are two or more individual incidents that are similar in nature and happen at the same place (typically) or by the same person. Repeat incidents occur less frequently than individual incidents since they represent clusters of incidents. These are usually common noncriminal or interpersonal criminal incidents that may, but do not always, result in a crime report. A repeat incident is an important level of activity because it represents a short-term pattern of opportunity that can focus crime analysis and problem solving. Analysis and problem solving of a repeat incident focuses on identifying an address with multiple calls for service and resolving the immediate underlying issue.
- A pattern is a group of two or more crimes reported to or discovered by police that is treated as one unit of analysis because (1) the crimes share one or more key commonalities that make them notable and distinct, (2) there is no known relationship between victim and offender, and (3) the criminal activity is typically of limited duration. A more complete definition, analysis of, and response to patterns are discussed in detail in Part III: Tactical Crime Analysis.
- A long-term problem is a set of related activity that occurs over several months, seasons, or years that stems from systematic opportunities created by everyday behavior and environment. Problems can consist of common disorder activity (e.g., loud parties or speeding in residential neighborhoods) as well as serious criminal activity (e.g., bank robbery or date rape).
- Problem locations can be an individual address (e.g., one convenience store) or a type of place (e.g., all convenience stores) at which there is a concentration of crime or problematic activity. In this case, the analysis would focus on identifying all the activity, understanding how opportunities are created and acted upon, and understanding how that location or type of place compares to similar, nonproblematic places.
- The second type of long-term problem is the problem offender. These can be individual people who commit a disproportionate amount of crime or groups of offenders who share characteristics. Analysis and responses would focus on understanding and addressing these offenders and their truancy that has

resulted in a wide range of problematic behavior.

- The third type of long-term problem is the problem victim. Similar to problem locations and offenders, these can be individuals or groups of victims who share characteristics. Analysis and response focuses on why these individuals become victims and what part of their behavior makes them vulnerable.
- The fourth type of long-term problem is the problem property. Usually, the problem property is not one piece of property that is repeatedly stolen but is a class of products that share characteristics that make them attractive and vulnerable in various situations to various types of

offenders. Analysis and response focus on the crime settings around the property and the opportunities that exist for crime.

- The final and most broad type is the compound problem, which is the problem that encompasses various locations, offenders, and victims and in most cases exists throughout an entire jurisdiction. These types of problems require the most comprehensive analysis and response because there may be a number of factors that are contributing to the problem.
- The Center for Problem-Oriented Policing (POP Center) is a website (www.popcenter.org) that provides literature and tools for the practice of problem solving.

DISCUSSION EXERCISES *

Exercise 1

Compare and contrast the research results and role of crime analysis in disorder policing, community policing, hot spots policing, Compstat, and problem-oriented policing. If you were a crime analyst, under what type of policing would you like to work and why?

Exercise 2

Provide specific examples about how the following types of problematic activity are

manifested at different levels (e.g., immediate, short-term, and long-term):

- Robbery at convenience stores
- Disorderly youth at a movie theatre
- Thefts from vehicles at the mall during the holiday season

*Additional exercises using data and other resources can be found on <http://www.sagepub.com/bobasantos3e>.