

Preliminary Thoughts on an Overall
Crime Reduction Strategy

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I. The Law and Crime Reduction Strategies

Substantially more than ten commandments guide our society. Literally thousands of laws and regulations exist. The laws and regulations accomplish a variety of purposes. They establish property rights. They define responsibilities in economic relationships. They establish terms and conditions for different kinds of participation in the government. They set up procedures for adjudicating disputes.

Some fraction of the laws and regulations establish criminal penalties for violations. These laws are also a mixed bag. Table 1 presents a list of criminal offenses suggesting the variety of activity that is vulnerable to criminal penalties. Despite this variety, criminal statutes share some important characteristics.

First, all criminal laws are designed explicitly to discourage some particular behavior. Implicit in this effort is a social judgment that people would suffer bad consequences if the behavior were not discouraged. They discourage harmful behavior partly by moral instruction and partly by a threat of punishment.

Second, the threat of punishment is backed up by a commitment of public resources. In establishing a criminal penalty, the government guarantees that enforcement officials will respond to complaints, come to the aid of victims, seek to detect offenses themselves, and will prosecute offenders if there is sufficient evidence of a crime. Private citizens need not shoulder the entire burden of detecting or prosecuting people who commit crimes. A very modest effort on their part will trigger a substantial commitment of government resources to prosecute a criminal. In effect, criminal laws represent a liability on public resources.

This description of the criminal law highlights a problem that has been mostly concealed. The magnitude of the actual threat that lies behind criminal statutes is determined by resource allocation decisions. If only modest resources are made to enforcement agencies, the actual threat will be relatively small. If police and prosecutors spend substantial resources on one criminal offense and less on others, then the magnitude of the actual threat will differ among crimes.

Concealing the fact that resource allocation decisions affect the enforcement of criminal laws has some substantial benefits. We like to think that enforcement is "full" and "impartial" -- not only among offenders, but also among offenses. We often declare ourselves against policies of "selective enforcement." We like to think that enforcement is full and impartial because abandoning that idea would force us to decide which criminal statutes should receive relatively greater efforts. That would be a decision vulnerable to the capriciousness of men not guided by the rule of the law.

Unfortunately, even a casual analysis indicates that the enforcement of criminal statutes is not now, and probably could never be, full and impartial. The problem is that there are many laws; enforcement makes heavy claims on public resources; but many offenders are not arrested, and violators of different statutes face different probabilities of being arrested. In a world where so many things are crimes, where constitutional restrictions increase the resource costs of both detection and successful prosecution, and where we want to do many things with public resources besides catching criminals, we simply cannot afford full and impartial enforcement.

Having ignored the wise principle of political economy that a society should not have more laws than it is willing to pay to enforce fully and impartially, we face a difficult policy problem. We must decide which criminal statutes should attract relatively large commitments of public resources. It is not an easy decision. However, once one gets used to the idea of having to set priorities among crimes (thereby declaring himself in favor of selective enforcement), some interesting possibilities appear.

The purpose of this brief paper is to sketch a framework for deciding which crimes should be high priority targets of a crime reductions strategy. The basic assumption is that some kinds of criminal offenses have greater social consequences than others and that a crime reduction strategy should reflect those differences.

The basic logic of the approach is to begin with detailed micro analyses of the social consequences of specific crimes. In this analysis, we will strain for analytical and conceptual precision in describing the social consequences of crimes. Then, we will build to a macro analysis. In the macro analysis, some analytic precision will be sacrificed to link the analysis to data sources and more familiar analytic categories. In addition, the macro analysis will introduce some wholly new attributes of the Criminal Justice System which were irrelevant in looking at individual crimes, but became extremely important when designing a general crime reduction strategy.

The specific steps are the following. First, I will suggest the dimensions on which the degree of victimization associated with specific crimes can be described or measured. Second, I will describe the mechanisms by which the victimization of specific individuals influence the lives of

non-victims. Third, I will propose some aggregate categories of crimes, and discuss their relative importance in the light of the analysis of the social consequences of crime. Fourth, I will identify some important aggregate characteristics of the criminal justice system that should be reflected in the design of a crime reduction strategy. Fifth, I will sketch some tentative conclusions about the formulation of new policy objectives in the area of crime, the possibility of developing better statistical indicators fo the state of the crime problem, and the current allocation of resources among crime reducing activities.

II. Dimensions of Victimization in Individual Offenses

A. The Variety of Criminal Events

Consider the following events:

- * An elderly woman is knocked down and breaks her hip. Her purse, containing her monthly social security check and a large cash gift from her daughter, is stolen.
- * A bank teller embezzles \$100,000 from a small town bank over a ten-year period.
- * A man with a history of psychiatric problems goes on a rampage and kills 10 random individuals walking on a street.
- * Diamonds worth \$250,000 are successfully smuggled into the United States.
- * A reputed "hit man" for an organized crime family is tortured and killed by a rival organized crime family.
- * An addict purchases small quantities of heroin from another addict.
- * A wife stabs her husband in a drunken quarrel on New Year's Eve.
- * A policeman beats a suspected mugger, who turns out to be innocent, in the police car on the way to the police station.
- * Two high officials of major corporations tacitly agree to fix prices for light bulbs at a level 5% above marginal costs of production.

- * An executive of a record company conceals \$200,000 in income to avoid paying taxes.

Each of these events is a crime. Intuitively, we guess that the social consequences of these events differ significantly. However, since we lack a systematic framework for exploring (and measuring) the social consequences of specific criminal offenses, it is difficult to rank order these offenses and present a coherent rationale for the specific ordering that is proposed.

The purpose of this section is to develop a framework for gauging the social consequences of criminal offenses. In effect, we are searching for underlying characteristics that are common to all criminal offenses, and which register in our assessment of how bad a specific offense really is. We will ignore temporarily the problem of observing (to say nothing of accurately measuring) the social consequences. Our aim is simply to discover characteristics of offenses that affect us. The assumption is that because these characteristics affect us, they have social significance.

B. Effects on Victims

The starting point is to assume that somebody is adversely affected when a criminal offense occurs; there is a victim. Now there is great complexity in this idea of victimization. It is often difficult to discern who is the victim of criminal offenses. Moreover, for an important class of criminal offenses, the offender is also the immediate "victim." A criminal offense can have many different victims. The actual victims of an offense may or may not be aware that they were victimized, et cetera.

Thus, for a specific offense, it may be difficult to decide who the victims are. However, the initial assumption is that some identifiable group of people suffer losses as a result of a given offense, and that we can refer to the set of losers rather loosely as victims of the crime.

The next step is to describe the various areas in which victims can take losses. Of course, the English language offers a large number of words to describe different aspects of victimization. We will limit ourselves to only a few words, straining to make them mutually exclusive and exhaustive categories of effects. A simple formal model is helpful. Basically the model describes a potential victim who is eager to enjoy the benefits of good health and economic well-being, and who faces an unknown risk of victimization. This risk creates some level of anxiety that can be reduced by his own efforts and efforts of the government to protect him from potential threats. Criminal offenses administer shocks to this person's well-being by affecting his health and wealth, by altering his perceptions of threat of victimization, and by forcing him to undertake private investments to protect himself against increased risks.

In more formal terms, we assume that an individual's well-being $[U_i]$ is a function of his material assets $[A_i]$; perceived threats to his assets from criminal offenses $[T_i]$; and perceived capabilities to defend himself or be protected from the offenses $[D_i]$.

$$(1) U_i = f(A_i, T_i, D_i)$$

Material assets $[A_i]$ include both the individual's health $[H_i]$ and his economic wealth $[W_i]$.

$$(2) A_i = f(H_i; W_i)$$

Note that the idea of material assets presented here describes a capital stock rather than a flow. These stocks can be used for the purposes of either consumption or investment as the individual chooses. These stocks are more or less directly observable. The precise way in which they are transformed into well-being is difficult to measure for any given individual, and is likely to vary significantly across individuals. Consequently, we have defined this variable in terms of individuals.

Perceived threats $[T_i]$ reflect the individual's assessment of the likelihood of suffering losses in his assets as a result of criminal offenses. Other sources of windfall losses such as natural disasters; changed social policies regarding income transfers, taxation, or employment opportunities; or more intimate disasters such as accidents, ill health, and changes in family organization are excluded from consideration. Note that the perceived threats are defined not in general terms, but from the point of view of the individual. While there may be a general level of threat from the criminal offenses $[T_i]$ that can be objectively calculated from existing crime statistics, this will not necessarily be the individual's perceived level of threat. He may notice characteristics that make him more or less vulnerable to victimization than others in the society. In addition, individuals will interpret objective events differently in gauging the risks to themselves. Thus, since both objective and subjective risks are likely to vary across individuals in the society, we have defined perceived threats from the individual's point of view.

Perceived defensive capabilities $[D_i]$ reflects the individual's assessment of the effectiveness of the barriers that exist between himself and potential victimization. Some of the barriers are socially established $[D_s]$.

However, the individual can also make private investments in his own defense $[P_i]$. Given both that there are private investments and that we are defining this defensive capability in perceived rather than objective terms, it is necessary to define this variable for individuals. Thus:

$$(3) D_i = f(D_s; P_i)$$

Given these more detailed specifications, the extended form of the model is the following:

$$(4) V_i = f(H_i; W_i; T_i; D_s; P_i)$$

There is one additional feature to incorporate in the model. Many of the consequences of victimization will be affected by the passage of time. Health can be more or less permanently affected by criminal offenses. Perceptions of threat may be altered by new experience. Private investments in security arrangements can be sustained for varying periods. In addition, some criminal offenses may occur over several years. Since long lasting effects and long lasting crimes will be worse than shorter versions of similar criminal events and effects, we should explicitly incorporate time into the model. Thus, the final form of the model is the following:

$$(5) \sum_{t=1}^{\infty} U_{it} = f(H_{it}; W_{it}; T_{it}; D_{st}; P_{it})$$

There are likely to be significant interactions among these variables. The importance of a given level of perceived threat $[T_i]$ is likely to vary dramatically with differences in the level of material assets $[H_i; W_i]$. An individual's level of material assets $[H_i; W_i]$ is likely to influence his perception of his defensive capabilities $[D_s; P_i]$. Because of these interactions, the functional form of this relationship is likely to be extremely complex. Moreover, given that many of the variables are defined

in subjective terms, it will be difficult to estimate the various equations. Crude calculations of objective risks and proxies for defensive capabilities may provide rough guides to estimation, but they will fail to describe precisely what is going on. Thus, both the specification and estimation of this model for individuals would be extremely difficult.

Fortunately, the purpose of this model is neither refined analytic calculations, nor empirical estimation. Its purpose is simply to define the various effects that will occur when a person is victimized by a criminal offense. The model serves this purpose quite well. The highlighted effects are the following.

First, the victim's health may be affected. The effects on health can be large or small. They can last for larger or shorter periods of time. At one extreme is murder. Perhaps equally serious are assaults which result in crippling, mutilation, or create other serious chronic health problems. Less serious are assaults which require medical attention, but from which the individual will fully recover.

Second, the victim's wealth may be affected. Money or valued possessions can be lost to the individual. As in the case of health effects, the wealth effects can be large or small, and can occur suddenly or last over a long period of time. While there is little difficulty in deciding how to value lost money, these are conceptual problems in valuing lost property. It can be valued at its market value, at its replacement cost, or at the dollar amount that would precisely compensate the victim for the loss. These values need not be the same, and need not appear in any consistent order. In general, the smaller the loss (measured on any basis), and the longer the period of time over which the loss occurred, the less serious will be the reduction in individual well-being.

Third, victimization will affect both an individual's perceived level of threat and his private investments in security arrangements. Prior to the victimization, the individual had a specific perception of his risk, and had invested in a specific set of security precautions. He may have judged that he lived in a relatively benign world. There were few threats. Modest investments in security arrangements were sufficient to reduce his anxiety about victimization to unnoticeable levels. Following victimization, the individual goes through a period of re-assessment. The world may suddenly look much more dangerous. He may respond to this "new world" by taking all the loss in terms of increased anxiety about the higher level of threat, or by seeking to reduce this anxiety by making additional investments in security. Either way, the individual is worse off than prior to victimization: he is either more anxious, or must spend more of his wealth on security, or both. In effect, victimization can be a rude awakening that has more or less large and more or less long lasting effects on an individual's investment in security arrangements and his residual anxiety.

There are several things to notice about effects on levels of anxiety and investments in security. First, in order for this effect to occur, the individual must be aware that he has been victimized by a criminal offense. If he fails to notice the offense (or perhaps becomes accustomed to it), there will be no effect of this type.

Second, the precise way in which the individual responds between tolerating increased anxiety or making increased investments in security arrangements depends a great deal on the availability of inexpensive and effective security arrangements. This depends, in turn, on the victim's analysis of why he was victimized. Some offenses (e.g., blackmail, protection

rackets, and other forms of extortion) are designed to help the victim diagnose his vulnerability and to instruct him precisely about effective security measures. Since the offenders monopolize at least one form of risk, they are in a position to sell effective security. Their biggest problem is to assure victims that the risk exists, that they control the contingencies, and that their action will be influenced by the actions of the victims. If the offenders are successful, the victim will respond almost entirely by purchasing superior security. He will suffer little residual anxiety. Other offenses may be relatively easy to diagnose, but to available defensive strategies are prohibitively expensive. An example here may be an assault by a drunken husband. An effective defensive strategy may be to move out or to control a husband's drinking. Such strategies will be very costly to individual's senses of well-being. Consequently, nearly all of the effects of this crime will be taken in the form of increased anxiety. Still other offenses will be difficult to analyze: the victim may not be able to discover the reason for his victimization. Consequently, it will be difficult to design effective counter measures. Again, nearly all the effects will be in the form of increased anxiety. In general, one can assume that offenses that do not suggest feasible defensive measures will be more costly to individuals than those that do. The reason is that if defensive reactions are available, individuals can choose an optimal combination of residual anxiety and security measures. If no defensive reactions are possible, then everybody is forced to take all the losses in terms of increased activity.

Thus, the basic terms necessary to describe the effects of victimization are changes in a person's health, wealth, perceived threat of victimization

(anxiety), and changes in personal investments in security measures. Losses to individual victims can be fully captured by these dimensions.

Note that while the absolute magnitude of the losses to individuals can be measured in terms of the dimensions outlined above, the significance of these losses to individuals will depend not only on the absolute sizes of these losses, but also on the size of these losses relative to their remaining stock of resources. Individuals who are poor probably feel differently about the loss of \$100.00 than people who are rich. Individuals who are already frail or unhealthy are likely to feel worse about additional injuries than people who are fairly healthy and will recover quickly. Individuals who are already anxious or have already invested heavily in security measures are apt to feel unusually desperate if they are victimized. Thus, to assess the consequences of a criminal offense for a particular victim, one must know not only how much they have lost, but also how big these losses were relative to their initial stock of assets. The larger the particular effects of an offense relative to an individual's initial assets, perceptions of risk, and investments in a security measure, the greater the significance of the offense.

C. Effects on Non-Victims

So far, we have concentrated on the effects of a criminal offense on victims -- individuals whose stock of resources are directly affected by some offense. It is clear that others in the society are also affected by criminal offenses. The problem is to identify the mechanisms that tend to generalize the effects of a criminal offense. Three mechanisms can be identified.

First, non-victims may sympathize with the experience of victims. In formal terms, the well-being of one individual is affected by the well-being of other individuals. Consequently, losses to one individual will diminish the satisfaction and well-being of other individuals.

These effects will not be distributed evenly or completely among the population. How widely the effects will be disseminated, and how large the effects will be, will depend partly on the relationship of the victim to non-victims, partly on the magnitude of the losses suffered by the victim, and partly on the moral status of the victim. Family members and close friends of victims will care more about the victimization than strangers. Indeed, very strong feelings of sympathy may exist only among close friends and relatives. Very large losses to victims will result in broader and stronger feelings of sympathy than trivial losses. Indeed, offenses which result in maimings or which drain a victim's last penny are likely to generate very strong feelings of sympathy among the general population. Finally, the moral status of the victims will affect the breadth and depth of sympathy. If a victim is judged to be a responsible member of the society, then we are likely to feel a stronger sense of sympathy than if the victim had in some way separated himself from the society. Similarly, if the victim is judged to be relatively defenseless and to have done nothing to having invited his victimization, we are likely to feel greater sympathy than if he were able to defend himself or had in some way invited his victimization. Thus, many people are likely to feel very strongly about offenses which create significant losses for arbitrarily chosen children or elderly people. Fewer people will feel less strongly about offenses which produce only minor losses for people.

who were neither particularly vulnerable, nor wholly innocent in the circumstances surrounding their victimization.

Second, the perceptions of non-victims about the risks of victimization and the adequacy of current security arrangements can be affected by the experience of victims. Just as the victims learn from their victimization, observers can learn as well. Non-victims will consider whether an offense could have been warded off by their current security arrangements, and whether the fact that the event occurred at a certain rate among people known to them is consistent with their current estimates of the risks of victimization.

Again, these effects on the perceptions of non-victims will not spread evenly or completely through the society. The way in which the effect will spread depends on the observations and calculations of non-victims. In deciding how to respond to known criminal offenses, non-victims face the same analytic problem as victims: they must diagnose the factors contributing to victimization, assess the cost and effectiveness of available security measures, and choose an optimal combination of new investments in security measures and residual anxiety. If non-victims decide that the main factors contributing to victimization were characteristics which they do not have, then they will be free to treat the experience of the victim as not applicable to them. However, if the characteristics contributing to victimization are characteristics which they do have, they must take to experience of the victim as an object lesson.

Because of this mechanism, family members, neighbors and close friends are likely to be particularly strongly affected. Since these people are apt to share some defensive strategies (partly because a given security

arrangement will include these individuals and partly because they will imitate one another's private arrangements); and since these people are likely to be unduly impressed by the fact that victimization occurred among the relatively small number of people known intimately to them; the effects on levels of anxiety and re-arrangements of security measures are likely to be unusually large. In effect, both the sympathy mechanism and the learning mechanism are likely to affect close friends and relations more than strangers.

However, some kinds of offenses will have significant applicability to large groups of non-victims. If people are victimized randomly, or if the characteristic that seems to have contributed to their victimization is shared very widely in the society, then the victimization must be taken as an object lesson to many. In effect, there is no way for non-victims to insulate themselves from the experience of the victim. Many people will become more apprehensive about the risks of victimization, and make larger and more expensive investments in security. Thus, because these offenses will produce very general social responses, they are likely to be particularly serious.

Third, the responses of both victims and non-victims to criminal offenses can affect non-victims. If people create new security arrangements, and if these new security arrangements affect others because of the technology of security devices, or the institutional arrangements that bind individuals together, then non-victims will be indirectly affected. Sometimes these effects will be positive (e.g., a given security device may be paid for entirely by one individual and may benefit others). Other times, the effects will be negative (e.g., new security rules will

force individuals to invest in security that they do not feel they need). How widely the effects will be dispersed, how big they will be, and whether they will produce positive or negative effects depends on the technology or institutional arrangements associated with the new security arrangements.

D. The Variety of Offenses Re-considered

Given this elaborate framework, what can be said about the variety of criminal offenses identified above? Which appear to be unusually costly and why? My own views of these offenses would be the following.

Probably the most damaging offense is the psychotic mass slaying. There are a reasonably large number of victims. Their losses are dramatic. Moreover, the effects of the offense are diffused both broadly and powerfully among non-victims. The innocence of the victims and the magnitude of the losses guarantee broad and profound feelings of sympathy. Since the threat is general and there are no inexpensive individual or social defensive strategies, many non-victims will take losses in terms of increased anxiety. Thus, the random mass slaying is a very bad offense.

Note that this analysis explains the unusual potency of terrorism as a political tactic. It takes only a small number of these kinds of events to have profound effects on a society's morale and security arrangements. If the riots of the 1960's had not been geographically specialized, similar effects would have occurred.

At the next level of seriousness, I would group the mugging and the police brutality. Both have fairly serious consequences for the victim's health and wealth. Both seem difficult to defend against in the future. Both generalize to the population of non-victims through the

mechanisms of sympathy and learning. They are somewhat less serious than the mass slaying since there are fewer victims and they suffer less. They are more serious than offenses below because of the magnitude of the material losses to the victims, the difficulty that victims sense in defending against similar future events, and the fact that many others in the society must judge themselves to be equally vulnerable and equally defenseless.

I would consider the drunken assault and the murder of the "hit man" as the next most serious offenses. Victims suffer very large consequences on all dimensions -- larger losses than the victims of the mugging and the police brutality. However, these offenses do not influence the general population as much as the other offenses. There is apt to be very little sympathy for these victims. The hit man will be judged not worthy of sympathy partly because he will have separated himself from society, and partly because he will be judged to be responsible for his victimization. The wife is likely to be judged partly responsible for her victimization. In addition, the experience of these victims is unlikely to influence either the perceived level of threat or the security arrangements of non-victims. The only lessons will be to avoid becoming involved in organized crime or getting into serious quarrels with drunken spouses. Most people have already arranged their security to be consistent with these principles. Thus, while these events represent serious losses to the victims, other people are not affected.

At the next level of seriousness, I would group the price-fixing, the embezzlement, and the smuggling incidents. These offenses have large numbers of victims, and the aggregate amount of the loss to the victims may be large. However, each individual victim suffers only a tiny loss on one variable affecting his utility. The individual's health is not

affected. His wealth is likely to be almost entirely unaffected. And, except in the case where he takes the occurrence of this offense as a sign of a general inability of his government to protect him from victimization, he is unlikely to suffer any increase in anxiety or to rearrange his security measures. Moreover, non-victims are likely to be unaffected. Since the losses are small, there will be little sympathy and little learning. Thus, the apparently large aggregate effects of these crimes are dissipated because the effects are limited to victims, distributed over a very large number of victims, and produce little response from the victims.

Probably the least serious offense is the purchase of heroin. The losses to the individual are small. They are not likely to generalize to non-victims. This offense barely registers on our accounting scheme.

Thus, the analytic scheme presented here does allow us to compare and contrast the different offenses in a somewhat orderly way. That is all we ask of it at this stage.

III. Aggregate Characteristics of the Crime Problem

A. The Differences Between the Micro Analysis and the Macro Analysis of Crime

Close examination of individual offenses is useful for discovering the things that happen in a criminal offense that make the offense more or less harmful to the society. However, this micro analysis falls far short of being a useful guide to policy decisions. There are at least three reasons for these limitations.

First, assuming for the moment that it would be possible to describe individual offenses with all the detail necessary to calibrate these different social consequences, we need to know how often particular kinds of offenses occur. Offenses that seem to have relatively small consequences when looked at individually may occur sufficiently often as to loom large in the overall crime problem.

Second, it is probably not possible to describe criminal offenses on all the dimensions required by our systematic framework. There will simply be too many different categories of crime. Consequently, we will have to abstract from the dimensions we have identified and risk lumping different kinds of offenses together in the same category. The objective should be to preserve some of the insights about the kinds of crimes that will prove to be costly.

Third, when looking at the overall situation, some new considerations become important. We begin to worry about the distribution of victimization among rich and poor, among races, among geographic areas as well as the magnitude of the victimization. We also worry about the distribution of enforcement action and punishment that would be implied by choosing to concentrate on some kinds of offenses.

Thus, the micro analysis must be accompanied by a macro analysis of the crime problem. That is the purpose of this section. We will begin by proposing some new categories of criminal offenses that differ from legal definitions, and existing analytic categories available in the sociological literature. Next we will look at some available data to gauge how frequently the different kinds of offenses occur. Finally, we will sketch some gross characteristics of a criminal justice system which would be designed to cope with the major crime problems.

B. Kinds of Crime

C. Estimates of Frequency of Kinds of Crime

D. Strategies Against Serious Crimes

E. Aggregate Characteristics of Criminal Justice System