THE ECONOMICS OF CRIME

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Editors' Introduction

I

IT WOULD NOT HAVE BEEN POSSIBLE to assemble this collection of articles on the economics of crime just a decade ago: there simply was only a limited amount of research and thinking by economists about the subject. The dates of the two oldest articles in the collection are 1964 (Shoup) and 1967 (Schelling). All the other articles have appeared since 1968. It was, of course, inevitable that economists would turn their analytical skills to such an important social concern as crime; "law and order," civil disobedience, urban riots, and the assassination of major public figures thrust the issue of crime, its amount and how to control it, to the very center of the political and election process in America. The topic is on the minds of everyone and it has become painfully obvious that very little is really known about the parameters of public policy in controlling or reducing the amount of crime in America.

Except for an occasional foray into the subject, modern economists have been pretty much on the sidelines in this important issue. But with the publication of the President's Crime Commission Report (1965) and the economists solicited as members of special task force reports for the Commission, and the publication of the seminal article by Gary Becker (1968) showing the potential power of illumination modern economic analysis might bring to bear on this subject, economists have become central contributors to the research and public policy analysis which a rising tide of crime in America has been generating. The present collection of articles by no means exhausts the past and potential contributions of economists but rather shows the range and variety of recent thinking.

We are especially conscious of the rising classroom interest in the economics of crime, in courses in economics, sociology, criminology, social work, law schools, police administration and the like. With a teaching objective in mind, therefore, we selected articles that seem to us to be easily assimilated by economists and non-economists alike in order to bring the perspective and insight of the economist on this important social issue to as wide a spectrum of today's students as was possible within the limits of the available materials. The articles we have selected emphasize conceptualization of the problems; i.e., how economists approach the issues. There are many more articles using highly sophisticated models and econometric techniques than we have chosen. But the articles we have selected deal with the fundamental concepts underlying the issues and we think are fairly representative of the range of contributions economists have made to this important policy area. Both of us have taught courses in the economics of crime at our respective institutions based on the material collected here. In one instance, at the University of Wisconsin, the material was presented to beginning students in economics; in the other, at Vanderbilt University, the material was used with advanced students in law and intermediate level students in economics.

II

As Morgan Reynolds points out in his article collected here, it is generally conceded that for a variety of reasons the statistics on crime understate its amount and its extent. But even discounting underreporting and undercounting and coverage, there is a general belief, perhaps perpetuated by the nation's media, that the last decade witnessed an enormous overall increase in virtually all types and varieties of crime. Between 1973 and 1978 the FBI Crime Index (seven major felonies) rose nearly 30 per cent and the crime rate (the number of all crimes per 100,000 population) rose 25 per cent. During the 1970's the total population of the U.S. has increased approximately 3 per cent. The four prinicipal crimes of violence (criminal homicide, forcible rape, robbery, and aggravated assault) have continued to increase as have the three major property crimes (burglary, larceny over $50, and auto theft).

The size of these increases has generated both public and social concern in the past decade as well as a clamor for more resources to contain the rising tide of criminal activity in America. Per capita public expenditures for police, the courts, and corrections systems by all government jurisdictions have more than doubled in the past decade. Private expenditures also rose as business firms and individuals sought to insure and use available and new technology and manpower which could be purchased in the private sector to minimize, if not insulate, themselves from criminal activity.

It therefore became obvious to government and private individuals alike that crime in America was extremely costly both in terms of the resources that were consumed in fighting it and also in the resources foregone by individuals and society as a consequence of criminal activity that affected the citizens and institutions of this country. Crime in America appeared to many to be a rather socially discomforting and twisted affair, but a "growth industry" nonetheless. Its economic impact on society and on individuals, criminals and victims alike, was far greater than had occurred at any time in our national history.

The report by the President's Commission on Law Enforcement and Administration of Justice in 1965 was the first substantial effort to quantify the extent of the economic impact of crime in America. Even though the numbers produced were surely minimum estimates, the calculations revealed how pervasive crime as an economic phenomenon had become. By calculating the cash value of transfers, foregone earnings, and profits from criminal monopolies, the President's Commission estimated direct costs at $15.8 billion annually. To this must be added indirect costs, resources used to "prevent" crime by public institutions and by the private sector, estimated by the Commission at $6.2 billion. This total, direct and indirect, cost of nearly $22 billion amounted to approximately 4 per cent of the nation's 1965 national income. There is no reason to believe these proportions have changed since 1965; if anything crime costs have increased as a share of national income. By any accounting, the magnitude of this resource use and loss suggests that crime is one of the more sizeable sectors of the American economy. The most startling aspect of economists' interest in crime until very recently is the relative void of analysis of this business, which is one of the largest in our economy.

III

The power of modern economic analysis is to illuminate choices, whether those choices are confronted by the individual or society. In matters pertaining to crime, as elsewhere in our economy, the confrontation of choices, whether for the criminal, the victim, the police, the courts, or the correctional system is ever present. In the crime sector there are at least three levels where choice and decision-making occur. At the top level is the relationship of the crime sector to the entire economy, its relative size and the extent to which society chooses to allocate resources to this sector. At the middle is the basic structure of the sector itself: the allocation decisions required among and between the police, the courts, the correctional system and all other elements that comprise the crime sector. Finally, there are the allocative and equity decisions and policy choices that affect the performance of any single component within the crime sector such as the police, courts, prisons, etc. The nature of the decision-making process in the crime sector is complicated by these multiple decision levels, but economic analysis can be applied to all three levels.

If one assumes a rationality to human and institutional behavior, the selection of choices one confronts at any of the three levels of analysis turns on finding those elements comprising the rationality of action. For the potential criminal the choice of action depends on the value of alternative uses of time; for the victim, choice turns on some private calculation of the costs and benefits of the probability of being able to avoid susceptibility to criminal behavior. For the police the basic choice is how to allocate the resources given to it so as to maximize some socially defined objective of "how much crime" society will tolerate. For the judicial system the fundamental choice is to assess penalties for criminal behavior so as to enforce some socially defined seriousness of certain crimes as an effective step in deterring future crime. And for the correctional system the choice given to it by society is how to best allocate resources to produce the rehabilitation of convicted criminals so that they will not commit crimes in the future, or the deterrence of other potential criminals. The point put in this simplistic and non-technical way is that all the principal actors in what we call the crime sector are consciously or subconsciously weighing the costs and benefits of their actions and making explicit choices among alternatives. What economic analysis of the crime sector purports to do, therefore, is to assess these costs and benefits, illuminate the nature of choices and alternatives, and to the extent possible, draw out some conclusions in the realm of positive economics about the underlying relationships in the process of choice and the implications of trading off one choice for another. From this essentially basic research activity the traditional economist's expectation is that policy makers will have some guide to the consequences and results of the actions they choose to take regarding crime and criminal activity in America. This objective, though surely not fully attained, guides the research which is collected in this volume and the current research underway by economists on the issues of crime in America.

IV

It should be helpful to the users of this volume to have a brief synopsis of its contents in some systematic manner. The first section of the book contains four pieces illustrating the variety of issues and the basic approach of economic analysis toward the study of crime. We start the book with a very readable and thought provoking introduction by Paul Rubin to the economes of crime. Rubin surveys much of the past ground and contrasts the new insights economic models provide for our understanding of crime against the reigning sociological models. Are criminals rational? Does it matter? Are we unable to deal with criminal activity because we cannot "understand" the social motivations for criminal behavior? Economists think they can deal with these questions and Rubin explains how and why.

The module by Morgan Reynolds also surveys the issues and confronts the problems of definition and measurement one inevitably faces. Reynolds goes beyond the Rubin survey, however, to show what possibilities there are for applying an opportunity cost model to criminal behavior. The theory of monopoly is also employed to illuminate issues in victimless crimes and organized crime. Reynolds explores human capital theory and the extent of its application to criminals and victims alike. He also addresses economists' conventional concern for allocative efficiency in the police, courts and correctional systems, in addition to summarizing the evidence, as well as expositing the basic theory, on the extent to which the probability of conviction and the length of sentence are effective deterrents to crime. The crucial, and perhaps overriding issue — the need to identify an optimal level of crime — is also explored by Reynolds.

The Tullock article illustrates the application of economic reasoning to two important cases of law and crime — motor vehicle violations and income tax evasion. Tullock shows the complexities of choosing between more safety (fewer traffic deaths) and greater convenience (faster auto trips) as illustrative of the trade-offs that one must face inevitably in matters of social policy. He argues that these trade-offs should be acknowledged and the choices made consciously, with the aid of the best statistical and analytical tools available rather than being implicitly imbedded in larger policy actions.

Lester Thurow examines another dimension of economists' concern, namely equity. Thurow points out that economic efficiency in law enforcement cannot be defined without also specifying a definition of equity and justice against which efficiency is to be judged.

The final article in the section illustrating economic approaches to the study of crime is by David Gordon. Gordon seriously challenges the conventional wisdom of traditional economic analysis as applied to crime and offers a radical economics perspective as a substitute for the usual neoclassical approach. Such a radical analysis, in Gordon's view, seriously challenges the policy conclusions that follow from traditional analysis. Gordon suggests that the basic competitive inequalities inherent in capitalist institutions lead one to question whether or not existing policies for controlling the amount of crime ought really to be viewed as instruments of social control over the lives and destinies of those inherently disadvantaged under capitalism.

The second section of the volume contains recent research dealing with criminal and victim behavior, and the efficiency and equity implications of police behavior. The article from *Business Week* sets the tone for the other articles grouped in this section of the book. This survey of recent research by economists mostly centering on what has come to be called the "deterrence theory" contrasts the policy implications suggested by this research with an appropriate amount of skepticism.

The subsequent articles, one by Tullock, and the other by Cook, extend this discussion. For Tullock there is little doubt about the relative crime deterrence which can be achieved from policies that increase punishment levels. Cook however, is less enthusiastic about this conclusion. His doubts are based on a notion of somewhat richer specifications for rationality in criminal behavior. Cook also cautions, quite correctly we believe, that the policy implications that derive from the pure theory of deterrence are not so clear cut nor so unambiguous as Tullock, Ehrlich and others have supposed. The Cook article, we feel is an important antidote to the widespread popularity and dominance of the deterrent theory.

Using data for Pennsylvania, Michael Sesnowitz computes the expected return to a burglary. The article is an example of how modern economic research can be applied. His finding, by the way, of a negative return of $197 suggests that burglary, at least in Pennsylvania, did not "pay".

Clotfelter explores how potential victims deal with crime. Many of those writing about the effectiveness of deterrence assume that crime reduction can occur without producing behavioral reactions. But people do adjust to their environment and do learn how to cope. Clotfelter shows how potential victims seek to reduce their chances of being victimized, and how such strategies vary with the economic conditions (in particular the price of crime prevention resources) confronting different families.

The article by Stigler makes the important point that the optimum enforcement of laws and criminal punishment is certainly less than 100 per cent. He suggests some behavioral rules derived from marginal analysis to assess a rational, optimum policy of law enforcement and punishment.

The final selection in this section, an article by Carl Shoup, compares the goal of equalization of the probability that each citizen becomes a victim of crime with the goal of minimization of the total number of crimes in a city as a whole. Shoup employs indifference curve analysis to derive the optimal distribution of police within a city. The efficiency of police departments and the extent to which additonal police resources can be an effective resource for controlling the amount of crime is one of the most sparsely examined areas of the economics of crime, but surely one of the most important.

It is generally conceded by students of the criminal justice system that the court system in America seems hopelessly clogged with a docket it could never hope to complete. The third group of articles demonstrates the opportunities for economic analysis of the courts. Many persons have pointed out the often cruel way justice is administered to criminals and the distributional inequities in applying sentences, setting bail, and engaging in plea bargaining on the part of judges, district attorneys, and court appointed defense lawyers. Posner lays the economic foundation for analysis of the judicial system.

The article by Landes expands on the economic analysis of the bail system. The fundamental question in the court system is the reconciliation of a defendant's right to freedom before guilt is proven with the community's social interest in protecting itself from possible future harm. The bail system, therefore, becomes one of the institutions by which society tries to temper the issue of guilt or innocence prior to judicial proceedings. Landes' study is the first attempt to grapple with the economic issues in the bail system. He points out that the manner and level at which bail is set has an impact on the probability of conviction in addition to investigating the distributional effects inherent in a bail system. Landes suggests some decision rules by which to assess bail based on an application of a competitive market model.

The article by Donald Martin analyzes the allocative efficiency loss and the redistribution of burden effects to the economy from use of the present system of jury conscription. Martin estimates the welfare loss from conscripting jurors who have higher opportunity costs than their value as jurors. The uniformly low, and artificially so, price of jurors to the court, Martin points out, probably distorts court decisions because it encourages the court to use juror intensive practices, and these, by and large, are inefficient ones. The Martin article is a nice example of how economic analysis can be applied to a system which on the face seems to be devoid of economic implications.

The piece by Gary Becker is extracted from his classic, longer article of 1968. The section we reproduce here shows the enormous economic possibilities there are in using a system of fines to affect the amount of crime. The principal assumption of economic rationality which underlies the Becker work, and really all others by economists writing in this volume, presumes that society can control, to a certain extent, the probability of conviction and the severity of punishment meted out to criminals. If criminal behavior is economically rational, then the value of these parameters becomes the principal determinant of how much crime society decides to tolerate. In this stimulating piece, Becker shows the opportunities that exist in economic analysis of crime through evaluating the effects on social welfare that the use of a system of fines might have, as opposed to other forms of punishment.

Corrections policy, the subject of section IV, is perhaps the least researched and least understood part of the crime sector. Part of the ambiguity with regard to corrections policy stems from the blurred vision we have about the impact of deterrence itself. Votey and Phillips take a systems view of corrections to demonstrate the goal of social cost minimization and the role of corrections policy within that system. Their modelling effort makes clear the close interdependence of the elements of the crime sector and the need for policy — deterrence policy, if that is the socially defined instrument of control — to be centralized and coordinated throughout the system. The heterogenous nature of the output in corrections — retribution, detention and rehabilitation — makes it quite a difficult sector to conceptualize. Votey and Phillips, by emphasizing social cost minimization as the goal for corrections policy, deal with this product ambiguity by examining the properties necessary for optimization of levels of rehabilitation, deterrence, and retribution. Economists' thinking on corrections policy is still in its formative stages but advances, if they are to come, will undoubtedly derive from the approach taken by Votey and Phillips.

The other article in this section is by Robert Evans, whose research deals with one aspect of the corrections system, namely the economics of parole. As is well known, many authorities have concluded that the traditional form of punishment, institutional confinement, has failed to either rehabilitate criminals or deter the amount of crime, in the long run. Community based prison and rehabilitation schemes have been widely discussed and many authorities believe that present correctional institutions are not cost-effective compared to a broader use of parole, community rehabilitation systems, and the like. Evans' study shows what many persons intuitively have suspected: namely, a person with a job is more likely to be a successful parolee. He also identifies other factors that seem to have an impact on the probability of a successful parole.

The next section of the volume deals with issues in narcotics-related crime. The article by Koch and Grupp is a superb example of how simple supply-and-demand analysis can be used to examine alternative policies for dealing with heroin addiction. The authors clearly demonstrate the need for heroin policy to distinguish between the goals of reducing the quantity of heroin consumed and reducing the total costs of drugs to addicts because of the secondary crimes induced to support their addiction. Demand-restricting enforcement activities such as education, substitute drugs and the like, the authors point out, are preferable from an *a priori* standpoint because they will decrease both the quantity consumed and the price of the drugs.

Many of the same issues noted in Koch and Grupp are developed further in the articles by Christopher Clague and Mark Moore. Clague compares four heroin policies and assesses the trade-offs between the reduction in the amount of addict related crime vis-a-vis the number of new addicts generated by each program. Clague comes out in support of a heroin maintenance system with lenient rules but makes the important point that this, or any other policy ought to have as its goal the undermining of the illegal distribution system. Moore expands the number of policy alternatives and focuses on the extent to which policies can work through the price system to simultaneously reduce the amount of addict related crime and inhibit the number of new addicts.

The article by Thomas Schelling in the final section, on organized crime, has already become a classic. Schelling explores the market characteristics that determine whether a criminal activity becomes organized (monopolized) or not. He combines some of the basic concepts in economics with illustrative examples to construct a convincing economic argument explaining why certain illegal activities take the market structure they have. Schelling's analysis provides insight to the economics of black markets, usury, prostitution, abortion, gambling and a whole host of other illegal activities. It is one of the classic applications of economics to crime and in it one can find analytical support for tracing the extent and organizational content of large-scale criminal organizations in America.

The article by Buchanan on organized crime raises the interesting and seemingly logically consistent view that monopoly in organized crime may be socially desirable and also be a stable equilibrium solution. Traditional monopoly theory predicts lower total output and a higher price for that output than would prevail under competitive conditions. Buchanan takes this logical starting point and examines the theoretical properties that can be derived from thinking of organized crime as monopolies resulting in rational, and perhaps, optimal social solutions. The article is an interesting and creative example of the power of economic analysis. One is skeptical, however, that society would be willing to accept as *fait acompli* monopoly in organized crime as the optimal structural form without seriously considering the broad range of income distribution or political, cultural, and social externalities that are generally perceived to be associated with organized crime.

We hope that the readings collected in this volume, and the suggestions for further reading which follow, will permit students and instructors to explore the important contributions economics can make to policy debate, to say nothing of just general knowledge about one of the most urgent and important social issues of American life.

PART I

Economic Approaches to the Study of Crime