CRIME COSTS ACROSS OFFENDER TRAJECTORIES

The costs of crime

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What economist would not be delighted to see more work in criminology devoted to benefit–cost analysis (BCA)? In my policy essay, I would like to make three points.

First, the application of BCA to crime policy raises several difficult (or at least subtle) conceptual and practical issues, which include the question of whether to use "bottom-up" versus "top-down" estimates for the costs of crime—an important decision because the two procedures yield figures that differ by a factor of two. Philip Cook and I argued that the "top-down" approach is the conceptually correct framework (Cook and Ludwig, 2000), although this approach raises several measurement challenges that I will discuss here that are in desperate need of intensive study.

Second, it is worth making explicit a point that has been raised implicitly in Cohen, Piquero, and Jenning's article (2010, this issue); the costs (as well as the benefits) of crime prevention might vary across offending trajectories, and so decisions about how to target resources across offending trajectories need to focus on the *ratio* of benefits to costs and not just focus on the benefit side of the ledger.

Finally, the practical policy implications of combining BCA and trajectory analysis are limited, as Cohen et al. (2010) have noted, by the difficulty of identifying the offending groups of people prospectively. One suggestion I have is to consider using information about the criminal involvement of parents, because of previous evidence about strong intergenerational correlations in offending behavior. But even if we cannot target interventions as well as we would like, the social costs of crime are so large that American society seems likely to be underinvesting right now in most forms of crime prevention, with the possible exception of mass incarceration.

Estimating the Benefits of Crime Prevention

The conceptually appropriate way to think about the costs of crime is what Cohen et al. (2010) have called the "top-down" approach, but which Philip Cook and I preferred to term the "ex ante" perspective (to be contrasted with the "bottom-up" or "ex post" perspective). The ex ante perspective corresponds to the resource allocation problem facing policy makers; the mayor of some large, cold Midwestern city must decide how much of the budget for next year should go to crime prevention versus other pressing uses, such as schools, roads, public transportation, snow removal, garbage collection, and homeless shelters. The public good that citizens receive in exchange for devoting extra resources to crime prevention instead of alternative uses is a reduction in the risk that they, or that people they care about, will be victimized in the future. To compare the value of this benefit to the costs, we need to convert these benefits to dollar terms, and the appropriate way to do that is to measure the sum of what people in the community are willing to pay (WTP) for changes in crime victimization risk.

The problem with the "bottom-up" or "ex post" perspective is that it either does not make any sense, is not useful for policy purposes, or both. This alternative perspective focuses on trying to value the "cost" of crime that has already occurred to identifiable victims. The valuations of some costs are easy to imagine (the stolen wallet, television, or broken window). But how does one assign dollar values to nonmarket (intangible) costs such as the pain and suffering associated with trauma, injury, or death? The ex post method often turns to jury awards, but that just pushes the conceptual problem back a step; how do juries derive cost figures? One possibility would be to try to identify the dollar amounts required to make victims whole, or what economists call the "willingness to accept." But anyone who has lost a parent, child, or spouse to crime would say that no amount of money would ever compensate for their loss, which for BCA purposes, in turn, would imply that we should be devoting every dollar of the gross domestic product (GDP) to crime prevention (because the benefits measured in this way would be infinite). When I teach BCA in my crime policy class at the University of Chicago Law School and ask how juries come up with victim payments to compensate for intangible crime costs, most law students respond with "the juries just make it up," which I suspect comes close to the truth.

But even after we have settled on the ex ante perspective as the conceptually appropriate way to define what we mean by the costs of crime, several difficult measurement challenges remain. Many studies have tried to estimate WTP for changes in crime risks by looking at data from housing markets and, specifically, looking at what people are willing to pay for houses in safer neighborhoods. But isolating the effects on house prices of safety versus other hard-to-measure home and neighborhood attributes is extremely difficult in practice. Moreover, what I am willing to pay to live in a 10% safer location understates what I would be willing to pay for a new police program that reduced crime citywide by 10% because I put some value on the improved safety of other city residents as well. So estimates for the safety/price gradient in the housing market likely will understate societal WTP for crime control even if we were not concerned about the possibility of omitted variable bias in our hedonic home-price regressions.

The most common alternative to looking at actual housing market data is to use survey methods to ask people to respond to hypothetical market scenarios, which is known as the contingent valuation (CV) approach. But this approach assumes that people have well-formed preferences for safety and are capable of thinking about marginal changes in crime victimization risks. It is possible that these assumptions are met because most people do have some first-hand experience thinking, in at least a general way, about crime probabilities in deciding where to buy or rent a place to live, but at the end of the day, who really knows? Environmental economists have developed a large literature trying to learn more about whether CV "works" in that application by, for example, seeing how WTP responses vary by how the questions are phrased, sequenced, or preceded by the provision of different amounts or types of background information and by trying to construct scenarios in which WTP survey responses can be benchmarked against actual behavior. As far as I know, no similar research program is underway in the area of crime, even though, in my view, it would have tremendous social value.

Counting Costs as well as Benefits

Cohen et al. (2010) have sought to disaggregate the costs of crime across offending trajectories with the idea of helping policy makers better target crime prevention resources. The authors briefly have alluded to the fact that for targeting resources, we also need to know something about how the effectiveness of candidate interventions varies across offending groups. Put differently, we need to know how the benefits *and* the costs (and the ratio of benefits to costs) of interventions vary across offending trajectories. This seems to me to be a fundamentally important point worthy of elaboration.

For example, Table 2 in Cohen et al. (2010) shows that the average lifetime costs of crime by people in the lowest offending group (G2) is $144,996 (or put differently, the benefits of preventing criminal behavior by people in this trajectory), compared with a figure of $1,081,559 for those in the most socially costly group (G4). At one point in the article, Cohen et al. argue that we should be trying to concentrate resources on the most socially costly offending groups, but this outcome need not be the case. Suppose, for example, that we have a policy intervention that is 20 times as effective in changing the behavior for teenagers in the G2 group compared with those in the G4 group. In that case, it would be more cost effective to devote some incremental increase in crime-prevention funding to people in the lower offending (G2) group.

Just to be clear, I am not arguing that Cohen et al. (2010) are necessarily wrong in arguing for the targeting of additional resources to the highest offending trajectories. My only point is that it is not self-evident. It is true that in the area of education research, many studies have shown that more disadvantaged children seem to be more responsive to educational interventions (see Currie and Thomas, 1995; Krueger, 1999). At least in principle, this trend need not be true for crime prevention, or at least it need not be true for all types of crime prevention, if one considers, for example, selective incapacitation as a possible policy lever or the fact that criminal behavior by some people might be caused by underlying factors, such as organic brain pathologies or mental health problems that are difficult to remediate. My main point is that

we need to be attentive to the empirical possibility that some offending groups might be more responsive than others to policy interventions, and so, we should be guiding resource allocation decisions based on the ratio of benefits to costs for different uses of crime-prevention resources rather than focusing just on the benefits.

Policy Implications

As Cohen et al. (2010) have noted, one practical difficulty in translating trajectory thinking into concrete policy recommendations is the difficulty of identifying prospectively who falls into which offending trajectories. Although I do not know the trajectory literature well myself, I wonder if one potentially useful marker would be parental involvement in crime because of the substantial intergenerational transmission of criminal behavior (for example, Hjalmarsson and Lindquist, 2007).

For me, the main implication for crime prevention of the cost of crime literature is that we should be doing a lot more of it. Previous studies have suggested that the costs of crime in developed countries might be 10% of the GDP or more (Entorf and Spengler, 2002: 91), which is consistent with estimates that the costs of crime in the United States might be around $1 to $2 trillion per year (Anderson, 1999; Ludwig, 2006). These costs are so substantial that even "low-tech" crime-prevention strategies, such as putting more police on the street, seem to have benefit–cost ratios from 4:1 up to 8.5:1 (Donohue and Ludwig, 2007). The benefit–cost ratio for the intensive Perry Preschool early childhood intervention might be as high as 12.5:1 (Belfield, Nores, Barnett, and Schweinhart, 2006), with up to 70% of the dollar value of the Perry benefits coming from reductions in criminal behavior. Even the large-scale Head Start program seems like it passes a benefit–cost test (Ludwig and Phillips, 2007).

Mass incarceration seems to me to be the one exception. As is well known to readers of this journal, the United States has increased its incarceration rate seven-fold since 1970. Although I believe that expanding the size of the prison population reduces crime, I also think it is likely that we must experience diminishing returns to most things, including mass incarceration. Whether keeping the marginal person imprisoned passes a benefit–cost test at the present levels of incarceration seems to be a close call (Donohue, 2009). But with that said, our current scale of incarceration seems like an unambiguously bad idea when we recognize that the opportunity cost of mass imprisonment is foregone spending on more productive uses, such as more policing or early childhood interventions.

Being able to use trajectory methods to target crime-prevention resources more efficiently would be of potentially great value to public policy makers, assuming that the field one day becomes better able to identify prospectively the offending trajectories of people. In the meantime, I think Cohen et al. (2010) have added a stimulating discussion of the value of benefit–cost analysis to develop crime policy, and in particular, to improve on our current status quo.

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