What Can Police Do to Reduce Crime, Disorder, and Fear?

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The authors review research on police effectiveness in reducing crime, disorder, and fear in the context of a typology of innovation in police practices. That typology emphasizes two dimensions: one concerning the *diversity of approaches*, and the other, the *level of focus*. The authors find that little evidence supports the standard model of policing—low on both of these dimensions. In contrast, research evidence does support continued investment in police innovations that call for greater focus and tailoring of police efforts, combined with an expansion of the tool box of policing beyond simple law enforcement. The strongest evidence of police effectiveness in reducing crime and disorder is found in the case of geographically focused police practices, such as hot-spots policing. Community policing practices are found to reduce fear of crime, but the authors do not find consistent evidence that community policing (when it is implemented without models of problem-oriented policing) affects either crime or disorder. A developing body of evidence points to the effectiveness of problem-oriented policing in reducing crime, disorder, and fear. More generally, the authors find that many policing practices applied broadly throughout the United States either have not been the subject of systematic research or have been examined in the context of research designs that do not allow practitioners or policy makers to draw very strong conclusions.

Keywords: police; evaluations; crime; disorder; hot spots; problem-oriented policing; community policing

The past decade has been the most innovative period in American policing. Such approaches as community policing, problem-oriented policing, hot-spots policing, and broken-windows policing either emerged in the 1990s or came to be widely adopted by police agencies at that time. The changes in American

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policing were dramatic. From an institution known for its conservatism and resistance to change, policing suddenly stood out as a leader in criminal justice innovation. This new openness to innovation and widespread experimentation in new practices were part of a renewed confidence in American policing that could be found among not only police professionals but also scholars and the general public. While there is much debate over what caused the crime drop of the 1990s, many police executives, police scholars, and lay people looked to new policing practices as a primary explanation (Bratton 1998; Eck and Maguire 2000; Kelling and Sousa 2001).

At the same time that many in the United States touted the new policing as an explanation for improvements in community safety, many scholars and police professionals identified the dominant policing practices of earlier decades as wasteful and ineffective. This criticism of the "standard model" of policing was part of a more general critique of the criminal justice system that emerged as early as the mid-1970s (e.g., see Martinson 1974). As in other parts of the criminal justice system, a series of studies seemed to suggest that such standard practices as random preventive patrol or rapid response to police calls for service had little impact on crime or on fear of crime in American communities (e.g., see Kelling et al. 1974; Spelman and Brown 1981). By the 1990s, the assumption that police practices were ineffective in combating crime was widespread (Bayley 1994; Gottfredson and Hirschi 1990), a factor that certainly helped to spawn rapid police innovation at that time.

In this article, we revisit the central assumptions that have underlain recent American police innovation. Does the research evidence support the view that standard models of policing are ineffective in combating crime and disorder? Do elements of the standard model deserve more careful study before they are abandoned as methods of reducing crime or disorder? Do recent police innovations hold greater promise of increasing community safety, or does the research evidence suggest that they are popular but actually ineffective? What lessons can we draw from research about police innovation in reducing crime, disorder, and fear over the last two decades? Does such research lead to a more general set of recommendations for American policing or for police researchers?

Our article examines these questions in the context of a review of the research evidence about what works in policing. Our focus is on specific elements of community safety: crime, fear, and disorder. We begin by developing a typology of police practices that is used in our article to organize and assess the evidence about

police effectiveness. We then turn to a discussion of how that evidence was evaluated and assessed. What criteria did we use for distinguishing the value of studies for coming to conclusions about the effectiveness of police practices? How did we decide when the evidence was persuasive enough to draw more general statements about specific programs or strategies? Our review of the evidence follows. Our approach is to identify what existing studies say about the effects of core police practices. Having summarized the research literature in this way, we conclude with a more general synthesis of the evidence reviewed and a discussion of its implications for police practice and research on policing.
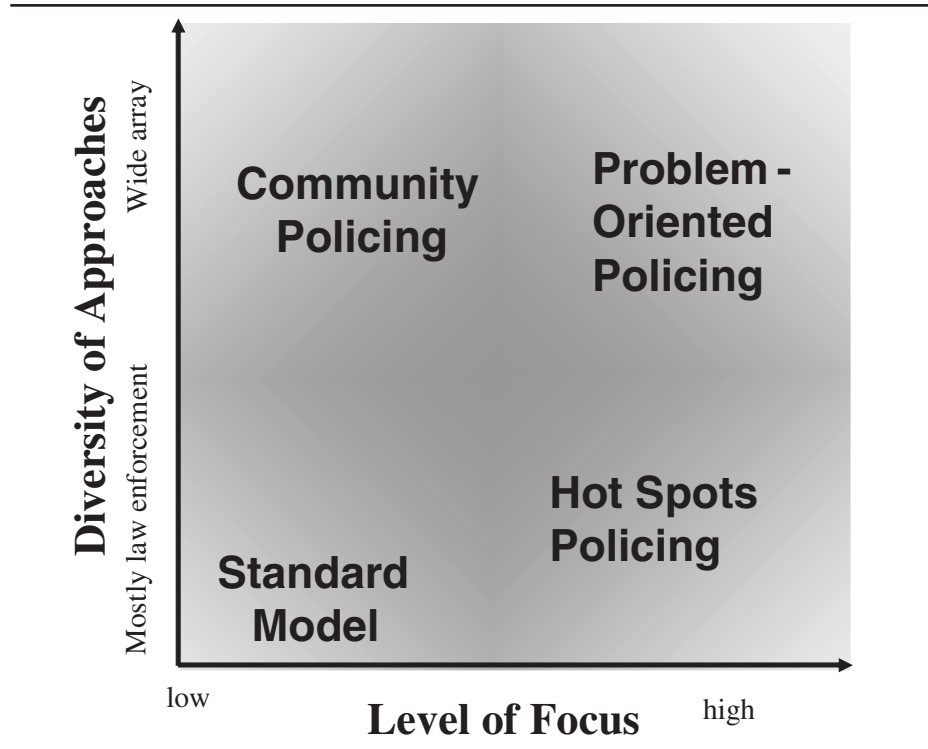
The Standard Model of Policing and Recent Police Innovation: A Typology of Police Practices

Over the past three decades, scholars have increasingly criticized what has come to be considered the standard model of police practices (Bayley 1994; Goldstein 1990; Visher and Weisburd 1998). This model relies generally on a "one-size-fits-all" application of reactive strategies to suppress crime and continues to be the dominant form of police practices in the United States. The standard model is based on the assumption that generic strategies for crime reduction can be applied throughout a jurisdiction regardless of the level of crime, the nature of crime, or other variations. Such strategies as increasing the size of police agencies, random patrol across all parts of the community, rapid response to calls for service, generally applied follow-up investigations, and generally applied intensive enforcement and arrest policies are all examples of this standard model of policing.

Because the standard model seeks to provide a generalized level of police service, it has often been criticized as focused more on the means of policing or the resources that police bring to bear than on the effectiveness of policing in reducing crime, disorder, or fear (Goldstein 1979). Accordingly, in the application of preventive patrol in a city, police agencies following the standard model will often measure success in terms of whether a certain number of patrol cars are on the street at certain times. In agencies that seek to reduce police response times to citizen calls for service, improvements in the average time of response often become a primary measure of police agency success. In this sense, using the standard model can lead police agencies to become more concerned with how police services are allocated than whether they have an impact on public safety.

This model has also been criticized because of its reliance on the traditional law enforcement powers of police in preventing crime (Goldstein 1987). Police agencies relying upon the standard model generally employ a limited range of approaches, overwhelmingly oriented toward enforcement, and make relatively little use of institutions outside of policing (with the notable exception of other parts of the criminal justice system). "Enforcing the law" is a central element of the standard model of policing, suggesting that the main tools available to the police, or legitimate for their use, are found in their law enforcement powers. It is no coinci-

FIGURE 1
DIMENSIONS OF POLICING STRATEGIES

dence that police departments are commonly referred to as "law enforcement agencies." In the standard model of policing, the threat of arrest and punishment forms the core of police practices in preventing and controlling crime.

Recent innovations in policing have tended to expand beyond the standard model of policing along two dimensions. Figure 1 depicts this relationship. The vertical axis of the figure, *diversity of approaches*, represents the content of the practices employed. Strategies that rely primarily on traditional law enforcement are low on this dimension. The horizontal axis, *level of focus*, represents the extent of focus or targeting of police activities. Strategies that are generalized and applied uniformly across places or offenders score low on this dimension. Innovations in policing over the last decade have moved outward along one or both of these dimensions. This point can be illustrated in terms of three of the dominant trends in innovation over the last two decades: community policing, hot-spots policing, and problem-oriented policing. We note at the outset that in emphasizing specific components of these innovations, we are trying to illustrate our typology, although in practice, the boundaries between approaches are seldom clear and often overlap

in their applications in real police settings. We will discuss this point in fuller detail in our examination of specific strategies later in our article.

Community policing, perhaps the most widely adopted police innovation of the last decade, is extremely difficult to define: Its definition has varied over time and among police agencies (Eck and Rosenbaum 1994; Greene and Mastrofski 1988). One of the principal assumptions of community policing, however, is that the police can draw from a much broader array of resources in carrying out the police function than is found in the traditional law enforcement powers of the police. For example, most scholars agree that community policing should entail greater community involvement in the definition of crime problems and in police activities to prevent and control crime (Goldstein 1990; Skolnick and Bayley 1986; Weisburd, McElroy, and Hardyman 1988). Community policing suggests a reliance on a more community-based crime control that draws on the resources of the public as well as the police. Thus, it is placed high on the dimension of diversity of approaches in our typology. It lies to the left on the dimension of level of focus because when community policing is employed without problem solving (see later), it provides a common set of services throughout a jurisdiction.

Hot-spots policing (Braga 2001; Sherman and Weisburd 1995; Weisburd and Braga 2003) represents an important new approach to crime control that illustrates innovation on our second dimension, level of focus. It demands that the police identify specific places in their jurisdictions where crime is concentrated and then focus resources at those locations. When only traditional law enforcement approaches such as directed patrol are used in bringing attention to such hot spots, hot-spots policing is high on the dimension of level of focus but low on that of diversity of approaches.

Problem-oriented policing (Goldstein 1990) expands beyond the standard model in terms of both focus and the tools that are used. Problem-oriented policing, as its name suggests, calls for the police to focus on specific problems and to fit their strategies to the problems identified. It thus departs from the generalized one-size-fits-all approach of the standard model and calls for tailor-made and focused police practices. But in defining those practices, problem-oriented policing also demands that the police look beyond their traditional law enforcement powers and draw upon a host of other possible methods for addressing the problems they define. In problem-oriented policing, the tool box of policing might include community resources or the powers of other government agencies.

Evaluating the Evidence

Before we turn to what our review tells us about the standard model of policing and recent police innovation, it is important to lay out the criteria we used in assessing the evidence we reviewed. There is no hard rule for determining when studies provide more reliable or valid results, or any clear line to indicate when there is enough evidence to come to an unambiguous conclusion. Nonetheless, social sci-

entists generally agree on some basic guidelines for assessing the strength of the evidence available. Perhaps the most widely agreed-upon criterion relates to what is often referred to as internal validity (Sherman et al. 2002; Weisburd, Lum, and Petrosino 2001). Research designs that allow the researcher to make a stronger link between the interventions or programs examined and the outcomes observed are generally considered to provide more valid evidence than are designs that provide for a more ambiguous connection between cause and effect. In formal terms, the former designs are considered to have higher internal validity. In reviewing studies, we used internal validity as a primary criterion for assessing the strength of the evidence provided.

Using the standard model can lead police agencies to become more concerned with how police services are allocated than whether they have an impact on public safety.

Researchers generally agree that randomized experiments provide a higher level of internal validity than do nonexperimental studies (see, e.g., Boruch, Victor, and Cecil 2000; Campbell and Boruch 1975; Cook and Campbell 1979; Farrington 1983; Feder and Boruch 2000; Shadish, Cook, and Campbell 2002; Weisburd 2003). In randomized experiments, people or places are randomly assigned to treatment and control or comparison groups. This means that all causes, except treatment itself, can be assumed to be equally distributed among the groups. Accordingly, if an effect for an intervention is found, the researcher can conclude with confidence that the cause was the intervention itself and not some other confounding factor.

Another class of studies, referred to here as quasi-experiments, typically allow for less confidence in making a link between the programs or strategies examined and the outcomes observed (Cook and Campbell 1979). Quasi-experiments generally fall into three classes. In the first class, the study compares an "experimental" group with a control or comparison group, but the subjects of the study are not randomly assigned to the categories. In the second class of quasi-experiments, a long series of observations is made before the treatment, and another long series of observations is made after the treatment. The third class of quasi-experiments combines the use of a control group with time-series data. This latter approach is generally seen to provide the strongest conclusions in quasi-experiment research.

Quasi-experimental designs are assumed to have a lower level of internal validity than are randomized experimental studies, however, because the researcher can never be certain that the comparison conditions are truly equivalent.

Finally, studies that rely only on statistical controls—generally termed *nonexperimental* or *correlational* designs—are often seen to lead to the weakest level of internal validity (Cook and Campbell 1979; Sherman et al. 1997). In nonexperimental research, neither researchers nor policy makers intentionally vary treatments to test for outcomes. Rather, researchers observe natural variation in outcomes and examine the relationships between that variation and police practices. For example, when trying to determine if police staffing levels influence crime, researchers might examine the relationship between staffing levels and crime rates across cities. The difficulty with this approach is apparent: other factors may influence crime and may also be confounded with staffing levels. To address this concern, researchers attempt to control for these other factors statistically. It is generally agreed, however, that causes unknown or unmeasured by the researcher are likely to be a serious threat to the internal validity of these correlational studies (Feder and Boruch 2000; Kunz and Oxman 1998; Pedhazer 1982).

In our review, we rely strongly on these general assessments of the ability of research to make statements of high internal validity regarding the practices evaluated. However, we also recognize that other criteria are important in assessing the strength of research. While academics generally recognize that randomized experiments have higher internal validity than nonrandomized studies, a number of scholars have suggested the results of randomized field experiments can be compromised by the difficulty of implementing such designs (Cornish and Clarke 1972; Eck 2002; Pawson and Tilley 1997). Accordingly, in assessing the evidence, we also took into account the integrity of the implementation of the research design.

Even if a researcher can make a very strong link between the practices examined in a specific study and their influence on crime, disorder, or fear, if one cannot make inferences from that study to other jurisdictions or police practices more generally, then the findings will not be very useful. Moreover, most social scientists agree that caution should be used in drawing strong policy conclusions from a single study, no matter how well designed (Manski 2003; Weisburd and Taxman 2000). For these reasons, we took into account such additional factors related to our ability to generalize from study findings in drawing our conclusions.

What Works in Policing Crime, Disorder, and Fear of Crime

Below, we review the evidence on what works in policing using the criteria outlined above. In organizing our review, we rely on our typology of police practices and thus divide our discussion into four sections, representing the four broad types of police approaches suggested in our discussion of Figure 1. For each type, we

begin with a general proposition that summarizes what the research literature tells us about the effectiveness of that approach in reducing crime, disorder, and fear of crime.

> *Proposition 1:* The standard model of policing has relied on the uniform provision of police resources and the law enforcement powers of the police to prevent crime and disorder across a wide array of crimes and across all parts of the jurisdictions that police serve. Despite the continued reliance of many police agencies on these standard practices, little evidence exists that such approaches are effective in controlling crime and disorder or in reducing fear of crime.

In our review of the standard model of policing, we identified five broad strategies that have been the focus of systematic research over the last three decades: (1) increasing the size of police agencies; (2) random patrol across all parts of the community; (3) rapid response to calls for service; (4) generalized investigations of crime; and (5) generally applied intensive enforcement and arrest policies.

Increasing the size of police agencies

Evidence from case studies in which police have suddenly left duty (e.g., police strikes) shows that the absence of police is likely to lead to an increase in crime (Sherman and Eck 2002). While these studies are generally not very strong in their design, their conclusions are consistent. But the finding that removing all police will lead to more crime does not answer the primary question that most scholars and policy makers are concerned with—that is, whether marginal increases in the number of police officers will lead to reductions in crime, disorder, or fear. The evidence in this case is contradictory and the study designs generally cannot distinguish between the effects of police strength and the factors that ordinarily are associated with police hiring such as changes in tactics or organizational structures. Most studies have concluded that variations in police strength over time do not affect crime rates (Chamlin and Langworthy 1996; Eck and Maguire 2000; Niskanen 1994; van Tulder 1992). However, two recent studies using more sophisticated statistical designs suggest that marginal increases in the number of police are related to decreases in crime rates (Levitt 1997; Marvell and Moody 1996).

Random patrol across all parts of the community

Random preventive patrol across police jurisdictions has continued to be one of the most enduring of standard police practices. Despite the continued use of random preventive patrol by many police agencies, the evidence supporting this practice is very weak, and the studies reviewed are more than a quarter century old. Two studies, both using weaker quasi-experimental designs, suggest that random preventive patrol can have an impact on crime (Dahmann 1975; Press 1971). A much larger scale and more persuasive evaluation of preventive patrol in Kansas City found that the standard practice of preventive patrol does not reduce crime,

disorder, or fear of crime (Kelling et al. 1974). However, while this is a landmark study, the validity of its conclusions has also been criticized because of methodological flaws (Larson and Cahn 1985; Minneapolis Medical Research Foundation 1976; Sherman and Weisburd 1995).

Rapid response to calls for service

A third component of the standard model of policing, rapid response to calls for service, has also not been shown to reduce crime or even to lead to increased chances of arrest in most situations. The crime-reduction assumption behind rapid response is that if the police get to crime scenes rapidly, they will apprehend offenders, thus providing a general deterrent against crime. No studies have been done of the direct effects of this strategy on disorder or fear of crime. The best evidence concerning the effectiveness of rapid response comes from two studies conducted in the late 1970s (Kansas City Police Department 1977; Spelman and Brown 1981). Evidence from five cities examined in these two studies consistently shows that most crimes (about 75 percent at the time of the studies) are discovered some time after they have been committed. Accordingly, offenders in such cases have had plenty of time to escape. For the minority of crimes in which the offender and the victim have some type of contact, citizen delay in calling the police blunts whatever effect a marginal improvement in response time might provide.

Generally applied follow-up investigations of crimes

No studies to date examine the direct impact of generalized improvements in police investigation techniques on crime, disorder, or fear of crime. Nonetheless, it has been assumed that an increase in the likelihood of a crime's being solved through arrest would lead to a deterrence or incapacitation effect. Research suggests, however, that the single most important factor leading to arrest is the presence of witnesses or physical evidence (Greenwood, Chaiken, and Petersilia 1977; Eck 1983)—factors that are not under the control of the police and are difficult to manipulate through improvements in investigative approaches.

Generally applied intensive enforcement and arrests

Tough law enforcement strategies have long been a staple of police crime-fighting. We reviewed three broad areas of intensive enforcement within the standard model: disorder policing, generalized field interrogations and traffic enforcement, and mandatory and preferred arrest policies in domestic violence.

Disorder policing. The model of intensive enforcement applied broadly to incivilities and other types of disorder has been described recently as "broken windows policing" (Kelling and Coles 1996; Kelling and Sousa 2001) or "zero tolerance policing" (Bowling 1999; Cordner 1998; Dennis and Mallon 1998; Manning 2001). While the common perception is that enforcement strategies (primarily arrest)

applied broadly against offenders committing minor offenses lead to reductions in serious crime, research does not provide strong support for this proposition. For example, studies in seven cities that were summarized by Skogan (1990, 1992) found no evidence that intensive enforcement reduced disorder, which went up despite the special projects that were being evaluated. More recent claims of the effects of disorder policing based on crime declines in New York City have also been strongly challenged because they are confounded with either other organizational changes in New York (notably Compstat; see Eck and Maguire 2000), other changes such as the crack epidemic (see Bowling 1999; Blumstein 1995), or more general crime trends (Eck and Maguire 2000). One correlational study by Kelling and Sousa (2001) found a direct link between misdemeanor arrests and more serious crime in New York, although limitations in the data available raise questions about the validity of these conclusions.

Generalized field interrogations and traffic enforcement. Limited evidence supports the effectiveness of field interrogations in reducing specific types of crime, though the number of studies available is small and the findings are mixed. One strong quasi-experimental study (Boydstun 1975) found that disorder crime decreased when field interrogations were introduced in a police district. Whitaker et al. (1985) report similar findings in a correlational study of crime and the police in sixty neighborhoods in Tampa, Florida; St. Louis, Missouri; and Rochester, New York. Researchers have also investigated the effects of field interrogations by examining variations in the intensity of traffic enforcement. Two correlational studies suggest that such interventions do reduce specific types of crime (Sampson and Cohen 1988; J. Q. Wilson and Boland 1979). However, the causal link between enforcement and crime in these studies is uncertain. In a more direct investigation of the relationship between traffic stops and crime, Weiss and Freels (1996) compared a treatment area in which traffic stops were increased with a matched control area. They found no significant differences in reported crime for the two areas.

Mandatory arrest policies for domestic violence. Mandatory arrest in misdemeanor cases of domestic violence is now required by law in many states. Consistent with the standard model of policing, these laws apply to all cities in a state, in all areas of the cities, for all kinds of offenders and situations. Research and public interest in mandatory arrest policies for domestic violence was encouraged by an important experimental study in Minneapolis, Minnesota (Sherman and Berk 1984a, 1984b), which found reductions in repeat offending among offenders who were arrested as opposed to those who were counseled or separated from their partners. This study led to a series of replications supported by the National Institute of Justice. These experiments found deterrent effects of arrest in two cities and no effect of arrest in three other cities (Berk et al. 1992; Dunford 1990; Dunford, Huizinga, and Elliot 1990; Hirschel and Hutchinson 1992; Pate and Hamilton 1992; Sherman et al. 1991), suggesting that the effects of arrest will vary by city, neighborhood, and offender characteristics (see also Sherman 1992; Maxwell, Garner, and Fagan 2001, 2002).

Proposition 2: Over the past two decades, there has been a major investment on the part of the police and the public in community policing. Because community policing involves so many different tactics, its effect as a general strategy cannot be evaluated. Overall, the evidence does not provide strong support for the position that community policing approaches impact strongly on crime or disorder. Stronger support is found for the ability of community policing tactics to reduce fear of crime.

Police practices associated with community policing have been particularly broad, and the strategies associated with community policing have sometimes changed over time. Foot patrol, for example, was considered an important element of community policing in the 1980s but has not been a core component of more recent community policing programs. Consequently, it is often difficult to determine if researchers studying community policing in different agencies at different times are studying the same phenomena. One recent correlational study that

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The research available suggests that when the police partner more generally with the public, levels of citizen fear will decline.

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attempts to assess the overall impact of federal government investment for community policing found a positive crime control effect of "hiring and innovative grant programs" (Zhao, Scheider, and Thurman 2002); however, a recent review of this work by the General Accounting Office (2003) has raised strong questions regarding the validity of the findings.

Studies do not support the view that community meetings (Wycoff and Skogan 1993), neighborhood watch (Rosenbaum 1989), storefront offices (Skogan 1990; Uchida, Forst, and Annan 1992), or newsletters (Pate and Annan 1989) reduce crime, although Skogan and Hartnett (1995) found that such tactics reduce community perceptions of disorder. Door-to-door visits have been found to reduce both crime (see Sherman 1997) and disorder (Skogan 1992). Simply providing information about crime to the public, however, does not have crime prevention benefits (Sherman 1997).

As noted above, foot patrol was an important component of early community policing efforts. An early uncontrolled evaluation of foot patrol in Flint, Michigan, concluded that foot patrol reduced reported crime (Trojanowicz 1986). However, Bowers and Hirsch (1987) found no discernable reduction in crime or disorder due

to foot patrols in Boston. A more rigorous evaluation of foot patrol in Newark also found that it did not reduce criminal victimizations (Police Foundation 1981). Nonetheless, the same study found that foot patrol reduced residents' fear of crime.

Additional evidence shows that community policing lowers the community's level of fear when programs are focused on increasing community-police interaction. A series of quasi-experimental studies demonstrate that policing strategies characterized by more direct involvement of police and citizens, such as citizen contract patrol, police community stations, and coordinated community policing, have a negative effect on fear of crime among individuals and on individual level of concern about crime in the neighborhood (Brown and Wycoff 1987; Pate and Skogan 1985; Wycoff and Skogan 1986).

An aspect of community policing that has only recently received systematic research attention concerns the influences of police officer behavior toward citizens. Citizen noncompliance with requests from police officers can be considered a form of disorder. Does officer demeanor influence citizen compliance? Based on systematic observations of police-citizen encounters in three cities, researchers found that when officers were disrespectful toward citizens, citizens were less likely to comply with their requests (Mastrofski, Snipes, and Supina 1996; McCluskey, Mastrofski, and Parks 1999).

> *Proposition 3:* There has been increasing interest over the past two decades in police practices that target very specific types of criminals and crime places. In particular, policing crime hot spots has become a common police strategy for addressing public safety problems. While only weak evidence suggests the effectiveness of targeting specific types of offenders, a strong body of evidence suggests that taking a focused geographic approach to crime problems can increase policing effectiveness in reducing crime and disorder.

While the standard model of policing suggests that police activities should be spread in a highly uniform pattern across urban communities and applied uniformly across the individuals subject to police attention, a growing number of police practices focus on allocating police resources in a focused way. We reviewed research in three specific areas: (1) police crackdowns, (2) hot-spots policing, and (3) focus on repeat offenders.

Police crackdowns

There is a long history of police crackdowns that target particularly troublesome locations or problems. Such tactics can be distinguished from more recent hot-spots policing approaches (described below) in that they are temporary concentrations of police resources that are not widely applied. Reviewing eighteen case studies, Sherman (1990) found strong evidence that crackdowns produce short-term deterrent effects, though research is not uniformly in support of this proposition (see, e.g., Annan and Skogan 1993; Barber 1969; Kleiman 1988). Sherman (1990)

also reports that crackdowns did not lead to spatial displacement of crime to nearby areas in the majority of studies he reviewed.

Hot-spots policing

Although there is a long history of efforts to focus police patrols (Gay, Schell, and Schack 1977; O. W. Wilson 1967), the emergence of what is often termed *hot-spots policing* is generally traced to theoretical, empirical, and technological innovations in the 1980s and 1990s (Weisburd and Braga 2003; Braga 2001; Sherman and Weisburd 1995). A series of randomized field trials shows that policing that is focused on hot spots can result in meaningful reductions in crime and disorder (see Braga 2001).

The first of these, the Minneapolis Hot Spots Patrol Experiment (Sherman and Weisburd 1995), used computerized mapping of crime calls to identify 110 hot spots of roughly street-block length. Police patrol was doubled on average for the experimental sites over a ten-month period. The study found that the experimental as compared with the control hot spots experienced statistically significant reductions in crime calls and observed disorder. In another randomized experiment, the Kansas City Crack House Raids Experiment (Sherman and Rogan 1995a), crackdowns on drug locations were also found to lead to significant relative improvements in the experimental sites, although the effects (measured by citizen calls and offense reports) were modest and decayed in a short period. In yet another randomized trial, however, Eck and Wartell (1996) found that if the raids were immediately followed by police contacts with landlords, crime prevention benefits could be reinforced and would be sustained for long periods. More general crime and disorder effects are also reported in two randomized experiments that take a more tailored, problem-oriented approach to hot-spots policing (Braga et al. 1999; Weisburd and Green 1995a, because of their use of problem-solving approaches, we discuss them in more detail in the next section). Nonexperimental studies provide similar findings (see Hope 1994; Sherman and Rogan 1995b).

The effectiveness of the hot-spots policing approach has strong empirical support. Such approaches would be much less useful, however, if they simply displaced crime to other nearby places. While measurement of crime displacement is complex and a matter of debate (see, e.g., Weisburd and Green 1995b), a number of the studies reported above examined immediate geographic displacement. In the Jersey City Drug Market Analysis Experiment (Weisburd and Green 1995a), for example, displacement within two block areas around each hot spot was measured. No significant displacement of crime or disorder calls was found. Importantly, however, the investigators found that drug-related and public-morals calls actually declined in the displacement areas. This "diffusion of crime control benefits" (Clarke and Weisburd 1994) was also reported in the New Jersey Violent Crime Places experiment (Braga et al. 1999), the Beat Health study (Green Mazerolle and Roehl 1998), and the Kansas City Gun Project (Sherman and Rogan 1995b). In each of these studies, no displacement of crime was reported, and some improvement in the surrounding areas was found. Only Hope (1994) reports direct

displacement of crime, although this occurred only in the area immediate to the treated locations and the displacement effect was much smaller overall than the crime prevention effect.

Focusing on repeat offenders

Two randomized trials suggest that covert investigation of high-risk, previously convicted offenders has a high yield in arrests and incarceration per officer per hour, relative to other investments of police resources (Abrahamse and Ebener 1991; Martin and Sherman 1986). It is important to note, however, that these evaluations examined the apprehension effectiveness of repeat-offender programs not the direct effects of such policies on crime. However, a recent study—The Boston Ceasefire Project (Kennedy, Braga, and Piehl 1996)—which used a multiagency and problem-oriented approach (referred to as a "pulling levers" strategy), found a reduction in gang-related killings as well as declines in other gun-related events when focusing on youth gangs (Kennedy et al. 2001).

Another method for identifying and apprehending repeat offenders is "antifencing," or property sting, operations, where police pose as receivers of stolen property and then arrest offenders who sell them stolen items (see Weiner, Chelst, and Hart 1984; Pennell 1979; Criminal Conspiracies Division 1979). Although a number of evaluations were conducted of this practice, most employed weak research designs, thus making it difficult to determine if such sting operations reduce crime. There seems to be a consensus that older and criminally active offenders are more likely to be apprehended using these tactics as compared with more traditional law enforcement practices, but they have not been shown to have an impact on crime (Langworthy 1989; Raub 1984; Weiner, Stephens, and Besachuk 1983).

> *Proposition 4:* Problem-oriented policing emerged in the 1990s as a central police strategy for solving crime and disorder problems. There is a growing body of research evidence that problem-oriented policing is an effective approach for reducing crime, disorder, and fear.

Research is consistently supportive of the capability of problem solving to reduce crime and disorder. A number of quasi-experiments going back to the mid-1980s consistently demonstrates that problem solving can reduce fear of crime (Cordner 1986), violent and property crime (Eck and Spelman 1987), firearm-related youth homicide (Kennedy et al. 2001), and various forms of disorder, including prostitution and drug dealing (Capowich and Roehl 1994; Eck and Spelman 1987; Hope 1994). For example, a quasi-experiment in Jersey City, New Jersey, public housing complexes (Green Mazerolle et al. 2000) found that police problem-solving activities caused measurable declines in reported violent and property crime, although the results varied across the six housing complexes studied. In another example, Clarke and Goldstein (2002) report a reduction in thefts of appliances from new home construction sites following careful analysis of this

problem by the Charlotte-Mecklenburg Police Department and the implementation of changes in building practices by construction firms.

Two experimental evaluations of applications of problem solving in hot spots suggest its effectiveness in reducing crime and disorder.[1] In a randomized trial with Jersey City violent crime hot spots, Braga et al. (1999) report reductions in property and violent crime in the treatment locations. While this study tested problem-solving approaches, it is important to note that focused police attention was brought only to the experimental locations. Accordingly, it is difficult to distinguish between the effects of bringing focused attention to hot spots and that of such focused efforts being developed using a problem-oriented approach. The Jersey City Drug Market Analysis Experiment (Weisburd and Green 1995a) provides more direct support for the added benefit of the application of problem-solving approaches in hot-spots policing. In that study, a similar number of narcotics

The effectiveness of the hot-spots policing approach has strong empirical support.

detectives were assigned to treatment and control hot spots. Weisburd and Green (1995a) compared the effectiveness of unsystematic, arrest-oriented enforcement based on ad hoc target selection (the control group) with a treatment strategy involving analysis of assigned drug hot spots, followed by site-specific enforcement and collaboration with landlords and local government regulatory agencies, and concluding with monitoring and maintenance for up to a week following the intervention. Compared with the control drug hot spots, the treatment drug hot spots fared better with regard to disorder and disorder-related crimes.

Evidence of the effectiveness of situational and opportunity-blocking strategies, while not necessarily police based, provides indirect support for the effectiveness of problem solving in reducing crime and disorder. Problem-oriented policing has been linked to routine activity theory, rational choice perspectives, and situational crime prevention (Clarke 1992a, 1992b; Eck and Spelman 1987). Recent reviews of prevention programs designed to block crime and disorder opportunities in small places find that most of the studies report reductions in target crime and disorder events (Eck 2002; Poyner 1981; Weisburd 1997). Furthermore, many of these efforts were the result of police problem-solving strategies. We note that many of the studies reviewed employed relatively weak designs (Clarke 1997; Weisburd 1997; Eck 2002).

TABLE 1
SYNTHESIS OF FINDINGS ON POLICE EFFECTIVENESS RESEARCH

Police Strategies That . . .	Are Unfocused	Are Focused
Apply a diverse array of approaches, including law enforcement sanctions.	**Inconsistent or weak evidence of effectiveness** Impersonal community policing, for example, newsletters **Weak to moderate evidence of effectiveness** Personal contacts in community policing Respectful police-citizen contacts Improving legitimacy of police Foot patrols (fear reduction)	**Moderate evidence of effectiveness** Problem-oriented policing **Strong evidence of effectiveness** Problem solving in hot spots
Rely almost exclusively on law enforcement sanctions	**Inconsistent or weak evidence of effectiveness** Adding more police General patrol Rapid response Follow-up investigations Undifferentiated arrest for domestic violence	**Inconsistent or weak evidence of effectiveness** Repeat offender investigations **Moderate to strong evidence of effectiveness** Focused intensive enforcement Hot-spots patrols

Discussion

We began our article with a series of questions about what we have learned from research on police effectiveness over the last three decades. In Table 1, we summarize our overall findings using the typology of police practices that we presented earlier. One of the most striking observations in our review is the relatively weak evidence there is in support of the standard model of policing—defined as low on both of our dimensions of innovation. While this approach remains in many police agencies the dominant model for combating crime and disorder, we find little empirical evidence for the position that generally applied tactics that are based primarily on the law enforcement powers of the police are effective. Whether the strategy examined was generalized preventive patrol, efforts to reduce response time to citizen calls, increases in numbers of police officers, or the introduction of generalized follow-up investigations or undifferentiated intensive enforcement activities, studies fail to show consistent or meaningful crime or disorder prevention benefits or evidence of reductions in citizen fear of crime.

Of course, a conclusion that there is not sufficient research evidence to support a policy does not necessarily mean that the policy is not effective. Given the continued importance of the standard model in American policing, it is surprising that so little substantive research has been conducted on many of its key components. Pre-

ventive patrol, for example, remains a staple of American police tactics. Yet our knowledge about preventive patrol is based on just a few studies that are more than two decades old and that have been the subject of substantial criticism. Even in cases where a larger number of studies are available, like that of the effects of adding more police, the nonexperimental designs used for evaluating outcomes generally make it difficult to draw strong conclusions.

This raises a more general question about our ability to come to strong conclusions regarding central components of the standard model of policing. With the exception of mandatory arrest for domestic violence, the evidence we review is drawn from nonexperimental evaluations. These studies are generally confounded in one way or another by threats to the validity of the findings presented. Indeed, many of the studies in such areas as the effects of police hiring are correlational studies using existing data from official sources. Some economists have argued that the use of econometric statistical designs can provide a level of confidence that is almost as high as randomized experiments (Heckman and Smith 1995). We think that this confidence is not warranted in police studies primarily because of the lack of very strong theoretical models for understanding policing outcomes and the questions of validity and reliability that can be raised about official police data. But what does this mean for our ability to come to strong conclusions about police practices that are difficult to evaluate using randomized designs, such as increasing the numbers of police or decreasing response time?

A simple answer to this question is to argue that our task is to improve our methods and data over time with the goal of improving the validity of our findings. In this regard, some recent research on police strength has tried to advance methods in ways likely to improve on prior conclusions (e.g., see Levitt 1997). We think this approach is important for coming to strong conclusions not only about the effectiveness of the standard model of policing but also about recent police innovation. But, more generally, we think experimental methods can be applied much more broadly in this area, as in other areas of policing. For example, we see no reason why the addition of police officers in federal government programs that offer financial assistance to local police agencies could not be implemented experimentally. While the use of experimental methods might be controversial in such cases, the fact that we do not know whether marginal increases in police strength are effective at reducing crime, disorder, or fear suggests the importance and legitimacy of such methods.

While we have little evidence indicating the effectiveness of standard models of policing in reducing, crime, disorder, or fear of crime, the strongest evidence of police effectiveness in our review is found in the cell of our table that represents focused policing efforts. Studies that focused police resources on crime hot spots provide the strongest collective evidence of police effectiveness that is now available. A series of randomized experimental studies suggests that hot-spots policing is effective in reducing crime and disorder and can achieve these reductions without significant displacement of crime control benefits. Indeed, the research evidence suggests that the diffusion of crime control benefits to areas surrounding treated hot spots is stronger than any displacement outcome.

The two remaining cells of the table indicate the promise of new directions for policing in the United States; however, they also illustrate once more the tendency for widely adopted police practices to escape systematic or high-quality investigation. Community policing has become one of the most widely implemented approaches in American policing and has received unprecedented federal government support in the creation of the Office of Community Oriented Policing Services and its grant program for police agencies. Yet in reviewing existing studies, we could find no consistent research agenda that would allow us to assess with strong confidence the effectiveness of community policing. Given the importance of community policing, we were surprised that more systematic study was not available. As in the case of many components of the standard model, research designs of the studies we examined were often weak, and we found no randomized experiments evaluating community policing approaches.

While the evidence available does not allow for definitive conclusions regarding community policing strategies, we do not find consistent evidence that community policing (when it is implemented without problem-oriented policing) affects either crime or disorder. However, the research available suggests that when the police partner more generally with the public, levels of citizen fear will decline. Moreover, growing evidence demonstrates that when the police are able to gain wider legitimacy among citizens and offenders, the likelihood of offending will be reduced.

There is greater and more consistent evidence that focused strategies drawing on a wide array of non–law-enforcement tactics can be effective in reducing crime and disorder. These strategies, found in the upper right of the table, may be classed more generally within the model of problem-oriented policing. While many problem-oriented policing programs employ traditional law enforcement practices, many also draw on a wider group of strategies and approaches. The research available suggests that such tools can be effective when they are combined with a tactical philosophy that emphasizes the tailoring of policing practices to the specific characteristics of the problems or places that are the focus of intervention. While the primary evidence in support of the effectiveness of problem-oriented policing is nonexperimental, initial experimental studies in this area confirm the effectiveness of problem-solving approaches and suggest that the expansion of the toolbox of policing practices in combination with greater focus can increase effectiveness overall.

Conclusions

Reviewing the broad array of research on police effectiveness in reducing crime, disorder, and fear rather than focusing in on any particular approach or tactic provides an opportunity to consider policing research in context and to assess what the cumulative body of knowledge we have suggests for policing practices in the coming decades. Perhaps the most disturbing conclusion of our review is that knowledge of many of the core practices of American policing remains uncertain.

Many tactics that are applied broadly throughout the United States have not been the subject of systematic police research nor have they been examined in the context of research designs that allow practitioners or policy makers to draw very strong conclusions. We think this fact is particularly troubling when considering the vast public expenditures on such strategies and the implications of their effectiveness for public safety. American police research must become more systematic and more experimental if it is to provide solid answers to important questions of practice and policy.

But what should the police do given existing knowledge about police effectiveness? Police practice has been centered on standard strategies that rely primarily on the coercive powers of the police. There is little evidence to suggest that this standard model of policing will lead to communities that feel and are safer. While police agencies may support such approaches for other reasons, there is not consistent scientific evidence that such tactics lead to crime or disorder control or to reductions in fear. In contrast, research evidence does support continued investment in police innovations that call for greater focus and tailoring of police efforts and for the expansion of the toolbox of policing beyond simple law enforcement. The strongest evidence is in regard to focus and surrounds such tactics as hot-spots policing. Police agencies now routinely rely on such approaches (Weisburd et al. 2001; Weisburd and Lum 2001), and the research suggests that such reliance is warranted. Should police agencies continue to encourage community- and problem-oriented policing? Our review suggests that community policing (when it is not combined with problem-oriented approaches) will make citizens feel safer but will not necessarily impact upon crime and disorder. In contrast, what is known about the effects of problem-oriented policing suggests its promise for reducing crime, disorder, and fear.

Note

1. An early experimental hot-spots study that tested problem solving at high crime-call addresses did not show a significant crime or disorder reduction impact (Buerger 1994; Sherman 1990). However, Buerger, Cohn, and Petrosino (1995) argue that there was insufficient dosage across study sites to produce any meaningful treatment impact.

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