

Reckoning the Value of Prisons:  
The Strengths and Limitations of Benefit / Cost Analyses  
of the Crime Reduction Effects of Imprisonment

Mark H. Moore  
Harvard University  
79 JFK Street  
Cambridge, MA 02138  
[mark\\_moore@harvard.edu](mailto:mark_moore@harvard.edu)  
(617) 495-1113

Anne Morrison Piehl	
(until June 30, 1999)	(after July 1, 1999)
University of California	Harvard University
140 Warren Hall	79 JFK Street
Berkeley, CA 94720-7360	Cambridge, MA 02138
<a href="mailto:piehl@socrates.berkeley.edu">piehl@socrates.berkeley.edu</a>	<a href="mailto:anne_piehl@harvard.edu">anne_piehl@harvard.edu</a>
(510) 643-1889	

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Abstract

The literature comparing the benefits of incarceration to its costs asks what value American citizens have received in exchange for the large (and growing) expenditures on criminal justice. This literature draws attention to policy choices and their (intended and unintended) consequences. While there is a great variety within this literature, as to the policy analyzed and the methodological approaches taken, there is still much left out.

Justice as well as prudence requires a disciplined, rational policy response to crime. We seek to develop an accounting framework for reckoning the value of prisons as a social response to crime and criminal offenders that combines the utilitarian and consequentialist approach typically taken in benefit/cost analyses with a deontological framework. We argue that one cannot choose one framework over another, and that both frameworks have played central roles in the development of criminal justice policy over time. Further, we argue that it is possible to analyze the degree to which the system is just in how it operates in each individual case, and in aggregate, and that, in thinking about incarceration policy, we should be accounting for the justice of the system as well as its cost-effectiveness.

\*We appreciate the helpful comments of Philip Cook and Bert Useem. All errors are our own.

## ***I. Introduction***

No matter how one accounts for it, it's plain that America's governments are spending a great deal of tax money to build, staff and operate prisons. If one looks at total spending, one finds that expenditures by state governments for corrections increased (in real terms) by 364 percent from 1970 to 1993 (U.S. Department of Commerce, various years). If one looks at the share of spending for prisons in overall state budgets, the fraction has increased from 1.4 percent to 4.4 percent. And, if one looks at the ratio of spending for prisons to other governmental activities -- for example, education -- prisons have increased in importance: from 1970 to 1993, education spending has gone from 28 times that for corrections to only five times correctional expenditures. In short, over the last twenty-five years, more of the public fisc has gone to building and operating prisons than has been true at any other time in our history.

An important question, of course, is what value American citizens have received in exchange for this expenditure. Answering that question with conceptual clarity and empirical accuracy is important for at least two reasons. The most obvious is that any interested citizen or prudent policymaker should want to know the value produced by public expenditures. If we are spending more on prisons than we are getting in return, it makes sense to reduce our spending. If, on the other hand, we are getting a great deal in return for these expenditures, then we should spend even more.

A less obvious reason is that it is only by asking whether we are getting an appropriate return that we can be sure that we are making a rational, disciplined use of imprisonment rather than a hot-headed one. Without a clearly articulated normative framework to guide and discipline our use of imprisonment, we run the risk that our policies will be driven by passions rather than reason. Avoiding such a result is important not only for reasons of prudence, but also for reasons of justice. In a liberal society -- one that loves individual freedom and is deeply suspicious of state power -- we need a reason for the state to use its authority to impose punishment. Further, that

reason has to be rooted in justifiable aims. Finally, there must be some reason to believe our aims are, in fact, achieved by our methods. It is only if these conditions are met that we can be sure that we are doing justice rather than exacting vengeance.

In fact, one can argue that the dramatic increase in the costs of building and operating prisons has had an important distorting effect on the public debate about crime and punishment. By focusing attention on the financial cost to governments we have lost sight of the fact that imprisonment policies are using state authority as well as state money. Surely acts that increase the use of state authority such as: 1) extending criminal liability to acts previously not treated as criminal; 2) increasing sentencing severity for existing criminal offenses; 3) adding penal liability to those who have records of repeat offending; 4) exposing those previously shielded by juvenile court jurisdictions to adult punishments; and 5) responding more harshly to violations of conditions of probation and parole; are as important as decisions to spend more money on prisons. Taking the point of view of citizens, such decisions spend our *liberty* as well as our *money*.

Indeed, one could say that the decision to use state authority more extensively *precedes* – both logically and temporally – the decision to build and staff more prisons. It is only when we decide it is important to use the authority of the state to bring criminal liability more forcefully to bear on offenses and offenders that we create the justification and the necessity for building and operating more prisons.

Recognizing that public authority as well as public money is expended when we harshen sentencing policies is important because it tends to shift judgments about the appropriate normative framework to use in evaluating these efforts. When the issue is how best to use public money, we commonly adopt a practical or utilitarian normative framework. The important questions are whether means can be relied upon to achieve the desired ends, whether the benefits outweigh the costs, and whether our policies are cost effective. When, in contrast, the issue is the use of state authority, we commonly adopt a more principled or deontological framework. The important questions are

whether it would be proper, fair, or just as well as efficacious to use state authority in a particular way.

In our view, this is an important difference. Indeed, we think that an important part of the public conversation about the value that society is getting in return for its expenditures on imprisonment is about which of these normative frameworks is the right one to use (or, alternatively, how the frameworks might be effectively combined).

That is the purpose of this paper – to develop an accounting framework for reckoning the value of prisons as a social response to crime and criminal offenders that seeks to combine these different frameworks. It is motivated, in part, by some degree of dissatisfaction with efforts to use some admittedly crude forms of cost/benefit analysis to answer the question of whether increasing expenditures on prisons are earning return for American citizens, and the impact that these studies have had on the policy debate. But the deeper motivation is to set out a more complete accounting system that we might use to reckon the value of imprisonment – all things considered.

We begin with a review of recent efforts to measure the costs and benefits of imprisonment as a social policy. There are a great many things to be said about technical aspects of these calculations – how one estimates the costs, how one estimates crime reductions that result from imprisonment, how one values in monetary terms the value of crimes avoided through the use of imprisonment, what additional or collateral effects of imprisonment policies should be considered, and so on. We have some suggestions for improvement within this framework. In the following section of the paper, however, we go beyond this discussion to raise questions about the adequacy and appropriateness of the framework itself. That critique is offered at two different levels. In the first, we stay within the utilitarian framework and ask how many other effects of imprisonment need to be taken into account to recognize the full costs and benefits of imprisonment. In the second, we take more direct aim at the utilitarian framework itself, and seek to add concerns about justice and fairness to the social

accounting of the value of imprisonment. We conclude with what we hope is a better framework for recognizing and accounting for the value of imprisonment.

## ***II. Cost/Benefit Studies of Imprisonment: A Review of Prominent Studies***

By definition, social scientists are interested in using scientific methods to produce objective knowledge about the state of the social world, and the causal mechanisms that shape it. In doing this analytic work, it is considered crucial to banish normative values from the analysis lest their presence bias the results. To further guard against bias, social scientists are urged to stand aloof from ongoing policy debates.

### **A. Social Science, Cost/Benefit Analyses, and Public Policy**

Despite (or perhaps because of!) their allegiance to these injunctions, social scientists – sociologists, criminologists, political scientists, economists, and psychologists – have still contributed a great deal to crime policy debates. As basic researchers, they have helped illuminate the important causes of crime. As applied researchers, they have deployed their powerful empirical methods to determine whether a particular policy intervention (adopted either as a policy reform or an experiment) produced the desired crime reduction results.

#### *1. Social Science and its Policy Implications*

The reason that both basic and applied scientific investigations have contributed to policy debates (even though they are scientific enterprises, and as such, are not supposed to be influenced by policy concerns) is that their results are properly seen to have important “implications” for crime policy. Of course, basic and applied studies differ to some degree in this regard. The “implications” of an applied study that sizes up the effects of a particular policy intervention are, in many ways, more direct and immediate for policy than the “implications” of basic theoretical work on the causes of crime. After all, if we know whether a particular policy intervention worked to reduce crime, we know at least one important thing about that policy instrument that should properly influence

future policy judgments. Yet it is also true that if we understand the causes of crime, we are in a better position to judge whether a particular intervention could be relied upon to reduce crime when we haven't yet tried it experimentally. And in this respect, even basic science contributes importantly to crime policy debates. In short, even though these scientific efforts seek only to use the instruments of science to describe objectively *what is empirically true*, they nonetheless seem to have something to say about *what ought to be done* as well.

Despite the importance of these studies to policy debates, however, one must recognize that the "implications" that emerge from these kinds of basic and applied studies are "implications" only in the weak sense of the term. That is, they draw attention to important considerations that can be connected to a policy conclusion through a kind of loose, inferential logic. They are not "implications" in the strong sense of term; namely, that, as a matter of logic, they dictate a particular policy conclusion.

As a logical matter, in order for a scientific study describing *what is empirically true* (about either the causes of crime or the consequences of a policy intervention) to have strong implications about what, as a policy matter, *ought to be done*, it is essential to add one key component. That key component is an explicit normative framework that says which particular effects are to be valued and how much. This is, in essence, an accounting framework. The purpose of that accounting framework is to: 1) recognize important, valued effects of policy interventions; 2) record the size of those effects; 3) value them, and 4) compare the value of one effect to another to determine whether, on balance, the effects of the policy are (net) beneficial, or (net) costly. It is only by stating explicitly what is *valued* that the decision about *what should be done* can be brought under the discipline of the simple objective logic that guides choices. That simple logic is the logic of optimization that instructs us to choose the policies that give us the most of what we like and the least of what we don't like. *Without* an explicit value framework that tells us what we ought to value and how much, however, that simple logic cannot do its work. *With* an explicit value framework, however, that logic can transform mere facts

about how particular public policies affect those values into compelling reasons to make a particular policy decision.<sup>1</sup>

## 2. *Cost/Benefit Analyses: General Aims and Methods*

It is precisely the distinctive intellectual challenge of building a normative framework to bridge from scientific descriptions of *what is empirically true* to policy judgments of *what should be done* that is taken up by a third kind of intellectual contribution that social scientists make to policy debates. Those are studies that rely on the methods of cost/benefit and cost-effectiveness analysis to arrange a set of empirically observed or estimated characteristics of policies into normatively meaningful categories that have the power to guide policy choices precisely because they are linked to normative values. These methods work in the following ways.

First, these methods remind us that, for policy purposes, policy interventions cannot simply be evaluated in terms of whether they “worked” to produce their intended results. It is valuable to know this, of course. But knowing whether a policy achieved its desired effects alone is not sufficient to dictate a choice about continuing. After all, all policies require social resources to implement. Since these resources are unavailable for other uses, their loss must be viewed negatively. They are accounted for as the “direct costs” of the policy. To determine whether an intervention is cost/beneficial, or cost effective, these (negatively valued) direct costs have to be set against the (positively valued) desired effects of the policy. Those intended effects (in whatever magnitude they occur) are accounted for as the “direct benefits” or the “desired effect” of the policy.

Once these effects have been reckoned, one is in a position to do the simplest form of a cost/benefit or cost-effectiveness analysis. One can compare the “direct costs” of the policy with the intended “benefits” or “desired effects” of that policy and determine whether the policy is “cost/beneficial” or “cost effective.”

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<sup>1</sup> For a more complete discussion of the relationship between social science and policy analysis, see Moore (19xxx).

Unfortunately, many policies have important “side effects,” or “unintended consequences” as well as the direct, intended effects. Sometimes these indirect, unintended effects will be positively valued. In such cases, these effects will be regarded as “indirect, unintended benefits.” When an unintended and negatively valued effect occurs, that effect is considered an “indirect, unintended cost.” By proceeding in this way, all effects of a policy, both intended and unintended, can be taken into account, acquire normative significance, and thereby influence decisions. The ultimate goals of the analysis are either: 1) to be able to add up all the positive and negative effects of a policy and determine whether it is (net) beneficial or (net) costly (cost/benefit analysis); or 2) to be able to compare one policy with another in terms of their relative costs of achieving the same desired result (cost-effectiveness analysis).

The reason to do this work is simple: if one can estimate effects and attach normative significance to them, logic alone will produce strong implications for action. If a policy is more costly than it is beneficial, we ought to stop doing it. Period. The conclusion is unequivocal. If one policy costs more to achieve the same result than another, we ought to shift resources from the relatively expensive policy to the relatively cheaper one. That conclusion is equally compelling. These are strong, not weak implications of the study. They logically (if not practically) compel policy makers to act in accord with the recommendations. It is precisely this normative power that makes these studies unique and important.

### *3. The Inevitable Politicization of Cost/Benefit Analysis*

Note these studies make a distinctive contribution to policy debates precisely because they depart from the ordinary injunctions to keep values out of scientific work, and to stand aloof from policy debates. Instead of leaving values out of the analysis, they explicitly bring them in. Instead of remaining aloof from policy debates, they enter them directly by seeking to offer advice. Indeed, such studies cannot be done without a policy question to be answered. The object of their attention is not the scientific question of what causes some phenomenon to occur. It is, instead, the practical question of



whether society should adopt or continue a particular policy. Without a policy issue, there is nothing to be investigated through these techniques; the focus is always on the costs and benefits, and cost effectiveness of a particular proposed or enacted policy.

Because these studies seek to guide policy questions, it is hardly surprising that the studies are quickly appropriated by policy advocates in on-going policy debates. Those political activists who agree with the conclusions of a particular study will champion that study as objective evidence of the correctness of their position. Those who disagree will criticize the study as technically flawed. Sometimes, as the political debate heats up, *ad hominem* arguments will be advanced criticizing the authors for engaging in advocacy rather than science, and for deliberately distorting their conclusions to support pre-existing political and policy commitments. Specific studies will be assigned to a particular political position and political motivations will be attributed to the authors even if the authors continue to view themselves as objective analysts.

#### **B. The Emergence of Cost/Benefit Studies of Imprisonment**

Given these features of such studies, it is hardly surprising that the United States' dramatic expansion of imprisonment has stimulated the production of a small number of serious and widely discussed studies that have sought to offer guidance about the wisdom of this significant policy experiment by applying the techniques of cost/benefit and cost-effectiveness analysis. And, given the observations made above, it is entirely predictable that these studies would have become highly politicized -- both in the sense that their conclusions were quickly appropriated by political combatants, and that political motivations were attributed to their authors.

None of the turmoil that surrounds the doing of these studies means that it is impossible to be objective and systematic in doing the work, however. There are methods that can be deployed objectively and carefully. Studies can be reviewed to see how closely they hew to these methods. Progress can be made in narrowing the differences in the empirical estimates and the value assessments. Indeed, these are precisely the purposes of this section of our paper. But to be scientifically meticulous in

the midst of a swirling policy debate in which many think they already know the answer requires more than the ordinary amount of poise, discipline, and courage. It also requires more than average willingness to recognize the political forces at play and the ways in which they may be consciously or unconsciously influencing one's work. Consequently, it is important to see not only the technical aspects of these studies, but also the political and policy context that both stimulates them and makes them important.

### *1. Zedlewski: The Costs and Monetized Benefits of Imprisonment*

In retrospect, it seems that these studies began in response to complaints from the left of the political spectrum that focused attention on the high cost of building and operating prisons. The left, dismayed by the sudden enthusiasm for expanding imprisonment, looked for an argument they could make against the justice and practical effectiveness of increasing incarceration. The determination of the increasingly conservative political climate to reduce crime and exact accountability for past offenses was a problem. But the fact that that same climate was also concerned about controlling government spending seemed to offer one possible point of leverage. After all, it was undeniably true that prisons were expensive – particularly when the costs included the enormous up-front costs of constructing prisons. Perhaps these high costs could be made a political issue. Sounding much like conservatives complaining about the costliness and ineffectiveness of social programs, those on the left complained about the high cost and ineffectiveness of imprisonment in controlling crime. In their view, a great deal of money was being spent with little to show for it.

But the left's focus on the costs of imprisonment invited a rebuttal. Perhaps the high costs of imprisonment were justified by the value of their crime reduction impact. In 1987, Zedlewski took up this challenge. In "Making Confinement Decisions" (Zedlewski 1987, published as a National Institute of Justice Research Report) he made a fairly straightforward calculation of the costs and (monetized) benefits of imprisonment to see whether prison paid as a social investment.

Reacting to the left's focus on the huge expenditures being authorized to build prisons, he calculated the annual, direct financial costs of imprisonment to the government not as the current outlay or expenditures for this purpose. Instead, he (properly) amortized the huge capital costs of building prisons over the lifetime of the prisons. This calculation estimated the annual capital costs of prison construction at about \$5,000 per prisoner per year. He estimated the operating costs of staffing the facilities at about \$15,000 per prisoner, per year.<sup>2</sup> Summing these two numbers, he concluded the *direct costs* of imprisonment at \$20,000 per prisoner per year.<sup>3</sup>

He conceived of the *direct benefits* of imprisonment in terms of the monetized value of the crimes avoided through imprisonment. To estimate the amount of crime avoided by imprisonment, he assumed that prison was effective in "incapacitating" criminal offenders while in prison, and therefore that crime would be reduced by the number of crimes that would have been committed by offenders if they had been left free on the street. Surveys conducted by the Rand Corporation had produced data on the annual rate of offending while free for incarcerated offenders.<sup>4</sup> Relying on these data, Zedlewski calculated that the average (mean) annual rate of offending was 187 (non-drug) offenses per offender per year.

To monetize the benefits of the crimes avoided, Zedlewski began by estimating the total social costs of crime. The total social costs of crime, in turn, were viewed as the

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<sup>2</sup>Zedlewski, pp.2-3. Zedlewski noted that there were some indirect social costs associated with taking offenders out of the workforce, their communities, and their families. These he considered unintended social costs of imprisonment. He also observed that some of these social costs could also show up as direct costs to government insofar as government lost tax revenues as a result of unemployment, and was forced to pick up some of the financial costs of supporting the inmates' families through welfare. He also noted that there might be indirect social benefits of removing the offenders from their communities. The \$5000 was to cover all of these costs.

<sup>3</sup> In Zedlewski's calculation, at this stage he turned directly to the indirect costs of imprisonment as well as the direct costs. We report these later as the unintended (and unwanted) negative side effects of imprisonment, some of which show up as increased government spending, and some of which are simply losses to the society as a whole.

<sup>4</sup>The prisoner surveys conducted by the Rand Corporation in Texas, California, and Michigan in the 1970s provide either the actual data or the model for data collection for all of the individual-level benefit/cost of prison studies. These surveys asked inmates about the crimes they had committed in the period preceding the arrest leading to their term of incarceration. For more information, see Peterson et al. (1981) and Chaiken and Chaiken (1982).

sum of: 1) the direct losses that individual victims of crime suffered; and 2) the amount that society paid to defend itself against crime. The amount that society paid to defend itself against crime included both: 1) those made collectively to finance the operations of the criminal justice system; and 2) those made individually through private security arrangements. Once the total social costs of crime were estimated, this number was divided by the total number of crimes to produce an estimate of the average social cost of a crime. The estimate was \$2,300 per crime avoided.

Zedlewski also took into account the fact that imprisonment could produce unintended social costs as well as benefits. Some of those costs showed up as direct financial losses to government. For example, when inmates were jailed, they could no longer earn money and pay taxes. Further, if offenders had families, society as a whole might have to assume financial responsibility for them. These financial costs are important to government, but they are smaller than the total social costs associated with imprisoning offenders. The financial losses to government underestimate the total social costs of imprisonment because they understate the lost productivity of the inmates as workers in the economy, and their contributions to the present and future welfare of their wives and children. Of course, to think this way, one has to view offenders as assets to society and to families rather than liabilities. And that may be difficult for some to imagine. But, to the extent that they are viewed as liabilities, those effects are presumably captured in the direct and indirect costs of their criminal offending. In any event, Zedlewski estimated the *indirect, unintended costs* of imprisonment at \$5,000 per offender per year.

With these quantities estimated, Zedlewski could straightforwardly calculate the costs and benefits of imprisonment. The direct costs were \$20,000 per prisoner per year. The indirect, unintended costs of imprisonment were estimated at \$5,000 per year. The total costs of imprisonment were \$25,000 per year. The benefits were 187 offenses avoided times \$2,300 per social cost of the average crime, or \$430,000 per offender per year. The benefit/cost ratio could be calculated at more than 17:1.

To Zedlewski, these numbers indicated that, as an objective reality, society was better off for its current use of imprisonment. Lest there was any doubt about the significance of this finding, Zedlewski concluded:

“Sentencing 1,000 more inmates (similar to current inmates) to prison would obligate correctional systems to *an additional \$25 million per year*. About 187,000 felonies would be averted through incapacitation of these offenders. *These crime represent about \$430 million in social costs.*” (Zedlewski 1987, p.4, author’s emphasis)

The net “social profit” of such an investment would thus be a cool \$405 million.

This article, coming in the midst of an intense social debate about the wisdom of increasing levels of imprisonment, generated a great deal of interest; much of it intensely critical.<sup>5</sup> In fact, many of the later contributions to this field can only be understood as reactions to this initial essay. Some criticisms attacked the propriety of using this utilitarian, economizing framework in assessing the social value of imprisonment. These we will take up in section III of this paper. Others focused more narrowly on how successfully Zedlewski carried out the utilitarian analysis. There were criticisms of the completeness and coherence of his accounting framework, and the particular methods and data that were used to estimate the quantities required by the framework. We consider these criticisms here, along with the refinements made by succeeding analysts working within or outside the tradition established by Zedlewski’s work.

*a. The Policy Being Evaluated and the “Marginal Offender”*

One important criticism of the Zedlewski study was that he was unclear about the specific policy he was evaluating in cost/benefit terms (Cavanaugh and Kleiman 1990, DiIulio and Piehl 1991). The easiest way to understand his study is as an evaluation of the *average* effect of imprisonment policies at the particular point in time he came to study them. At that time, the average costs were \$25,000 per offender per

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<sup>5</sup> See Zimring and Hawkins (1991), DiIulio and Piehl (1991), Cavanaugh and Kleiman (1990), and Spelman (1994), among others.

year; and the average benefits were calculated to be \$430,000 per offender per year. Knowing the average costs and benefits also informs one directly about the total costs and benefits. All one has to do is multiply the average by the total number of offenders. Thus, imprisonment, as it was then operating, seemed to be highly valuable to the society.

That was controversial enough. But what made his work even more controversial was that he sometimes acted as though he were evaluating the effect of *marginal* increases in imprisonment policy, not just its average effect (Zedlewski 1987, p.3). Indeed, the graphic example he uses to conclude his calculation invokes an image of adding 1,000 *more* offenders (assumed to be similar to current inmates) to the prison system. Thus, he seemed to hold the view not only that current levels of imprisonment were valuable, but also that it would be valuable to go even further, and imprison more.

The claim that even more imprisonment would be valuable is important both politically and analytically. It was politically important because Zedlewski seemed to favor accelerating a rate of new prison construction that, to many, already seemed excessive. It was analytically important because in projecting the benefits of expanding imprisonment, Zedlewski was assuming that the *marginal* benefits of increasing imprisonment were equal to the *average* benefits of current imprisonment policies.

This flies in the face of two common assumptions. The first is the usual economic assumption that expenditures on anything eventually produce diminishing marginal returns – particularly if levels of spending are high. The second is the more specific, grounded intuition that the criminal justice system is already incarcerating the most active offenders. Therefore, if imprisonment is increased on the margin, then it seems unlikely that the newly incarcerated offenders would be as active as those already in prison.<sup>6</sup> If either of these assumptions were correct, then Zedlewski's estimates of the average crime reduction benefits of increased imprisonment would overstate the value of marginally increasing imprisonment.

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<sup>6</sup> For a general discussion of whether the criminal justice system is focused or not, see Moore et. al. (1986). For a more sustained empirical examination, see Spelman (1994).

The reason this is important is that one could “marginally increase imprisonment” in many different ways. One could simply add a year in prison to the existing prison population. Or, one could use the same amount of prison capacity to increase the number of offenders in prison by sentencing probationers to prison sentences, or by responding more harshly to probation and parole violations. Or, one could decide to extend the length of time in prison for those already in prison who are estimated to be particularly active and dangerous offenders.

These different policies put quite different offenders “on the margin” of “marginally increased imprisonment policies.” The first policy exposes today’s average offender to longer terms. The second policy exposes offenders whom we might reasonably suppose are relatively low rate and less serious offenders to prison. The third policy exposes a group of offenders already in prison who are considered particularly high rate offenders to longer terms.

As it turns out, this matters enormously for a very simple and important reason: namely, inmates vary tremendously in terms of the frequency of their offending and in terms of the types of crimes committed. As Zedlewski himself reported when discussing the Rand results:

“The offense rates reported by inmates formed a highly skewed distribution with rates ranging between 1 and more than 1,000 offenses per year. Half of the population committed fewer than 15 crimes per year; *yet 25 percent committed more than 135 crimes per year and 10 percent committed more than 600 crimes annually.* (Zedlewski 1987, p.3, author’s emphasis)

The differences are not only in terms of numbers of offenses, but also in their seriousness. Indeed, if one weights the number of offenses committed by individuals with the seriousness of the offenses they commit, the resulting distribution of offenders will be even more highly skewed (Dilulio and Piehl 1991, Piehl and Dilulio 1995). Those few at the right tail of the distribution are really dangerous offenders – distinguished not

only in the rate of their offending, but also the seriousness.<sup>7</sup> Moreover, offenders' rates and seriousness of offending vary a great deal over the course of their "career" in crime (Blumstein 1986). As 20-25 year olds, offenders are much more active than as 45-50 year olds.

With this much variation across offenders and over their careers, it matters enormously which offenders are exposed to increased levels or lengths of supervision. The calculated crime reduction effect of extending today's prison population by a year will be quite different than using the same prison capacity either to extend the sentences of active armed robbers on one hand, or to widen the net to snare unimprisoned probationers on the other.<sup>8</sup> As a result, in doing cost/benefit analyses of marginal changes in imprisonment policy, it is particularly important to be clear about the policy envisioned, so that one can more reliably estimate which particular offenders will be "on the margin" of the change.

*b. Estimating the Crime-Reduction Effects of Imprisonment*

A second line of criticism focused on Zedlewski's estimates of the crime reduction effects of imprisonment. As noted above, that estimate depends on one key assumption, and one key piece of empirical evidence. The key assumption is that prison successfully incapacitates offenders: more precisely, that if the offenders were not incarcerated, they would commit crimes at a rate similar to their criminal activity just prior to their arrest. As noted above, the key piece of empirical evidence is the prisoner self-reports of their criminal offending just prior to their arrest obtained from surveys conducted by the Rand Corporation in Texas, California, and Michigan in the 1970's. Both features of the analysis have been strongly criticized.

Viewed from one perspective, Zedlewski's method could be expected to *underestimate* the true crime reduction effect of imprisonment. After all, Zedlewski focused only on the incapacitative effects of imprisonment – the effects that come from

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<sup>7</sup> See Moore et al. (1986) for a definition and what is at stake in trying to focus on high rate offenders.

<sup>8</sup> Greenwood (1982) showed the range of possible crime control benefits one could get from more selectively incapacitating offenders.



physically preventing offenders from committing crimes by holding them in confinement. He made no effort to estimate the size of other potentially valuable crime reducing effects of imprisonment such as deterrence or the rehabilitation of offenders.<sup>9</sup> Because deterrent and rehabilitative effects are overlooked, the estimates of the benefits due to incapacitation are generally considered to provide a lower bound for the crime-reduction effects of incarceration.<sup>10</sup>

However, others think that Zedlewski *over-estimated* the crime reduction impact of prison. Some in this camp are skeptical because they do not believe that incapacitation works as Zedlewski assumes.<sup>11</sup> They believe that some crimes are “replaced.” Crimes that are economically motivated, for example, and/or the result of organized activity by a group, may not be prevented by the incapacitation of one offender. The reason is that another offender may simply step up to the task. Such replacement effects are considered most likely for drug sales and motor vehicle theft, less likely for burglary and robbery, and unlikely for non-gang-related violence.

Another reason to be skeptical of the incapacitation effect estimated by Zedlewski is that the rate of offending just prior to arrest is not necessarily a good estimate of the rate at which incarcerated offenders would continue to offend. There are two important concerns here. One is the relationship between offending rates and the probability of arrest. If the period just prior to arrest is not representative of the activity level even of that year in an offender’s life (by being unusually high or unusually low), the incapacitation estimates will be misleading. The other is that because offending tends to fall as offenders age, estimates of incapacitation benefits will be more appropriate when considering short sentences. As sentence lengths increase, the

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<sup>9</sup> For estimates of whether these effects occur and how large they are, see Blumstein et al. (1978).

<sup>10</sup> Most authors in this field think of deterrence and incapacitation as independent. This is the source of the idea that incapacitation is a lower bound for the total effect of incarceration. Cohen and Canela-Cacho (1994) point out that a change in sanctioning environment can have differential deterrent effects. If a particular policy deters more high-rate offenders than low-rate ones, the incapacitation provided by incarceration may be affected. (There is less total incapacitation, because those incarcerated, on average, offend less frequently.) That is, “large deterrent effects would reduce the opportunities for incapacitation and result in lower incapacitation levels.” (p. 337.)

<sup>11</sup> For discussions of whether prison can reduce crime through incapacitation, see, xxx \_\_\_\_\_

quality of the “pre-arrest” offending rate as a proxy for subsequent offending (presumably) declines.

Others believe that whatever the incapacitative effects of imprisonment might be, these effects could well be overwhelmed by the “criminogenic” effects of incarceration.<sup>12</sup> For some offenders, a period of incarceration will, on net, reinforce resolve to act in accordance with social laws. For others, however, the negative effect of incarceration on legal labor market prospects and a positive effect on status among offenders, may combine to yield a net increase in individual offending. These criminogenic effects, to the extent they exist, will at least lessen, and might completely reverse, Zedlewski’s estimates of the crime reduction effects of imprisonment.

These conceptual worries about whether Zedlewski has considered the full impact of imprisonment on crime are joined by empirical concerns about the accuracy of the data on which he relied. The data consists of prisoner self-reports, not official records. In some ways, this is an advantage. We know that official record data of criminal offending must be incomplete, since many crimes are not solved and attributed to offenders. Given this fact, there is a great deal of criminal activity that is not accounted for in criminal records, and that problem might be solved if we relied on self-report data. On the other hand, inmates may not be reliable respondents.<sup>13</sup> While the analysis of survey data does not require every inmate to be honest, it does require that inmates, on average, are reliable respondents.<sup>14</sup> To the extent that offenders exaggerate

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<sup>12</sup> For arguments and evidence that imprisonment elevates the offending of offenders upon release, see

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<sup>13</sup>Some people worry about the accuracy of the information reported by inmates. It is difficult to be definitive about the quality of the survey responses, since the primary reason for using these data is to account for offenses unknown to law enforcement. There are two types of evidence of data consistency: reliability of the survey instrument and comparisons with official data. Data checks at the time of the original Rand surveys supported confidence in the survey responses (Peterson et al. 1982, Chaiken and Chaiken 1982), as has work by other analysts. For an argument that there are racial differences in reporting (of contacts with criminal justice agencies, using a survey of delinquent youth), see Hindelang, Hirschi, and Wise (1981).

<sup>14</sup>More precisely, different methodologies rely more or less heavily on the accuracy of surveys at different points in the distribution of offending. The studies most directly concerned with the costs and benefits of incarceration, depend on “average” accuracy (Zedlewski 1987, Cavanagh and Kleiman 1990) or accuracy at a few points in the distribution (DiIulio and Piehl 1991, Piehl and DiIulio 1995). Studies that use

their prior offending, Zedlewski's method will over-estimate the crime reduction impact; to the extent that they minimize and hide their offending, Zedlewski's estimates will underestimate the crime reduction effect.

*c. Monetizing the Value of Crime-Reduction Effects*

To complete the cost benefit analysis, Zedlewski had to find some way to monetize the value of the crime reduction effects he had estimated. The method he chose has also been strongly criticized.

To many, the natural way to think about the costs of crime is to imagine the losses to victims that are avoided by reducing crime: the skin left uncut and unbruised, the hospitalizations avoided, the property left intact, the sense of security retained. To the extent that one can monetize the value of these losses avoided, one can produce a reasonable estimate of the value of reducing crime. Zedlewski includes these direct losses to victims as part of his estimate of the overall cost of crime.

Zedlewski's estimate of the crime reduction benefits, however, goes beyond these direct losses to victims. He also includes the avoidance of the costs that are incurred by the society and individuals to protect themselves from the threat of crime, or to react to crime when it occurs. The estimated magnitude of these costs is sizeable – both in absolute terms, and relative to the direct losses for victims. The direct losses to victims are estimated at \$35.4 billion. The cost of public and private efforts to guard against criminal victimization, or the respond to it when it occurs are estimated at \$64.4 billion. Zedlewski sums these quantities together to arrive at the total social cost of crime (\$99.8 billion). He then divides this by the total number of crimes in society to arrive at an estimate of the value of each crime avoided (\$2,300).

This approach raises two analytic questions: first, whether these “indirect costs of crime” should be included in an estimate of benefits that would come from reducing crime; and second, whether these costs should be averaged over all crimes (which

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information from the whole distribution in their estimation (Cohen and Canela-Cacho 1994) place stronger requirements on the data.

results in treating reductions in serious offenses as equivalent to reductions in less serious offenses).

On one hand, it seems that Zedlewski is on solid ground in including the indirect costs of crime in accounting for the potential social benefits of reducing crime. After all, one of the important consequences of criminal offenses is that they frighten people, and force people to deal with the trauma that follows a criminal attack. Anticipating crimes causes us to support both public and private security efforts, to constrain our behavior, and to suffer some residual fear even after all these measures have been taken. That amounts to a significant social cost that is underestimated by the public and private expenditures made on security arrangements. Similarly, once a crime has occurred, a certain amount of social work has to be done to repair the damage. We have to deal with our indignation that a crime has occurred, and find a process that can provide some degree of resolution to those who have been offended against. This, too, costs the society money, time and effort. These costs, too, seem proper to attribute to crime and those who commit them. After all, if the crimes were not committed, we wouldn't have to do this work, or suffer the pain and anxiety that remains even after we have invested in public and private security efforts.

With greater difficulty, one can argue that it is reasonable to average the total social costs of crime across all crimes. The difficulty in making this argument comes from the point that it seems obvious that crimes differ significantly in their seriousness. Since a rape inflicts a greater direct loss on victims, and is far more frightening than pick-pocketing, it seems reasonable to attribute more of the total social costs to the rapes.

The arguments for the averaging are essentially two. First, we have been learning that minor offenses play an important role in stimulating fear (Moore and xxx 19xxx (from Perspectives on Policing)). To the extent that much of the overall social costs are incurred to avoid fear, it might be reasonable to attribute these costs to less serious offenses as well as serious offenses. Second, we often decide that we need

some security apparatus to respond to any and all offenses. Consequently, to the extent that even minor offenses provide a reason for building both a public and private response to crime, these costs can be attributed to minor as well as serious offenses.

On the other hand, one can argue that it is inappropriate to attribute all these costs to crime and to criminal offenders. It is possible that some of the expenses incurred in constructing public and private security systems are motivated by exaggerated and irrational fears – not the sober, disciplined response to the objective threat of criminal victimization. To the extent that this is true, we might reasonably attribute some of the costs to our own fears rather than to the criminal offenders. (We might even be able to develop measures that could reduce fears less expensively than the complex apparatus we have built to reduce criminal victimization.)

One can also argue that there is an irreducible level of public and private security that society should maintain regardless of the actual level of crime – partly as a kind of insurance policy in case crime does get worse, and partly as a way of keeping crime at very low levels. To the extent that this is true, one would not expect to be able to reduce the social costs of guarding against crime to zero, and it would be wrong to think that these costs of crime decreased as a linear function of the number of crimes in the society. In short, the marginal benefits associated with reducing the costs of guarding against crime would be less than the total costs of guarding against crime divided by the total number of crimes. We would have to maintain some vigilant capacity in any case.

On balance, it seems clear that Zedlewski was correct to include avoiding some of the indirect costs of guarding against and responding to crime as part of the potential benefits of reducing crime. On the other hand, it also seems clear that the averaging these costs over all offenses would produce an inflated estimate of the value of avoiding one average crime.

## *2. Improvements on Zedlewski's Methods*

Zedlewski's article was followed by three studies that stayed within his basic methodology; namely estimating and valuing the crime reduction effects of

imprisonment by concentrating on the incapacitative effects of imprisonment, and estimating the magnitude of these effects by relying on prisoner self-reports of offending while free. In 1990, David P. Cavanagh and Mark A. R. Kleiman published "Cost Benefit Analysis of Prison Cell Construction and Alternative Sanctions" as a National Institute of Justice Report. In 1991, Dilulio and Piehl published "Does Prison Pay" in The Brookings Review, and then followed that article in 1995 with "Does Prison Pay: Revisited" in the same journal. While these studies stayed within Zedlewski's basic framework, they made significant improvements in the areas that had been criticized.

*a. Improving Estimates of the Financial Costs of Imprisonment*

Zedlewski had estimated the direct budgetary costs of imprisonment an offender for a year as the sum of the amortized capital (construction) and average yearly operating costs. Cavanagh and Kleiman (1990) agreed with Zedlewski on the conceptual basis of this estimate, and also that the amortized cost of constructing and financing a prison cell was between \$4000 and \$5000. But they found that the average *operating costs* of imprisoning an offender was closer to \$20,000 than \$15,000.<sup>15</sup> More importantly, they found enormous variability across states in these costs.

The high variability in operating costs motivated Cavanagh and Kleiman to report ranges for the total cost of incarceration (including the indirect costs of imprisonment).<sup>16</sup> The lower end of their range was the sum of the lower bounds of each component estimate. They calculated the cost of a prison cell was between a low estimate of \$23,000 per year in direct and indirect costs and a high estimate of \$70,000. Their preferred estimate of \$40,000 would be \$55,000 when adjusted for inflation into 1998 dollars. Due to the higher operating costs and higher indirect costs, their preferred

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<sup>15</sup> Cavanagh and Kleiman, like Zedlewski, also observed that there were some indirect costs of imprisonment, and that some of these included both reduced tax revenues to government due to reduced employment, and increased outlays to support the offenders' families. They estimated these to be about \$9000 per year to account for lost earnings from employment and about \$8000 in additional welfare payments to the dependents of inmates – an estimate that was appreciably higher than Zedlewski's estimate of \$5,000 for these indirect costs.

<sup>16</sup> Cavanaugh and Kleiman estimated the average indirect costs of incarceration to include \$9000 in lost wages and over \$8000 in transfer payments to support the inmate's dependents. The corresponding figure from Zedlewski totaled \$5000.

estimate of the cost of incarceration is one and a half the magnitude of Zedlewski's, which is \$36,000 in today's dollars.<sup>17</sup>

*b. Getting More Explicit About Policies and Focusing on Marginal Offenders*

Cavanagh and Kleiman also recognized the importance of carefully specifying the policy they intended to analyze, and made explicit what was merely implicit in Zedlewski: they analyzed the value of extending the term of current inmates for an additional year. This simplified their analysis greatly, because they did not have to imagine the characteristics of the offenders who would be exposed to increased imprisonment by some new policy. And, since they were only increasing the time in prison by a year, they did not have to worry too much about changing rates of offending over time. They could use the estimates of rates of offending from the imprisonment surveys confidently because these were the inmates whose terms were being extended, and they were still close to the age and stage of career that they now were.<sup>18</sup> In fact, they argued that it was only this kind of policy that could properly be evaluated through the use of self-report data from incarcerated offenders.<sup>19</sup> Any other policies would require the analyst to guess the characteristics of new offenders inducted into imprisonment.

The difficulty with this approach, however, is that it drew attention away from the great heterogeneity among offenders, and the variety of imprisonment policies that could be developed to take advantage of that heterogeneity. In contrast, the two studies by Dilulio and Piehl emphasized precisely these points.

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<sup>17</sup> It is worth noting that the distinction between average and marginal costs is much less important for determining the cost of prison capacity than it was for offenders. The modest scale of correctional facilities leads analysts to assume that economies of scale are achieved at a relatively small size. Over half of state correctional facilities hold fewer than 500 inmates. Facilities constructed between 1990 and 1995 averaged between 1500 and 2000 beds. (Stephan 1997) (It is not possible to calculate the precise number from the tables in the report, since 41 of the 168 new facilities over this period were community based and therefore likely to be substantially smaller than the average closed facility.)

<sup>18</sup> They relied upon the Rand surveys and other surveys derived from them.

<sup>19</sup> Because many states extended prison terms over the late 1980s and early 1990s, the "thought experiment" they present is particularly relevant for policy.

Dilulio and Piehl first observed that inmates varied tremendously not only in terms of both the frequency of their offending, but also in terms of the types of crimes committed. While there are a few offenders who commit an occasional act of violence, and many others who seem to engage in sustained property offending, most offenders commit a wide variety of crimes. Indeed, the most active offenders commit both violent and property crimes, and do so with great frequency.

They then used social cost estimates from the literature to rank offenders in terms of the social costs they were inflicting prior to their arrest for the current commitment.<sup>20</sup> This showed that the cost of the crimes of the median offender was over 20 times the level of costs associated with the offender at the 10<sup>th</sup> percentile!

Dilulio and Piehl observed that imprisonment policy involves more than merely setting the number of prison beds. It also identifies what particular criminal acts will be exposed to lengthy incarceration, and what sorts of criminal records will expose offenders to extended time in jail. To the extent that these different imprisonment policies end up focusing prison time on different kinds of offenders, given the enormous heterogeneity among offenders, it follows that the cost/benefit ratios of different imprisonment policies could be quite different. For example, if one believes that the criminal justice system has already captured the most active offenders, then one could conclude that current levels of imprisonment were highly cost/beneficial and that expansions of imprisonment would not be because the new offenders that were brought into the system were relatively low-rate offenders.<sup>21</sup> On the other hand, if one thought

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<sup>20</sup>The social cost estimates used are discussed further below.

<sup>21</sup>Cohen and Canela-Cacho (1994) came to this conclusion after using statistical modeling to estimate the overall distribution of offending. In order to get a handle on how the criminal justice system brought imprisonment to bear on some offenders and not on others, Cohen and Canela-Cacho assumed the capture rate is constant across illegal acts (more accurately, they assume a constant “expected time served”), calling this idea “stochastic selectivity.” Since high-rate offenders commit more illegal acts, they are more likely to end up in prison than are low-rate offenders. As a result, the prison population will contain both high-rate and low-rate offenders, but will be more heavily weighted toward “serious” felons than is the rest of the population. Their assumption about the ability of the criminal justice system to sort among offenders, then, boils down to, “offenses are equally likely to be punished, offenders are not.”

To estimate their model, Cohen and Canela-Cacho used data about robberies from the Rand studies. By using information about the distribution of offending within the incarcerated population along with the assumption of stochastic selectivity, they constructed an estimate of the distribution of robbery



that one could design a policy that identified particularly high-rate offenders at times they were particularly active, and extended their time in prison at those times, then that policy could be expected to produce attractive cost/benefit ratios.<sup>22</sup>

This insight caused Piehl and Dilulio (1995) to look particularly closely at state differences in imprisonment policies to determine the extent to which they had opportunities to improve the cost effectiveness of imprisonment. They were particularly interested in the extent to which states have used prison for drug offenders. To the extent that offenders specialize in drug offenses and do not commit property and violent, and to the extent that states focused on imprisoning drug offenders, the estimated cost/benefit ratio of imprisonment would be different (and presumably less) than if states focused on imprisoning high rate violent or property offenders.

While this work pointed out the importance of being explicit about the particular policy that was being evaluated, and particularly, which offenders were the focus of current or proposed new policies, the papers by Dilulio and Piehl did not resolve the empirical question of how to identify the “marginal offender” in any given state’s criminal justice “system.” Nor did they offer advice about how to do so.

#### *c. Estimating the Crime-Reduction Impact of Imprisonment*

The Cavanagh and Kleiman article also improved on the original Zedlewski publication by improving the estimated incapacitative effect of imprisonment. They deflated the measures of the crimes averted to take account of and for co-offending, crime commission by groups of offenders. This adjustment reduced the estimate of the likely crime-reduction effect of a year of imprisonment by 30 percent (relative to Zedlewski’s calculations).

#### *d. Valuing Crime Reduction Benefits*

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offending in the general population. Together, the extremely skewed distribution of offending and stochastic selectivity imply that the criminal justice system sorts offenders well, even without engaging in selective incapacitation strategies.

<sup>22</sup>Another result is, if one believes that a particular policy can identify particularly high-rate offenders, that targeted expansions could yield substantial crime reductions. This insight formed the basis of the selective incapacitation literature (Greenwood 1982).

Authors of the subsequent studies of the benefits and costs of incarceration also tried to make two improvements in the valuation of crimes. First, they wanted to differentiate across types of offenses. (This was particularly important to Dilulio and Piehl given their emphasis on inmate heterogeneity.) Second, they wanted the valuation to be calculated at the margin rather than the average.

Both sets of authors turned to the work of Mark Cohen (1988), who had developed measures of the costs of crime (by crime type) from the awards set by juries in personal injury cases. (He used separate measures of the “value of life” in order to estimate the losses associated with fatalities.) This source of valuation has much to recommend it.<sup>23</sup>

The jury awards included compensation for medical expenses, lost wages, and pain and suffering. These “compensatory damages” are supposed to be set such that they “restore” the victim to his or her pre-injury condition.<sup>24</sup> As such, jury awards contain important aspects of the social cost of crime that are not included in out-of-pocket costs. Moreover, since these values are set by juries (representing “the people”) operating under the instructions of a judge, the values they set will have standing as a socially determined estimate of the cost of crime to the victim. Nonetheless, since the values are set to compensate the victim, not society at large (and since the suffering associated with an accident may be qualitatively different from the suffering associated with a violent act), these amounts may not reflect the full cost of crimes to society.<sup>25</sup>

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<sup>23</sup>The recent report by Miller, Cohen, Wiersema (1996) updated and expanded these estimates of victim losses. This report brought together multiple sources of information: estimated medical costs (from hospital data), the costs of emergency services, and the lost productivity of victims and family members. The authors also produced “quality of life” estimates. For fatal injuries, they relied on the literature on the “value of life,” which in turn relies on measures of the willingness to pay (by consumers) for safety improvements. For nonfatal injuries, they rely on jury awards from crime victims (in suits of third parties). (This is the same approach used in Cohen (1988), but a different data source.)

Since not all cases go to trial, they estimated the costs for the “average” crime from this non-random subset of injuries. They did this by estimating the relationship between out of pocket costs and the jury award, as in Cohen (1988). This approach may still overstate the losses for the average crime, however, depending on how cases are selected for litigation.

<sup>24</sup>See Cohen (1988) for a discussion of the nuances of jury instructions.

<sup>25</sup>At the same time, the estimates included property losses, which should arguably be excluded from social costs. While these losses are meaningful to particular victims, at the society level they are transfers of

To account for the indirect social costs of crime (which Zedlewski had estimated by summing the public and private expenditures to prevent and respond to crime), Cavanagh and Kleiman simply increased the Cohen estimates of direct costs by 250%-350%. These parameters were derived from an analysis by William Greer (1984) of the indirect costs associated with the 23% increase in crime in New York City around 1980. As discussed in the critique of Zedlewski's average cost numbers, it is hard to know how much of the costs of crime prevention should be allocated to the marginal offense. Dilulio and Piehl, on the other hand, did not make any accommodation for these indirect costs. Their numbers, then, should be seen as lower-end estimates of the value of avoiding crimes, while Cavanagh and Kleiman's could be seen as high estimates.

*e. Conclusions*

After all these improvements were made, these analysts arrived at different conclusions. Cavanagh and Kleiman concluded that, "using conservative estimates of benefits and generous estimates of costs, the benefits substantially exceed the costs." (Cavanaugh and Kleiman 1990, p.1) After emphasizing the importance of the enormous variability among inmates, and the impact that such heterogeneity had on estimates of whether imprisonment policies paid or not, Dilulio and Piehl reported a range of estimates for the benefit/cost ratio for a broad-based expansion of imprisonment. Their estimates ranged from close to zero if the expansion focused on low-level offenders, to 1.8 if the expansion focused on the median offenders, to 15 if the expansion focused on the mean offenders. (Dilulio and Piehl 1991, p.34) They argued that the answer to whether "prison pays" depends crucially on the precise policy question and the way in which the proposed policies affected which offenders bore the brunt of the increased supervision.<sup>26</sup> Because Dilulio and Piehl (1991) believed that the system sorts, but not

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property. (This clarification applies mostly to the estimated losses from burglary and motor vehicle theft.) Dilulio and Piehl made some adjustments to the cost measures of Cohen to account for the transfer of property, but they were small.

<sup>26</sup>The literature on selective incapacitation has concluded that it is hard to predict recidivism based on observable characteristics (Gottfredson and Gottfredson, 1994). This would seem to indicate that the margin is close to the average. However, it may be that the way the actors in the criminal justice system operate, they do much better than statistical models. Much of the knowledge of practitioners have a lot of

perfectly, they thought that expansions in prison capacity would produce cost/benefit ratios between the 10<sup>th</sup> percentile and the median; that is between 0.1 and 1.8.

The difference in the policy question under consideration primarily explains why Cavanagh and Kleiman concluded much higher social returns than did Dilulio and Piehl. Both studies used similar inputs to the analysis (survey data from prison inmates, crime-specific direct costs from Cohen (1988), and widely accepted measures of the cost of incarceration), although Cavanagh and Kleiman used estimates of the social costs of crime that were substantially higher than those used by Dilulio and Piehl.

Given the different policies analyzed, it is possible both studies are “correct.” Yet it is also possible that the Cavanagh and Kleiman numbers are too high. If offending rates fall with age, as is widely considered to be the case, then applying the crime rate prior to incarceration to an additional year may overstate foregone crime and, as a consequence, the benefits to incarceration. To the extent that criminal careers are relatively long compared to prison sentences, however, this effect is moderated.

### *3. Improving Crime-Reduction Estimates through Aggregate Analyses*

The studies summarized above have all relied upon one particular approach for estimating the crime reduction impact of imprisonment – an approach that could be described as the *individual level* approach. In this case, the empirical core of the calculation is an estimate of the individual’s rate of offending if left free – typically generated by self-reports of offenders on how often they offended when free. But as noted above, this approach also depends on limiting one’s estimates of the effects of imprisonment to a crudely calculated incapacitation effect, and also on being able to estimate which offenders will be exposed to longer imprisonment by a proposed change in policy. Thus, as an empirical matter, the range of resulting “answers” to the

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information is not reflected in indicators generally available to researchers. This information may not be easily quantifiable, or it may be that researchers may not have thought to quantify it. Furthermore, the deliberative process that implements “justice” may incorporate much of that information. (See Kennedy, Braga and Piehl (1997) for a discussion of practitioners’ knowledge can be quantified for use in policing and Moore (1986) for a discussion of the ethical issues involved in using this, and other, information to predict criminality.)

benefit/cost question is strongly influenced by our collective uncertainty about two key empirical issues. First, whether and how imprisonment works to reduce imprisonment. Second, how the criminal justice “system” now selects offenders to expose to imprisonment, and how its operations would be transformed by a proposed change in imprisonment policy.

*a. Empirically Estimating Crime-Reduction Effects from State Experience*

Fortunately, a literature has developed that helps resolve some of these key empirical uncertainties. This is a literature which we characterize as the *aggregate* approach to estimating the crime reduction impacts of imprisonment. The basic idea of this approach is not to try to extrapolate the crime reduction effect of imprisonment by making assumptions about individual offending rates, the effectiveness of incapacitation, and the focus of the system on different kinds of offenders. It is, instead, to rely on actual experience with real changes in imprisonment policy that can reveal the extent to which a change in imprisonment policy actually does reduce crime. In this case, one is relying on the real experience of states: as the incarceration rate rises, we can measure the effect it has on the crime rate by watching what happens.

This approach has two significant advantages over the individual level approach. One is that it is based on real experience with imprisonment, not extrapolated calculations. The second is that this approach ought to be able to take into account the effect of *all* the different mechanisms by which imprisonment affects crime rates, not simply the calculated incapacitation effect. The reason is that this method focuses on observing changes in crime rates due to changes in levels of imprisonment, regardless of whether they result from incapacitation or deterrence, rehabilitation, or other mechanisms. To the extent that any of these mechanisms are operating, the observed result ought to be the net effect of all of them.<sup>27</sup>

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<sup>27</sup>For some purposes, it is important to distinguish among these mechanisms. In theory, the individual-level data on criminal offending allow consideration of a richer set of policy alternatives because simulations can compare the effects of different policies yielding similar increases in the prison population. For example, one could compare the crime-control effect of abolishing discretionary parole to the effects of sentence

The approach has one significant disadvantage: it is difficult to estimate empirically the effects of imprisonment on crime directly. The technical reason is that it is not clear which direction the causation runs. Imprisonment can affect crime rates. But it is also true that crime rates affect levels of imprisonment. To the extent that changes in imprisonment can be viewed as exogenous (that is, unrelated to the level of criminal activity) the empirical methods for estimating the approach are straightforward. To the extent that the policy is not exogenous, the analysis becomes more complicated. To estimate the independent effects of imprisonment on crime rates, the researcher must then find a way to separate the effects of imprisonment on crime from the effects of crime on imprisonment.

Two studies using aggregate data and statistical modeling to estimate the impact of the significant changes in imprisonment policy that had taken place are presented here as studies that, in all likelihood, produce a better estimate of the crime reduction effects of imprisonment. We also use these studies to make different estimates of the costs and benefits of imprisonment. In these studies, we find that differences in the marginal effect of incarceration result not from conceptual differences about the operation of the criminal justice system, but from the variation in the data which is used in the estimation.

Marvell and Moody (1994) analyzed year-to-year changes in state prison populations and changes in crime rates for 49 states from 1971-1989. Their statistical tests indicated that changes in crime rates did not drive changes in prison populations in the short run, so they treated incarceration policy as exogenous. Their outcome measure was the FBI Uniform Crime Reports, which includes all crimes "known to the police." Given the results of victimization surveys, this data source under-represents the number of crimes that actually take place, so they correct for the under-reporting. As discussed above, they estimated the total effect of incarceration, though the timing structure of their model restricts these effects to the short run. They concluded that the

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enhancements for particular criminal histories. Such comparisons are possible because the individual-level data allow for consideration of heterogeneity in offending patterns.

expansion of the prison population over this time lead to substantial number of crimes averted, primarily property crimes.

Levitt's (1996) analysis was very similar in spirit to Marvell and Moody's (1994). He used state-level data from the same sources as Marvell and Moody, and for a similar time period (1972-1993). However, Levitt was very concerned with the simultaneity in the determination of crime rates and incarceration policy. In order to separate the effect of imprisonment on crime from the effect of crime on imprisonment rates, he used the filing of overcrowding lawsuits as a source of exogenous variation in prison populations. Shifting to the use of overcrowding litigation as an instrumental variable for changes in prison populations had the effect of *tripling* his estimates of the crime reduction effect of imprisonment. These estimates of the crime reduction effect of imprisonment were also about twice as large as those reported by Marvell and Moody.

On the basis of these results, Levitt argued that simultaneity generally leads to an important downward bias in the estimated crime-reduction effects in studies using the aggregate approach. Many analysts have challenged his results, however. In particular, researchers have questioned whether overcrowding litigation is genuinely exogenous and whether the experience of those states (largely in the south) facing these suits is generalizable to other jurisdictions (Nagin 1998, Donohue and Siegelman 1998).

*b. Converting Crime-Reduction Estimates to Cost/Benefit Analyses*

Once one has aggregate estimates of the crime reduction impact of state level expansions of imprisonment, one can, in principle, go ahead and calculate the costs and benefits of this effect simply by attaching the same estimates of the value of reducing crime used in the individual level studies described above. Levitt, in fact, went on to complete this analysis. Like Cavanagh and Kleiman, and Dilulio and Piehl, Levitt relied on Cohen's study of jury verdicts to estimate the value of crimes averted. When he looked at the costs of prison expansion, and compared that with his estimate of the crimes reduced multiplied by the value of those crimes averted, he calculated that the

country had netted a gain of about \$53,900 per prisoner per year in 1992 dollars. (This would be about \$62,600 in today's dollars.)

Marvell and Moody did not go ahead and complete this analysis. But they did provide enough information about the crime-reduction benefits of incarceration to allow one. They concluded that during the 1980s, incarceration increased by 40,000 beds a year, averting 18,000 robberies, 186,000 burglaries, 426,000 larcenies, and 32,000 vehicle thefts. Multiplying these foregone crimes by the social costs used by Levitt yields a social benefit from that expansion of \$831,200,000, or about \$24,000 per inmate in 1998 dollars. This \$24,000 benefit must be set against the estimated direct and indirect costs of imprisonment of approximately \$25,000 – 30,000. Thus, in this calculation, imprisonment is not cost/beneficial; we are spending more than we are getting. On the other hand, increasing the number of crimes averted by one-third, as their results from post-1975 suggest, pushes their estimates into the “cost-beneficial” range, depending on the cost assumed per cell.

Taking a closer look at the differences between the Levitt and the Marvell and Moody results reveals that they are not as far apart as they first appear. Marvell and Moody are not very confident about their findings for homicide or assault due to the low statistical significance of the estimates. Therefore, they do not conclude that incarceration prevented homicide or assault. If you make similar adjustments to Levitt's results (either dropping homicide and assault or dropping the crimes with low statistical significance, homicide, rape, and auto theft), Levitt's social savings from incarceration fall to \$34,000 to \$43,000 per inmate in current dollars. While these values are higher than the \$24,000 per inmate implied by applying the measures of social cost used by Levitt to the results of Marvell and Moody, they are not two to three times larger, as the simple interpretation of the overall crime estimates would suggest.

### *c. Conclusions of the Aggregate Studies*

In toto, these aggregate studies support the notion that expansions in the prison populations in the United States over the 1970s and 1980s reduced the number of



property crimes. Depending on how one values these crime reduction effects and estimates the direct and indirect costs of imprisonment, one can conclude that prison is cost/beneficial or not. The best estimate would probably be that prison *is* cost/beneficial, but there is so much uncertainty about this estimate that it might well not be.

There are two problems with taking these estimates at face value and applying them to hypothetical future expansions of prison capacity, however. First, even if we accept these estimates, the methods are not designed to predict the long-run effects of these expansions. It is not clear, however, whether including estimates of the long run effects would make imprisonment look better or worse. On the one hand, one can argue that the long run effects of imprisonment will be even greater than the short run effects as the new norms that are intolerant of criminal behavior become more solidly anchored and more widely supported in the society. On the other hand, one can argue that these deterrent, norm creating effects are negligible and that the important long run effect of imprisonment is to create more determined and accomplished offenders who are released to the streets in the future. We are not sure whether the long run effects of imprisonment are big or small, positive or negative.

#### *4. Conclusions*

The individual and aggregate studies of the costs and benefits of imprisonment reviewed here report a large range of estimates of the benefit/cost ratio. This should not be surprising. Many assumptions are necessary to calculate a particular benefit/cost ratio. There is a great deal of uncertainty around each of these estimates. Because one must add the uncertainty incorporated at each stage of the analysis to the total burden of uncertainty encumbering the final result, we must view the final estimate as highly uncertain. As a result, we have to conclude that we simply do not know whether prison is "cost-beneficial" or not, even if we agree with the conceptual basis of the calculation.

On the other hand, if one has to make policy decisions, one cannot hide behind the fact that one cannot know for sure whether imprisonment is cost/beneficial. Even if there is a great deal of uncertainty, one must decide, implicitly or explicitly, on a course

of action. Together, these analyses suggest (but do not prove) that there is some net social benefit to incarceration when the calculation is made in these terms, almost certainly on average, and perhaps even at the margin. The dramatic expansion in the use of incarceration over the past 20 years, appears to have had an effect on crime rates. The costs of crime are great enough that when one values the crime reduction effect in terms of the social value of the crimes avoided, one's best estimate is that prison is cost/beneficial, at least for many margins of expansion.<sup>28</sup>

One doesn't have to accept the policy implication of this conclusion, of course. One can argue that the conceptual basis of the analysis is wrong – that this is the wrong normative framework to use in reckoning the value of imprisonment. Or, one can observe (correctly) that new empirical work could overturn some of the estimates on which the current calculations are made, and that one should have a higher degree of certainty in estimating the costs and benefits of prison before risking the injustice of using state power to achieve uncertain results. Both of these are quite reasonable positions, and we will explore them later.

### **C. Cost-effective Alternatives to Imprisonment**

But there is also a third position that can be developed that would accept the conclusions of the cost/benefit analyses yet still depart from their apparent implications. That position claims that even though imprisonment is cost/beneficial, it is not necessarily the most cost-effective way of achieving the desirable and highly valued crime reduction effects. There are other instruments of social policy – other policies and programs -- that could be adopted that would achieve the same valuable results, but at much lower financial (and perhaps other) costs to the society.

Note that the relative cost-effectiveness approach to the important practical question of whether we should increase imprisonment has some important advantages over the cost/benefit approach. One is that it encourages the analyst to think more broadly about the range of possibilities for achieving a particular desired result. One

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<sup>28</sup> It is quite possible that the benefit/cost ratio for expanding the use of incarceration for low-level drug offenders, for example, is less than one.

doesn't have to assume that the only crime control instrument is prison. One can consider alternative approaches ranging from alternative sanctions, through altered police practices that reduce opportunities for offending, to major efforts to intervene in the social processes that tend to produce criminal offenders. The second is that the analyst can avoid the extremely difficult problem of trying to monetize the benefits of avoiding crime. Since the important comparison is not between the benefits of a given policy and its cost, but instead, the relative cost of different policies in achieving the same desired policy goal, one doesn't have to monetize the benefits. The comparisons can be made strictly in terms of crime-reduction effects.

The claim that prison is not necessarily the best way of achieving the desired crime control effects has been developed in two different literatures that have emerged at least partially in response to the dramatic increase in imprisonment. One focuses on alternative sentencing policies that are designed to concentrate imprisonment on the most dangerous and active offenders, and to divert less serious offenders to alternative less expensive sanctions. The other looks more broadly at the range of social policies that could be adopted if our goal was to reduce crime, and compares imprisonment with other crime prevention policies such as early childhood education.

1. *"Selective Incapacitation" and "Ladders of Sanctions"*

One of the important results of the prison cost/benefit studies was to re-discover the enormous importance of the wide variation among offenders in terms of the rate and seriousness of their offending. The fact that offenders varied so dramatically was important in this literature because it introduced a major uncertainty into estimates of whether prison was cost/beneficial. Depending on what particular imprisonment policy one was considering, and one's estimate of which particular offenders that policy would end up incapacitating, one could get very different estimates of the value of imprisonment.

The practical importance of the wide variability among offenders in the cost/benefit literature re-claimed a prior discussion of imprisonment policies that had

considered the practical utility of “selective incapacitation” as an effective way to use imprisonment. The argument in that literature was essentially that society could exploit the wide variety of offenders by focusing imprisonment on high rate offenders who were likely to remain high rate offenders (Greenwood 1982). By doing so, society could wring more crime control benefits from its current level of imprisonment than if it failed to try to distinguish the high rate offenders from low rate offenders.

This policy idea was interpreted (and roundly criticized) as a right wing idea designed to extract a slightly higher level of crime control effectiveness from a limited number of prison cells at the expense of justice and fairness. But there was a part of this argument that aligned with two important left wing ideas. One was that some offenders would eventually become “rehabilitated” if for no other reason that they became too old to commit crimes. Those offenders who could be relied upon to have ceased their offending could profitably (if not justly) be released from imprisonment.<sup>29</sup> The second was the idea that there were many not very active or serious offenders now being held in prison who simply weren’t worth the cost of that expensive prison cell, and could probably be sanctioned and controlled in far less expensive forms of punishment and supervision. In short, if the population of offenders was as heterogeneous as the Rand surveys suggested, a cost effective imprisonment policy would be one that concentrated imprisonment on high rate, serious offenders, and dealt with lesser offenders with less costly alternatives. A few needed more control; but many more could be safely supervised with less.

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<sup>29</sup> Moore et al. (1986) showed that the idea of selective incapacitation was, as a practical matter, identical with the idea of “rehabilitation.” Both policies sought to distinguish the offenders who would continue to commit crimes from those who would not, and to focus imprisonment on those who would continue to offend. Both used the same characteristics to make these distinctions. If there was a difference beyond the rhetorical one, it was that rehabilitative sentencing reduced the sentences of those judged rehabilitated while selective incapacitation increased the sentences of those who were judged to be dangerous. Therefore, selective incapacitation increased the average sentence while rehabilitative sentencing tended to reduce it. See Moore et. al. pp.xxx \_\_\_\_.

This claim was supported by a series of studies showing that lesser sanctions worked to control crimes, and were much less costly per offender than prison.<sup>30</sup> From such studies, proposals emerged to arrange a variety of different sanctions in a coherent “ladder of sanctions” (Anderson 1998). The importance of having a wide portfolio of sanctions, arranged in a ladder of escalating severity and closeness of supervision, was rooted in two ideas. First, that because offenses and offenders were very heterogeneous, one needed a system of sanctions that was wider than could be accommodated simply by adjusting the length or prison sentences. Second, because offenders held in lesser sanctions could violate the conditions of their lesser confinement, there had to be some capacity to move them to higher levels of punishment.

The ultimate claim of this body of work was that a “system” of sanctions that included many penalties other than imprisonment would offer a more cost-effective way of achieving crime reduction benefits than one that included only imprisonment. Given the heterogeneity of offenders, and the efficacy of many alternative sanctions, this seems a reasonable claim to make. But no one has yet gone through the calculations to reveal the relative cost effectiveness of a “prison only” response to crime, or a “ladder of sanctions” response to crime.

Such a calculation would be very difficult to make for at least three reasons. First, there are many different variants of both “prison only” and “ladder of sanctions” policies. Second, these policies would have to be specified not only in terms of how much physical capacity the sanctioning system possessed in each form, but also in

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<sup>30</sup> Some studies compare various uses of incarceration (e.g., Petersilia and Greenwood 1978, Greenwood 1982, Greenwood et al. 1994, Cohen and Canela-Cacho 1994), while others compare incarceration to other sanctions such as probation (e.g., Cavanagh and Kleiman 1990, Gray and Olson 1989, Spelman 1994), while others compare various types of non-incarcerative sanctions to each other (e.g., Petersilia, Peterson and Turner 1992). This line of research generally relies upon individual-level data. Research designs include: simulation of the effects of various sanctioning schemes by applying the rules of the policies under consideration to the official criminal records of a sample of offenders (e.g., Petersilia and Greenwood 1978); extension of models of individual behavior to incorporate attributes of other sanctions (e.g., Cavanagh and Kleiman 1990); or social experiments, in which offenders are randomly assigned to various sanctions (e.g., Petersilia, Peterson, and Turner 1992).

terms of the rules that would distribute offenders across those different kinds of sanctions. Third, it is quite possible that there are some important interactive effects among the different kinds of sanctions: for example, it might be that lower level sanctions would only be effective if there was enough capacity in higher level sanctions to respond to failures in the lower levels. At this stage, however, we know little about these dynamics. Still, some preliminary modeling and calculation along these lines could turn out to be informative.

## *2. The Cost-Effectiveness of Imprisonment Compared with Prevention*

A second body of literature has sought to systematically compare imprisonment with other preventive efforts to control crime. Of course, any such study must define the sphere of activities considered preventive. Greenwood et al. (1996) compared the likely costs and crime prevention effects of California's "three strikes" law to those of several early intervention strategies: prenatal home visits by child care professionals, followed by four years of day care; training for parents with young children who have shown aggressive behavior; incentives to induce disadvantaged high-school students to graduate; and monitoring and supervising young delinquents. They concluded that the best two programs, parent training and graduation incentives, were likely to be two or three times more cost-effective than "three strikes."

In a similar vein, Donohue and Siegelman (1998) compared the crime control benefits of spending on corrections relative to spending on social programs. To do this, they relied on numerous evaluations of social programs written by other researchers over the years. The cataloguing of evaluations of a wide range of crime prevention initiatives by Sherman and his colleagues (Sherman et al. 1997) should make this type of analysis easier in the future. Nonetheless, the application of results from one segment of the population (studied by other researchers) to the population of interest in one's own study requires some care.

## **D. Conclusions**

Both the cost/benefit and the cost-effectiveness literatures reviewed above seek to offer systematic, science-based guidance to society and its policy-makers about the wisdom of continuing to rely on imprisonment as an effective means of controlling crime. The research suggests both the idea that prison is cost-beneficial, and the idea that it is not necessarily the most cost-effective means of achieving valuable crime control benefits. A major difficulty, however, is that there are enormous uncertainties about both these estimates. In the cost/benefit studies, the major uncertainties include the estimates of the monetary value of crimes avoided (which is plagued by both conceptual and empirical difficulties), and the size of the crime reduction effect of imprisonment (which is also rendered uncertain by conceptual and empirical difficulties). In the cost-effectiveness analyses, there are not only great empirical uncertainties about the performance of the alternative sanctions and the preventive instruments, but also real political and institutional problems in making the transition from our current policies to these far more complex ideas.

Most authors working these analyses try to convey some sense of uncertainty about the answer, either by reporting sensitivity analyses or ranges for their estimates. However, the public debate does not always reflect these qualifications. Perhaps this is a reflection of Cook's observation that empirical results tend to be over-generalized (Cook 1980); perhaps it is the result of the political urgency that people feel about the issue. Still, it is depressing that the public debate can revolve around the question of whether "prison pays" without either a clear statement of the policy alternative under consideration or an understanding of the current use of incarceration. Moreover, there are many reasons to suppose that we could do much better in cost/benefit and cost effectiveness terms with more imaginative uses of sentencing policies, alternative sanctions, criminal justice based preventive policies, and socially based preventive policies. Indeed, one of the worst features of the cost/benefit analyses of imprisonment may be that they focused our attention on the wrong question. It may be important to

decide whether imprisonment pays, but the answer that it does may prevent us from asking the more important and creative question of whether there are other policies that are even more valuable or profitable in achieving the same goal.

Despite the empirical difficulties, these are probably not the greatest problems that these studies need to overcome, however. The greatest problem is to deal with the fact that the conceptualization of the problem as one in which one is trying to find the most cost/beneficial or cost-effective scheme for controlling crime may be an incomplete and inappropriate way to think about society's response to crime. After all, society's response to crime needs to be *just* as well as *cost/beneficial* and *cost-effective*. Indeed, to many, the justice of our use of imprisonment is paramount, and the question of its practical efficacy far less important. Below, we consider how the utilitarian framework of cost/benefit and cost-effectiveness analysis needs to be adapted to deal with concerns for justice, and the fair and economical use of state authority in an overall reckoning of the value of imprisonment.

### ***III. Towards a Better Framework for Reckoning the Value of Prisons***

Given that public authority as well as public money is being used in imprisonment policies, it is normatively important to show that this resource, too, is being used properly and economically. Generally speaking, we think that the use of authority should be guided by some sense of justice and fairness – not simply effectiveness. Thus, a complete normative framework for assessing the value of imprisonment policies would have to account for social interests in producing justice as well as crime control effectiveness – justice not only in each individual case, but in the aggregate as well.



To many, it seems that at that moment we make an important shift: from a utilitarian framework (in which it makes sense to have an accounting scheme that identifies and quantifies important dimensions of value) to a deontological framework (in which accounting frameworks and quantities seem far less appropriate). In this view, justice is an integrated concept that cannot be easily subdivided. Further, it is not a quantitative variable: the system is either just or unjust. There aren't degrees or amounts of justice. Finally, since there are many different conceptions of justice, whether justice is a quality of the system is hard to observe objectively.

We disagree with this position. We think that justice as a feature of a sentencing policy can be decomposed into different parts about which there is a high degree of consensus, and could, in principle, be observed. We try to do so below. Further, we think it is possible to think of the system as becoming more or less just as we approach consistency in the application of the just principles in each individual case, and in aggregate. We think that we should be accounting for the justice of the system as well as its cost-effectiveness. We set out some important measurable, quantifiable attributes of justice below.

#### **A. Scope, Proportionality and Temperance of Criminal Liability**

One of the most important features of imprisonment policies and prisons is whether they can be said to temperate in their use of state authority (Packer 1968). A system that uses the criminal law to reach broadly and deeply into society is one that risks injustice by depriving citizens of their liberty and freedom. A system that imposes Draconian punishments for small offenses has long been scorned as an unjust one.

Such systems are viewed as less valuable than more moderate systems for both justice and practical reasons. Viewed from a justice perspective, moderation in the use

of the criminal sanction is considered valuable because it is consistent with the goal of protecting individual liberty, and guaranteeing the right relationship between the individual citizen and the state apparatus. Viewed from a utilitarian perspective, moderation is a virtue because it increases the chance that the state will be able to live up to the implied promise to punish people who offend, and in doing so, protect the credibility of the system.

One way to think about these ideas together is that a state's criminal code represents a promise to punish law-breakers. As such, in an accounting context, the criminal code could be viewed as a huge liability on the state's stock of authority and money. In effect, it commits the state to responding to all those crimes that it hears about, and using both authority and money in making the response. It follows, then, that a state could go "bankrupt" by making a larger promise than it had resources to meet. Citizens, as the creditors of the state, would be disillusioned by such a bankruptcy. To avoid this, a state should make only limited promises to punish. Thus, a valued attribute of imprisonment policies is the moderation it shows in limiting the use of the criminal sanction.

Of course, it is by no means clear how narrow and temperate the scope of criminal liability should be. Reasonable people will disagree on this matter. But two things are worth noting here. First, it is possible to look across states, and from one nation to another, and from one historical era to another, and to compare one's current practices and recent changes to these "benchmarks." The systematic reporting and comparison of imprisonment policies against some benchmark seems to us a salutary effort – at least as valuable as presenting reported crime rates.

Second, while it is not possible to say exactly how tough or temperate we should be, we are pretty clear about what constitutes improvement. All other things being equal, we would like to use less state authority rather than more, just as we would rather use less state money. This suggests that if we can move toward temperateness without paying a large price in other valued dimensions such as crime reduction impact, we should do so. That would be a move that would increase the value of the system as a whole.

### **B. Fairness in the Distribution of Criminal Liability**

A second important attribute of justice concerns the fairness with which laws are enforced and criminal penalties imposed across similarly situated individuals. Of particular interest here is reassuring ourselves that groups which have in the past been the targets of both de facto and de jure discrimination are not so discriminated against in the sentencing laws themselves, nor in the way in which the system operates to bring the theoretically available liability to bear on individual cases. We want to be sure that the system does treat like cases alike, and does not explicitly or implicitly produce particularly harsh penalties for disfavored groups or lenient penalties for favored groups.

This, again, is a difficult concept to operationalize – more so when we are looking at the structure of criminal liability than at the way the liability is imposed. When we look at the overall structure of criminal liability, we must face tough questions about whether a law that is cast in universal language, and thus meets the formal requirement that the law be non-discriminatory, could nonetheless be discriminatory in its effects since the liability falls disproportionately on some classes of individuals. This is the point of Foucault's xxx Anatol France? Xxx sharp observation that "It is against the law for both rich and poor to sleep beneath the bridges of Paris." This challenge has particular

resonance in the United States today when we have laws that punish the selling of “crack” much more harshly than the selling of powdered cocaine with rather dramatic consequences for the racial composition of the prison population (Tonry 1995). We must also answer awkward questions about whether the distribution of criminal liability across acts reliably reflects the heinousness of the act, or the severity of the social consequences: do the legislated penalties for toxic waste dumping, drunk driving, and robbery really measure the relative evil of these different offenses?<sup>31</sup> While there may be no final answer to these questions, and only some relevant evidence to be brought to the conversation, the way to make progress has to be through political discussion and the use of historical and cross national comparisons as benchmarks.

We are on somewhat firmer ground when we approach the question of whether the laws are brought to bear fairly. Over the last thirty years, we have learned how to look at the operations of the criminal justice system to discern whether or not improper discrimination is taking place in the handling of cases once they have appeared in the criminal justice system. The results have been moderately reassuring. Racial discrimination in the formal system seems to be fairly minor once one has accounted for many factors that may be correlated with race, but are also reasonable to consider in making processing and sentencing decisions.<sup>32</sup> More importantly, it seems that we are continuing to improve the performance of the system on this dimension of value.

What remains uncertain, however, is whether the processes that bring cases to the criminal justice system for considered attention are operating fairly. The argument is not only that the criminal liability contained in criminal codes falls unfairly on different

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<sup>31</sup> Xxx Crime in the Suites Elliot Currie?

groups and classes, but also that the processes of surveillance, detection, and reporting that pluck a criminal offense from obscurity and bring it forward for processing are unfair. Thus, for example, it may be that white-collar crime cases involving toxic waste dumping or large-scale fraud are more “invisible” to enforcement agencies than street muggings (Moore 19xxx (invisible offenses)). Once the cases get to the criminal justice system, they are treated fairly and appropriately. It is just that the probability that they get to the criminal justice system is less. This could occur partly as a consequence of the intrinsic nature of the crime (the victim may not know he or she has been victimized in the case of white collar offenses, and therefore be unable to sound the alarm). Or, it could occur as a consequence of the way that we have organized the publicly supported surveillance systems (the 911 system assures any victim of a robbery easy access to public investigative resources, but no comparable system exists for reporting suspicions of tax fraud).

In any case, in reckoning the overall value of imprisonment policies, it would be important to show to what extent those policies were living up to the ideal of treating like cases alike. This is important at the point of sentencing, which has been the easiest juncture to study and therefore has received a great deal of attention. But it is also important when classification and parole decisions are being made; when the jurisdiction of prosecution is decided (Glaeser et al 1998); in the determination of the schedule of determinant sentences (Kennedy 1997).

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<sup>32</sup>There is an extensive literature on racial disparities in criminal justice. For a recent review, see Sampson and Lauritsen (1997).

### **C. Protection of Inmates' Rights and Health**

A third important dimension of justice is the faithfulness with which the system lives up to its responsibilities to protect the rights of inmates, or more generally, produces a reasonable degree of order and amenity for inmates in prisons. When the state assumes responsibility for the confinement of individuals, it takes on some responsibility for their care. How much responsibility is determined by the constitutional rights that prisoners have not to be subjected to "cruel and unusual punishment;" and also by professionally established standards of care for inmates. Taken together, these standards end up defining appropriate conditions for confinement: 1) how much space prisoners have; 2) the safety and protections from other inmates and guards they can enjoy; 3) the different kinds of activities and programs they can avail themselves of; 4) the visitation rights they have; 5) their access to law libraries and legal counsel; 6) the amount and kind of health care they can receive; and so on. Each of these things could be viewed as an important dimension of quality in a prison's performance of its custodial functions. Each can and should be measured as part of an overall accounting scheme to measure the performance of a system of imprisonment.<sup>33</sup>

### **D. Fair Distribution of Benefits and Burdens of Imprisonment**

A fourth dimension of justice that would be relevant in gauging the value of imprisonment policies is the extent to which the costs and benefits of the policy were fairly apportioned across classes or groups in the society. The idea here is that imprisonment policies do, in fact, produce utilitarian results. Some of these are costs, and they fall on particular groups and individuals: taxpayers have to pay, victims have to take the punishments that the state hands out regardless of their own views, and

offenders have to endure their confinement. Other results are benefits, and these fall on particular groups: some former victims are protected from subsequent attacks, some victims feel vindicated by the state's defense of their interests, some potential victims are protected from the broad risk of attack, some citizens enjoy the fact that the system is operating in a fair way. An important attribute of fairness and justice would to try to ensure that the costs and benefits would be distributed across the society in a fair way. It would be bad, for example, if one group thought they paid much of the cost of imprisonment policies and got few of the benefits.<sup>34</sup> It would be better if those who paid the costs thought they got a reasonable amount of the benefits.

#### **E. Assuring the Overall Legitimacy of the System**

The last important dimension of justice falls between a concern for justice on one hand, and cost-effectiveness on the other. That is the interest in trying to ensure that imprisonment policies and prisons enjoy a certain kind of popular legitimacy (Moore xxx NIJ speech). All other things being equal, it would be better if citizens thought their imprisonment policies were just and fair rather than the opposite. As noted above, this is important for both deontological and practical reasons. It is particularly important in a world in which some disadvantaged groups do not necessarily see imprisonment policies and the operations of prisons as being either fair or in their interest.<sup>35</sup> The system can continue to operate, of course, with the support of the majority. But if one were trying to reckon the overall value of the system, and to determine whether its

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<sup>33</sup> For an application of this idea in juvenile justice, see Schall xxx \_\_\_\_\_ in *From Children to Citizens*

<sup>34</sup> An example of such an analysis is Brownsberger (1997), which assessed the impact of the enforcement of drug laws in Massachusetts across neighborhoods by economic status.

<sup>35</sup> xxx Racial Disparities in views of the Legitimacy of the System

performance was improving or not, it seems relevant to ask about whether its standing in the eyes of citizens across the society is strengthening or weakening.

It is here that another feature of our current imprisonment policies deserves special attention. In most states, convicted felons lose their right to vote, either permanently, or until they apply and are re-registered. [xxx Check This] This is an important loss to the offender. But it may be an important loss to the overall society as well, since it deepens the sense of injustice within minority communities. Even more importantly, it prevents the voices and votes of those who have actually experienced prison from being heard and counted in the public discussion of imprisonment. Thus, it creates conditions which are both potentially unjust in themselves, and would lead to unjust policies.

Nobody thinks it is necessarily unjust or unfair to take away an offender's right to vote for some limited period. But to take that right away permanently without any recourse may be to commit a deep injustice to the individual, and to create conditions where injustice overall could occur in the establishment of imprisonment policies.

#### ***IV. Conclusion***

In this paper, we have tried to set out a normative framework for assessing imprisonment policies and the operations of prisons. We have, in particular, argued against the limitations of the current crude forms of cost/benefit analyses that seek to help society as a whole reckon the value they have received from spending more state authority and money on prisons. We have done so partly by pointing out some conceptual and empirical limitations of the cost/benefit and cost-effectiveness studies



that are prominent in the literature. But our more fundamental argument is that the value of imprisonment policies has to be reckoned not only within utilitarian frameworks that focus on costs, benefits and crime reduction effects, but also within deontological frameworks that emphasize concerns for justice and fairness.

Making the distinction between utilitarian and deontological normative frameworks, and between practical and principled concerns, is helpful in expanding the array of normative issues that need attention in reckoning the value of imprisonment. But this distinction turns out to be less helpful when one faces the task of constructing an accounting framework which could (at least in principle) capture the overall value of imprisonment policies, or reveal whether the overall system was improving or getting worse, and on what particular attributes of performance. The reason is partly that concerns for justice seem hostile to the practical task of measuring a system's performance. But it is also that when one approaches that practical task, one wants to combine both practical and principled concerns in the accounting framework.

To complicate matters further, we have both utilitarian and deontological reasons for wanting to extend accounting requirements into the world of justice. The deontological reasons are straightforward: if justice is a valued feature and result of imprisonment policies, then it is normatively important to be clear about what we mean by justice, and how we will measure whether we have produced it to some degree. The utilitarian reasons are two. First, it is clear that organizations are importantly guided by measurements of their performance. It follows, then, that if we want justice in our imprisonment policies and in prison operations, we must develop measures that define and measure this quality. Second, because the overall power of the system to achieve legitimacy in the eyes of citizens and behavioral results in the lives of clients may

depend on their perceptions of the justice of the system as well its cost-effectiveness, it is important (for practical reasons) to assure the overall fairness and justice of the system's operations. In sum, there are both practical and principled reasons for wanting a just as well as a cost-effective system of imprisonment.

One final observation about the challenges of integrating practical and justice concerns in an overall normative framework. It has become customary in thinking about how to integrate these different normative frameworks to describe one set of purposes as the real goal of a sentencing system and the other as a constraint. In the most common formulation, for example, it is argued that the real goal of imprisonment policies and prisons is to reduce crime at the lowest possible cost, subject to a constraint imposed by concerns for aggregate and individual justice. The less familiar alternative formulation of the problem would be to say that the goal is to produce justice, subject to the constraint that in producing justice, society manages to produce enough order to make life worth living.

Again, we disagree with this view. The reason is simply that viewing something that we value directly (such as either justice or cost-effectiveness) as a constraint is analytically, politically, and managerially unhelpful. Once something is viewed as a constraint, psychologically it becomes something to struggle against. It binds. It prevents us from doing what we really want to do. Viewed in this way, our commitment to the value that is identified as the constraint tends to lessen over time. If that value is an important one – such as justice – this effect can become corrupting.

The alternative way to view these competing frameworks is that they both set out important dimensions of value. One is not the goal and the other a constraint; they are both important attributes of imprisonment policies. More importantly, both define

important candidates for improved performance. In this conception, the political task is to keep working to help citizens develop a shared conception of justice and cost-effectiveness. The managerial task is to develop better means of measuring our performance on these qualities, and get on with producing more of what is valued and less of what is dis-valued.

In the end, the enormous practical utility of an accounting framework is not only that it can reveal the value we have received for investment of our money and our freedom, it can also show us whether we are improving or not. The issue of whether and how fast we are improving is often a far more interesting question to ask than whether we have achieved an ideal state. It is this practical task, within which we have tried to incorporate principled concerns, that has motivated this particular essay.

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