Crime Place and Pollution

Expanding Crime Reduction Options Through a Regulatory Approach

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Beyond Offender Centrism

On May 16, 2010, in the Club Ritz nightclub, Jerry Scott shot Dexter Burroughs dead. This was the second killing in the bar since 1998. Five years earlier, four people were shot near the club, one by the police and three in a separate incident. Four years earlier, a fight at the club resulted in a car chase that killed Philiant Johnson and wounded three others. On Valentine’s Day 2010, three people were shot in the club’s parking lot (Baker, 2010; Horst, 2010). After the killing of Burroughs, the club closed for several months but then reopened. Police state that since reopening, “14 arrests for disorderly conduct or drug possession have been made at the club, plus 10 assaults, four domestic violence incidents, a robbery and carjacking” (Whitaker, 2011). The owner of the club stated: “It’s not our fault. Nightclubs do not kill people. People kill people” (Nightclub and Bar, 2010).

Just as the owner of the Club Ritz implies they should, current crime policies focus exclusively on offenders. We suggest he is wrong—crime reduction policies also should focus

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on places. Research has established that crime is concentrated at places; yet to date, policy
makers and criminologists have focused most of their attention on two policy prescriptions:
use coercion to deter or remove offenders, use forms of social assistance to divert potential
offenders from crime, or convince active offenders to pursue legitimate activities (Weisburd,
Telep, and Braga, 2010).

Consider the main articles published in two crime policy journals. From its first issue
in 2001 to the last issue in 2010, *Criminology & Public Policy* published 148 research
papers. Of these, approximately 60% addressed policies toward offenders: 42% discussed
policies that applied forms of coercion, and 19% discussed policies to assist potential or
active offenders. Only 8% examined methods for blocking criminal opportunity (mostly
by addressing firearms). The remaining 31% of the articles examined administrative issues,
perspectives criminologists might take, technology, and descriptions of criminal behavior.
None addressed places. When we surveyed articles in *Criminal Justice Policy Review* over the
same time, we found very similar results. If these two journals are an indication, policy
makers almost never discuss blocking opportunities at places, although it has been almost a
decade and a half since Weisburd (1997) drew attention to the need to focus on the context
of crime and over two decades since Sherman, Gartin, and Buerger (1989) drew attention
to the concentration of crime at places.

Both coercive and assistance policies take for granted a very large governmental role in
paying for crime control. The central organizations applying these policies are elements of
the “crime response complex” (Ruth and Reitz, 2003: 6): police, prosecution, courts, and
corrections. Nevertheless, governments largely fund even nongovernmental organizations
that implement offender-based policies. Government contracts or grants, for example, often
fund private prisons and offender treatment providers. In a time when conservatives are
joining with liberals to question the wisdom of correctional spending (Clear, 2011), and
local governments are looking for ways to reduce policing costs (Wilson, 2010), we should
look for crime reduction options that reduce government spending.

Furthermore, it is not clear how much of the money governments expend on fighting
crime actually reduces crime. After a decade of enquiry, for example, researchers cannot
confidently attribute the dramatic decline in U.S. crime during the 1990s to any government
policy: police hiring, police practices, incarceration policies, or other criminal justice
strategies. There is nothing close to persuasive evidence—only tantalizing possibilities—that
any government policy was a substantial cause of the improvement in public safety in the
1990s (Blumstein and Wallman, 2006; Zimring, 2007).

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1. We exclude editorials, instructions, award addresses, and policy essays in response to main articles.
2. Of the 230 articles published from 2001 through 2010, 53% of the articles dealt with offender policies
   (33% coercive and 20% assistance), 8% addressed opportunity policies, and 41% dealt with other issues.
   No articles described policies toward crime places.
In this article, we challenge two assumptions: first, the assumption that offender-centric policies should be the sole focus of governments’ efforts to reduce crime; and second, the assumption that governments’ obligations to fight crime requires them to bear the full cost of the burden for the fight. We offer another set of policies—a portfolio of regulatory policies designed to encourage owners of crime places to prevent crime.

We base our regulatory approach to crime places on four empirically tested ideas. The first idea comes from theories and research demonstrating that crime reduction gains can be made by paying attention to crime opportunities: situations that facilitate offending rather than suppress it (Clarke, 1980; Felson and Boba, 2010). The second idea is that places create crime opportunities or crime barriers, depending on the actions taken by place managers. There is substantial evidence that crime concentrates at places (Eck, Clarke, and Guerette, 2007; Sherman et al., 1989; Weisburd, Bushway, Lum, and Yang, 2004). Importantly, there is considerable stability in this concentration: Hot places tend to stay hot. Yet there is also good evidence that places with crime concentrations can be made safer when place managers change their practices (Eck, 2002; Eck and Guerette, 2012). Third, there is evidence that these practices do not usually displace crime; indeed, they often improve the safety of nearby places (Guerette and Bowers, 2009; Weisburd et al., 2006).

These three ideas naturally lead to the fourth idea: We can treat crime at places, and sometimes in the immediate vicinity of places, as a form of pollution (Farrell and Roman, 2006; Newman, 2011). That is, places can emit crime just as a coal-fired power plant can emit sulfur dioxide. Once we consider places and crime opportunities in this light, we can apply regulatory policies designed to control pollution to crime places.

We divide our article into seven sections. In the next section, we examine the first three of the four ideas just described. We review the considerable evidence implicating places in the production of crime, and the evidence showing that changing place management practices can increase or decrease crime. The third section joins these ideas with the insights of Farrell and Roman (2006) to suggest that some places emit crime, much like some factories emit pollution. This opens up a portfolio of regulatory policy options. We describe the contents of this portfolio in the fourth section, where we draw on the environmental policy and regulation literature to describe four different regulatory approaches and compare their strengths and weaknesses. Questions regarding the administration of regulations are touched on in the fifth section. We highlight five challenges to taking a regulatory approach to crime places in the sixth section. Our final section summarizes our argument. Ultimately, we urge policy makers to experiment with these approaches to determine whether they work to reduce crime as they work to reduce pollution.

**Places and Opportunities for Crime**

Our proposed alternative approaches to crime policy have their roots in the late 1980s and 1990s. Two threads of research coalesced during that time. Although we describe them
separately, in reality, there was considerable cross fertilization. The first thread is the idea of crime opportunities. The second is the idea of crime places.

**Crime Opportunities**

Rather than consider crime as the result of a few people with constant high propensities to offend—as is typically assumed in assistance and coercive crime policies—the opportunity perspective focuses on proximal situations: People choose whether to offend. The sound bite version of this perspective is “opportunity makes the thief” (Felson and Clarke, 1998). If people who offend have stable propensities, they cannot act on them unless there is an opportunity to do so. If people have unstable propensities to offend, proximal circumstances not only provide opportunities but also can trigger offending by providing temptations. In either case, the immediate situation matters.

Several theories form the core of the opportunity perspective—also known as environmental criminology and more recently as crime science (Laycock, 2005): the rational choice perspective, routine activity theory, crime pattern theory, and situational crime prevention. The rational choice perspective asserts that people choose whether to engage in crime, when to commit crimes, and how to commit crimes (Cornish, 1994; Cornish and Clarke, 1986a). It claims that offenders are boundedly rational (Cornish and Clarke, 2008) and that like nonoffenders, they make rough-and-ready decisions based on limited information (Gigerenzer and Selten, 2002). Offenders also try to avoid risky situations and those that require a great deal of effort and seek out situations that are easy and rewarding. Unlike traditional deterrence theory, which also assumes that offenders make at least bounded rational choices, followers of the Cornish and Clarke (1986a) rational choice perspective place more emphasis on the immediate context of crime—proximate situational cues create stronger influences on offenders than distal signals like risk and punishment.

Routine activity theory describes crime situations as originating from the intersections of normal social routines (Cohen and Felson, 1979). When offenders and targets converge at the same place at the same time, in the absence of anyone who can control the offender, a crime is likely. There are several possible controllers. Originally, Cohen and Felson (1979) focused on guardians—people who could protect targets. But later Felson (1986) suggested handlers could divert possible offenders from crime, and Eck (1994) claimed that managers could arrange places to protect against crime. Because places are central to our thesis, place managers also are central: They often control the immediate context of a possible crime, the context that provides cues to potential offenders (Madensen and Eck, 2008).

Crime pattern theory is also a theory of intersections, but instead of focusing on the routines of targets and controllers, Brantingham and Brantingham (1981) focused on how offenders search for targets. According to this theory, offenders look for targets near locations and around routes with which they are familiar, in much the same way nonoffenders shop for everyday goods and services (Brantingham and Brantingham, 2008).
The final core theory of the opportunity perspective is situational crime prevention (Clarke, 1995). It describes the types of situational changes that are likely to prevent crime. Situational crime prevention lists five forms of crime disincentives: increasing risk, increasing effort, decreasing rewards, decreasing provocations, and decreasing excuses (Clarke, 2008). It also suggests that determining which disincentive to apply depends on the particular details of each situation. Typically, when situational crime prevention is applied at places, it is the owner of the place, or her employees, that implement it.

Crime Places

While environmental criminology theories were being developed and tested, other researchers were calling attention to the importance of places. Until the 1990s, the main geographical unit for studying crime was the neighborhood. Sherman et al.’s (1989) article was groundbreaking in showing how a relatively few addresses had the majority of the crime, and how most places had little or no crime (see also Pierce, Spaar, and Briggs, 1988). This was true no matter how they disaggregated crime. Later, Eck et al. (2007) showed that the same concentration occurred when places were disaggregated into homogeneous categories—facilities, such as apartment buildings, bars, juvenile facilities, schools, and others. This type of distribution is so common that Wilcox and Eck (2011: 476) have called it the “iron law of troublesome places.” Weisburd et al. (2004) have shown that street segments have the same pattern: Most have little or no crime, and a few have most of the crime. Interestingly, city-wide crime declines may be a result of drops in crime at a relatively few high-crime street segments. This raises the possibility that the national decline in crime during the 1990s may have been a result of improvements in a relatively few high-crime places (Weisburd et al., 2004).

How stable are high-crime places? If the high-crime place this year is a low-crime place the next, and if safe places routinely experience crime spikes to become high-crime places, then the discovery of crime concentration at places would not matter very much: Over time, all places would be moderately involved in crime. However, there is considerable evidence that high-crime places tend to stay that way. Spelman (1995), examining high schools, housing projects, subway stations, and parks from 1977 through 1980, found that places generating high volumes of calls to the police showed considerable stability over time, although there was some random variation.

More recent studies, over longer periods, also show high levels of stability. Weisburd et al. (2004) and Groff, Weisburd, and Yang (2010) looked at Seattle street segments for 13 and 16 years, respectively, and found that high-crime places were remarkably stable. Braga, Papachristos, and Hureau (2010) came to the same conclusions for gun violence on Boston street segments from 1980 to 2008. This was also true for robberies in Boston over the same period (Braga, Hureau, and Papachristos, 2011). Finally, Andresen and Malleson (2011) examined temporal stability for crimes in Vancouver, Canada (1991–2001), and found that crime concentrations at places were stable throughout this period.
We must add some important qualifications here. First, with the exception of Spelman (1995), these studies examined the stability of street segments and corners. Thus, it is possible, but probably unlikely, that crime could randomly move up and down a street segment over time, thus preserving the high-crime status of the segment but making no particular address exceptionally problematic. Second, even though these studies found considerable stability, that does not mean that there are no changes—the top-ranking crime place in one year might be ranked fifth the next year, second the third year, and so on. But we can say that if a particular place has a serious crime problem in one year, it is likely to have a serious problem in subsequent years. Conversely, a place with little or no crime in one year is likely to have few, if any, crimes in subsequent years.

The relatively stable concentration of crime at a relatively few addresses, street segments, or small geographic hot spots spurred interest in the development of police interventions. Concentrating patrolling or enforcement at these small geographic areas seems to be far more effective at reducing crime and disorder than spreading police resources over wider areas (Braga, 2001; National Research Council, 2004; Weisburd and Eck, 2004). And other place-based prevention seems effective (Eck, 2002). Most of these place interventions, outside police patrolling and enforcement, are applications of situational crime prevention (Eck and Guerette, 2012).

**Displacement and Diffusion of Benefits**

When place-based crime prevention was first proposed, a commonly expressed concern was that it would only displace crime to nearby unprotected places. Five reviews of the empirical literature have been conducted to investigate this concern (Barr and Pease, 1990; Cornish and Clarke, 1986b; Eck, 1993; Guerette and Bowers, 2009; Hesseling, 1994). All came to the same conclusion: Spatial displacement can occur, but it is not inevitable, and if it occurs, it does not overwhelm the crime reduction effects. These findings are consistent with the opportunity perspective on crime: Places that provide opportunities for crime are relatively rare so offenders will have difficulty relocating their deviant activities. The sole experiment designed to test whether displacement could be induced confirmed this conclusion (Weisburd et al., 2006). Importantly, Weisburd et al. (2006) suggested that spatial displacement may not be the most common form: If displacement does occur, it is more likely to be method displacement (i.e., offenders do not shift geographically, but they change the way they commit crimes at the same location).

Furthermore, Clarke and Weisburd (1994: 167) pointed out that prevention can spread. They called this the “diffusion of crime prevention benefits.” Guerette and Bowers (2009) also investigated the diffusion of benefits and found that such diffusion may be more common than the displacement of crime to surroundings. That is, preventing crime at places often protects surrounding places from crime. In the context of other research on places, this finding makes sense.
Several earlier studies had shown that some locations seemed to promote crime in their surrounding areas. Wilcox and Eck (2011) identified 14 such studies, describing the criminogenic effects of 13 different types of places on their surroundings. If some facilities increase crime in their surroundings, then it is plausible that their removal would lower crime nearby. In summary, there is considerable research indicating that specific high-crime places not only host crime but also create crime in their immediate vicinity, and that when the high crime at these places is reduced, crime declines in their vicinity.

**Place Management**

There are several explanations for the concentration of crime at a few places, but routine activity theory suggests that it cannot be just offenders or just targets: Crime events require both at a place. Place managers have the capability of regulating the presence of targets and offenders, and the situations that make targets tempting to potential offenders (Clarke and Bichler-Robertson, 1998). Experiments on drug places reveal that when place managers are pressured to change their practices, they can reduce drug dealing and associated crime at the places they manage (Eck and Wartell, 1998; Green, 1995; Mazerolle, Roehl, and Kadlec, 1998). Studies of bar violence and disorder show similar results (Anderson, Whelan, Hughes, and Bellis, 2009; Felson, Berends, Richardson, and Veno, 1997; Graham and Homel, 2008; Homel, Hauritz, Wortley, Mellon, and Carvolth, 1997; Jones et. al., 2011; Putnam, Rockett, and Campbell, 1993). Thus, theoretically and experimentally, we have reason to believe management practices influence crime at places.

Do high-crime neighborhoods cause bad places? If this were the case, then bad places would be highly clustered separately from clusters of low- and no-crime places. Sherman et al. (1989) showed that high-crime places are clustered but that these clusters are not separated from low-crime-place clusters. Madensen and Eck (2008) showed that in Cincinnati, high-crime bars were collocated near low- and no-crime bars, even in high-crime neighborhoods. The Chula Vista Police (2009) analysis of problem motels showed that the high-crime motels were in the same blocks and neighborhoods as the low-crime motels. More evidence for the strength of places relative to neighborhoods comes from results reported in a path-breaking set of studies of Seattle street segments (Weisburd et al., 2004). Street segments are much smaller than neighborhoods, and they are made up of addresses. Weisburd and his colleagues demonstrated that low- and high-crime street segments coexist in close proximity, and that in the same larger area, one can find street segments that are getting safer, segments that are getting worse, and segments that are remaining constant.

More research on the relationship between places and their contexts is needed, but at this stage, it is reasonable to conclude that a major reason for crime concentrations at particular places is the characteristics of these places, in general, and place management practices, in particular. We have good evidence—including two randomized experiments and numerous quasi-experiments—that high-crime places can be improved without changing
their neighborhoods. This evidence gives us considerable confidence that our line of enquiry is plausible.

**Places and Pollution**

To date, academics advocating a place-focused approach to crime reduction have concentrated their attention on policing: either as a method for allocating patrol resources to reduce crime or as a guiding principle of pursuing innovative police efforts along the lines of problem-oriented policing (Braga and Weisburd, 2010). But it is possible to envision another set of policies if we draw on another field: environmental policy toward pollution.

Graham Farrell and John Roman (2006) and Graeme Newman (2011) have suggested that crime is a form of pollution. This very important idea has major implications for addressing high-crime places. To understand why, we need to explain a term from economics: externalities. In any transaction, the involved parties make an exchange: money for goods or services. An externality is any benefit or cost that accrues to nonparticipants. When individuals buy a set of tires, they pay for the labor, materials, shipping, and marketing that make those tires available for purchase. They do not pay for the air, water, or ground pollution from production and shipping. That pollution is a negative externality. If our neighbor buys low-noise tires, we benefit from less street noise. Because we have not chipped in to help purchase the tires, we get a positive externality.

Any exchange that produces externalities is economically inefficient. If there are negative externalities, the full cost of the goods or services are not “internalized” by consumers, who receive a subsidy that allows them to consume more than they would if they bore the full cost (Baldwin and Cave, 2010). If there are positive externalities, the full benefits of the goods or services are not internalized by producers, so producers provide less of the goods or services than they would if they got the full benefits. In the case of the tires, fully internalizing the costs of pollution would raise the costs of the tires and drivers would purchase fewer of them. If we shared the costs of our neighbor’s low-noise tires, then he would replace his noisy tires sooner.

Crime places create four types of negative externalities. The first is the victimization of third parties. A bar patron assaulted by a drunk who was served too many drinks is bearing a share of the costs of the way the bar owner operates the bar. A resident of an apartment building whose car is broken into because of inadequate security in the building’s parking lot is bearing some of the costs of the building owner’s decision not to install better security. To the extent that a place manager’s business practices create opportunities for the crime, the manager is externalizing costs to victims.

Second, crime victimization can result in costly official responses that are not born by the place manager or the victim. These externalized costs may involve the police, medical institutions, medical examiners, prosecutors, courts, public defenders, correctional
institutions, probation, and parole. All of these services are paid for by taxpayers, who end up subsidizing the cost of high-crime places.

The third form of negative externality comes from the crimes that high-crime places facilitate in their surroundings. The bar that produces fights in the neighborhood, drunken loud patrons, and robberies of drunken patrons is producing negative externalities. The box store with an unprotected parking area may be producing negative externalities to its customers in the form of car break-ins (the first form of externality we considered). If the thieves who are drawn to the opportunities created by the store also take advantage of scattered opportunities in the neighborhood surrounding the store, the store creates a negative externality in its immediate environment.

Finally, there are costs externalized to the friends and family of offenders, as well as to correctional institutions and rehabilitation programs. Consider a person prepared to offend but who has not engaged in serious criminality. In the absence of an easily accessible place that facilitates crime, such a person may take longer to become a serious offender, and may even avoid it all together (a juvenile may age out of such temptations, for example). But if such places are readily available, he will become a serious offender sooner. This negative externality also occurs when a place tempts a previous offender into recidivating. The presence of such places may make correctional and rehabilitation efforts less effective and more costly (Cullen, Eck, and Lowenkamp, 2002). The externalized costs are not the crimes these offenders commit elsewhere (these are accounted for under victimizations and impacts on the surrounding community, considered earlier), or the official responses to these crimes (also accounted for earlier). Rather, these externalized costs are born by the family and friends of the offenders, as well as by the offenders themselves.

Police are becoming more mindful of such crime externalities. Over the last two decades, many have advocated problem-oriented policing to address problematic places (Braga and Weisburd, 2010; Goldstein, 1990; Scott, Eck, Knutsson, and Goldstein, 2008). According to this approach, police identify crime or disorder concentrations, analyze the conditions to determine their causes, develop and implement a set of solutions, and then evaluate the effectiveness of what they did. Increasingly, problem-oriented policing advocates have suggested that police shift the responsibility for the problem back onto the shoulders of the people or institutions that created the conditions for the problem (Scott, 2005). Although not using the vocabulary of economics, they have suggested that people and organizations that create problems should internalize the costs of those problems by paying for the prevention of crime or disorder they produce.

It is possible to take this idea a step further. If a relatively few places “pollute” crime or disorder, and this pollution is a sizable proportion of all crime and disorder, then it makes sense to craft regulatory policies for handling those places, rather than have police officials negotiate individual solutions at place after place. Regulatory approaches used to curb pollution have done just that and provide important lessons for crime place prevention.
Places and Environmental Regulation

Regulation is not usually considered part of mainstream criminal justice policy. Still, regulation already plays an important role in crime control and prevention (Grabosky, 2011). In the United States, the Drug Enforcement Administration promulgates and enforces regulations to thwart prescription drug abuse. The Bureau of Alcohol, Tobacco, and Firearms (BATF) regulates some aspects of the firearms market to curb gun violence. The BATF also regulates explosives to thwart terrorist attacks, a job it shares with the several other federal agencies (Kane, Lee, Maeda, Okereke, and Scott, 2005). The U.S. Department of the Treasury and the Federal Reserve Board regulate money transfers to prevent money laundering that could aid drug traffickers and terrorists (Levi, 2002). The Federal Aviation Administration and Department of Homeland Security impose regulations on airports, airlines, and passengers to prevent terrorist attacks (Frederickson and LaPorte, 2002). In Great Britain, regulatory practices are used to control disorder through Anti-Social Behavior Orders (Flint and Hunter, 2011). These are only a few obvious examples, but they demonstrate that the application of regulation to crime fighting is not new. Equally important, it is already accepted public policy to regulate nonoffender third parties for the prevention of crime.

There is increasing recognition that regulation has a major role to play in criminal justice (Quirk, Seddon, and Smith, 2011). In their innovative examination of police resource acquisition, Ayling, Grabosky, and Shearing (2008) described a variety of regulatory processes that extend the law enforcement powers of the police. Mazerolle and Ransley (2005) also addressed police use of regulatory powers—their own or those of other government agencies. Bars and drinking establishments have received considerable attention in crime research. In their recent and comprehensive book on such places, Graham and Homel (2008) described a wide variety of efforts to reduce drinking-related violence. These authors highlighted the importance of using regulation to address crime, and they showed how regulation fits within a larger institutional and social context. We build on this foundation by drawing on environmental policies and consider a wide range of regulatory practices to reduce crime at places.

Environmental Regulation

A variety of sources emit pollution. Some, like power plants and factories, spew emissions from a single source. These are called point-source polluters (Womach, 2005). But there are nonpoint source emitters, as well. The two most obvious examples are farms (agricultural pesticide, herbicide, and fertilizer runoff) and vehicles (tailpipe emissions). This distinction between point and nonpoint emitters is important but not new to discussions of crime control policies. Cook and Braga (2001) described why it is important to distinguish between point sources of illegal firearms and to diffuse sources for developing firearm regulations for preventing gun violence (see Braga, Cook, Kennedy, and Moore, 2002). We will treat places as point-source emitters and consider regulatory policies designed for
such sources. However, some crimes cannot be tied to specific places—personal robberies, for example, may be concentrated in a small geography, but they are less likely to be in concentrated at a particular address. So the crime policies we are examining do not cover all forms of crimes.

Regulatory mechanisms are sometimes called “instruments” (Hahn and Stavins, 1991). We will use this term for consistency with that literature. Environmental economists have developed a useful taxonomy of instruments, based on how an instrument uses markets: nonmarket instruments and market instruments (Ogus, 2011). Nonmarket instruments focus on specific methods for emission controls—the means of accomplishing the goal. We will focus on two types of nonmarket instruments: (a) command and control and (b) subsidies. Market instruments address the ends directly, and they are agnostic as to the means used to achieve these ends. There is a wide variety of market instruments, but we will look at four well-known instruments.

**Means-Based Instruments to Reduce Crime at Places**

Means policies focus on the technology and procedures that lead to reduced pollution. These policies either encourage the use of particular pollution control processes (e.g., use smoke stack scrubbers to reduce sulfur emissions) or discourage the use of processes that produce pollution (e.g., restrictions on burning high sulfur coal). There are two principal means policies. Command and control mandates a practice or technology, whereas subsidies reduce the costs of adopting a practice or technology. Common to both is the assumption that the practice or technology is effective once implemented.

**Command and control.** Command and control maybe the most commonly used environmental regulatory instrument (Gunningham, Grabosky, and Sinclair, 1998). Polluters are ordered to adopt measures designed to abate their emissions. If they do so, they are in compliance. If they do not adopt the measures, they face a penalty, such as a fine or license suspension or revocation.

This is an oversimplification. Although coercive command-and-control instruments receive the most attention, there are other forms of command-and-control regulations. After becoming concerned that regulation discussions had become mired in simplistic “for regulation” versus “against regulation” debates, Ayres and Braithwaite (1992) created the regulatory pyramid to demonstrate that regulation can entail a wide array of options ranging from exhortations, sermons, and collaborative arrangements to punitive measures. Grabosky (2011) extended their pyramid to three dimensions: The government’s regulatory options are on one face (Ayres and Braithwaite’s original pyramid), industry’s ability to self-regulate is on the second face, and third-parties’ (e.g., interest groups) regulatory options are arrayed on the third face. Thus, command-and-control regulation can be made highly flexible, and it does not have to be just coercive. This flexible understanding of regulatory instruments has important implications for crime at places: a point we will return to repeatedly in this article.
Command-and-control instruments have been already applied to crime prevention. To prevent robberies, for example, Gainesville, FL’s city council passed an ordinance mandating that convenience stores employ two clerks from 8 p.m. to 4 a.m., remove window signs obscuring views into the store, locate the sales area so it is visible from the street, use specific cash control procedures, light their parking areas in a specific way, install cameras “of a type and number approved by the city manager,” and provide employees with robbery prevention training (Clifton, 1987: 12). Violations can result in the city revoking the business’s license (Clifton, 1987). Other examples, familiar to all air travelers, are requirements by the federal government for the use of particular security technologies and procedures by airports and airlines to prevent terrorist attacks on or with aircraft.

As noted, command-and-control approaches assume that the required technologies or procedures actually reduce the noxious outcomes. Unfortunately, the availability of evidence assuring the effectiveness of specific means often is lacking or weak for places and crime (Eck, 2002; Eck and Guerette, 2012). And because this approach mandates use of a specific technology or procedure, a place owner who complies with the requirements may have little incentive to innovate when they are not as effective as assumed (Porter and van der Linde, 1995).

Another serious problem with command-and-control regulation is that it applies to all places, regardless of crime level: It does not take into account the iron law of troublesome places. Most facilities in a population will have little or no crime; however, all facilities will have to bear the same cost of compliance. Therefore, many places will have a costly mandate, but society will gain nothing from their prevention efforts. Compliance conditions can be modified to reduce some of the unnecessary burdens, but the more exceptions added to the regulations, the more costly it is to administer them.

There are at least two circumstances where command-and-control regulation may be preferable to alternatives. First, when reported crime is not a reliable measure of outcomes, it may be preferable to focus on compliance with means of prevention rather than on the results of prevention. Prostitution activity at places, for example, may be highly underreported because no one involved in the crime has an incentive to report it. Second, if the concern is for extremely serious and rare crimes—such as mass killings from a terrorist attack—then the government cannot simply measure outcomes. A regulatory process must focus on the implementation of means designed to thwart such crimes.

**Subsidies of means.** Although command-and-control instruments compel the adoption of particular practices, subsidies provide positive incentives to improve practices. Subsidies have most of the same characteristics as command-and-control policies, but mandates are replaced with inducements (Thaler and Sunstein, 2008). Subsidies for using “green” technology, such as tax breaks for improving home insulation or buying a high mileage car, are examples of this type of policy instrument. Typically, subsidies in crime prevention are goods and services offered free or at below-market cost. Examples of subsidized crime prevention measures include providing free property marking to home owners, landlord
training, and police response to automatic alarms. Subsidies are usually voluntary—place owners do not have to attend training, homeowners do not have to mark their property, and alarm companies can respond to alarms themselves.

It is possible to create an inducement for good practice by reducing taxes or fees to places that implement a crime reduction practice. The property taxes on parking lots could be reduced for lots that introduce specific security measures: better lighting, closed-circuit television (CCTV), or restricted access, for example. Similarly, to reduce violence in and around bars in an entertainment zone, the city could reduce property or sales taxes for bars that close early. A business improvement district (BID) could do the same, within its special tax area, for businesses implementing particular prevention techniques.

Another approach is to use indirect inducements. In Los Angeles, restaurants are given a grade depending on compliance with health and safety regulations. An A represents full compliance, a B indicates a few failures, and a C represents many failures. The grade is posted prominently on the outside of the restaurant, thus signaling to customers the conditions of the establishment (Jin and Leslie, 2003). Clarke and Goldstein (2003) suggested a similar scheme to reduce vehicle crimes in commercial parking lots. An evaluation of a voluntary security rating scheme for parking lots in the United Kingdom indicated that it reduced crime. In the United Kingdom, scheme ratings were based on compliance with procedures (Smith, Gregson, and Morgan, 2003). With this type of regulatory process, the regulatory agency is not providing a direct inducement, but it is signaling potential customers in the market for the place’s services.

Like command-and-control regulation, subsidies are highly evidence dependent. And because particular practices or technologies are rewarded while others are not, the place owner may have less incentive to try other procedures or technologies that may be more effective at reducing crime. Importantly, the means endorsed may only be weakly linked to the outcomes desired. In the restaurant grading scheme, for example, the grade may not necessarily be a strong indicator of disease prevention (Woolston, 2011). If such a grading scheme is used for grading parking facilities, a parking lot owner who could prevent crime without adopting prescribed means would get poor grades, even though his lot may be safer than lots with high grades.

Finally, the highly skewed distribution of crimes across a population of facilities means that many places may receive a subsidy even if they do not need it. For instance, a parking lot with no vehicle crimes could be eligible for free positive publicity if it installs new lighting or other prevention technology, even though no crime is averted. Smith et al. (2003) suggested that the voluntary U.K. rating scheme had its biggest impact when applied to high-crime parking lots. Consequently, the effectiveness of subsidies might be improved if restricted to

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3. Thanks to Michael Scott for suggesting the bar example used here, as well as for suggesting the parking lot grading example in the next paragraph.
places with substantial crime problems, rather than provided to all facilities, regardless of initial crime levels.\(^4\)

The circumstances where means subsidies might be useful are similar to those where command and control may be useful: preventing poorly reported crimes and preventing rare crimes with extreme costs. The choice of command and control or subsidies will depend on who is considered most responsible for paying for prevention: the place owner or the taxpayer.

**Ends-Based Instruments to Reduce Crime at Places**

Where means-based instruments focus on use of particular procedures and technologies, ends-based instruments focus on the outcome. Ends-based policies are market mechanisms in that they differentially influence the costs of production among competing firms and thereby reward low-polluting firms relative to high-polluting firms (Freeman and Kolstad, 2007). They also are selective; the impacts of the regulations are directly connected to the level of emissions. This is in direct contrast to means-based policies, where all firms are eligible for a subsidy or are subject to the same commands.

Ends-based instruments are unlikely to be the primary regulatory instrument if the crimes being addressed are extremely rare and very serious: aircraft hijacking, for example. Because they are rare, it is difficult to determine whether the place owner is successful at prevention, or just lucky despite inadequate prevention. Means-based instruments may be more useful for such crimes. Additionally, ends-based instruments are probably not useful when the crimes being addressed are unreliably reported. Measuring the volume of consensual crimes is difficult, so fees, fines, and taxes will be hard to assess. An exception is the use of legal liability, although only under special circumstances.

**Legal liability.** We include this instrument in the market category because strict liability for damages caused by pollution creates incentives to reduce such emissions (Segerson, 2007). Faced with a risk of a substantial penalty for pollution, firms will shift to methods that produce less pollution. Some evidence suggests that legal liability may reduce pollution (Segerson, 2007). Premises liability suits filed by victims can be considered such a policy instrument. However, it is unclear whether they can similarly influence crime. Because lawyers often file such suits on a contingency basis, they are more likely to be applied against places with a very serious crime (e.g., homicide, rape, or robbery with a serious injury) and against owners who have substantial resources. Consequently, private civil actions may not make much difference in reducing property crimes or in influencing owners with limited resources (Eck, 1997). This instrument requires far more evidence than we currently have.

\(^4\) This runs the risk of creating a moral hazard for places ineligible for the subsidy. Depending on the form of the subsidy, an owner of a place with moderate crime levels may find it advantageous to let crime rise to be eligible for the subsidy.
There is more evidence of effectiveness when law enforcement entities threaten suits. The threat or use of civil sanctions—through chronic nuisance abatement—by police or prosecutors does seem to reduce crime, at least with regard to drug-dealing locations (Eck, 2002; Mazerolle et al., 1998). In these cases, the plaintiff is not the victim and the attorneys are not compensated based on the size of the judgment against the defendant. Instead, the plaintiff selects particularly crime-prone locations and tries to induce the owner to implement changes that can reduce crime. If the owner is noncompliant, then a suit is brought to close the place, at least temporarily. Although there is substantial evidence that this reduces crime at the selected places, we do not know whether there is a general deterrent effect of such lawsuits.

**Fees, fines, and taxes.** Fees, fines, and taxes levied on polluters to address externalities are known to economists as “Pigouvian” taxes (Farrell and Roman, 2006). The more a firm pollutes, or produces crimes, the more it pays. This policy instrument requires accurate measurement of the noxious output and precise attribution to the emitter. When this instrument is applied to crime places, a place owner is charged for every crime over a threshold (which could be zero). Because the focus is on outcomes, place owners have an incentive to explore innovative approaches to reduce crime: There is no built-in preference for one means over another, so the government does not have to pay for evidence supporting the efficacy of any particular means. Place managers can experiment on their own, or in collaboration with other place managers. When the effectiveness of prevention methods is highly context sensitive, this policy instrument is particularly attractive, relative to means-based instruments.

There are several examples of this approach in policing. Some jurisdictions fine place owners for excessive alarms (Sampson, 2007). For instance, the cities of Milwaukee and Cincinnati have ordinances that fine apartment owners when calls for service from an apartment complex exceed a specific threshold. In Chula Vista, the city can revoke the operating permits of motels and hotels that exceed calls for service limits and fine motels and hotels that operate without the permit (Chula Vista Police, 2009). Similarly, police can refuse to respond to calls from places that exceed a certain threshold of crime. How much of an incentive this is for place owners to reduce crime depends on the value of police response to the place owner. It does, nevertheless, reduce the second form of externality described earlier: police and other costs borne by taxpayers.

The principal problem with fees, fines, and taxes is that they do not take into account the incremental cost to the owner of reducing crime. Imagine two crime places: Place L can reduce crime at a low cost, whereas place H has a high cost of reducing crime by the same amount. A low fee can be used to induce L to reduce crime, but then H will simply pay the low fee and continue to emit crimes. If the fee is set high enough to induce H to reduce crime, L will be forced to pay a greater fee than necessary to reduce crime. This is the marginal abatement cost problem.
Subsidies. Just as subsidies can be provided for means-oriented regulation, they can be applied to ends-oriented regulation to provide an inducement to achieve specific targets. The polluter may receive a reward, such as a reduction in taxes, for reducing emissions below a particular level. Like taxes and user fees, subsidies such as this leave it to the polluter to determine how the target will be achieved, so it too can spur innovation and encourage abatement strategies specifically tailored to particular circumstances.

We used an example of bar closing times and licensing fee reductions when we considered means-subsidies. With ends-subsidies, the government would reduce fees to bars that keep fights below a threshold. One can imagine that the absence of fights in 2011 would translate into a reduced fee in 2012, but if fights went above a particular threshold, the fee would increase for 2013. Similarly, instead of the local government subsidizing lighting or CCTV surveillance at parking lots, it could provide temporary partial tax abatements for keeping crime low. Even the grading system we considered earlier could be reworked into an indirect ends-based subsidy: The prominently posted grade on the parking lot would be based on the previous year’s theft from vehicle statistics, rather than on the security features in place.

Ends subsidies may not be particularly attractive to government policy makers. Not only do they face the marginal abatement cost problem, but also they put the costs on taxpayers, and give the appearance of rewarding place managers who facilitate crime. But they may be useful if the subsidy outlay is smaller than the saving in government service costs to these places. However, they face an added disadvantage. Citizens and elected officials might feel that providing a reasonably safe environment is a duty, so no special inducement should be required. Furthermore, some subsidy instruments may create a moral hazard: a situation where place managers purposely create criminogenic situations so they can get a subsidy to reduce it. Perhaps, for these reasons, we can find no examples of the use of subsidies to reduce crime at places. Despite these limitations, there may be contexts where subsidies are useful at particular types of places and for particular types of crimes.

 Tradable permits. Tradable permits are a class of environmental policy instruments, the best known of which is cap and trade (Organization for Economic Co-Operation and Development [OECD], 2001). We will describe cap and trade in some depth and then briefly describe other tradable permit schemes that may have crime applications.

The United States developed the first cap-and-trade policy for reducing sulfur dioxide emission. Evidence suggests that it has reduced these pollutants (Stavins, 2007). Other tradable permit schemes have been undertaken around the world. Evaluations of these regulatory processes suggest that they can work quite well (Ellerman, 2007), although how well they work depends a great deal on the nature of the emission, the industry that produces it, and the details of the particular tradable permit market (Tietenberg, 2003, 2007). A major benefit of cap and trade over other regulatory instruments is that “they provide – assuming perfect monitoring and complete enforcement – complete certainty with respect to the total level of emissions” (Johnstone, 2003: 5).
There are no examples of the use of tradable permits to reduce crime, so we will use a hypothetical example of parking lots in a large city to illustrate how a crime place cap-and-trade program may work, drawing on Jaffe, Ranson, and Stavins (2009). We will assume that the distribution of thefts from vehicles follows the iron law of crime places (Wilcox and Eck, 2011), with most lots having little or no vehicle crime but a relative few having most of this crime. To implement the cap-and-trade policy, the city calculates the number of thefts from vehicles in parking lots, perhaps using time series data to calculate the average yearly volume. Next, the city sets a cap on these crimes that is significantly below this average yearly volume, say, equivalent to a 25% reduction in parking lot vehicle crimes. Then it issues permits for theft from vehicles so that the total number of permitted crimes equals the cap, and allocates the permits to the parking lots. A parking lot can have as many thefts from auto as they hold permits. If a parking lot exceeds its permitted crimes, the city penalizes it with a sanction in excess of the cost of purchasing permits on the market. If all the permitted crimes occur in the city, there will be a 25% reduction in these crimes from previous years.

The city allows parking lot owners to sell their permits. Lots A and B are below their allocation of thefts and have permits to sell. Lot D is far over its limit, and lot C is at its limit. If either C or D has low marginal abatement costs, they will probably reduce crime. If their marginal abatement cost is greater than the market price of additional permits, then they will buy permits. The owners of A and B get rewarded for keeping crime low. If they can reduce their crimes even more, they may make even more money from selling additional permits. Thus, the market rewards prevention and penalizes crime production while addressing the marginal abatement cost problem.

A local authority (city or county in the United States) considering cap and trade will need to address at least seven overlapping sets of decisions. First, it must be able to ensure that crimes are accurately and reliably attributed to the locations of their occurrence. Second, the local authority will have to determine which types of places and crimes will be the target of regulation. The crimes need to be frequent enough to be important but not so serious that the idea of issuing permits for them is an anathema (e.g., theft, burglary, or assault but not murder or rape). Third, it should determine whether there are enough regulated places to create a competitive permit market. The size of the jurisdiction probably matters less than the number of facilities and the number of facility owners. Fourth, the local authority must set a global level for these crimes at regulated places. This level should be meaningfully lower than the current crime level. This global level dictates the number of permits the local authority will issue. Fifth, the local authority needs to choose how to allocate permits at the beginning: by auction, lottery, or criteria (e.g., size of facility or crime history) (Tietenberg, 2006). Sixth, the local authority must establish a substantial penalty for having insufficient permits. This penalty assures the permits have a market value and assures crime will decline. Finally, the local authority should examine how the public, including community groups and other...
third parties, are to be involved in this process (Ayres and Braithwaite, 1992; Grabosky, 2011).

**Other tradable permit instruments.** In a cap-and-trade arrangement, the permits are issued *ex ante* (i.e., before the pollution reduction). Another application of tradable permits issues permits *ex post* (i.e., after the pollution reduction). For each polluter, the regulator establishes a maximum level of emissions to be achieved by a specific time. If a polluter keeps emissions under this maximum, it is issued credits. So instead of an overall cap on pollution governing multiple firms, each firm has its own target and receives credits only after the target has been documented. *Ex post* issuance of credits gives some security that the targets will be achieved, but the administrative costs can be higher than a cap-and-trade scheme, and there is no assurance of an overall reduction (OECD, 2001). Credits can be traded among firms or banked against future excess pollution. If applied to the parking lots in the previous example, the local authority would negotiate theft caps for each parking facility to achieve. If the thefts from vehicles are less than these caps, the local authority would issue credits that could be used to offset tax liabilities, traded to other parking lots for a profit, or banked against future unforeseen increases in crime.

A variant of tradable permits, known as *averaging* (OECD, 2001), can be applied to a single firm owning multiple polluting facilities. The regulator establishes a global maximum for the firm as a whole, or an average across all of its facilities, rather than a cap for each facility. Increases in pollution are tolerated in some facilities as long as the total volume of pollution does not exceed the cap. The Corporate Average Fuel Economy (CAFE) created by the U.S. Congress is a form of averaging. Automobile manufacturers must have an average fuel consumption rate based on the sales weighted average of its fleet of passenger cars and light trucks (National Highway Traffic Safety Agency [NHTSA], 2011). This rate could be combined with a trading option so that the firm could sell excess permits to other firms (OECD, 2001). Averaging could be applied to shoplifting in a shopping mall or BID: Within the mall or BID, some stores can exceed the average as long as a sufficient number of other stores are below the average.

In more complex schemes, a polluting firm could finance pollution reductions by other entities and gain credits to *offset* their own pollution (Sigman and Chang, 2011). For example, a developer that needs to fill in a wetland to build a housing subdivision can create wetlands in other places to offset the destruction of wetlands (Shabman and Scodari, 2005). One might imagine a large store could finance crime reduction in one part of town to offset its shoplifting arrests. This may seem to be a form of premeditated displacement. However, credits and offsets can be structured so that they produce a net reduction in crime—by making the offset requirement larger than the credit issued (e.g., three crimes must be prevented in the offset for every crime credit). If in return for shoplifting arrests, a store in a low-crime neighborhood finances crime reduction in a high-crime neighborhood, the result could reduce geographic concentration of crime. An important criticism of offsets is that it can be difficult to measure how much actual reduction is achieved by the offset,
although recent work has suggested that even under imperfect measurement, these schemes can be effective (Sigman and Chang, 2011).

Like all ends-based regulation instruments, tradable permit schemes are agnostic about the means used to achieve reductions. Thus, they can stimulate innovation by place managers. Under some tradable permit schemes, place managers with low or no crime could potentially benefit from selling permits to higher crime places. Therefore, they may see a distinct advantage in the use of such instruments, compared with schemes that do not provide such rewards.

There are some potential problems for these instruments. A major concern with tradable permits is the uncertainty of abatement costs. As Johnstone (2003: 5) stated, “by fixing the environmental impacts with greater certainty, \textit{ex ante} estimates of abatement costs become more uncertain.” Credit offset programs have the opposite problem because it can be difficult to assure that credited crimes were actually prevented. A bigger problem is that tradable permits are an unknown policy prescription for handling crime and there are numerous technical details that will need to be addressed.

In this section, we have described a wide array of regulatory options for reducing crime at places. Table 1 summarizes these options. Means-based instruments may be most useful when dealing with rare and extremely serious crimes, consensual crimes, when there is substantial evidence that the means being promoted are effective, or when crime risk is evenly spread across places. When trying to reduce common predatory crimes, where prevention evidence is weak, and where there are substantial differences in crime volume across places, then ends-based instruments may be more useful. A regulatory approach to crime places is a broad strategy that can be tailored to numerous circumstances. There are many ways each of these instruments can be applied, so one should not categorically accept or reject any one of them. Furthermore, combinations of instruments may, in some circumstances, be more effective than using a single instrument. Policy makers should experiment with a wide variety of such regulatory instruments to determine which work best under which circumstances.

**Putting Regulation in Place: Implementation Decisions**

A regulatory approach is a broad framework that local authorities can implement in many ways and in diverse circumstances. Despite the diversity of regulatory approaches possible, there are three basic decisions that local authorities must make when setting up any particular crime place regulatory regime.

1. **Choose the Types of Crimes to Be Regulated**

   Crimes that are susceptible to regulation should have four characteristics: measurable, important, concentrated, and preventable. Regulators must be able to measure where crimes occur and compliance with regulations. The crimes should be very serious or extremely frequent. Infrequent, very serious crimes are probably best addressed by means-based
<table>
<thead>
<tr>
<th>Instrument — How It Works</th>
<th>Reasonable when</th>
<th>Poor choice when</th>
<th>Extant crime examples</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Means</strong> — Addresses procedures or technology</td>
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<tr>
<td>• Crime similar across all places.</td>
<td>• Little evidence of effectiveness.</td>
<td>• ID requirements for bars.</td>
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<tr>
<td>• Evidence that means work.</td>
<td>• Crime highly variable across places.</td>
<td>• Minimum lighting standards for parking areas.</td>
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<td>• Consensual crimes.</td>
<td>• Common crimes.</td>
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<tr>
<td>• Rare extreme crimes.</td>
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<tr>
<td>2. Subsidies — Underwrites the use of means.</td>
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<tr>
<td>• Crime similar across all places.</td>
<td>• Little evidence of effectiveness.</td>
<td>• Landlord training for apartment owners.</td>
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<tr>
<td>• Evidence that means work.</td>
<td>• Crime highly variable across places.</td>
<td>• Extra police patrols for high-crime businesses.</td>
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<td>• Consensual crimes.</td>
<td>• Common crimes.</td>
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<td>• Rare extreme crimes.</td>
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<tr>
<td><strong>Ends</strong> — Addresses outcomes</td>
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<tr>
<td>3. Liability — Courts punish occurrences of bad outcomes after suit.</td>
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<td>• Risk of suit given crime is high.</td>
<td>• Risk of suit not tightly linked to occurrence of crimes.</td>
<td>• Premises liability suits.</td>
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<tr>
<td>• Firms can only avoid suits by avoiding crimes.</td>
<td>• Suits can be avoided by use of means other than prevention.</td>
<td>• Nuisance abatement suits.</td>
<td></td>
</tr>
<tr>
<td>• For public suits, consensual crimes.</td>
<td>• For private suits, consensual crimes.</td>
<td></td>
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<tr>
<td>4. Tax, fine, or fee — Levies a fee, fine, or tax proportional to bad outcomes produced.</td>
<td>• Common crimes.</td>
<td>• Crime is uncommon and extremely serious.</td>
<td></td>
</tr>
<tr>
<td>• Crimes can be measured accurately and inexpensively.</td>
<td>• Consensual crimes.</td>
<td>• Charging for calls for police service above a limit.</td>
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<tr>
<td>• Tax, fine, or fee can be accurately calculated.</td>
<td>• Crimes cannot be measured accurately and inexpensively.</td>
<td>• Fining excessive false alarms.</td>
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<tr>
<td>• Equivalent marginal abatement costs.</td>
<td>• Tax, fine, or fee is uncertain.</td>
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<td>• High variation in marginal abatement costs.</td>
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<tr>
<td>Instrument—How It Works</td>
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</tbody>
</table>
| 5. Subsidize — Target set for reductions. Places that achieve or exceed reductions are rewarded. | - Common crimes.  
- Crime can be measured accurately and inexpensively.  
- Tax or fee liability can be accurately calculated.  
- Equivalent marginal abatement costs. | - Crime is uncommon and extremely serious.  
- Consensual crimes.  
- Crime cannot be measured accurately and inexpensively.  
- Tax, fine, or fee is uncertain.  
- High variation in marginal abatement costs. | - No extant examples. |
| 6. Tradeable permits | | | |
| a. Cap and trade — Sets limits on bad outcomes, issues tradeable property rights for bad outcomes below the cap. | - Common crimes.  
- Unequal marginal abatement costs.  
- Many places.  
- Crime can be measured accurately and inexpensively. | - Crime is uncommon and extremely serious.  
- Consensual crimes.  
- Few places.  
- Equivalent marginal abatement costs.  
- Crime levels cannot be accurately measured.  
- Measurement of outcomes is prone to large errors. | - No extant examples. |
| b. Ex post credits — Each place is given a crime cap. Credits are awarded after documented reductions in crime below the cap. | - Common crimes.  
- Unequal marginal abatement costs.  
- There is a benefit to negotiating individual place caps.  
- Distrust of ability of place to stay within caps.  
- Crime can be measured accurately and inexpensively. | - Crime is uncommon and extremely serious.  
- Consensual crime.  
- Crime levels cannot be accurately measured. | - No extant examples. |
<table>
<thead>
<tr>
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</tr>
</thead>
</table>
| c. Averaging—A cap is set for a firm with multiple places. Average crime of all places within the firm cannot exceed the cap. | • Common crimes.  
• Firm with multiple places with unequal abatement costs.  
• Used in combination with other instruments. | • Crime is uncommon and extremely serious.  
• Consensual crime.  
• No firm has many places.  
• Places within firm have similar abatement costs.  
• Results in concentrating crime in a neighborhood. | • No extant examples. |
| d. Offsets—Place owners reduce crime elsewhere in return for ability to maintain or increase crime at their places. | • Used in conjunction with a global cap.  
• Used to reduce neighborhood crime concentrations.  
• Common crimes.  
• Variation in abatement costs. | • Crime is uncommon and extremely serious.  
• Consensual crime.  
• Little variation in abatement costs.  
• No global cap.  
• Results in concentrating crime in a neighborhood. | • No extant examples. |
regulations, and frequent, less serious events may be amenable to ends-based instruments. If frequent, the targeted crimes should be concentrated at places. Finally, place owners must have the ability to address crimes at their places. If means-based instruments are used, then there should be evidence that these means are effective. If ends-based instruments are used, place managers must have the ability to make changes to place functioning to forestall crime.

2. Decide Who Will Regulate Places

We can imagine that different local authorities will make different decisions: some choosing the police, some choosing another agency, and some choosing a hybrid entity. The most obvious decision is to select the police. The police are obvious because they have the interest, data, and public legitimacy concerning crime (Ayling et al., 2008). Sparrow (2000) made the case that police are already in the regulatory business. And place-based thinking has substantial roots in a problem-oriented approach to policing (Braga and Weisburd, 2006; Goldstein, 1990). If police are the regulators, then a regulatory approach to crime is an extension of Mazerolle and Ransley’s (2005) theory of third-party policing.

However, neither their training nor their experiences nor their organizational processes provide police officials with an understanding of how to regulate places. Perhaps this explains why police have not have been as attentive to crime places as we would expect (Weisburd et al., 2010). A means-based place regulator must know a great deal about the business of the regulated places. The regulator also must know how regulations influence the practices of place owners. The regulator must have expertise in the crime prevention technology and practices in use, the evidence supporting these means, and the limitations of these means. For ends-based regulation, the regulator must know a great deal about economics and incentives, including the impact of taxes and fees on behavior. And, for all regulators, there will be a need to understand the legal framework within which the regulatory agency works. These are not bodies of knowledge widespread in policing.

A related concern is how community groups and place owners are involved (Ayres and Braithwaite, 1992; Grabosky, 2011). Community groups may help hold firms accountable by engaging owners in discussions about how to comply with rules and public norms, public advocacy, sermonizing designed to steer public debate and influence markets, lobbying before elected officials and public regulators, and even threatening or filing civil suits.

Ayres and Braithwaite (1992) also proposed enforced self-regulation, where firms or trade groups develop the regulatory standards and government regulators assure compliance. Industry groups without explicit sanctions seem to attract more firms that pollute, so it may be critical that self-regulatory schemes include a strong sanctioning component (Lenox and Nash, 2003). Although there are some serious limitations to self-regulation, following Grabosky (2011), a full description of any regulatory instrument must account for the actions of government regulators, community groups, and place managers.
3. Produce Evidence of Utility
A competent policy maker should seek evidence that his or her chosen regulatory instruments work. There are two types of evidence: evidence of the effectiveness of means, and evidence of the effectiveness of instruments.

Means evidence shows that a particular practice mandated by a regulatory authority is likely to result in a reduction in crime. Government has an obligation to assure that its mandates work. However, current evidence about what works at places may be too weak for most means-based instruments. Although there are many studies examining links between place-based prevention and crime, few of these use strong designs (Eck, 2002; Eck and Guerette, 2012). We know with confidence there are many means place managers can use to reduce crime, but we have less confidence in any particular means. So, if governments increase their use of means-based regulation of places, they need to support greater production of quality means evidence. Without such evidence, there is a substantial risk that regulatory authorities will be mandating practices that are ineffective—thus, wasting public and private resources—or have negative side effects.

Governments have fewer obligations to produce means evidence if they adopt ends-based regulation because place managers are free to choose the means they prefer. Under ends-based regulations, place managers may desire evidence describing what does and does not work to reduce crime at places. Individual place managers can experiment with alternative prevention methods systematically, or by trial and error. They can exchange information on their experiences through trade groups.

Independent of the evidence supporting the means required by the regulator, there is a need to evaluate the effectiveness of the instruments used by the regulatory authority. This is instrument evidence. Because government is applying the instrument, it should fund these evaluations. Such evaluations should address four questions covering effectiveness, efficiency, equity, and side effects.

1. Effectiveness. Does the instrument reduce crime more than alternative methods for reducing crime?
2. Efficiency. Does the instrument reduce the costs of reducing crime compared with alternatives?
3. Equity. Does the instrument push the costs of fighting crime to place owners who facilitate crime and away from taxpayers who do not?
4. Side effects. Are unregulated places and areas safer from crime, perhaps because of a diffusion of benefits, or does crime displace from regulated to unregulated places? Does the instrument inhibit or enhance involvement in criminality among youth? Does it improve or impede reentry among offenders on probation or parole? Does it enhance or limit residential, shopping, recreation, transportation, or educational opportunities to residents of poor neighborhoods?
We need systematic experimentation with a wide variety of regulatory instruments for a variety of crimes at a variety of places, as there is no a priori reason to believe that one form of regulation will work for all crimes at all places.

Challenges to Regulating Places
In this section, we examine some challenges to a regulatory approach to crime places, either suggested in the environmental regulation literature or by reviewers of early drafts of this article. In the absence of well-documented experience and rigorous evaluations of crime place regulation, we cannot know whether these objections are realistic or unfounded. Nevertheless, all raise concerns that any government planning a regulatory approach to crime places should consider.

Regulation of Places May Undermine the Moral Authority to Fight Crime
Command-and-control instruments clearly place the responsibility to fight crime on the shoulders of owners of places that incentivize offenders, including instruments that make extensive use of self-regulation or third-party involvement. Such instruments could reinforce standard criminal justice sanctions—regulations of offenders (Ogus, 2011)—as well as problem-solving efforts to remove criminal opportunities (Sparrow, 2008). These instruments not only imply that it is wrong to engage in crime, but also they underscore that it is wrong to facilitate criminal activity by others. Means-based subsidies and ends-based regulations may send more ambiguous messages. Although they can block crime opportunities, they may signal that allowing offending at a place is acceptable, as long place owners pay for it. When governments use subsidies, place managers may not have to consider crime because it is wrong, but only because taxpayers are willing to underwrite the costs of its prevention.

The Public Will Not Support the Regulation of Places
Is it possible to convince the public that regulating place owners is a fair and effective method to reduce crime? To the extent that retributive justice governs crime policy, a regulatory approach will be found wanting, if not unfair. If offenders are the sole cause of crime, then a regulatory approach puts unwarranted costs on “innocent” third parties. But as we have noted earlier, governments already impose regulations on third parties to remove criminal opportunities. There is nothing new about using regulation to address crime. We are marrying this well-established idea to a recent well-documented empirical finding—crime is concentrated at places. Although it is certain that the politics of some jurisdictions will find a regulatory approach to crime an anathema, there will be others who find some value in the approach.

Regulation of Places Could Make it Harder for Businesses in Poor Neighborhoods
This criticism begins with the premise that regulation adds costs to doing business. In fact, the nature of negative externalities is that they are costs of doing business that place owners
have shifted to others. Regulations shift these costs back to place owners. We expect that if places are regulated to reduce crime, then places with extremely thin profit margins may go out of business.

Command-and-control regulations may have the worst impacts on poor neighborhoods because all regulated places would have to adopt similar crime prevention practices, regardless of whether owners can afford them or of whether they are appropriate for their specific sites. Ends-based instruments provide place owners with greater flexibility in finding prevention practices that are both effective and affordable. Furthermore, they are designed to have their greatest impact on places that have the most crime.

However, crime reduction may reduce the costs of doing legal business in poor high-crime neighborhoods. The diffusion of benefits from formerly high-crime places to nearby locations reduces costs at all places, regulated and unregulated. Therefore, it is possible that the reduction in crime-related costs to places in poor neighborhoods could increase the access of the poor to safe housing, recreation, and shopping.

**Regulation of Places Could Increase Crime Concentration in Poor Neighborhoods**

Would regulation concentrate crime more than it is already concentrated? This seems unlikely with means-based instruments, as all places in a regulated group are treated the same way. A tax instrument is unlikely to concentrate crime more because an owner of a high-crime place can only reduce crime or close down: Neither of which would increase crime in a high-crime area.

What about tradable permit instruments? Drury, Belliveau, Kuhn, and Bansal (1999) claimed that a market-based air pollution abatement scheme in Los Angeles did concentrate toxic emissions in poor neighborhoods. The scheme allowed point source polluters to continue emitting pollutants by buying offsets from diffuse polluters. Would this occur with crime places? There is no good *a priori* reason to suspect so. Low-crime places would have permits to sell. High-crime place owners could maintain their current crime level, if they bought these permits, reduce crime, or go out of business. None of these actions can import crime to a neighborhood. But three approaches could lead to increased concentration: offsets, averaging, and grandfathering. If place owners were able to offset their crime in one neighborhood for crime reduction elsewhere (e.g., in return for reducing shoplifting at a shopping center, a big landlord is allowed high-crime volumes in his apartment buildings), crime could become more concentrated. If owners only had to reduce the average crime across all their places, then they could leave their high-crime locations in the worst neighborhoods alone, while improving security in their low-crime neighborhood buildings. Finally, allocating permits based on prior crime levels would tend to grandfather in crime hot spots. In summary, although ends-based instruments in general might not be problematic, some specific approaches could lead to negative results.
Regulation of Places Could Impede Offender Reintegration

Former offenders seeking to reintegrate into the community and pursue legitimate occupations may be vulnerable under some regulatory schemes. This probably depends on the specific provisions of local regulations, rather than on inherent limitations of general instruments. These approaches could reinforce each other, under some circumstances. By reducing crime-prone places, for example, offenders released back into the community may have fewer opportunities to recidivate. Thus, rehabilitation and deterrence policies may be more effective if crime places are regulated. Given the variety of instruments that are possible, it is likely that some place instruments will complement offender policies (Cullen et al., 2002), whereas others may undermine them. This might vary by community context, crime type, and offender type. We should see this as an invitation to imagine rigorous research and experimentation to determine how place and offender policies can be combined.

Conclusions: Expanding Crime-Reduction Options

Although it is true that people kill people, it also is true that places can create facilitating conditions for crime. Theory and evidence has shown that crime is concentrated at a few places; these concentrations tend to be stable; reducing crime at these places is possible; crime does not inevitably displace from places, but instead prevention often diffuses out from protected places; place management practices are in part responsible for high crime at a specific place; and place managers can reduce the crime at their places. These findings led us to consider high-crime places as point source polluters. We used environmental regulatory policy theory, research, and experience to outline a series of crime place regulatory instruments.

It is premature to claim that these policies will work as we speculate. Until they are tested, we cannot know. Indeed, because there are a variety of regulatory approaches, it is likely that some will be more useful than others. As is true of environmental regulatory instruments (Ellerman, 2007), and of situational crime prevention (Eck and Guerette, 2011), it is possible that they all work, but under different circumstances, for different crimes, and at different types of places.

We have just provided a peek at the regulatory options available. Ayers and Braithwaite (1992) and Cunningahm et al. (1998) have shown that a range of regulatory practices is available. Furthermore, these instruments can be combined (Grabosky, 2011; Johnstone, 2003). This is likely to be true for crime prevention at places. Farrell and Roman (2006) extended the crime application of environmental policy instruments to manufacturers, victims, financial institutions, Internet service providers, and others. They called their approach the “enhanced crime doctrine,” following the enhanced injury doctrine of consumer product regulation (Farrell and Roman, 2006: 147). Consistent with this doctrine, Newman (2011) applied cap and trade to credit card fraud. Policy makers should view the...
instruments we have described as flexible building blocks they can use to tailor regulatory approaches to crime in a wide variety of circumstances.

Thirty years ago, Kelman (1981) showed that ideology had stymied the application of ends-based instruments to environmental problems. Today, governments use ends-based instruments alongside means-based instruments to reduce pollution (Freeman and Kolstad, 2007). It is possible that the greatest opposition to the use of a regulatory approach to crime places also will be ideological. Whether ends or means based, a regulatory approach to crime places shifts the burden of blame and responsibility. Rather than viewing crime as simply a matter between offenders and police, a place focus requires consideration of the morality of crime facilitation by third parties. The immediate question is more likely to be who should pay for crime reduction, rather than whether regulation is technically feasible.

The social and financial costs of relying on imprisonment as a crime control mechanism have raised concerns among liberals and conservatives alike. The recent economic recession has called into question local governments’ reliance on policing to reduce crime. Durlauf and Nagin (2011) suggested we can reduce crime and imprisonment by relying more on policing than on imprisonment. We may be able to do better: to not only reduce crime and imprisonment, but also reduce our reliance on policing. Regulation has the potential to reduce the brutality of crime control (Kleiman, 2010) and to distribute more equitably the costs of crime reduction. In principle, this seems possible. We need to determine whether this is true in practice.

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