Crime Control in the City: A Research-Based Briefing on Public and Private Measures

Philip J. Cook

Duke University and National Bureau of Economic Research

Abstract

Crime control deserves priority in urban policymaking. High crime rates are a drag on community development and a great burden on households that cannot afford to relocate. Successful control of theft, vandalism, public disorder (often associated with drug selling), and especially violence set the stage for increasing property values, investment, job growth, and a higher standard of living. The fact that most large cities are far safer today than they were two decades ago has contributed to the growth and prosperity of those cities. Nevertheless, crime rates can be remarkably volatile—more so than other social indicators—and require continuing attention.

Recent history teaches us that large fluctuations in crime rates can occur without much change in underlying socioeconomic conditions. Although crime tends to be concentrated in low-resource neighborhoods year in and year out, crime rates are not uniquely determined by the socioeconomic conditions—far from it. The quantity and quality of policing matter. Police effectiveness requires cooperation by the public and could be enhanced by programs to elicit greater voluntary cooperation. The private sector also has a direct role in crime control—as many private security guards as sworn police officers are involved in crime prevention—but the interaction between public and private efforts is not well understood. Over the long run, social policy, including social services, housing, education, and mental health, are potentially important in the control and prevention of crime, and city agencies concerned with social policy should accept crime reduction as one of their purposes.

Introduction

The great epidemic of youth violence that swept the nation's cities beginning in the mid-1980s finally crested in 1993 and has largely subsided since then. In many cities, rates of crime and violence are now at levels not seen since the Kennedy era.¹ The remarkable turnaround has contributed to the current golden age in New York² and elsewhere. But despite this good news, few mayors are in a position to relax when it comes to crime, and, for more than a few, crime is the most pressing issue on their agenda. This article attempts to provide general guidance to city officials on crime and crime control based on available research.

The epidemic of violence generated some important lessons. First, security is a necessary platform for neighborhood growth and prosperity. Thus, the notion that poverty is the mother of crime has been turned on its head. Second, a city's violence rates can be extraordinarily volatile. For instance, the homicide victimization rate for young African-American men in Washington, D.C., increased by a factor of 10 during the crack drug era of the late 1980s, not because violent newcomers invaded the city but because the drug-related conflict engendered violence within the existing population. Although the traditional "root causes" of crime, such as poverty, lack of parenting, and limited licit opportunities, were operating in the background, these factors created only a potential for trouble; the realization of that potential depended greatly on the immediate circumstances. Third, an increase in police resources is valuable in crime control.

This last lesson is perhaps most surprising and remains contentious. Criminologists and police chiefs had long agreed that police bore no responsibility for the everyday violence in the city because they had no way to prevent it. Beliefs have changed, however. New policing strategies were introduced during the epidemic—most prominently, problem-solving "community" policing and "broken windows," order-maintenance policing—coupled with a new generation of chiefs who declared they are accountable for lowering crime. Criminologists have provided some systematic evidence in support of these new strategies, although the evidence is less than decisive. The great decline in crime during the 1990s made most any intervention look good. In any event, solid evidence shows that more resources devoted to policing in general are productive in reducing crime.

In addition, cities have benefited from a secular decline in crimes such as burglary and motor vehicle theft for reasons that are even less well understood than the decline of violence. Private, self-protection activities may get part of the credit for the decline. The private security industry continues to grow faster than public policing. Technical innovations have improved alarm and surveillance systems, which simultaneously have become more pervasive. These innovations have the effect of improving the quality of information that private citizens provide law enforcement, and, therefore, they increase police productivity. There is reason to believe, however, that private cooperation remains a scarce, undersupplied resource. One key to more efficient crime control may be enhanced incentives for households and businesses to cooperate with the public aspects of the crime-control task.

¹ John F. Kennedy, 35th president of the United States, January 20, 1961, through November 22, 1963.

² See, for example, Schwartz, Susin, and Voicu (2003).

To reduce crime, police need cooperation from other public agencies as well, including agencies that may not have crime control as part of their regular mission. Serious crime is concentrated in "hotspots" characterized by disorder and a prevalent lack of amenities; therefore, police "problem solving" to reduce criminal opportunities in these areas may require the cooperation of the housing and zoning authorities, trash collectors, alcohol licensing boards, mental health providers, and others. Cooperation with state and federal criminal justice authorities is also of considerable importance.

The focus here is on crime control, with the belief that controlling crime will always be necessary and vital to the quality of urban life. That is not to say that crime prevention is unimportant: surely a reduced potential for crime would be a byproduct of an increased investment in effective programs to enhance children's health and education; to provide good, licit employment options for young adults; to strengthen families and communities; and to foster justice. For now, the author simply notes that a low crime rate will facilitate all of these worthy efforts.

Crime Trends and Patterns

Crime rates can be volatile at the local level; at the national level, trends tend to be smoother, but far from static. Homicide rates, the most reliable indicator of violence, have followed a low-high-low pattern during the post-World War II period (exhibit 1).³ During the 1950s, the homicide rate nationwide was about 5 deaths per 100,000 residents. In 1964, the homicide rate began heading decisively upward, doubling by the end of the Vietnam War era. For the next 20 years, some variation of this new, high level occurred, with the rate peaking in 1980 and 1991. During the 1990s, a remarkable decline in the homicide rate occurred nationwide, leveling out in 2000 at a rate approaching that of the early 1960s.⁴

Nonfatal violence rates have followed similar trends since 1973, when the National Crime Victimization Survey (NCVS) was initiated.⁵ In particular, victimization rates for violent crime varied in

³ The homicide rates presented here are not from the Federal Bureau of Investigation's Uniform Crime Reports, but rather from the National Vital Statistics System. Coroners and medical examiners nationwide report the results of their investigations of deaths, and these reports are compiled at the state and national levels under the aegis of the National Center for Health Statistics (Centers for Disease Control and Prevention). These mortality data are generally considered the most reliable source of information on homicide-victimization rates and patterns (Wiersema, Loftin, and McDowall, 2000), although they are somewhat limited—the Vital Statistics provide no information on suspects or circumstances of the homicide.

⁴ Note that the long-term trend in homicide rates is not an entirely reliable index of criminal behavior. Technological changes in both medical treatment and weaponry have altered the likelihood that a serious assault will result in the death of the victim. On the one hand, trauma care has improved significantly, and the current homicide rate would be somewhat higher if not for improved emergency medical response and lifesaving procedures for severely wounded victims. On the other hand, the firearms assailants use have improved through increased power and rapidity of fire (Wintemute, 2000).

⁵ In 1973, the U.S. Department of Justice implemented a survey to measure rates of violence and other common crime. Since then the NCVS has contacted large samples of households (currently about 45,000) to inquire whether any members age 12 and over have become crime victims during the preceding 6 months, and, if so, to provide details. The resulting estimates tend to be substantially larger than the counts recorded by the police, and these estimates are useful in providing the statistical basis for analyzing demographic patterns of violence—both of the victims and of the perpetrators (based on respondents' reports of their impression of the age, race, sex, and number of assailants).

a narrow range until 1994 and then dropped to less than half the peak rate by 2002 (exhibit 2). Robbery rates have followed homicide rates very closely throughout this period (Blumstein, 2000; Blumstein and Rosenfeld, 2007).

Property crime victimization rates have declined steadily since 1980; the current rate is one-third the peak level (exhibit 3). Residential burglaries (break-ins and attempts) in particular have declined a full 70 percent since 1980 (that is, from 100 to 30).

The extraordinary reduction in violent crime during the 1990s has been the object of extensive exegesis by scholars (Blumstein and Wallman, 2006; Blumstein and Wallman, 2000; Cook and Laub, 2002; Zimring, 2007). No expert predicted this decline, and it remains something of a mys-

Exhibit 1



Note: Includes deaths from the terrorist attacks of September 11, 2001. Source: National Center for Health Statistics, Vital Statistics

Exhibit 2



Notes: Estimates for 1993 and beyond are based on collection year; earlier estimates are based on data year. Violent crimes included are rape, robbery, aggravated and simple assualt, and homicide. Rape does not include sexual assault. Homicide rates for 2005 are estimated based on 2005 preliminary annual release data.

Sources: National Crime Victimization Survey; Federal Bureau of Investigation, Uniform Crime Reports



Exhibit 3

Notes: Estimates for 1993 and beyond are based on collection year; earlier estimates are based on data year. Property crimes include burglary, theft, and motor vehicle theft. Source: National Crime Victimization Survey

tery. Steven Levitt (2004) provides a survey of potential causes. He first notes that the decline was quite universal, affecting all demographic groups and geographic areas. With respect to urbanicity, he observes that the greatest improvements, proportionally, occurred within metropolitan statistical areas, especially among large cities with populations greater than 250,000. In fact, the 25 largest cities experienced noteworthy declines in homicide rates from their peak year (mostly in the early 1990s) to 2001, declines that ranged as high as 73 percent for New York and San Diego. Based on his analysis, Levitt awards partial credit for the crime drop to increases in the number of police, the rising prison population, the receding crack epidemic, and the legalization of abortion through *Roe v. Wade.* His claim that abortion liberalization is related to the crime reduction is controversial, to say the least (Joyce, 2004), but the rest of his list is widely (although not universally) endorsed by experts. His judgment about what is *not* important to the crime drop includes the sustained economic growth in the 1990s and the acclaimed innovations in policing in New York and elsewhere.

Crime rates during the 1984–2001 period provide a graphic demonstration of their potential volatility, particularly for local areas and specific groups.⁶ Most notable was the nationwide epidemic in minority-youth violence that began in the mid-1980s and peaked in 1993, subsiding thereafter. For African-American males, homicide commission rates increased by a factor of five for those 13 to 17 years old and by a factor of nearly three for those aged 18 to 24 (Cook and Laub, 2002). For individual cities, the swings were larger: homicide involvement by young African-American men in Washington, D.C., increased by a factor of 10 during this period. The remarkable conclusion is that similar "fundamentals" of socioeconomic status are compatible with a homicide rate of both X and 10X, given relatively minor changes in circumstances. Franklin Zimring concludes his analysis of the crime drop: "Whatever else is now known about crime in America, the most important

⁶ Glaeser, Sacerdote, and Scheinkman observe that "The high variance of crime rates across time and space is one of the oldest puzzles in the social sciences; this variance appears too high to be explained by changes in the exogenous costs and benefits of crime" (Glaeser, Sacerdote, and Schleinkman, 1996: 507). They analyze the effects of social interactions as a possible explanation for volatility, finding evidence that such interactions are particularly important for crimes of theft.

lesson of the 1990s was that major changes in rates of crime can happen without major changes in the social fabric" (Zimring, 2007: 206). That observation, reasonable as it sounds, is a rather profound revision of pre-epidemic conventional wisdom.

Patterns in Urban Crime

Despite the volatility of crime rates, the geography of crime tends to be rather stable and predictable. The crime map of any large city lights up in those neighborhoods characterized by a high concentration of disadvantaged minorities, joblessness, single-parent households, drug abuse, substandard housing, inadequate public services, and high population turnover. It is reasonable to assume that such a confluence of conditions holds the key to understanding the social and economic conditions that foster crime. Indeed, community characteristics associated with economic and social disadvantage are often seen as the "root causes" of crime and violence.

In the late 1960s, coinciding with the first post-World War II surge in crime rates, three presidential commissions argued in their final reports that redressing problems of economic and social disadvantage was a necessary precondition for reversing the trend. The first of these, known as the President's Commission on Law Enforcement and Administration of Justice, opined in 1967 that "The underlying problems are ones that the criminal justice system can do little about.... They concern the Commission deeply, for unless society does take concerted action to change the general conditions and attitudes that are associated with crime, no improvement in law enforcement and administration of justice, ...will be of much avail" (President's Commission on Law Enforcement and Administration of Justice, 1967: 1). The 1968 report of the National Advisory Commission on Civil Disorders, the Kerner Commission, assigned much of the blame for the urban riots of the 1960s on the effects of racism, with the call for action couched in the now famous observation that "Our nation is moving toward two societies, one black, one white—separate and unequal" (United States Kerner Commission, 1968: 1). The U.S. National Commission on the Causes and Prevention of Violence observed that "Violence is like a fever in the body politic: it is but the symptom of some more basic pathology which must be cured before the fever will disappear" (U.S. National Commission on the Causes and Prevention of Violence, 1969: xix). Further, "the way in which we can make the greatest progress toward reducing violence in America is by taking the actions necessary to improve the conditions of family and community life for all who live in our cities, and especially for the poor who are concentrated in the ghetto slums" (U.S. National Commission on the Causes and Prevention of Violence, 1969: xxi).

Socioeconomic conditions served, therefore, not only as an explanation for patterns of violence, but also as the preeminent candidates for intervention. Reducing disparity and disadvantage was presented as a feasible option and as the *only* approach that could do much good. Although the 1960s are long gone, it seems fair to say that perspective is still influential. Today we may be more sanguine about the ability of the police and prisons to reduce crime and less sanguine about the feasibility of correcting root-cause conditions, but many social scientists concur that the community, shaped in part by the larger societal context, is ultimately the right place to look for a satisfactory explanation of crime patterns.

Much of the systematic evidence available on the relationship between crime rates and environmental or "ecological" (the more common term) characteristics derives from multivariate regression analysis on cross-sections of data on jurisdictions. (The jurisdictions may be anything from states to census tracts.) These studies typically include an eclectic list of explanatory factors.⁷ A recent example gives the flavor of these studies. Morgan Kelly (2000) analyzed crime rates in 1991 for the 200 largest U.S. counties, using a variety of demographic and socioeconomic factors as explanatory variables. I have followed Kelly's lead, but with some modifications in his original regression specification.⁸ The results for robbery and homicide for 1990 and 2000 are reported in exhibit 4.

Exhibit 4

Explanatory Variable	Robbery	Robbery	Homicide	Homicide
	1990	2000	1990	2000
Intercept	- 13.402ª	– 10.580°	– 8.938 ^b	– 8.178
	(3.632)	(5.787)	(4.026)	(5.017)
Population	0.104	0.114	0.061	0.065
	(.064)	(.116)	(.071)	(.101)
Population/square mile	0.138ª	0.079	0.080	0.009
	(.044)	(.087)	(.048)	(.075)
Per capita income	0.466	- 0.260	- 0.401	– 0.761
	(.313)	(.536)	(.347)	(.464)
Income inequality (Gini coefficient)	1.394ª	1.564 ^ь	1.685ª	1.348⁵
	(.282)	(.705)	(.312)	(.611)
Female head: percent of all families	1.207ª	1.648ª	1.100ª	1.595ª
	(.254)	(.401)	(.282)	(.347)
Black: percent of population	0.328	0.125	0.317ª	0.193ª
	(.045)	(.081)	(.050)	(.070)
Hispanic: percent of population	0.081ª	0.026	0.060 ^b	0.025
	(.030)	(.066)	(.034)	(.057)
Movers: percent of population that moved in previous 5 years	1.539ª	1.671ª	1.598ª	1.947ª
	(.239)	(.489)	(.265)	(.424)
College: percent of population age 25+ with 4 years	– 0.676ª	- 0.162	– 0.610ª	– 0.245
	(.173)	(.361)	(.192)	(.313)
R-squared	80%	51%	76%	62%

Regression Analysis of Robbery and Homicide Rates per 100,000 Residents, 200 Largest U.S. Counties (48 States), 1990 and 2000 (all variables in natural log form)

Note: The sample for both 1990 and 2000 consists of the 200 largest counties by population in 1990.

^a p<1%.

, ^ь p<5%.

° p<10%.

⁷ For a systematic search for structural factors that influence state-level homicide rates, see Land, McCall, and Cohen (1990).

⁸ In particular, I made the following changes. First, I replaced his "% nonwhite" with "% black" and "% Hispanic" for the sake of greater specificity. Second, I dropped his variable on police expenditures per capita, because it is plausibly the effect rather than the cause of crime. Third, I dropped the "% of population age 16-24"; he included it because that is the most crime-prone age group, but, as it turns out, its cross-section variation signals which counties have a relatively large population of college students—a group that is not particularly crime prone. He included the male unemployment rate, which did not perform well, so I dropped it in this specification. Finally, he reports the results of Poisson regression, while the results here are from ordinary least squares—a change that makes little difference in practice.

The crime data are derived from the FBI's Uniform Crime Reports, and all other variables come from the decennial censuses. Because all variables are in log form, the coefficients are conveniently interpreted as "elasticities"—the percentage change in the dependent variable (crime rate) associated with a 1-percent increase in the explanatory variable. Thus, according to these results, in 2000, a 1-percent increase in the county's population was associated with a 0.11-percent increase in the robbery rate and a 0.06-percent increase in the homicide rate, conditioned on the other explanatory variables.

These results generally support the "root causes" perspective for both the near-peak year (1990) and the postdecline year (2000) of the violence epidemic. Across urban counties, both robbery and homicide rates increase markedly with (1) the prevalence of female-headed (one-parent) families; (2) population instability, as measured by the percentage of the population that changed addresses in the preceding 5 years; (3) income inequality, as measured by the Gini coefficient on household incomes; and (4) the prevalence of African Americans in the population. The weak relationship of violence with population size and density is surprising: contrary to expectation, the effects tend to be quite small and, with one exception, statistically insignificant.⁹ One consequence of the differentially paced crime drop during the 1990s was the near elimination of the long-established association between population size and violent crime rates for cities with a population greater than 250,000.¹⁰

This type of study is the statistical equivalent of the crime map, demonstrating that serious violent crime rates tend to be highest in areas with the greatest disadvantage. Beyond that general finding, the results should be taken lightly. Because different measures of "disadvantage" tend to be highly correlated with each other across jurisdictions, it is difficult to sort out the separate effects of factors such as inequality, prevalence of female-headed households, and prevalence of college-educated residents.¹¹ In addition, a more fundamental problem exists: a statistical analysis of natural cross-section variation, while suggestive, reveals little about causation. (For example, residential turnover may be as much an effect as a cause of crime.) That fact was largely ignored by the 1960s panels of experts previously quoted (Wilson, 1974).

In any event, the criminogenic factors identified in the cross-section regressions for 1990 and 2000 did not improve during the 1990s. In fact, national income inequality increased markedly, as did

⁹ Although the unit of observation for these regressions is the county, the characteristics of the state in which the county is located may also be relevant. State governments provide a large share of the funding for the courts and criminal corrections, and they differ with respect to criminal law and procedure as it affects robbery and criminal-homicide cases. In addition, states differ with respect to their level of contribution to local finances and service provision. For these reasons, I re-ran the regressions, controlling for the state in which the county is located. The results are very similar in all respects to those previously reported in this article.

¹⁰ Although robbery has long been the quintessential urban crime, recently, robbery rates have been about the same for mid-sized cities (populations of 250,000 to 500,000) and larger cities. The same is true for homicide rates. For an analysis of why crime increases (or used to increase) with the population, see Glaeser and Sacerdote (1999).

¹¹ The correct interpretation of these results is also clouded by the aggregation problem. We are observing either the sum of individual propensities or some characteristic that reflects interactions within the community. Sampson, Raudenbush, and Earls (1997) offered the sociological view that the quality of interactions within the community, and particularly mutual trust, is important. They offer the term "collective efficacy" as a characteristic of communities that predicts the extent of informal social control that limits criminal activity (Harcourt and Ludwig, 2006; Sampson, Raudenbush, and Earls, 1997).

the prevalence of single-parent households. Furthermore, in the 200-county sample, there was little tendency for the counties that showed relative improvement in these factors to exhibit a larger drop in robberies or murders than did other counties. When the regression is run on decade-long changes in the variables, the only statistically significant coefficient is for "% female headed house-holds" in the case of murder; for robbery, the two marginally significant coefficients are "% black" and "% college." An analysis of changes from 1980 to 1990 also found few statistical associations.¹²

The 1990s experience—the large, across-the-board reduction in crime without much progress in the socioeconomic fundamentals—is hopeful. It creates the possibility that crime rates can change dramatically, independent of changes in the fundamental socioeconomic conditions. Thus, crime is not only volatile, but also potentially malleable, with policies more feasible and immediate than those required to "reshape society."

Costs of Crime

In assessing crime policy, the costs of crime and crime prevention are equally important (Becker, 1968). Reducing the combined total cost of crime and crime prevention becomes an important public goal, along with the goals of promoting greater justice and equity. Thus, whether it is worthwhile to increase resources devoted to public law enforcement depends in part on whether the projected reduction in crime has value greater than the additional expenditure. Obtaining accurate accounting on the value of crime reduction is vital to setting priorities.

Public Costs of Crime Prevention

The accounting of relevant crime-prevention costs begins with direct public expenditures. Exhibit 5 provides a summary of criminal justice expenditures at the local, state, and federal levels for 2003. In that year, the total expenditure for criminal justice at all levels was \$195 billion (\$670 per capita), about half of which was expended by counties and cities. Most local expenditures were for policing (\$58 billion), although county governments also have substantial responsibility for courts and jails. When compared with local governments' total expenditures for other services, including education and transportation, police services account for about 5 percent of the total.

Exhibits 6 and 7 demonstrate the considerable growth in expenditures on criminal justice over the past quarter century. Adjusting for inflation and population growth, expenditures per capita have grown most rapidly at the federal level (for which the 2004 level was 3.2 times the 1982 level), followed by state (2.3 times), and local (1.9 times), trending toward greater parity across the three levels of government. Across functions, the largest growth has been in corrections (where real expenditure per capita increased by a factor of 2.75), reflecting the burgeoning prison and jail populations.

¹² I ran regressions for changes in log crime rates, from 1990 to 2000, as a function of changes in the independent variables, also in log form. I ran the same regressions for the 1980-to-1990 period. None of the variables "perform" especially well. For robbery, seven of the covariates have estimated coefficients that either switch signs across the two periods or have "perverse" signs in both periods. The variable "% black" is significantly positive for the 1990s, but significantly negative for the 1980s. The R2 ranged from 0.4 percent to 7.0 percent for the four regressions.

Exhibit 5

Criminal Justice Expenditures, 2003 (dollars in billions)							
	Total	Police	Judicial/Legal	Corrections			
Local	94	58	18	19			
State	66	11	16	39			
Federal	35	20	9	6			
Total ^a	195	89	43	64			

^a The total entries are computed by summing the column entries. Those sums disagree with the "total" statistics from the Sourcebook, in which sums are total, 185; police, 83; judicial/legal, 42; corrections, 61.

Source: Bureau of Justice Statistics, Sourcebook of Criminal Justice Statistics Online

http://www.albany.edu/sourcebook/pdf/t122003.pdf

Exhibit 6

Direct Expenditure by Government Level, 1982 to 2005 (adjusted for inflation and population growth)



Sources: Annual Government Finance Survey; Annual Survey of Public Employment

Exhibit 7

Direct Expenditure by Criminal Justice Function, 1982 to 2005 (adjusted for inflation and population growth)



Notes: Used Gross Domestic Product deflator from Bureau of Economic Analysis. Used population data from 2006 Statistical Abstract of the United States.

Sources: Annual Government Finance Survey; Annual Survey of Public Employment

Most experts agree that the extraordinary increase in jail and prison populations since 1980 (from 0.5 million to more than 2.2 million) receives some credit for the crime drop (Blumstein and Wallman, 2006; Levitt, 2004). That increase has come at considerable cost, however, both direct and indirect. The high rates of imprisonment have been a particular burden on the African-American community. Steven Raphael and Melissa Sills report that roughly 11 percent of African-American men aged 18 to 40 were imprisoned as of 2000 (Raphael and Sills, 2006). Almost as many high school dropouts in this demographic group are institutionalized as are employed; in fact, for those aged 26 to 30, 34 percent were institutionalized compared with 30 percent employed (Raphael and Sills, 2006). The high institutionalization rates for African-American males leave a demographic gap in poorer minority communities, with important implications for family and community life. Those who are not actually in prison are likely to have a felony record, limiting their licit employment opportunities (Travis, 2005; Western, 2006). These ancillary effects of imprisonment should loom large in assessing alternative strategies to control crime.

Economists may debate whether the current level of imprisonment is too high or too low, based on a crude comparison between estimated marginal costs and benefits, but there is no reason to believe that the current allocation of imprisonment is "efficient" from a crime-control perspective. Much of the growth in imprisonment is accounted for by longer sentences (Blumstein and Beck, 2005), which have sharply diminishing returns regarding both deterrence and incapacitation.¹³ A strong argument can be made for greater use of "intermediate" sanctions such as fines and intensive supervision in the community (Morris and Tonry, 1990). The fact that the 600,000 prisoners released each year usually receive little supervision or support suggests that a larger investment in prisoner reintegration might help reduce the high recidivism rate. (About one-half of released prisoners return to prison within 3 years.¹⁴) Furthermore, at the margin, arguably, more cost-effective uses of the corrections budget are in prevention, such as preschool education or programs to encourage high school graduation (Donohue and Siegelman, 1998; Lochner and Moretti, 2004). A worthy quest is to identify and implement an effective crime-control strategy that economizes the use of prisons.

One such proposal has been promulgated by Mark Kleiman (forthcoming, 1997). His proposal rests on the observation that drug abuse while on conditional release (probation or parole) is highly predictive of a return to crime, together with the behavioral principle that the deterrent effect of punishment is far greater if it is swift and certain (even if mild) than if it is remote and unlikely (even if severe). His proposal, then, is to subject known drug abusers on conditional release to frequent random drug testing with immediate but mild consequences for a "dirty" test—a weekend in jail, for example. This approach stands in contrast to the standard operating procedure in most jurisdictions, where convicts are rarely sanctioned for dirty tests, but when they are, it is with

¹³ Doubling prison sentences will have an incapacitation effect that is less than double, because criminals tend to "age out" and desist from crime. Doubling prison sentences will have a muted deterrent effect because of the universal tendency to discount the future. The second 5 years of a 10-year sentence will tend to be heavily discounted relative to the first 5 years (Cook, 1980).

¹⁴ A National Research Council report concluded that adequate evidence exists to support a greater investment in cognitivebehavioral interventions with released prisoners; further, drug treatment, coupled with frequent testing and comprehensive multiservice employment and training programs, was deemed promising (National Research Council, 2008).

imprisonment for the rest of their original term. While Kleiman's approach has shown good results when implemented, it requires strong leadership to overcome the challenges of large caseloads and entrenched operating procedures.

Private Costs of Security, Precaution, and Victimization

As with the public costs associated with crime prevention, the private provision of protection against crime is also costly. The Economic Census, which the Census Bureau conducts every 5 years, in 2002 provided an estimate of receipts of the private security industry as \$30 billion, as compared to \$80 billion in public expenditures on police protection.¹⁵ Some overlap in these numbers may exist, because governments hire private security for certain purposes, but estimates of the number of employees suggest something closer to parity. The census reported slightly more than 1 million police employees in 2002 (of which 75 percent were sworn officers), compared with 754,000 private security employees (U.S. Bureau of the Census, 2002). In the decade from 1992 to 2002, private security employment grew 34 percent, compared with 27-percent growth for police employees. Currently, the number of private security employees is comparable to the number of sworn officers.¹⁶

Costs to businesses, organizations, and households for crime prevention, avoidance, and victimization involve much more than the expenditures for criminal justice programs and private security. Crime, and especially the threat of criminal victimization, plays a pervasive role in city life. Shoplifting and fraud increase the cost of doing business for retailers. Vandalism, open-air drug dealing, prostitution, and loitering by gang members are neighborhood disamenities with tangible impacts on real estate values and patronage of local retailers. Perhaps most important is the threat of violence; people who have a choice will avoid dangerous neighborhoods, opting instead to live, work, shop, attend school, and recreate in safer places. In particular, the effect of crime on residential choice was documented by Julie Barry Cullen and Steven Levitt (1999), who demonstrated that crime has a powerful effect on residential decisions. For people who do not have the means to relocate from crime-impacted neighborhoods, fear and seclusion may become a fact of life. This point was documented by the Moving to Opportunity experiment (which provided vouchers to low-income families to relocate in Boston and four other cities); by far, the most important reason families signed up for the program was fear of crime and violence in the housing projects (Katz, Kling, and Liebman, 2003).

Estimating the social cost of crime is challenging because so much of it is subjective. One approach to placing a dollar value on commodities such as "safety from criminal victimization"—commodities that are not traded in the marketplace—is the contingent-valuation method. Economists have used this method most often in valuing environmental protection, but Jens Ludwig and I adapted

¹⁵ The receipts and employment for the private security industry are taken from the Economic Census for 2002, North American Industry Classification System 5616 (excluding locksmiths). See http://www.census.gov/prod/ec02/ec0256i06.pdf for a complete report (U.S. Census Bureau, 2004).

¹⁶ Two additional national surveys provide estimates of the number of private security employees: the Current Population Survey (conducted by the Bureau of Labor Statistics and the Census Bureau) and the U.S. Census Bureau's County Business Patterns. Estimates for 2002 from the three sources are in rough agreement: 754,000 (Economic Census), 724,000 (Current Population Survey), and 715,000 (County Business Patterns).

the method to valuing a reduction in the threat of gun assault in a community (Cook and Ludwig, 2000). We surveyed a nationally representative sample using a series of questions concerning how much respondents would be willing to pay in increased taxes for a program that would reduce interpersonal gun violence in their community by 30 percent. Based on the results, estimates indicated that the value to respondents of a 30-percent reduction in gun violence would have been \$24 billion in 1995, suggesting that the total burden was about \$80 billion. This method has also been used to value general reductions in crime (Cohen, 2005).

An alternative approach is to construct an estimate by totaling costs across the various elements of crime costs, both tangible (for example, expenditures on security, medical costs from assault-related injuries) and intangible, being careful not to double count. In a heroic effort to estimate the total cost of crime for the United States, David Anderson (1999) arrived at an annual figure of \$1.1 trillion for the mid-1990s. This figure included the value of risks to life and health from violent crime (\$574 billion), time spent securing assets (\$90 billion), and "crime-induced production" (\$397 billion, which covered everything from drug trafficking to small arms purchases to expenditures by Mothers Against Drunk Driving). Jens Ludwig updated this figure using data circa 2004, offering a new total of \$2 trillion (Ludwig, 2006), or more than \$6,000 per capita.

Violent crime is a prominent component of these estimates, and reducing serious violent crime deserves correspondingly high priority. It is interesting to place this point in international context. Compared with other developed nations, the United States has the reputation of having exceptionally crime-ridden cities. But, in fact, U.S. rates for common crimes of theft and burglary are comparable to those of other countries (we tend to have relatively high rates of robbery and assault) (Zimring and Hawkins, 1997). For homicide, the victimization rate in the United States is a multiple of that in other developed nations, combining, as we do, a high assault rate with ready access to guns (Hemenway, 2004). An emphasis on violence is also justified by the American public's values. In their contingent valuation study of a nationally representative sample of Americans, Mark Cohen and his associates found greater willingness to pay for a 10-percent reduction in homicide or rape than a 10-percent reduction of the far more common crime of burglary (Cohen et al., 2004).

These attempts at valuation are static, while the effects of crime on a city neighborhood may well evolve over time. Indeed, effective crime control can do much to revitalize a blighted neighborhood in a growing metropolitan area. Without a doubt, the great crime reduction of the 1990s receives some of the credit for the urban renaissance that occurred in one large city after another beginning in that period, with New York being the most notable case in point (Schwartz, Susin, and Voicu, 2003). None of the available estimates of the cost of crime successfully captures this dynamic, transformative possibility.

Note that the discussion has now come complete circle. The geography of crime is closely linked to socioeconomic disadvantage, as suggested by the regression results in the previous section. It is quite reasonable to believe that income inequality, broken families, and limited education create fertile ground for criminal activity. But the reverse may also be true. If crime rates are reduced to levels that are more acceptable to middle-class households, then more of these households may choose urban over suburban living—a process that will eventually change the socioeconomic makeup in ways associated with lower crime rates.

Although crime has a significant effect on the standard of living in cities, public responsibility for criminal justice policy is divided among local, state, and federal governments. In particular, courts, prisons, and parole are largely state and federal matters. The most important city and county responsibility is policing.

Police and Crime Control

Police have the lead responsibility for responding to and preventing crime. Criminologists have traditionally questioned whether the police in fact have much influence on crime rates, and, when crime rises, many police chiefs have blamed youth culture, the breakdown of family life, or unemployment. But a series of innovations in police management and methods, to some extent coincident with the crime drop of the 1990s, has led to a dramatic change in rhetoric. Now, big-city police chiefs publicly embrace responsibility for controlling crime and seek guidance from evaluation research on how best to do so. Criminologists continue to debate best practices but have become more open to the possibility that policing matters. Understanding just how policing matters, and how it can be most effective, requires a strategic analysis of how the police interact with other institutions and the public at large.

More Police, Less Crime

In 1994, David Bayley, a leading academic expert on policing, said, "The police do not prevent crime. This is one of the best kept secrets of modern life. Experts know it, the police know it, but the public does not know it" (Bayley, 1994: 3). As evidence of the public's ignorance in this respect, in 1994, Congress enacted the Violent Crime Control and Law Enforcement Act, which provided funding to local police departments to hire thousands of new police officers. Thanks in part to this federal funding, the number of police did increase substantially during the decade, peaking at 246 police for every 100,000 residents in 1999 (Zimring, 2007). Along with this expanding workforce came innovations in police deployment and management.

With these changes comes the question regarding whether additional resources in policing tend to be deployed effectively, without regard to specific technique or strategy. It has proven difficult to statistically sort out the crime-control effect of police resources, because the causal connection goes both ways—cities may hire additional police *in response* to a crime increase. Several studies, however, have found persuasive ways to isolate the causal effect of police resources on crime. William Evans and Emily Owens (2005) analyzed the effects of Community Oriented Policing Services (COPS) funding on crime, finding that cities did indeed hire additional police after receiving federal funding, which resulted in reduced crime rates. Another study analyzed variation in police presence in Washington, D.C., resulting from changes in the terror alert level, finding that the deployment of additional police reduced crime rates, especially on the National Mall (Klick and Tabarrok, 2005). In England and Wales, the Street Crime Initiative provided funding for antirobbery policing in 10 of the 43 police-force areas, with large, statistically discernible effects on robbery rates (Machin and Marie, 2005). Other studies have provided additional support for the conclusion that additional police suppress crime rates (Levitt, 2002; Levitt and Miles, 2007; McCrary, 2002). The effect of additional police on reducing crime is large enough to make a

strong case for expanded police funding (Donohue and Ludwig, 2007). Although the "black box" nature of these estimates is somewhat troublesome—surely it matters exactly how the resources are used—it appears true that police departments know how to put additional resources to effective use.

It is important to note that most all the evaluations of increased policing have been incomplete, in the sense that they have failed to measure the ancillary costs and benefits of reducing crime. The expansion of policing may well result in an increase in downstream costs associated with additional arrests, convictions, and incarcerations, but not necessarily, and there is no good evidence on this matter (Levitt and Miles, 2007).¹⁷ Furthermore, the increase in public policing may well have an effect on private-security and self-protection efforts, an area that has been almost entirely neglected in these evaluations.

Innovations in Policing

Surely the crime-control effects of police manpower and expenditures depend on organization and tactics. If so, the answer to the question of whether it is worthwhile to expand policing may well be, "it depends." The evidence reviewed in the previous section suggests that there are cost-effective uses for additional police resources and police chiefs typically know enough to make use of them, but much debate remains about the *most* efficient use of resources.

A review of the evidence on police practice by an expert panel of the National Academy of Sciences (Skogan and Frydl, 2004) defined these innovations relative to the traditional "standard model" of policing, which consists of preventive patrol, rapid response to 911 calls, followup investigations by detectives, and unfocused enforcement efforts. Police departments moved away from this standard model by innovating more focused tactics designed to address specific problems, such as gun use by drug-dealing gangs or hotspot locations where crimes are frequently reported. William Bratton, appointed New York City Police Commissioner in 1994, took this approach another step by combining focused policing with a new management accountability system, familiarly known as COMPSTAT. In this system, precinct commanders are given considerable authority, responsibility, and discretion over resources, coupled with responsibility for reducing crime in their command areas. Weekly meetings are held at headquarters to discuss solutions to emerging crime problems in each of the precincts, as documented by the COMPSTAT report (a computerized version of the old pin map), and a wide range of qualitative information at the borough and precinct levels. The focus on reducing crime, rather than on process-oriented performance measures (response times to 911 calls, arrest rates, complaints) is a profound change.

In many departments, proactive, focused policing has been embedded in one of two broad strategies. The first is community policing, in which the police seek to develop a productive working relationship with the community that encourages cooperation in crime prevention, including the identification and solution of neighborhood problems (Skogan, 2006). The traditional emblematic features of community policing were Neighborhood Watch organizations and foot patrol by police

¹⁷ In principle, the increase in police presence could increase or reduce the number of arrests, because additional police increase the probability of arrest per crime and reduce the number of crimes. The effect on the number of arrests (the product of probability per crime and number of crimes) will depend on the relative proportionate changes in these two variables. Freeman, Grogger, and Sonstelie (1996) explore possible relationships among crime, arrest, and policing.

in high-crime neighborhoods; recently, the focus has been on information-sharing and problemspecific operational partnerships with community organizations. The 1994 Violent Crime Control and Law Enforcement Act that provided federal funding for more police also created the Office of COPS in the U.S. Department of Justice, thus giving a federal imprimatur to this strategy.

An alternative strategy known as broken windows policing (also known as "order maintenance," "zero tolerance," and "quality of life" policing) has also garnered converts among police departments. The approach originated in an essay in the *Atlantic Monthly* by James Wilson and George Kelling (1982). Commissioner Bratton adopted the strategy, and he and others have credited it with the New York "miracle" (Bratton and Knobler, 1998; Kelling and Sousa, 2001). The theory behind this approach is that minor social disorder, such as graffiti, litter, public drinking, panhandling, and abandoned buildings, engenders crime by serving as a signal that normal social control has broken down (Harcourt and Ludwig, 2006). Its implementation in New York and elsewhere has taken the form of aggressive policing with numerous arrests for public disorder misdemeanors, sometimes at the cost of good relations with the community.

Objective evaluations of the New York innovations—COMPSTAT and aggressive broken windows policing—have reached differing conclusions (Harcourt and Ludwig, 2006; Rosenfeld, Fornango, and Baumer, 2005; Rosenfeld, Fornango, and Rengifo, 2007; Zimring, 2007). A broader consensus has emerged supporting the efficacy of concentrating police resources in "hotspots" and directing patrol against illicit gun carrying and other criminogenic activities and circumstances (Braga, 2005; Cohen and Ludwig, 2003; Eck and Maguire, 2000; Sherman, 2002; Skogan and Frydl, 2004). It is hard to argue with the "problem-solving" approach embraced by most big-city police departments, which seeks to prevent crime by finding ways to intervene where there is an ongoing source of trouble—a rowdy bar, perhaps, or a feud between rival gangs, or a dealer selling guns to youths and criminals. Effective interventions may require a considerable departure from normal police work. Anthony Braga and Brenda Bond (2008) summarize this challenge well in their recent report on a successful experiment with problem-oriented policing:

A broader set of responses to deal with physical and social incivilities, such as installing improved street lighting, cleaning up vacant lots, razing abandoned buildings, and evicting problem residents, requires activities that go far beyond making misdemeanor arrests. Strategic partnerships with city agencies, social service agencies, local business owners, community groups, and tenant associations are often necessary to deal with physical deterioration and social order problems in neighborhoods. (Braga and Bond, 2008: 705)

No matter how creative the problem solving, however, a zero crime rate is not a realistic goal and "zero tolerance" is a myth. Faced with inevitable scarcity of their capacity for effective action and the resulting tradeoffs, the police necessarily set priorities regarding the various services they provide the community and set priorities among different crime problems. A case in point is the now famous Operation Ceasefire, organized by the Boston Police Department working with other law enforcement agencies and a team of analysts from Harvard. Confronted with a surge in lethal violence by drug-dealing gangs, the department announced a program that focused enforcement efforts on the misuse of guns. In the absence of gunplay, gangs could continue dealing drugs subject to no more than the usual enforcement effort, but gang members were informed directly that gunplay by any one member of a gang would result in a heavy police crackdown on all the gang's activities (Kennedy, Piehl, and Braga, 1996). The priority on gun misuse is also a long-standing feature of policing in Chicago (Cook et al., 2007). The public has widely endorsed the emphasis on guns over drugs. The appropriate priorities are, of course, a value judgment, which ideally should, in some sense, represent the interests of the community, diverse though they may be (Moore, 2002).

Police chiefs can no longer get away with denying responsibility for crime in their cities. Accountability for crime reduction has stimulated interest in evaluation information about effective approaches to crime control. But reliable information is scarce indeed. The "technology" (if that is the right word) of crime control is as complex as any other social process.

Private Inputs in Crime-Control Efforts

Private security and private crime-control efforts more generally constitute an unwritten chapter in the recent literature on "what works" in crime-control policy. Observed crime rates and patterns reflect private choices regarding cooperation and self-protection (Clotfelter, 1977; Cook, 1986). A systematic approach to public crime control requires understanding of the potential interactions between private and public efforts.

A place to begin the discussion of this complex topic is with the private security industry. The current scope of the private security industry is difficult to assess, but, as previously recounted, the number of private security employees is at least as large as the number of sworn officers. The security industry encompasses proprietary (inhouse) security, guard and patrol services, alarm services, private investigations, armored car services, and security consultants, as well as security equipment (Cunningham, Strauchs, and Van Meter, 1990). Private security supplements and, in some cases, substitutes for public action: for example, businesses in many cases investigate and resolve employee theft and fraud without ever going public. More generally, as noted by Brian Forst, "the central functions of policing—preserving domestic peace and order, preventing and responding to crimes—have always been conducted first, foremost, and predominantly by private means.... Most crimes still are not reported to the police" (Forst, 1999: 19).

Private security guards (and police officers who moonlight as private security guards) serve a narrow purpose, namely to protect the property and people they are hired to protect. The term of art is situational crime prevention (Clarke, 1983). The guard's job is accomplished if the robbers avoid his or her bank, or his or her corporate executive is not kidnapped, or rowdy teenagers are successfully kicked out of his or her shopping mall, or the would-be burglar does not enter his or her gated community. "Rather than deterring crime through the threat of detection, arrest, and punishment, private policing tries to regulate behavior and circumstances to diminish the possibility that crime will occur" (Bayley and Shearing, 2001: 18).

An obvious possibility is that the crime will simply be displaced to other, unguarded victims and places. If private security does not prevent but only redistributes crime, then its public value (as opposed to private) is nil, and it creates serious equity concerns.¹⁸

¹⁸ Further, the danger exists that affluent people will become less willing to support public policing if they are purchasing private protection (Bayley and Shearing, 2001).

Although displacement is a legitimate concern, it is not the whole story. Lucrative opportunities, if unguarded, are likely to generate crime that would not otherwise occur. In Isaac Ehrlich's (1974) classic formulation, the supply of offenses is a function of the relative wage rate to licit and illicit activities. An increase in the net return (payoff per unit of effort) to crime will stimulate participation in criminal activity. He postulates that the payoffs to property crimes "depend, primarily, on the level of transferable assets in the community, that is, on opportunities provided by potential victims of crime" (Ehrlich, 1974: 87). But if the most lucrative "transferable assets" are well protected, then the payoff to crime is reduced. Of course, the most lucrative targets tend to be most closely guarded. Banks invest more in security against robbery than, say, travel agencies do. Jewelry stores display costume jewelry on open racks but keep more expensive items in glass cases wired with alarms. People with meager assets do not need bodyguards to protect them against being kidnapped for ransom. Credit card companies have instituted elaborate systems for preventing fraudulent use.

There is a reasonable concern, however, that some private precautionary activities are undersupplied due to the moral hazard created by insurance and even by the police. For example, a vehicle left unlocked in a public location invites theft, but the owner may be willing to accept that risk knowing that the police will attempt to recover his vehicle at public expense if it is reported stolen, and that, in any event, he or she is insured against theft for most of the vehicle's value. The same considerations may dictate against purchasing alarms and other antitheft devices. In response, insurance companies may provide a discount on theft insurance to owners who install such devices, and 12 states mandate these discounts. The mandate reflects a perceived public interest in increasing private precaution in this case.

Not all private actions to prevent or mitigate crime are limited to one's own household or business. The notion of "community" suggests neighbors looking out for each other, including with respect to crime. A tight-knit community may limit opportunities for crime by controlling the streets and sidewalks, keeping strangers under surveillance, and placing a check on local teenagers. This notion was given a scientific basis with data from the Project on Human Development in Chicago Neighborhoods. A sociological construct labeled "community efficacy" (a combination of items measuring informal social control and social cohesion) was found to be closely (negatively) associated with crime and violence rates, even after accounting for some other features of the neighborhood (Sampson, Raudenbush, and Earls, 1997). There is great interest, and apparent success, in crafting deliberate interventions to strengthen social control through public-private partnerships mobilized to confront chronic youthful offenders (Kennedy, 2007).

In some areas, the business community has sought to further its interests in controlling crime by establishing business improvement districts (BIDs). These self-taxing entities raise money to pay for private security guards, combat disorder, and, in general, to repair broken windows directly, while also advocating for improved policing and other city services (MacDonald and Stokes, 2006). A recent study of Los Angeles found that BIDs reduced crime by 5 to 9 percent, at a cost that was substantially less than the social benefit (Brooks, 2006).

In sum, private security and precautionary activities reduce crime rates by reducing the quality of criminal opportunities and, in that sense, supplement public policing. Both public policing and private security are necessary. Private measures cannot cope efficiently with anarchy—they need

to be backed up by police with their extraordinary power of arrest. Public and private efforts are further interrelated by the fact that effective law enforcement requires close cooperation with the community.

Increasing Private Input to Public Law Enforcement

One important aspect of the police department's mission is to reduce crime. Despite the newfound interest in prevention, much police work remains reactive. Crimes that private citizens do not report to the police will never be investigated. If the victim does not cooperate with the investigation, any charges will likely be dropped, and, if witnesses are not cooperative, a case is unlikely to go very far. In this set of transactions, we might say that public safety is being fostered with input from law enforcement resources and with information from private citizens (Clotfelter, 1993). The resulting enhancement of public safety benefits the entire community.

Although the police depend on the public to report crimes, assist in investigations, and serve as court witnesses, these key inputs are uncompensated and are supplied in some cases at considerable personal cost, inconvenience, and even risk of retaliation. Even victims are unlikely to benefit in any tangible way from cooperation with police, and most victims do not bother to even report the crime.¹⁹ In essence, the citizens who become involved in a crime are invited to make a charitable contribution of their time, and possibly their safety, in exchange for knowing they have done a good deed for their community. Improved cooperation from victims and other citizens would increase police effectiveness, but to elicit cooperation it would help to better align private incentives.

A good place to start in eliciting greater cooperation is by reducing the private costs of cooperation. State victim-compensation programs provide some incentive for victims who are injured in violent attacks; payment is contingent on the victim's reporting the crime. (Similarly, private insurance policies often stipulate that police be informed of a property theft.) Witness coordinators in criminal court can assist victims and other state witnesses in scheduling and understanding court proceedings. Police can offer some protection for witnesses who fear retaliation, although local resources for such efforts tend to be all too meager (Kocieniewski, 2007). It would help if the local housing authority made witness protection a high priority for allocating turnover housing vouchers.

In some cases, the information needed for a successful investigation of crimes requires some prior action. For example, in the case of motor vehicle theft, investigators are assisted in their investigations when they can prove the rightful ownership of a vehicle or its constituent parts. Registered vehicle identification numbers (VINs) do not discourage theft directly (since they are hidden), but they do facilitate building a legal case against a "chop shop" owner and others involved in the network of stolen vehicles. In fact, the federal government requires VINs on various parts of new vehicles. The result is to create a general deterrent to theft, a result that could not be achieved without government regulation. (The self-interested vehicle owner receives little benefit from his own vehicle's VIN.) A similar logic applies to electronic tracking devices such as LoJack[®]. Ian Ayres and Steven Levitt (1998) demonstrated that LoJack has significant positive externalities in deter-

¹⁹ The National Crime Victimization Survey for 2005 found that 40 percent of property crimes and 47 percent of violent crimes were reported to the police.

ring auto theft, because much of the benefit is external, the likely result is that fewer people will voluntarily equip their vehicles with LoJack than is efficient or socially desirable.²⁰

Information is needed to prevent as well as solve serious crimes. In the spate of school rampage shootings that culminated in the massacre at Columbine High School near Denver, Colorado, in 1999, one of the commonalities was that perpetrators had shared their plans with classmates and that the classmates had not seen fit to report this information to authorities (Newman, 2004). Although the causes of these distressing events were multiple and diffuse, a targeted prevention strategy would necessarily give high priority to persuading adolescents to pass on such information. Of course, a strong parallel exists here to terrorist conspiracies of all kinds. More mundane is the routine urban problem of dangerous people carrying guns, where the public could alert police, thereby possibly preempting a violent crime. With that consideration, a number of police departments, including New York's, have established programs that offer a generous reward for a tip leading to the arrest of a gun violator, with guarantees that the tipster remains anonymous.

More broadly, it is important for the police to be viewed as serving the interests of the community. Developing a healthy working partnership between police and the community is the essence of the community-policing ideal.²¹ One of the best documented examples is Boston's Ten Point Coalition, a group of African-American ministers that began working closely with the police department in the early 1990s to combat youth violence. In one analysis, the coalition's key contribution was to create an "umbrella of legitimacy" for police efforts to prevent and control gang violence, through informal oversight of the police and occasional whistle blowing (Berrien and Winship, 2002). These ministers, then, eased the historically hostile relationship between the police and the inner-city community; they paved the way politically for an effective and sustainable intervention.

Summary and Advice to City Officials

Crime control deserves priority in urban policymaking. High crime rates are a drag on community development and a great burden on households that cannot afford to relocate. Successful control of theft, vandalism, public disorder (often associated with drug selling), and especially violence sets the stage for increasing property values, investment, job growth, and a higher standard of living. The fact that most large cities are far safer today than they were two decades ago has contributed to the growth and prosperity of those cities. But crime rates can be remarkably volatile—more so than other social indicators—and require continuing attention.

²⁰ It is important to note that self-protection activities can have negative externalities. Particularly problematic is the public's inclination to keep and carry firearms for self-protection purposes. Although the matter is hotly contested, the best evidence suggests that a high density of private gun ownership in a community increases both the homicide rate (Cook and Ludwig, 2006) and the burglary rate (Cook and Ludwig, 2003); the latter is probably due to the fact that firearms are easily fenced loot, so that communities with a high density of gun ownership are relatively lucrative to burglars. For a contrary view, see Philipson and Posner (1996).

²¹ For example, Durham, North Carolina, has organized the Community Response to Violent Acts for those crimes likely to engender retaliation. The response consists of a door-to-door canvassing of the neighborhood where the crime occurred and of the victim's residence by the Durham Police Department, partnering agencies and organizations, clergy, and concerned citizens. The canvass is designed primarily to develop investigative leads in the case by asking neighbors to come forward with information that may help investigators solve and prosecute the case.

Recent history teaches us that large fluctuations in crime rates can occur without much change in underlying socioeconomic conditions. Although crime tends to be concentrated in low-resource neighborhoods year in and year out, crime rates are not uniquely determined by the socioeconomic conditions. That is fortunate. If eradicating entrenched problems of race, class, and culture were a precondition to successful crime reduction, then the crime agenda would have to be put on hold for a generation. But that is clearly not the case. Crime is a problem worth the mayor's attention because there is hope of doing something about it.

Many of the policies that influence crime rates in a city, however, are not under the control of city government. The state legislatures write the criminal code and establish sentencing rules for judges. The corrections function operates primarily at a state or federal level. A host of other state and federal policies and programs outside the criminal justice system arguably affect crime rates: those influencing immigration, gun availability, the price of alcohol, mental health treatment, abortion policy, child care, school attendance laws, insurance regulation, and regulation of violent content in the media, to name a few. But the mayor is not without influence.

Central to the mayor's crime program is the police department. One well-documented (but not uncontroversial) lesson from the 1990s crime drop is that police provide an effective deterrent to crime and that additional resources in policing have generally reduced crime compared with what would have happened otherwise. Part of the credit may go to innovations in policing tactics and management, although that is not entirely clear. Along with greater respect for the powers of the police has come a greater demand for evidence on what works in terms of organization and tactics. It is entirely appropriate to hold police chiefs responsible for controlling crime, just as school administrators are now held responsible for improving students' test scores.

The police operate in the context of the communities they serve. A strategic analysis of crime control should consider ways to encourage the public to do their part to restrict criminal opportunities and increase the strength of the criminal justice deterrent. It cannot be irrelevant that there are as many private security guards as sworn officers nationwide, performing somewhat overlapping functions. Businesses and households make myriad decisions that influence their exposure to criminal victimization and (collectively) the profitability of crime. The criminal justice system, of course, has a key role, but it depends to a large extent on the public's voluntary cooperation. Victims and other members of the public are called on to provide costly and largely uncompensated inputs to the public good of safe streets.

In addition, the police need the cooperation of other public agencies, including other city agencies. For example, broken windows policing requires that the police identify criminogenic conditions and then figure out how to ameliorate them. Ironically, the solutions are often not under their purview—for example, solving the "problem" may require closing down a tavern, cleaning up the trash, boarding up abandoned buildings, finding shelter for mentally ill street people, keeping truants in school, and so forth. The relevant agencies do not ordinarily consider crime control to be an important part of their mission.

It is not easy to translate this discussion into a set of concrete recommendations of general applicability. The following list offers a rough cut of seven research-based guidelines:

- 1. Set a high priority on reducing lethal violence. Even if the violence is concentrated geographically, it has deleterious effects on the life and reputation of the entire city.
- 2. Hold the police chief accountable for reducing crime, and give her or him the needed resources, possibly including more officers.
- 3. Make crime control part of the mission for all relevant city agencies, and, to the extent possible, foster good relations with state and federal law enforcement agencies.
- 4. Pay attention to the problems of eliciting the community's voluntary cooperation and to whether those problems are being exacerbated by police tactics. Develop programs with an eye to reducing the costs and risks to witnesses and victims who cooperate. Experiment with monetary rewards.
- 5. Seek alliances with community groups that have the trust of low-income and minority neighborhoods.
- 6. In addition to continuing an institutionalized program of routine "problem solving" within the police department, organize higher level strategic planning exercises in how to address important crime problems, bringing together the relevant private and public parties.
- 7. Stay humble. Crime rates fluctuate in unpredictable fashion, and crime control is far from an exact science. One long-term goal is to learn more about what works in reducing crime in the city; reaching this goal requires both a capacity to innovate and to evaluate innovations.

Acknowledgments

The author thanks Erin Hye-Won Kim for her very able research assistance and thanks Brian Forst, David Kennedy, Jens Ludwig, Michael Tonry, Joel Wallman, and Frank Zimring for useful suggestions.

Author

Philip J. Cook is ITT/Sanford Professor of Public Policy at Duke University and a research associate at the National Bureau of Economic Research.

References

Anderson, David A. 1999. "The Aggregate Burden of Crime," *Journal of Law and Economics* 42 (October 2): 611–642.

Ayres, Ian, and Steven D. Levitt. 1998. "Measuring Positive Externalities from Unobservable Victim Precautions: An Empirical Analysis of Lojack," *Quarterly Journal of Economics* 113 (1): 43–77.

Bayley, David, and Clifford Shearing. 2001. *The New Structure of Policing: Description, Conceptualization, and Research Agenda.* Washington, DC: National Institute of Justice.

Bayley, David H. 1994. Police for the Future. New York: Oxford University Press.

Becker, Gary S. 1968. "Crime and Punishment: An Economic Approach," *Journal of Political Economy* 76 (2): 169–217.

Berrien, Jenny, and Christopher Winship. 2002. "An Umbrella of Legitimacy: Boston's Police Department—Ten Point Coalition Collaboration." In *Securing Our Children's Future: New Approaches to Juvenile Justice and Youth Violence*, edited by Gary S. Katzmann. Washington, DC: Brookings Institution Press: 200–228.

Blumstein, Alfred. 2000. "Disaggregating the Violence Trends." In *The Crime Drop in America*, edited by Alfred Blumstein and Joel Wallman. New York: Cambridge University Press: 13–44.

Blumstein, Alfred, and Allen J. Beck. 2005. "Reentry as a Transient State Between Liberty and Recommitment." In *Prisoner Reentry and Crime in America*, edited by Jeremy Travis and Christy Visher. New York: Cambridge University Press: 50–79.

Blumstein, Alfred, and Richard Rosenfeld. 2007. "Factors Contributing to U.S. Crime Trends." Prepared for the National Research Council Workshop: Understanding Crime Trends, Washington, DC, April 24–25.

Blumstein, Alfred, and Joel Wallman. 2006. "The Crime Drop and Beyond," *Annual Review of Law and Social Science* 2: 125–146.

_____. 2000. *The Crime Drop in America*. New York: Cambridge University Press.

Braga, Anthony A. 2005. "Hot Spots Policing and Crime Prevention: A Systematic Review of Randomized Controlled Trials," *Journal of Experimental Criminology* 1: 317–342.

Braga, Anthony A., and Brenda J. Bond. 2008. "Policing Crime and Disorder Hot Spots: A Randomized Controlled Trial," *Criminology* 46 (3): 701–732.

Bratton, William, and Peter Knobler. 1998. Turnaround: How America's Top Cop Reversed the Crime Epidemic. New York: Random House.

Brooks, Leah. 2006. Volunteering To Be Taxed: Business Improvement Districts and the Extra-Governmental Provision of Public Safety. Unpublished working paper. McGill University, Economics Department.

Clarke, Ronald V. 1983. "Situational Crime Prevention: Its Theoretical Basis and Practical Scope." In *Crime and Justice: An Annual Review of Research*, Vol. 4, edited by Michael Tonry and Norval Morris. Chicago: University of Chicago Press: 225–256.

Clotfelter, Charles T. 1993. "The Private Life of Public Economics," *Southern Economic Journal* 59 (4): 579–596.

_____. 1977. "Public Services, Private Substitutes, and the Demand for Protection Against Crime," *American Economic Review* (December): 867–877.

Cohen, Jacqueline, and Jens Ludwig. 2003. "Policing Gun Crimes." In *Evaluating Gun Policy*, edited by Jens Ludwig and Philip J. Cook. Washington, DC: Brookings Institution Press: 217–239.

Cohen, Mark A. 2005. The Costs of Crime and Justice. New York: Routledge.

Cook

Cohen, Mark A., Roland T. Rust, Sara Steen, and Simon T. Tidd. 2004. "Willingness-to-Pay For Crime Control Programs," *Criminology* 42 (1): 89–109.

Cook, Philip J. 1986. "The Relationship Between Victim Resistance and Injury in Noncommerical Robbery," *Journal of Legal Studies* 15 (1): 405–416.

_____. 1980. "Reducing Injury and Death Rates in Robbery," Policy Analysis (Winter): 21–45.

Cook, Philip J., and John H. Laub. 2002. "After the Epidemic: Recent Trends in Youth Violence in the United States." In *Crime and Justice: A Review of Research*, edited by Michael Tonry. Chicago: University of Chicago Press: 117–153.

Cook, Philip J., and Jens Ludwig. 2006. "The Social Costs of Gun Ownership," *Journal of Public Economics* 90 (1–2): 379–391.

______. 2003. "The Effects of Gun Prevalence on Burglary: Deterrence vs. Inducement." In *Evaluating Gun Policy*, edited by Jens Ludwig and Philip J. Cook. Washington, DC: Brookings Institution Press: 74–118.

___. 2000. Gun Violence: The Real Costs. New York: Oxford University Press.

Cook, Philip J., Jens Ludwig, Sudhir A. Venkatesh, and Anthony A. Braga. 2007. "Underground Gun Markets," *The Economic Journal* 117 (524): 588–618.

Cullen, Julie Berry, and Steven D. Levitt. 1999. "Crime, Urban Flight and the Consequences for Cities," *Review of Economics and Statistics* 81 (2): 159–169.

Cunningham, William C., John J. Strauchs, and Clifford W. Van Meter. 1990. *Private Security Trends 1970 to 2000: The Hallcrest Report II*. Boston: Butterworth-Heinemann.

Donohue, John J., and Jens Ludwig. 2007. "More COPS," Policy Brief #158. The Brookings Institution.

Donohue, John J., and Peter Siegelman. 1998. "Allocating Resources Among Prisons and Social Programs in the Battle Against Crime," *Journal of Legal Studies* 27: 1–43.

Eck, John, and Edward Maguire. 2000. "Have Changes in Policing Reduced Violent Crime?" In *The Crime Drop in America*, edited by Alfred Blumstein and Joel Wallman. New York: Cambridge University Press: 207–265.

Ehrlich, Isaac. 1974. "Participation in Illegitimate Activities: An Economic Analysis." In *Essays in the Economics of Crime and Punishment*, edited by Gary S. Becker and William M. Landes. New York: National Bureau of Economic Research: 68–134.

Evans, William N., and Emily Owens. 2005. Flypaper COPS. Working Paper. University of Maryland, Department of Economics.

Forst, Brian. 1999. "Policing with Legitimacy, Efficiency, and Equity." In *The Privatization of Policing: Two Views*, edited by Brian Forst and Peter Manning. Washington, DC: Georgetown University Press: 1–48.

Freeman, Scott, Jeffrey Grogger, and Jon Sonstelie. 1996. "The Spatial Concentration of Crime," *Journal of Urban Economics* 40 (September): 216–231.

Glaeser, Edward L., and Bruce Sacerdote. 1999. "Why Is There More Crime in Cities?" *The Journal of Political Economy* 107 (6): 225–258.

Glaeser, Edward L., Bruce Sacerdote, and Jose A. Scheinkman. 1996. "Crime and Social Interactions," *Quarterly Journal of Economics* 111 (2): 507–548.

Harcourt, Bernard E., and Jens Ludwig. 2006. "Broken Windows: New Evidence from New York City and a Five-City Social Experiment," *University of Chicago Law Review* 73: 278–287.

Hemenway, David. 2004. Private Guns, Public Health. Ann Arbor, MI: University of Michigan Press.

Joyce, Theodore. 2004. "Did Legalized Abortion Lower Crime?" *Journal of Human Resources* 39 (1): 1–28.

Katz, Lawrence F., Jeffrey R. Kling, and Jeffrey B. Liebman. 2003. "The Early Impacts of Moving to Opportunity in Boston." In *Choosing a Better Life: Evaluating the Moving to Opportunity Social Experiment*, edited by John Goering and Judith Feins. Washington, DC: The Urban Institute Press: 177–211.

Kelling, George, and William H. Sousa, Jr. 2001 (December). *Do Police Matter? An Analysis of the Impact of New York City's Policy Reforms*. Manhattan Institute Civic Report.

Kelly, Morgan. 2000. "Inequality and Crime," Review of Economics and Statistics 82 (4): 530–539.

Kennedy, David M. 2007. "Making Communities Safer: Youth Violence and Gang Interventions That Work." Testimony before the House Judiciary Subcommittee on Crime, Terrorism, and Homeland Security, February 15.

Kennedy, David M., Anne M. Piehl, and Anthony A. Braga. 1996. "Youth Violence in Boston: Gun Markets, Serious Youth Offenders, and a Use-Reduction Strategy," *Law and Contemporary Problems* 59 (1): 147–198.

Kleiman, Mark A.R. Forthcoming. When Brute Force Fails: Strategy for Crime Control. Princeton, NJ: Princeton University Press.

Kleiman, Mark A.R. 1997. "Coerced Abstinence: A Neopaternalist Drug Policy Initiative." In *The New Paternalism*, edited by Lawrence M. Mead. Washington, DC: Brookings Institution: 182–219.

Klick, Jonathan, and Alexander Tabarrok. 2005. "Using Terror Alert Levels to Estimate the Effect of Policy on Crime," *The Journal of Law and Economics* 48: 267–279.

Kocieniewski, David. 2007. "Few Choices in Shielding of Witnesses," New York Times, October 28.

Land, Kenneth C., Patricia L. McCall, and Lawrence E. Cohen. 1990. "Structural Covariates of Homicide Rates: Are There Any Invariances across Time and Social Space?" *American Journal of Sociology* 95 (4): 922–963.

Levitt, Steven. 2002. "Using Electoral Cycles in Police Hiring to Estimate the Effects of Police on Crime: A Reply," *American Economic Review* 92 (4): 1244–1250.

Levitt, Steven D. 2004. "Understanding Why Crime Fell in the 1990s: Four Factors That Explain the Decline and Six That Do Not," *Journal of Economic Perspectives* 18 (1): 163–190.

Levitt, Steven D., and Thomas J. Miles. 2007. "The Empirical Study of Criminal Punishment." In *The Handbook of Law and Economics*, edited by A. Mitchell Polinsky and Steven Shavell: 453–495.

Lochner, Lance, and Enrico Moretti. 2004. "The Effect of Education on Crime: Evidence From Prisoner Inmates, Arrests, and Self-Report," *American Economic Review* 94 (1): 155–189.

Ludwig, Jens. 2006. "The Costs of Crime." Testimony before the United States Committee on the Judiciary, September 19.

MacDonald, John, and Robert J. Stokes. 2006. "Cities Should Enlist Business in Their Battle Against Crime." RAND Commentary. http://www.rand.org/commentary/2006/07/03/LABJ.html (accessed December 10, 2008).

Machin, Stephen J., and Oliver Marie. 2005. "Crime and Police Resources: The Street Crime Initiative," *IZA Discussion Paper No. 1853* (November).

McCrary, Justin. 2002. "Using Electoral Cycles in Police Hiring To Estimate the Effect of Police on Crime: Comment," *American Economic Review* 92 (4): 1236–1243.

Moore, Mark H. 2002. *Recognizing Value in Policing: The Challenge of Measuring Police Performance.* Police Executive Research Forum.

Morris, Norval, and Michael Tonry. 1990. Between Prison and Probation: Intermediate Punishments in a Rational Sentencing System. New York: Oxford University Press.

National Research Council. 2008. *Parole, Desistance from Crime, and Community Integration.* Committee on Community Supervision and Desistance from Crime. Washington, DC: The National Academies Press.

Newman, Katherine S. 2004. Rampage: The Social Roots of School Shootings. New York: Basic Books.

Philipson, Tomas J., and Richard A. Posner. 1996. "The Economic Epidemiology of Crime," *Journal of Law and Economics* 39 (October): 405–433.

President's Commission on Law Enforcement and Administration of Justice. 1967. *The Challenge of Crime in a Free Society*. Washington, DC: U.S. Government Printing Office.

Raphael, Steven, and Melissa Sills. 2006. "Urban Crime, Race, and the Criminal Justice System in the United States." In *Companion to Urban Economics*, edited by Daniel P. McMillen and Richard Arnott. New York: Blackwell Publishing: 515–535.

Rosenfeld, Richard, Robert Fornango, and Eric Baumer. 2005. "Did Ceasefire, Compstat, and Exile Reduce Homicide?" *Criminology and Public Policy* 4: 419–450.

Rosenfeld, Richard, Robert Fornango, and Andres Rengifo. 2007. "The Impact of Order-Maintenance Policing on New York City Robbery and Homicide Rates: 1988–2001," *Criminology* 45 (2): 355–384. Sampson, Robert J., Stephen Raudenbush, and Felton Earls. 1997. "Neighborhoods and Violent Crime: A Multilevel Study of Collective Efficacy," *Science* 277: 918–924.

Schwartz, Amy Ellen, Scott Susin, and Ioan Voicu. 2003. "Has Falling Crime Driven New York City's Real Estate Boom?" *Journal of Housing Research* 14 (1): 101–135.

Sherman, Lawrence W. 2002. "Fair and Effective Policing." In *Crime: Public Policies for Crime Control*, edited by James Q. Wilson and Joan Petersilia. Oakland, CA: Institute for Contemporary Studies: 383–412.

Skogan, Wesley, and Kathleen Frydl. 2004. *Fairness and Effectiveness in Policing: The Evidence*. Washington, DC: The National Academy Press.

Skogan, Wesley G. 2006. Police and Community in Chicago. New York: Oxford University Press.

Travis, Jeremy. 2005. But They All Come Back: Facing the Challenges of Prisoner Reentry. Washington, DC: Urban Institute Press.

U.S. Bureau of the Census. 2004. *Investigation and Security Services*: 2002. 2002 Economic Census: Administrative and Support and Waste Management and Remediation Services Industry Series. Washington, DC: U.S. Bureau of the Census. http://www.census.gov/prod/ec02/ec0256i06.pdf (accessed February 15, 2007).

U.S. National Commission on the Causes and Prevention of Violence. 1969. *To Establish Justice, to Insure Domestic Tranquility: Final Report.* Washington, DC: U.S. Government Printing Office.

United States Kerner Commission. 1968. *Report of the National Advisory Commission on Civil Disorders*. Washington, DC: U.S. Government Printing Office.

Western, Bruce. 2006. Punishment and Inequality in America. New York: Russell Sage Foundation.

Wiersema, Brian, Colin Loftin, and David McDowall. 2000. "A Comparison of Supplementary Homicide Reports and National Vital Statistics System Homicide Estimates for U.S. Counties," *Homicide Studies* 4: 317–340.

Wilson, James Q. 1974. "Crime and the Criminologists," Commentary 58 (1): 47-53.

Wilson, James Q., and George L. Kelling. 1982. "Broken Windows: The Police and Neighborhood Safety," *The Atlantic Monthly* (March): 29–38.

Wintemute, Garen. 2000. "Guns and Gun Violence." In *The Crime Drop in America*, edited by Alfred Blumstein and Joel Wallman. New York: Cambridge University Press: 45–96.

Zimring, Franklin E. 2007. The Great American Crime Decline. New York: Oxford University Press.

Zimring, Franklin E., and Gordon Hawkins. 1997. *Crime is Not the Problem: Lethal Violence in America*. New York: Oxford University Press.