

30  
3385  
0.977



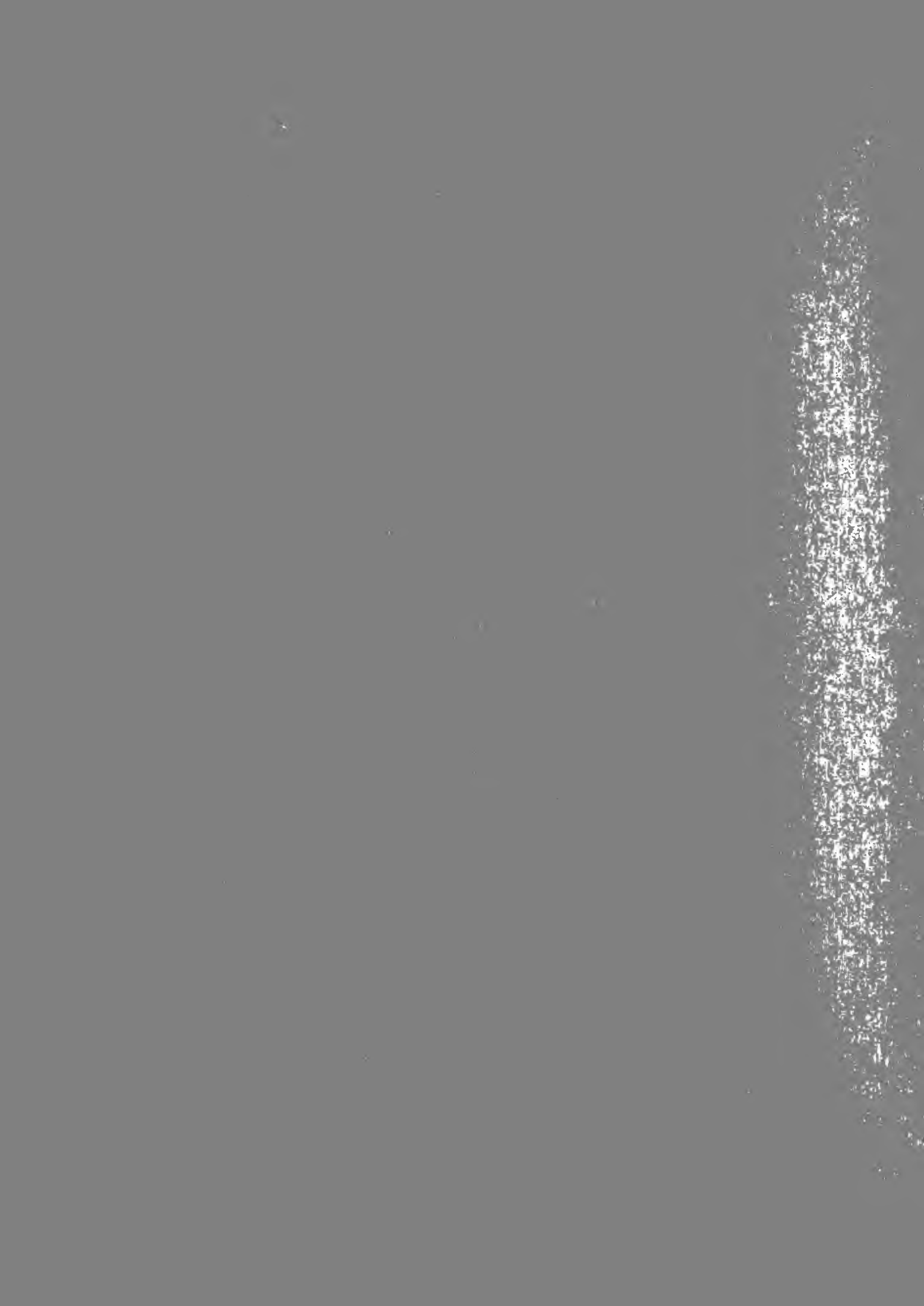
# **BEBR**

FACULTY WORKING  
PAPER NO. 977

Allocating Resources to Prison Space: An Economic  
Approach Incorporating Efficiency and Equity

*Robert W. Gillespie*

College of Commerce and Business Administration  
Bureau of Economic and Business Research  
University of Illinois, Urbana-Champaign



# **BEBR**

FACULTY WORKING PAPER NO. 977

College of Commerce and Business Administration

University of Illinois at Urbana-Champaign

September 1983

Allocating Resources to Prison Space: An Economic Approach  
Incorporating Efficiency and Equity

Robert W. Gillespie, Professor  
Department of Economics



Allocating Resources to Prison Space: An Economic Approach

Incorporating Efficiency and Equity

Professor Robert W. Gillespie  
Department of Economics  
University of Illinois  
Urbana, IL 61801  
(217)-333-4586

September 1, 1983

Abstract

Prison space is always scarce in an economic sense. However, historically, institutional arrangements for allocating this resource have failed to reflect this scarcity in a systematic and rational manner. Hence, prison capacity 'crises' such as currently being experienced in Illinois and other states are an inevitable consequence of this institutional failure. A long-run procedure for allocating public resources to prison space is proposed. This procedure will continuously inform the state government as to whether the existing prison space is adequate in an economic sense--willingness of taxpayers to pay the costs--and it will also allocate the existing space among counties in an equitable manner. Specifically, it is proposed that property rights to the available prison space be allocated, without costs, to the 102 county governments. The Department of Corrections would then periodically administer a 'market' within which county governments could exchange these property rights with each other at a market determined cash price. Counties whose citizens preferred to rely heavily upon long-term prison sentences for local crime control would be net buyers of space from counties whose citizens were willing to rely more upon other sanctions for their crime control. The resulting market clearing price for the services of a prison cell, when compared to real construction costs, provides a clear indication to state government as to the need or lack of need for additional prison space. A price higher than construction costs signals the need for new prison construction, a price lower than construction costs indicates the available total space is adequate (or excessive). Rights to any new space would be allocated to counties on the same basis as the original allocation.

Digitized by the Internet Archive  
in 2011 with funding from  
University of Illinois Urbana-Champaign

<http://www.archive.org/details/allocatingresour977gill>



Allocating Resources to Prison Space: An Economic Approach  
Incorporating Efficiency and Equity

Introduction

The current prison capacity crisis in Illinois and other states offers an opportunity to adopt a long-run policy which recognizes that prison space is a scarce resource and which allocates the resource in a manner which both reflects its true economic cost to the taxpayers of the state and which provides each county an equitable share of this state resource for local crime control.

It should be recognized at the start that prison space has always been scarce in the true economic sense of placing a claim on the limited real resources of society. Further, it has nearly always been rationed by one or another institutional method. The current 'crisis' in Illinois differs only in degree and because it has been drawn to the public's attention by a successful legal challenge to the most recent rationing method--the Illinois Department of Corrections' (IDOC) early release policy.<sup>1</sup>

The solution to be proposed takes as given most of the explicit and implicit institutional arrangements regarding the division of responsibility for crime control between the state and local governments, particularly county governments. Under these arrangements the state government's role is one of setting general standards of operation and providing a necessary common legal framework. In addition the State has accepted some limited fiscal responsibilities in the form of salary subsidies for selected county criminal justice person-

nel and, most important, all of the costs of operating the state prison system.

However, nearly all of the policing, prosecuting, and adjudicating functions are under the direct control of county and city governments and thus local citizens. For example, the sheriff and states attorney are elected county officials. Circuit judges, although nominally elected within circuits, generally conduct court only in their 'home' counties and it is the voters in their home counties to whom they must look for retention. Further, a large portion of the resources needed to support these local services is raised by county taxes and managed by county executives or county boards whose taxing and expenditure decisions are directly accountable to the citizens of the county. Thus, to a very large degree marginal crime control policy decisions and marginal funding decisions are a local matter. To the extent that criminals and their victims are both residents of the same locality (county) this arrangement has a political rationale, that is, the more local the nature of a problem, the more our political system tends to favor locally designed solutions.<sup>2</sup>

The state support for long-term incarceration--the state prison system--differs in an important degree from state support for local salaries in that the state does not explicitly allocate prison resources among the counties. Rather, the state provides these services on a first-come-first-serve basis. Because prison space is always finite and fixed in the short-run, this passive response of the state to local sentencing decisions can lead (one could argue, will inevitably

lead) to a prison capacity crisis such as we are currently experiencing.

### An Economic Solution

Since incarceration services--prison space--will never be 'free', efficient allocation requires that it be supplied in an amount which will equate the 'price' consumers are willing to pay for the last unit with the cost of supplying the last unit. Computing the economic costs of supplying the service, e.g., construction costs and operating costs, is a straightforward exercise in cost accounting. The difficulty in applying this rule to prison space arises in determining the value of the last unit to 'consumers'. In this case the consumers are the citizens (also voters, potential crime victims, and taxpayers) of each county expressing their wishes through their elected officials--county prosecutor, judges, and county boards. We propose that the value to county consumers be determined, as are private goods, by a 'market'.

Each county would initially be allocated, without cost, a share of available prison capacity; how this share is to be determined we return to later. County officials would then be free to buy or sell prison space with other counties. Counties which wished to rely heavily upon prison incarceration as a means of crime control, i.e., to an extent greater than the space allocated to them, would have to purchase additional space from other counties, counties which were willing to utilize more heavily alternatives to prison incarceration. The actual 'market' might be administered by the Department of Corrections. For example, every month or quarter an auction would be

run by the DOC where a market clearing price was determined and space rights and cash exchanged. The DOC would also be charged with maintaining the official records regarding ownership of the property rights.

The market clearing price from the auctions would provide the state government with a very valuable bit of information. The price would reflect the common dollar value attached to one additional unit of prison space by every county in the state. For example, consider a county which neither purchased or sold space at the auction where the clearing price was \$15,000 per cell. One can infer that this county did not purchase additional space at the final price because the value placed on additional space by the county was less than \$15,000. Likewise, if the county had unused space but did not sell, one can infer that the county valued the loss of one cell of its own space equal to or more than the \$15,000 it could have produced. Combining these two inferences, we conclude that the value placed on one additional cell, even by counties which did not transact, was approximately equal to the final price, \$15,000. And certainly for counties which did transact, one would infer that they stopped transacting only when the value to them of one additional cell or one less cell was also approximately \$15,000.

The state now has a measure of the common dollar value placed upon additional prison space by every county. If this value exceeds the construction and operating costs of an additional cell, then this is a clear signal to state government that additional space is needed in a very meaningful sense, i.e., county (and state) taxpayers are willing

to pay more for additional space than it costs. Conversely, if the auction price is less than the costs of constructing an additional cell, the stock of space is adequate (or excessive) in a true economic sense.

Let us now consider how the initial stock of prison space might be allocated to the counties prior to the start of the periodic auctions. The method of allocation can be based either on (i) principles of equity among counties or (ii) on efficiency, e.g., allocating the state's prison space so as to achieve the greatest total reduction in state crime regardless of where the reduction occurs among counties.<sup>3</sup>

We will consider only allocations based upon equity for two reasons. First, to implement the efficiency criterion we would have to know the quantitative marginal impact of increased incarceration on crimes punishable by incarceration in each county. That is, we would have to have reliable quantitative estimates of the specific and general deterrence effects of incarceration. The deterrence question has been the subject of considerable scientific study during the last decade or so; however, this research effort notwithstanding, we still lack knowledge sufficiently precise for detailed marginal policy decisions.<sup>4</sup> A second reason for considering only equity as a basis for the administrative allocation is the problem raised by retribution or 'justice' when used as a sentencing rationale. Even if the deterrence issue were satisfactorily resolved, it must be recognized that deterrence (crime control) is not the only basis for sentencing. Certainly a desire to 'make the punishment fit the crime' may also be very important. Just as the deterrent effect of incarceration may

differ among counties, the local mores (tastes) regarding what is a just sentence for identical crimes may also differ. At present there is no way to measure these tastes a priori; consequently, the proposal lets the 'market' reveal such differences.

The simplest approach would be to allocate space according to county populations, that is, every county would initially receive an identical per capita share of existing prison space. An alternative principle would recognize that the 'need' for prison space may not be proportional to county population; hence, an equal per capita formula may be challenged. (By analogy, state aid to education is not allocated by gross population, but rather by need, i.e., the population of school age children.) Thus, one could argue that prison space should be allocated according to the number of active criminals in each county. This, of course, is not known, but a good substitute would be the total number of convictions for violent crimes or felonies in each county, averaged over, say, the most recent 3 to 5 years. Available prison space would then be allocated in proportion to this total in each county.

Advantages of the Economic solution:

The most important advantage is the information the auctions would provide to state government regarding the economic need for additional prison space--need measured by willingness to pay. Also, because prison space is no longer 'free' to counties they would have an incentive to consider carefully alternatives such as fines, probation, sentences short enough to be served in the county jail, or simply shorter prison sentences. If they use less than their allocation

there is a direct financial benefit by selling their excess space. Under the existing institutional arrangements the incentive to use alternatives to prison incarceration is very weak because incarceration in state prisons appears to be free to the local decision makers--county boards, prosecutors and judges. In contrast, use of alternatives to prison incarceration frequently increases the financial burden on the county budget. In short, this approach permits each county's citizens to select any mix of sanctions that they are willing to pay for.

Two recent studies have reviewed the efforts to introduce alternatives to incarceration as a means of reducing prison populations. These studies both conclude that whatever other benefits the introductions of alternatives might have achieved, a significant reduction in prison populations was not one of them.

"The foregoing review of the research literature on alternatives to incarceration suggests that their promise remains largely unmet. In each instance, the nonincarcerative options were transformed, serving criminal justice system values and goals other than reducing imprisonment. Sentencing alternatives, such as restitution and community service, are employed to enhance the increasingly criticised sanctions of probation and fines. There is little evidence that sentencing alternatives have substantially displaced incarceration."<sup>5</sup>

A similar pessimistic conclusion was reached regarding of the use of community correction programs.

"To summarize, there is no evidence that the widespread adoption of community programs has reduced crime rates or the use of correctional institutions. Nor is it the case that community programs, by lowering recidivism rates, help to reduce pressure on the correctional system to expand."<sup>6</sup>

One reason for the failure of sentencing alternatives to affect prison populations may well be the lack of incentives in the form of

local economic costs facing local authorities who impose the sentences and who are accountable to the local population.

Objections to the economic solution

There are bound to be different concepts of what is an 'equitable' initial distribution of prison space to counties. However, allocating state resources among different groups is a type of issue with which state legislatures deal every day. There is no reason to believe that they will be unable to do a politically less acceptable job in this case than in the other allocation decisions they make. Further, the initial allocation decision is most important when prison space is subsequently revealed to be scarce in an economic sense, that is, when the initial auction prices are higher than the cost of additional space. In this case, more space should be constructed. The allocation of this additional space can be modified to correct any inequity that has been revealed by experience.

For several reasons, it would also be desirable to make an initial direct allocation of space to the Department of Corrections as well as to the counties. This space could be used during the transition period to assist counties with large fiscal burdens to adapt to the system by 'lending' space. The IDOC space could also be used as a buffer whenever new space was under construction. Finally, to the extent that certain crimes--class X in Illinois--have a mandatory prison sentence, counties would have no choice regarding the use of alternatives to incarceration. Therefore, it might be desirable for prison space used by such convictions to be charged to the IDOC allocation.<sup>7</sup>



Certainly many prosecutors and judges will argue that this solution imposes an unwarranted constraint on their sentencing responsibilities. Such a complaint fails to recognize that prison space is not a free resource; hence, it must always be subject to rationing by some method. The legally invalidated early release program of the IDOC was one such rationing method. It was objected to because it amounted to IDOC interference with local sentencing decisions--interference which lacked statutory authority. When indeterminate sentencing was in use, there is reason to believe that the rate of parole was influenced, in part, by institutional capacity. The scarcity of prison space makes interference with some sentences inevitable. However, the proposed solution introduces interference which is less objectionable because it is subject to local control, i.e., county sentencing decisions will only be limited by what county taxpayers will fund.

It should be emphasized that the proposed economic solution is superior to an early release program, even if one can be found that meets the objections of judges and prosecutors. An early release program 'corrects' selected initial sentences to make prison capacities consistent with the current demand for prison space. It does not, however, permit counties which are willing to pay the cost of carrying out the initial sentences to do so. Further, the degree of scarcity is never converted into a dollar value; consequently, the need for early release only reveals that prison space is 'scarce' when it is available to counties at a zero price. In contrast, auction prices provide a true measure of the degree of scarcity, information

of value to both the state government for planning purposes and to judges and prosecutors when they are making their original sentencing decisions.

### Concluding Comments

This proposal should be judged on its merits but also upon its merits compared to specific alternative processes for determining optimal prison capacity. The public decision regarding prison capacity and construction has correctly been called the tip of a policy iceberg.

Beneath this tip is the

"...familiar but sterile ideological debate about crime and punishment... refocused into a searching debate over the fundamental purposes of incarceration. Does America, and should it, put people in prison in order to rehabilitate them and reintegrate them into society: Or should incarceration be solely a punishment for misdeeds, as... Or is prison merely a device to protect society by incapacitating the offender? Indeed, is incarceration intended for the offender at all, or is its principal purpose to deter others from committing similar crimes?"<sup>8</sup>

The debate is sterile because the protagonists have so polarized the issues in the debate and the apparent choices. Most citizens would recoil from the lock-them-up-and-throw-away-the-key alternative when clearly faced with all of its implications in terms of tax costs and/or increasingly inhumane prison conditions. Similarly, after observing the daily parade of violent crimes provided by the media, a moratorium on prison construction must seem to most citizens like a crime control policy that starts with body politic shooting itself in the foot.

Not only have these polar extremes monopolized the debate, but spokesmen for each have been unwilling, for tactical reasons, to

discuss alternatives. To extend the metaphor developed by Sherman and Hawkins, it would be as if the debate regarding national security policy in a nuclear age offered the public only two policy choices--unilateral nuclear freeze or a preemptive nuclear strike.<sup>9</sup>

The proposal presented here does not espouse or reject either of these polar positions. Rather it seeks to present to the public at the local level, where detailed sentencing choices are made, all of the legal alternatives and the economic costs associated with each. This is not to conclude, however, that only economic costs and moral values are relevant for sentencing. Scientific evidence on the marginal deterrent and rehabilitative effects of incarceration as well as alternative sanctions is also important. The search for reliable estimates of these effects should certainly continue and the results introduced into the sentencing policy as they emerge.

We submit that the decision process advocated here for determining prison capacity needs, while not perfect, is perfectible as knowledge and experience accumulate and it provides a better alternative than episodic crisis cures shaped primarily by the heat of ideological rhetoric.

Footnotes

<sup>1</sup>This policy would be more accurately described as a "capacity release" policy. Prison capacity limits was the explicit motive not a desire to reward the inmates who were released early as a consequence of the capacity limits.

<sup>2</sup>The logic of the proposed solution depends crucially upon every official involved in local sentencing decisions being locally elected, i.e., being politically accountable to local citizens--potential crime victims as well as taxpayers. This accountability would be considerably weakened if judges were appointed for life, as are federal judges.

<sup>3</sup>The first formulation of these issues was by Carl Shoup "Standards for the Distribution of a Free Public Service," Public Finance/Finances Publiques, Vol. 19, No. 4 (1964).

<sup>4</sup>These issues and research findings are reviewed in detail in Blumstein, Alfred, Jacqueline Cohen and Daniel Nagin (eds) Deterrence and Incapacitation: Estimating the Effects of Criminal Sanctions on Crime Rates, National Research Council, Washington, D.C., 1978.

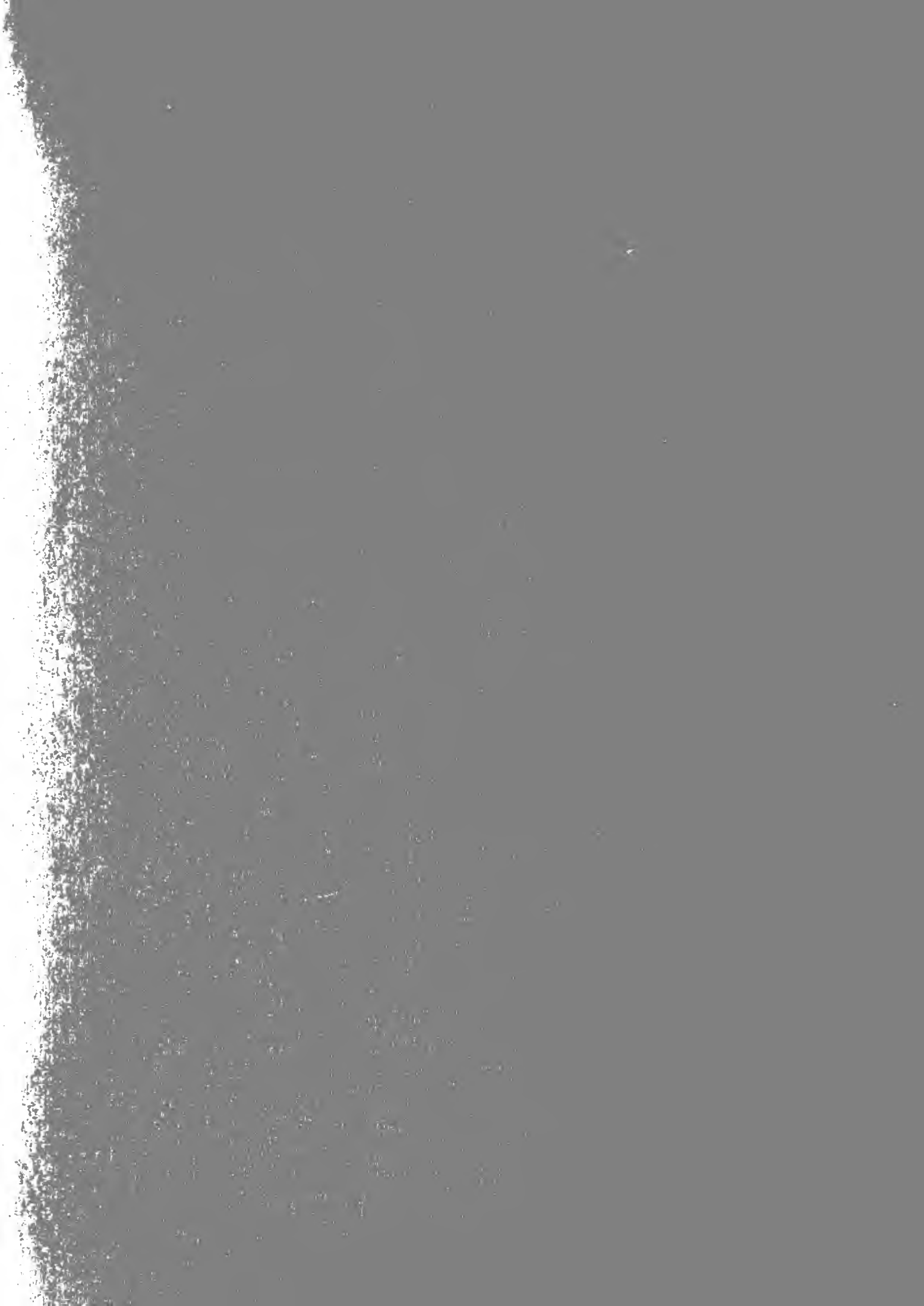
<sup>5</sup>Austin, James and Barry Krisberg, "The Unmet Promise of Alternatives to Incarceration," Crime & Delinquency, 28:3 (July 1982), pp. 374-409.

<sup>6</sup>Hylton, John H., "Rhetoric and Reality: A Critical Appraisal of Community Correctional Programs," Crime & Delinquency, 28:3 (July 1982), pp. 341-373.

<sup>7</sup>It could be argued that charging all of the space to DOC for such 'mandatory' incarceration convictions would invite prosecutors to use their discretion to always set the charges for borderline crimes in the mandatory sentencing categories. This fear could be met by charging only some fraction of the space used for these mandatory incarceration convictions to counties and the remaining fraction IDOC.

<sup>8</sup>Sherman, Michael and Gordon Hawkins, Imprisonment in America: Choosing the Future, University of Chicago Press, 1981, p. 6.

<sup>9</sup>Ibid. p. 127.



UNIVERSITY OF ILLINOIS-URBANA



3 0112 047450041