

DRUG ABUSE AND CRIME: A POLICY PERSPECTIVE

Mark H. Moore

INTRODUCTION: DIVERGING PATHS OF DRUG ABUSE POLICY AND CRIME REDUCTION POLICY

In the early days of national concern about the drug abuse problem, a close relationship was assumed between efforts to control "drug abuse" (heroin addiction) and "crime" (property and violent crimes committed between strangers). At the center of this relationship was the junkie stereotype. We believed that there was a large group of chronic, intensive heroin users; that these users committed a large fraction of the total volume of property and violent crimes between strangers; and that a major cause of their extraordinary level of criminal activity was a strong desire to consume a large, regular amount of high-priced heroin. Given these beliefs, it followed that if we could reduce the number of people who began heroin use and if we could successfully reduce the consumption of current users, we could cut deeply into a significant component of the national crime problem. Thus, the single objective of reducing crime became a major justification for concern about drug abuse.

While the crime reduction objective was the primary public justification for drug abuse policy, the drug abuse policy that actually evolved had substantially broader objectives. With respect to individual drug users, we were interested in improving many aspects of behavior and condition beyond their criminal activity. For example, we were interested in establishing their economic independence and in restoring them to positions of responsibility in their families as well as reducing crime.

Moreover, the drug abuse policy was targeted at a broader population of drug users than crime committing heroin addicts. We were interested in heroin users who were not seriously involved with heroin or who were not committing crimes as well as those who resembled the junkie stereotype. Similarly, we were interested in abusers of drugs other than heroin, despite the fact that users of these other drugs figured less prominently in crime-committing populations and despite a weaker presumption that these drugs would turn out to be a major factor influencing a person's behavior and condition.

Finally, although enforcement instruments were employed, the objectives of the enforcement strategy were much broader than crime reduction. Indeed, one can argue that the only reason to enforce narcotics laws is to discourage consumption of drugs and thereby avoid the adverse effects on an individual's health and social functioning that would result from unrestrained consumption. In

effect, the enforcement program has broad rehabilitative purposes rather than narrow crime reduction purposes. Similarly, we have designed systems to divert drug users from jail into treatment programs to soften and exploit the effects of the enforcement program.

Thus, the drug abuse policy developed outside of the constraints that would have been imposed by strict loyalty to a narrow crime reduction objective. It was designed to effect changes in the behavior and condition of users in many areas other than their criminal activity. It was targeted at a much larger population of drug users than those who frequently committed property and violent offenses. It relied on many programs other than enforcement programs. And even when enforcement programs were used, they were designed to achieve broad rehabilitation effects rather than narrow crime reduction efforts.

While this broadening of our drug abuse policy is desirable, it does require us to give explicit attention to the coordination of drug abuse policy and crime reduction policies. We can no longer be confident that our drug abuse policy efficiently serves the objectives of crime reduction. Indeed, it is possible that our drug abuse policy exacerbates rather than improves the crime problem. Thus, it is desirable to reconsider current drug abuse policy with an eye to adjustments that could be made to achieve greater crime reduction benefits. Note that we are not seeking to turn the entire drug abuse policy to the narrow purpose of crime reduction. We are merely looking for ways in which our current drug abuse policy could be marginally adjusted to produce greater crime reduction benefits at no cost (or slight cost) to other objectives of drug abuse policy.

The specific steps will be the following. First, we will quickly review the evidence establishing a correlation between drug use and crime, distinguish the policy implications of mere correlation of the behavior from the policy implications of causation, and define causal models which link drug use to criminal activity. Second, in the light of the possible relationships between drug use and crime, we will discuss the potential contribution of adjustments in our drug abuse policy to overall crime reduction objectives. Specifically, we will consider how current aggregate levels of crime would be affected by a relaxation of efforts to control the supply of drugs, or by more narrowly targeting our drug abuse treatment capacity on users who commit property and violent crimes.

POLICY-RELEVANT RELATIONSHIPS BETWEEN DRUG USE AND CRIME

Observed correlation between drug use and crime

A variety of studies indicate a correlation between drug use and criminal activity. To the extent that drug use itself is considered a criminal offense, the high correlation between drug use and criminal activity is neither surprising nor particularly important. However, even when one excludes narcotics offenses from the definition of criminal activity and focuses exclusively on index offenses

such as homicide, rape, robbery, burglary, assault, and larceny, the correlation holds up. A reasonably large fraction of those arrested for index offenses use drugs. And a reasonably large fraction of drug users in treatment programs admit to having committed the offenses or to have been arrested for the offenses. In effect, drug users are overrepresented in the population of criminals, and criminals are overrepresented in the population of drug users.

Explanations of the observed correlation

The observed correlation can be explained by several hypotheses. First, it could be the result of a direct causal connection (operating through different mechanisms) between drug use and levels of criminal activity. Second, it could be the result of some larger factor such as personality, family structure, or economic position which affects levels of drug use and levels of crime at the same time. Third, it could be the result of some combination of these causal mechanisms. Fourth, it could be spurious--a matter of chance, with no underlying causal mechanism tending to produce the result.

Policy implications of the different explanations

Clearly, different explanations of the observed correlation have different implications for policy. In the case that drug use directly influences levels and patterns of criminal offenses among users, any success in controlling drug use will produce immediate and direct effects on aggregate patterns and levels of crime. The magnitude of these effects will depend on the strength of the causal mechanisms linking drug use to criminal activity, the size of the population of drug users for whom the causal mechanisms are powerful, and the relative importance of these drug users in the total population of criminals. To the extent that drug use causes crime, policy instruments affecting levels of drug use will influence directly patterns of crime.

In the case that the observed correlation is the result of some third factor influencing the levels of both crimes and drug use, drug abuse policy can affect levels of criminal activity, but will do so through different, less direct mechanisms. The correlation between drug use and crime guarantees that individuals who commit crimes will be influenced by the incentives and provided with the services that constitute current drug abuse policy. However, because the correlation is imperfect, the drug abuse policy will influence many people who do not commit crimes and will fail to reach many people who do commit crimes. From the point of view of crime reduction efforts, the "target efficiency" of the drug abuse policy will depend on the overlap between drug-using populations and crime-committing populations. Moreover, the drug abuse policies and programs may affect the criminal activity of the drug-using population to the extent that the services and incentives created by the drug abuse policy affect not only levels of drug consumption but also the "real causes" of crime and drug use. In the case of mere correlation, instruments of drug abuse policy influence crime rates

not by influencing levels of drug use but by generally influencing the behavior of drug users--some of whom also commit crimes.

In the case that the observed correlation is entirely spurious, drug abuse policy can have no systematic impact on crime reduction objectives. Note that this does not mean that drug abuse policy would have no impact on crimes. It could turn out that some component of drug abuse policy has an impact on crimes committed by users; however, such effects would be entirely accidental.

Potential scope of drug abuse policy instruments in influencing aggregate crime levels

It is likely that all of these explanations will have validity for some portion of the drug-using population. There will be some drug users whose choice of careers and level of criminal activity will be decisively influenced by their drug use. There will be other users whose levels of criminal activity are the result of some factor other than drug use which motivates the users to consume drugs. And there will be some users who commit crimes and use drugs without any necessary causal relationship between drug use and crime. Finally, there will be users whose pattern of criminal activity can be attributed partly to drug use, partly to third factors, and partly to chance.

In addition, one must keep in mind that the correlation between drug use and crime is far from perfect. As a result, there are many drug users (perhaps 50%) who commit no crimes. And there are many criminals (perhaps 70%) who do not use drugs. It is obvious for these populations that there is no relationship between drug use and crime. Figure 1 identifies populations for which the different relationships hold.

To some extent, the potential impact of drug abuse policy instruments in reducing aggregate levels of crime will be determined by the relative sizes of the populations for which these different relationships hold. The size of the population that commits crimes and uses no drugs will establish an upper limit to the potential contribution of drug abuse policy instruments in controlling crime. Because this population lies outside the reach of drug abuse instruments, their activity will be unaffected by manipulation of drug abuse policy instruments. The larger this population, the smaller the potential impact on aggregate levels of crime.

Similarly, since drug users who commit no crimes have no impact on aggregate patterns of crime but do absorb services provided under the drug abuse policy, this population represents a "diversion" of resources in terms of the pursuit of a narrow crime reduction objective. The larger this population, the greater the diversion of drug abuse resources from crime reduction objectives.

Drug users who commit crimes as a result of chance (or some third factor) will be affected by drug abuse policy; however, their level of criminal activity will be influenced only to the extent that the

	Crime-Committing Population	
Drug-Using Population	Crime and drug use Drug use and crime are correlated but not causal Drug use causes crime	Crime: no drug use
	Drug use: no crime	

Figure 1. Populations for which Different Relationships Between Drug Use and Crime Hold.

factors influencing the levels of crime other than drug use. Thus, the magnitude of the contribution of drug abuse policy in controlling crime for this population will depend partly on the size of the population for which this relationship holds and partly on the policy instrument being employed. The larger this population in the total crime-committing population, and the larger the investment in relatively broad drug abuse policy instruments (therapeutic communities, sheltered workshops, vocational training, psychological counselling, etc.), the larger the potential impact of drug abuse policy on crime.

To some extent, exploiting these instruments means that we have a crime reduction policy--not a drug abuse policy. The policy is targeted at criminals and is designed to get at the root cause of crime. It is no longer a drug abuse policy. More precisely, it is a general social policy targeted at people who commit crimes and use drugs.

Drug users who commit crimes as a direct consequence of drug use will obviously be affected by drug abuse policy. They will be affected by both broad and narrow instruments of drug abuse policy. The magnitude of the contribution of drug abuse policy to crime reduction objectives depends on the size of this population and on the success of drug abuse policy instruments in controlling both the levels of drug abuse and other factors influencing crime. Since

this is the most direct way that drug abuse policy influences levels of crime, it is useful to identify possible causal models linking drug use and crime and to gauge their relative importance.

A simple-minded view of crime

A useful way to begin the search for mechanisms by which drug influences levels of crime is to think about factors that influence levels of crime and to consider how drug use will influence these factors. Although it is an extreme oversimplification, one can usefully distinguish among criminal offenses that are motivated by passion, those that are motivated by economic objectives, and those that result from negligence.* The total criminal activity will be the sum of these types of crime.

As a first approximation, we can say that the level of passionate crimes will be determined by a balance between the strength of passionate drives and the effectiveness of internal inhibitions. The strength of the passionate drives may be based on personality, persistent social or cultural factors, or episodic situational factors. To the extent that drug use influences these by stimulating or pacifying aggressive drives or by evading or strengthening internal inhibitions, drug use will affect the observed levels of "passionate crime."

Similarly, as an equally crude approximation, we can say that "negligent crime" is a function of the frequency with which people are in situations requiring some level of competence to avoid harms and the frequency with which people operate at the required level of competence. Drivers, machine operators, and parents must maintain some level of competence to avoid harming themselves and others. Anger, sleepiness, intoxication, or simple carelessness threaten their competence. To the extent that drug use influences either of these factors, it can affect levels of "negligent crime."

Finally, one can say that the level of economic crime is a function of a person's desired level of income, his skills in alternative occupations, and his access to jobs in the different occupations. Note that most people have desires for incomes that can be satisfied within the legitimate income earning opportunities available to them. This may be true because most people have modest desires for income; because most people have access to attractive legitimate opportunities; or because people have such inhibitions about criminal activity that they have learned to adjust their desires for income to levels consistent with what can be earned within legitimate occupations. To the extent that desires for income can be accommodated within

*While there is some correlation between motivations and criminal offense types, the correlation is not perfect; economically motivated crimes can end in passionate violence, and passion can be gratified by economic attacks as well as physical attacks. For this analysis, we concentrate on motivations.

legitimate activities, pressures to choose criminal careers, to work very hard in those careers, or to supplement legitimate income with illegal income will be reduced. Economically motivated crimes (with some attendant violence) will be avoided. The corollary, of course, is that to the extent that individuals' desires for income become very large, or their skills in illegitimate activities become much greater than skills in legitimate activity, or their access to jobs in legitimate activities becomes constrained, individuals may choose criminal occupations and work intensively at them. To the extent that drug use affects desires for income, skill, or available jobs, it can affect levels of economically motivated crime.

Of course these models of criminal activity are a little silly. All they do is give general names to complex and varied human behavior. Their only virtue is that they permit a rather orderly investigation of the possible ways in which drug use can be linked causally to crime.

Causal links between drug use and crime

Given these models of criminal activity, there are a limited number of ways in which drug use can affect criminal activity: it can affect levels of passion, levels of internal inhibitions, the frequency of situations in which an individual falls short of the competence necessary to avoid a harm, desired levels of income, levels of skill, and access to income earning activities. We will explore these possible links below. However, before presenting hypotheses linking drug use to crime via positive and negative changes in these factors, it is important to be careful about defining drug use.

One major problem in defining "drug use" is to distinguish the effects of drug use in itself from the effects of social contingencies involved in procuring, administering, and consuming the drug. Presumably, the effects of the drug itself are governed (primarily) by biological laws. Effects associated with the social contingencies of procuring, administering, and consuming the drug are governed by social laws.

Note that while great attention has been focused on the effects of drug use in itself, it is neither practical nor particularly valuable to isolate these effects. Since "social contingencies" affect users' responses to drugs even in a laboratory, it will be difficult to isolate the effects of the drug in itself. Moreover, since the drug use that interests policy makers will take place in the "real world" rather than the laboratory, and since social contingencies will play a major role in shaping the effects of drug use on the user, policy makers should be primarily interested in the combined effects of drug use and social contingencies.

It is likely that much of the interest in isolating the effects of drug use in itself stems from a desire to predict the behavior and condition of drug users in a world in which drug use was "legal." There is a strong impression supported by reasonable evidence that much of the observed behavior and condition of users could be

attributed to the particular social contingencies users face in a world where drug use is "prohibited." Consequently, if we could isolate the effects of drug use in itself from the significant effects of the social contingencies involved in drug use, we could make a guess about what drug users would look like in a world where drug use was legal.

In fact, even if we could isolate the effects of drug use in itself, these effects would *not* be a good prediction of the impact of drug use in a world where drug use was "legal." After all, there would be significant social contingencies even in a world of legal drug use. Friends, relatives, and business associates would continue to have attitudes about drug use and adjust their relationships with drug users to be consistent with the attitude. The transactions involved in procuring drugs would continue to claim time and resources of the users, and bring him into contact with other drug users. To be sure, there are major differences in the social contingencies facing drug users in a world of "legalized" drug use and "prohibited" drug use. Moreover, one may have strong preferences for the effects of one set of contingencies over the other. However, the important point is that social contingencies will be important in shaping the behavior and condition of drug users in both worlds, and that the effects of drug use in itself will not accurately predict the behavior and condition of drug users in a world in which drug use is legal.

Given these observations, we will consider hypotheses linking drug use to crime under two different sets of social contingencies associated with drug use. First, we will consider hypotheses linking drug use to crime in a world in which drug use is prohibited. In this world, we will assume that drugs are expensive, inconvenient, irregularly available, and available only from illicit sources. In addition, we will assume that users are infrequently arrested and jailed for narcotics offenses. Second, we will consider hypotheses linking drug use to crime in a world in which drug use is regulated, but legal. In this world, we will assume that drugs are inexpensive, convenient, reliably available, and available from legitimate sources.

A second major problem in defining drug use is to describe patterns of consumption adequately. The issue is important for three different reasons. First, to the extent that consumption itself (not the social contingencies involved in procurement and use) influences criminal activity, we need to be able to distinguish among levels of consumption. Second, at high levels of consumption, drug use can significantly transform the conditions of a user's life. It will affect the amount of time he has available for other activities, the skills he can utilize, attitudes towards himself and others, and perhaps, most importantly, his desire to continue using drugs in the face of adverse social contingencies. These high patterns of consumption and the pervasive impacts are what we mean by dependence. To the extent that drug use becomes a pervasive causal factor fundamentally transforming the individual's situation, it is likely that drug use will transform the criminal behavior of drug

users. Third, *current* consumption of drugs influence the probability of *future* patterns of consumption. This phenomenon is particularly true for drugs that have strong physiological dependence mechanisms. But it may also be true for drugs without dependence producing capabilities as well.

Thus, since levels of drug consumption may directly affect criminal activity through both episodic intoxicification and broad transformations of the conditions of a user's life, and since current levels of consumption influence future levels of consumption, in sketching causal connections between drug use and crime, it is important to distinguish among levels of use. For the purposes of this analysis, we will distinguish three patterns of use: stable, infrequent, causal use of drugs; escalating use of drugs; and chronic, intensive use of drugs. While these simple distinctions mask the enormous variety in observed patterns of consumption, they will serve our purposes.

Given the terms of the "crime model" and these different definitions of drug use, we are prepared to present hypotheses which connect levels of drug use to levels of crime. Table 1 presents hypotheses about causal effects of drug use and crime. One can usefully summarize this table in the following terms.

First, it is clear that there is an "intoxication" effect on crime. For nearly all drugs there is a level of consumption that is sufficiently high for users to be inhibited, and not high enough for them to be immobilized. In this state, given unfavorable circumstances, a variety of criminal offenses can occur. This intoxication effect is a major cause of negligent crimes. This effect may also contribute significantly to passionate crimes. The effect influences levels of economic crime only to the extent that "internal" inhibitions restrain people from choosing criminal occupations, or influence this willingness to commit specific offenses. The importance of this effect in each different crime sector is probably a linear function of levels of use; increasing at a steady rate as the frequency and duration of periods of intoxication increase. However, as drug use reaches very high levels, it is likely that users spend larger portions of their time completely immobilized. This has the effect of reducing crime in all sectors.

Second, there is a "Mr. Hyde" effect. Some drugs may stimulate aggressive drives which will increase the probability of passionate crimes. The strength and generality of this effect is highly controversial. Laboratory tests with animals indicate that many major drugs of abuse have depressive and tranquilizing effects rather than stimulant effects. Moreover, we know that users of amphetamines are arrested more frequently for aggressive crimes than users of other drugs. But this is not sufficient evidence to show a broad and powerful "Mr. Hyde" effect. To the extent that this effect occurs, we would expect the frequency of these effects to be a linear function of use at low levels, and then decreasing at very high levels of use.

TABLE 1. LIKELY EFFECTS OF LEVELS OF DRUG USE ON TYPES OF CRIMINAL ACTIVITY

DEFINITION OF DRUG USE	Negligent Crime		Passionate Crime		Economic Crime		
	Level of competence and activity with increase/decrease in crime	Drive to commit	Interval inhibition	Desired income	Earning skill	Employment opportunity	
LEGAL Stable, infrequent, casual	Small increase Drug users drive, work, and take care of children; periods of intoxication increase some; levels of crime may increase some	----- . . . Depends on drug consumption pattern and situation	----- . . . Analogy with alcohol	----- . . . No effect	----- . . . No effect	----- . . . No effect	
Escalated	Moderate increase Same as above; periods of intoxication increase more	----- . . . Depends on drug consumption pattern and situation	----- . . . Analogy with alcohol	----- . . . No effect	----- . . . No effect	----- . . . No effect	
Chronic, intense	Possible decrease Users may drastically reduce driving or working activities that require competence; periods of intoxication increase	----- . . . Depends on drug consumption pattern and situation	----- . . . Analogy with alcohol	----- . . . No effect	----- . . . Potentially large effect on work capability	----- . . . No effect	
PROHIBITED Stable, infrequent, casual	Further decrease Lower, less intensive aggregate levels of drug use; probably lower levels of crime	----- . . . Same as above, but on an aggregate level	----- . . . Analogy with alcohol	----- . . . Potentially large effect on user	----- . . . Same as above; irregular job needs and drug use	----- . . . Stigmatization or arrest; few legitimate possibilities	
Escalated							
Chronic, intense							

Third, there is an "economic dislocation" effect. To some extent, depending on both levels of use and the social contingencies of drug use, drug use can profoundly influence the basic terms of a user's economic condition. Even in a world of legalized drug use, high levels of consumption will affect the skills and their access to jobs. Periods of intoxication may reduce the effectiveness of the worker. Requirements for frequent administration of drugs may disrupt orderly schedules. A reputation for "unreliability" may affect the users' access to jobs.

In a world of illegal drug use, these effects become more pronounced and new effects appear. Since the price of drugs is high, the chronic, intensive user's desire for income may be affected. Since users will be arrested and jailed, the resulting stigma may bar them from legitimate employment opportunities. Since access will be very unpredictable in this world, the amount of time that must be expended to procure drugs is likely to be large and irregular.

Thus, high levels of drug use can decisively influence a user's choice of occupation and the intensity with which he works at his jobs. In a world of legalized drug use, users will gravitate towards jobs that can absorb some amount of irregularity. In a world of prohibited drug use, the user is in a tighter bind. He will gravitate towards jobs that not only can accommodate irregularity, but also produce large incomes. Moreover, his opportunities are likely to be significantly constrained by the existence of an arrest record.

The relative importance of the causal models

Given these causal hypotheses linking drug use to crime, it is important to consider which of these mechanisms are currently important in affecting aggregate levels of crime. Note that this calculation depends on three different factors. First, it is important to know the strength of the causal mechanism. Do high levels of drug use increase the probability of criminal activity by 10 percent or 200 percent? Second, it is important to know the size of the drug using population in the total population who commits the different kinds of crime? Are drug use generated crimes 2 percent of the total or 80 percent? Third, it is important to know the relative importance of the kinds of offenses caused by drug use within the overall crime problem. Are the offenses particularly costly in social terms, or can they be easily accommodated? In order for drug use to be a major contributor to the crime problem, the mechanisms must be strong for individuals, drug users must loom large in the total population of criminals, and the kinds of offenses committed must be socially costly. We will consider each of the different effects in these terms.

It seems likely that the "intoxication" effect is an important cause of negligent crimes for individuals. However, because there are many other possible causes of negligent crimes, drug users are not likely to loom unusually large in the total population of offenses. Moreover, this sector of criminal activity is not likely to produce crimes of a type and at a level that makes this an important

sector of criminal activity. Thus, the "intoxication" effect can be considered a major cause of negligent crimes among drug using populations, but it is not likely to be a major cause of total negligent crime, nor is total negligent crime likely to be very important in the overall crime problem.

The importance of the "Mr. Hyde" effect is very uncertain. It could be an important cause of passionate crime for individuals. It could be that those for whom drug use was a major cause of this type of criminal activity loomed large in the total activity. And it could be that this kind of activity produced offenses that were significant in the overall crime problem. However, it seems more likely that these effects may fail to be an important cause of passionate crimes for drug using individuals, that drug users would not be large in the total population of passionate offenders, and that this type of crime, which usually occurs among intimates, would not be as socially costly as many other types of offenses.

The "economic dislocation" effect is probably the most important causal effect--particularly in a world of prohibited drug use and for drugs that have dependence producing capabilities. It seems likely that the combination of drug use and social contingencies in a world of prohibited drug use have a significant influence on the user's choice of occupation, and the intensity with which he works at earning income. Moreover, it seems that these drug users commit a reasonably large proportion of crimes committed for economic reasons. Finally, one can argue that crimes committed between strangers for economic purposes but occasionally ending in violence are among the most important crimes in the overall crime problem. Thus, in aggregate terms, the economic dislocation mechanism is likely to be the most important causal link between drug use and crime.

Note that this conclusion stands despite the fact that this effect occurs only among chronic and intensive users, and become large only in a world where drug use is prohibited. The fact that this limited effect is the largest causal effect we can find suggests that much of the relationship between drug use and crime is the result of mere correlation rather than direct causation. As indicated above, mere correlation is important because it implies that the services and incentives that make up the drug abuse policy will affect some people who commit crimes. However, these services and incentives will influence the criminal activity of these individuals, not by influencing drug use, but by influencing other factors which are affecting crime. Thus, to exploit the correlation between drug use and crime to achieve crime reduction objectives, one must find ways of targeting efforts on the crime committing population of users, and to develop programs which affect the causes of their criminal activity as well as the causes of drug use.

POLICY IMPLICATIONS OF FINDINGS: THE POTENTIAL OF DRUG ABUSE POLICY AS AN INSTRUMENT OF CRIME REDUCTION EFFORTS

Introduction: policy and uncertainty

It is apparent from the previous discussions that the relationship between drug use and crime remains uncertain at both individual and aggregate levels. It would be nice if we could suspend the processes of the world until the issue could be conclusively resolved and our policies designed on the basis of hard factual knowledge rather than hypotheses which have a 40 percent chance of being true. However, the processes of the world continue. Drug use increases or decreases. Crime increases or decreases. Policy instruments produce, or fail to produce, effects that were, or were not, intended. In effect, we always have a "policy" that produces effects regardless of either our knowledge or our intentions. In this situation, a responsible position is to confront explicitly the implications of our uncertainty, and to design a policy which minimizes the size of the "errors" that are possible because of our uncertainty. That is the perspective from which we will offer these policy observations.

Major areas in which drug use policy affects crime

Current drug use policy is likely to affect levels of criminal activity in two major areas. First, our current supply reduction strategy affects levels of crime by affecting aggregate patterns of consumption, and by transforming the economic position of users. This raises the issue of whether we should fundamentally alter our supply reduction efforts by reducing levels of enforcement effort against illicit supply or by enlarging the legitimate sector of drug use by "legalizing" some drugs, or establishing government supervised programs offering various drugs.

Second, demand reduction efforts result in many users who commit crimes coming into a variety of treatment programs. These programs provide personal services to users and achieve some level of supervision over a user's daily life. To the extent that crime committing users do come into treatment programs, and to the extent that the level and pattern of crime committed by individual users can be influenced by the services and supervision provided by treatment programs, the demand reduction efforts may have an effect on crime. This raises the issue of the potential value of concentrating existing treatment capacity more narrowly on crime committing drug users, and of some redesign of current treatment programs to allow them to handle crime committing users.

These are the major areas in which we will consider adjustments in current drug abuse policy. The major concerns are the "most likely" effect of altering these policies on aggregate levels of crime; the "most likely" effect of altering these policies on other objectives of drug abuse policy; and the effects on both crime reduction and other objectives of drug abuse policy that are "possible" or "likely" given our uncertainty about the real causal mechanisms linking drug use to crime. In each case, we will be concerned about the effects on drug users and about the importance of whatever changes occur there for the aggregate level of crime.

Possible effects of adjusting supply reduction efforts

Adjustments of current policy . A major component of our current drug abuse policy is a set of programs designed to restrict the supply of narcotics and dangerous drugs to illicit markets in the United States. The basic assumption justifying this policy is that if drugs are expensive, inconvenient, and somewhat risky to consume; then fewer people will experiment with drugs, fewer experimenters will advance to chronic, intensive levels of use, and more chronic users will voluntarily abandon use or seek treatment. As a result, fewer people will suffer the full set of adverse effects of chronic, intensive use of drugs. These constitute the benefits of current supply reduction efforts.

This policy depends critically on three different components (1) drawing a distinction between *legitimate* drugs, uses, and users and *illicit* drugs, uses, and users; (2) establishing sanctions (both criminal and civil) for illicit uses; and (3) devoting resources to enforce the prohibitions against some distribution and use of drugs. One can adjust this policy by broadening the legitimate sector of drug use (e.g., by increasing the number of methadone programs; by establishing heroin maintenance clinics; by legalizing personal possession of marihuana; by relaxing prescription requirements for drug use; etc.); by altering sanctions for illicit uses (e.g., changing criminal penalties for marihuana use to large fines; increasing penalties for heroin dealing from 10 years to 25 years; etc.); or by reducing levels of enforcement efforts to detect offenders.

Clearly there are a large number of possible, specific adjustments to current supply reduction policies. However, for the limited purposes of this analysis we will consider only the impact of a single, large change in the current policy: the creation of a large network of government supervised heroin maintenance clinics parallel to continued growth in other forms of "treatment" programs. Such a program would dramatically lower prices of heroin; make heroin more readily and reliably available, and reduce the chances of stigmatizing users and restricting available opportunities.

"Most likely" effects on crime . In discussing the likely impacts of this policy, it is important to keep in mind that two different kinds of changes will occur. First, the relationship between drug use and crime for individuals will be transformed. Second, the number of people who use drugs in specific consumption patterns is likely to change. Both can affect aggregate levels of crime. For example, it might turn out that this policy will reduce the frequency of crime committed by an individual, but that the number of individuals committing crimes at the new, lower level will increase by an amount that nullifies the aggregate impact of the decreased price.

The basic way to trace the impacts of relaxing supply reduction efforts is to assume that pressures coming from price diminish, constraints on opportunities created by stigmatization are relaxed, the total number of people using heroin in all patterns increases, and the distribution of use patterns shift to chronic, intensive use patterns. Presumably, these changes have the effect of reducing

(but not eliminating) crimes associated with "economic dislocation" and increasing the crimes associated with "intoxification" effects. The magnitudes of these various effects are extremely uncertain. However, it seems reasonable to act "as if" the following hypotheses are true.

First, in the short run, the reduction in crimes associated with reduced prices and stigmatization are likely to be small. The reason is that users' interests in income and their choice of occupation are not likely to change when heroin suddenly becomes inexpensive to them. They will continue to like high incomes to spend on commodities other than heroin. In addition, given their investment in criminal skills, some continued discrimination against user in legitimate occupations, and an increased disability in legal jobs associated with longer and more frequent periods of intoxication, users are unlikely to suddenly shift to legal occupations in large numbers. Thus, for current users, the sudden change in the price of heroin will marginally reduce their desire for income, and their choice of occupation: users will continue to want income and to earn it through illegal means. The most likely large effect on crime will be the result of increased periods of intoxication at levels which will disable users from criminal activity as well as from legitimate activity. Clearly, this "pacification effect" is an intolerable policy for reducing crime.

Note that the discussion above describes the effects of this change on current users *in the short run*. Over the long run, the impact on crimes resulting from the economic dislocation effect may be quite different. Presumably, all *new* heroin users subsequent to the shift in policy will have a much different relationship to criminal activity than current users. Since the new users will never face whatever incentives exist under the current prohibition policy to increase their incomes, nor the constraints on legitimate opportunities created by discrimination against arrested offenders; the new users' economic position will be different than the older users. They will not necessarily "invest" in developing criminal skills, nor become accustomed to levels of activity that produce \$50-\$60/day. In effect, the mechanisms which recruit noncriminals into criminal careers, or intensify the level of criminal activity (which effects persist even after the price of heroin falls) will not operate for new users. To the extent that the social contingencies involved in drug use were major causes of people choosing and working unusually hard in criminal careers, a relaxation of supply reduction efforts will produce a long run reduction in crime in addition to the short run effects associated with the responses of current users.

Thus, in terms of economic dislocation mechanisms, a relaxation of supply reduction efforts is likely to produce a small short run reduction in criminal activity among current users, and a potentially larger long run effect on the number of drug users who choose criminal occupations and seek to maintain high levels of income.

The impact of the "intoxication" effect is much harder to predict--partly because we know less about the importance of this effect in

influencing levels of criminal activity (at both individual and aggregate levels), and because the causal claims linking changes in price to the volume of periods of intoxication are complex and less well known. It seems likely that total consumption of heroin will increase, and that this implies an increase in the periods of intoxication. If intoxication is an important cause of both "negligent crime" and "passionate crime," then this type of crime could increase. More people will be vulnerable to the effect, and the current population will be influenced by the effect more frequently. The major reason to believe that this increase in intoxication will not be significant in reducing aggregate levels of negligent or passionate crime is simply that it is unlikely that in the short run, heroin use and associated periods of intoxication will reach levels of alcohol use. Since the mechanisms are similar, and since alcohol is a very large problem, the increment of negligent crimes and passionate crimes that will be added by an increase in the level of heroin use will be small. Moreover, it seems likely that negligent crimes and passionate crimes from all causes are not a particularly significant component of the crime problem.

Thus in terms of the "intoxication" mechanisms, a relaxation of supply reduction efforts is likely to produce an increase in the level of "negligent" and "passionate" crimes. However, this increase will be small relative to current levels of this type of crime as a result of the overwhelming importance of alcohol use in generating this kind of crime.

In sum, the most likely overall impacts on crime of relaxing supply reduction efforts are the following:

- In the short run, a small reduction in economic crimes committed by current users.
- In the long run, a potentially large reduction in economic crimes as a result of a reduction in the number of people choosing criminal careers or working very intensively at those careers.
- In the short and long run, a small increase in negligent and passionate crimes as a result of increased periods of intoxication.

Most likely effects on other objectives of drug abuse policy . The relaxation of supply reduction efforts is likely to affect many objectives of drug use beyond the objective of reducing crime. Indeed, there are few changes that are likely to produce more dramatic effects on current drug use policy. The most likely effects are the following:

- The rate at which new people experiment with heroin will probably increase. The experimentation will be fueled by the residual black market and by diversion from legitimate programs.

- The rate at which people advance to chronic intensive levels of use will probably increase. Their consumption will be supported by the government supervised clinics following liberal dose and admission policies.
- Many users currently in different forms of treatment (e.g., oral methadone maintenance, therapeutic communities, etc.) will abandon these programs and shift to the heroin clinics.
- While the crime effects of heroin use may be diminished, the effects of heroin use on the health, dignity, and autonomy of users will continue to be serious. Intravenous use will continue to pose hazards for the health of users. Long and frequent periods of intoxication will limit economic opportunities and the capabilities of users to discharge responsibilities to their families and friends.

Admittedly, these predictions are speculative; however, they are among the most likely effects, and if they occurred would be disastrous. Only very large and very certain benefits would justify a shift in policy that creates these risks.

There is one further thing to be noted about this change in policy. The population in the heroin maintenance clinics would by no means be a representative sample of the United States population. It would be drawn disproportionately from the poor, the young and the ethnic minorities. To have the government in the position of supplying heroin on demand to such groups is repugnant. Hence, even very large, certain crime reduction benefits might not justify this policy.

Possible alternative effects of this policy. The effects described above represent the most pessimistic possible view of the outcome of this shift in policy. Other effects are possible. It is possible that there would be no increase in the number of people experimenting with heroin, or advancing to chronic, intensive levels of use. It is possible that users in the clinics would shift to legitimate occupations, reconcile themselves to modest incomes, and discipline their heroin use sufficiently to fulfill responsibilities to family and friends. If these effects occurred, a significant reduction in crime could be achieved at no cost in terms of current drug abuse objectives.

The primary reason for not acting on the basis of these alternative predictions of the possible effects of a policy is simply that these positive effects seem less likely than the pessimistic predictions. Much of our recent experience suggests that if heroin is readily available in a convenient form, many people will use it, and it is hard to imagine that the creation of a legitimate distribution system parallel to the existing illegal market would reduce the availability of heroin. Similarly, if many users would dramatically change their lives in an intravenous heroin maintenance program, it is hard to understand why they do not do so in oral methadone programs. One would expect oral methadone to be more conducive to rehabilitation than intravenous heroin. Thus, these favorable results seem slightly less likely than the unfavorable results.

An additional reason for not adopting this policy is simply that a shift to large scale heroin maintenance programs is likely to be dominated by a policy that combines significant capacity in other forms of treatment with enforcement pressure against the distribution system and property and violent crimes and provides for the diversion of arrested users to treatment. The behavior and condition of users in oral methadone programs, therapeutic communities, and ambulatory detoxication programs is likely to be superior to the behavior and condition of these same users in heroin maintenance programs. Moreover, the few users who will not volunteer for such programs can be motivated to seek treatment by both direct and indirect effects of enforcement pressure.

Thus, continued development of our current policy risks less, and may, in fact, dominate a shift to large scale heroin maintenance programs. For this reason, we recommend against a shift in our current supply reduction policy.

Possible effects of shifting treatment priorities towards crime-committing users

A second major component of our current drug abuse policy is a set of programs designed to reduce the demand for drugs. These programs include prevention programs and treatment programs. We will be concerned primarily with the treatment programs.

Treatment policy is based partly on a set of programs which provide different combinations of levels of personal services and supervision and partly on a set of programs which attract or compel users to enter treatment. Figure 2 is a diagram showing flows of users into different types of supervised programs through several different programs that attract or compel users to seek treatment. Table 2 identifies the range of possible policies defined in terms of different investments in types of treatment programs and types of programs for absorbing users into treatment.

While the exact policies differ from city to city, one can make a few statements about the general shape of our treatment policy in most cities. First, in most cities, the existing capacity in methadone programs and therapeutic communities is made available almost exclusively to people who volunteer for treatment. Second, in most cities, a large number of drug users are arrested either for property and violent crimes, or for narcotics offenses. For the most part, these users either return to the streets or go to jail. Only a few are diverted from the criminal justice system to treatment programs. Third, in most cities, only a limited number of types of treatment programs are offered. Typically, only jails, out-patient methadone programs, in-patient therapeutic communities, and in-patient psychiatric hospitals are offered. Rarely are sheltered workshops, halfway houses with methadone maintenance, or therapeutic communities with methadone maintenance offered.

Viewed from the perspective of seeking to "cure" users of drug abuse (i.e., to produce permanent, complete abstinence from heroin use),

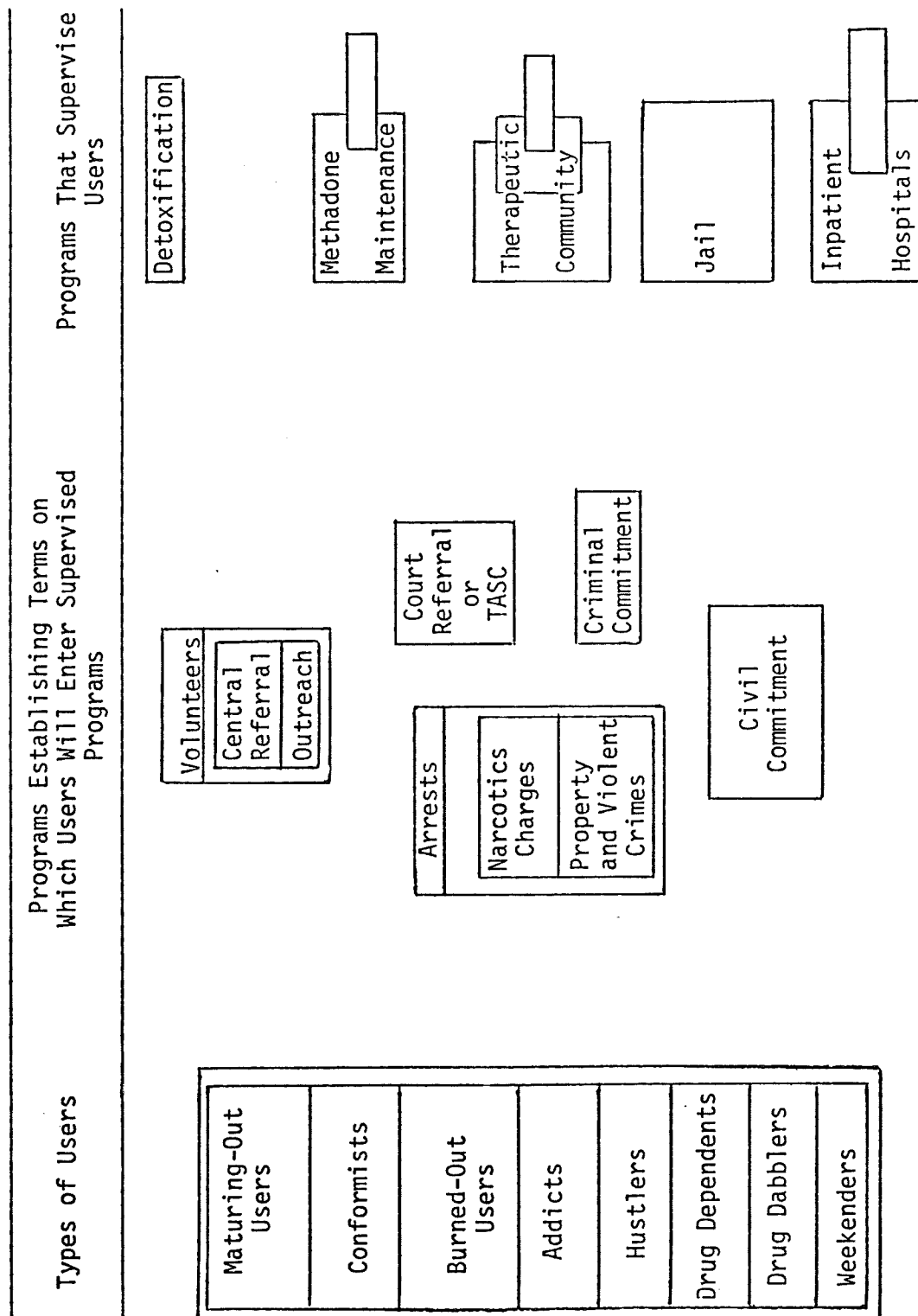


Figure 2. Instruments of a Policy to Supervise Users.

TABLE 2. ALTERNATIVE POLICIES FOR SUPERVISING USERS

"Pure" Medical Approach	Medical Treatment With Persuasion and Compulsion		Diversion of Law Breakers to Therapeutic Facilities		"Pure" Law Enforcement Approach
	Aggressive recruitment	Lure to treatment	Court referral	Differential treatment of narcotics users	
Programs for Selecting Users	Volunteer	Ambulatory detoxification with referral	Civil commitment	Arrest on any charge	Arrest on any charge
	Central referral unit	Heroin maintenance with referral	Civil commitment	Arrest on any charge	Arrest on any charge
	Outreach program		Civil commitment	Arrest on any charge	Criminal commitment
Programs for Supervising Users	Methadone	Methadone	Methadone	Jail	Jail
	Detoxification	Detoxification	Detoxification	Inpatient hospital	Inpatient hospital
	Therapeutic community	Therapeutic community	Therapeutic community	Detoxification	Detoxification
			Inpatient hospital	Probation and Parole	Probation and Parole
				Early enrollment in methadone	Early enrollment in methadone

this policy makes a great deal of sense. Since the user's motivation for cure is a major factor influencing the probability of success, one should concentrate treatment capacity on volunteers. It does no good to compel users to seek treatment. Similarly, it makes no sense to seek to expand and stiffen the amount of supervision in out-patient methadone programs, nor to provide greater incentives to enroll in therapeutic communities. The user's motivation will be sufficient to provide the structure for methadone programs, and the desire to succeed in therapeutic communities. Finally, since users are rarely vicious criminals, and since jail is a relatively ineffective and expensive place to send users, most users arrested for minor offenses are released, and those arrested for serious offenses spend a limited time in jail.

However, one can argue that the appropriate objective of a treatment policy is not to maximize the number of "cures," but rather to maximize the aggregate "net improvements" in the behavior and condition of users that can be achieved within a given budget constraint. The idea of "net improvement" is simply the difference between what a user's behavior and condition would have been in the absence of treatment and what it is during and after treatment. The differences are continuously observed on a variety of dimensions both during and after treatment. Viewed from this perspective, "cures" may not be particularly valuable--particularly in the case that cured users were not behaving badly in the first place, and/or would have gotten better by themselves even in the absence of treatment. The corollary is that "non-cures" may be extremely valuable--particularly if a user is almost cured, and would have been in very bad condition but for the treatment.

In a world where the objective is to maximize aggregate net improvements, the current treatment policy looks much less effective. There is increasing evidence that many drug users are not in bad shape to begin with, and will soon get better by themselves. Moreover, it seems likely that these users are among the first to volunteer for treatment, and among the most eagerly accepted clients. If these observations are accurate for a reasonable fraction of the population of users and if our treatment capacity is small relative to the total population of users, then nearly all our treatment capacity may be wasted on people who are not in trouble and will get better anyway. Similarly, there is evidence that much of the benefits of treatment occur *while the user is in treatment* and result as much from the *supervision* provided by the programs as from the various treatment services. If these observations are correct, it is possible that *unmotivated* users will also show significant improvements while in treatment and that we should experiment with programs providing different levels of supervision.

Taken together, these observations suggest that we may be able to produce larger "aggregate net improvements" by concentrating our treatment capacity on users who are behaving badly now, and are not volunteering for treatment. Specifically, we should probably experiment with diverting users arrested for property and violent crimes into treatment programs that provide modest amounts of supervision.

It is possible that this argument would turn out to be wrong, and that the net improvement of volunteers in treatment would be large compared to the net improvement of users diverted from the criminal justice system. However, there is sufficient uncertainty about the potential advantages of shifting our current policies that experimental changes are clearly desirable. Table 3 is a summary description of the possible problems in our current treatment policy. Table 4 indicates the priority with which evaluations of existing programs should be undertaken to determine potentially attractive changes in policy.

SUMMARY AND CONCLUSIONS

While crime reduction benefits are a major justification for current drug abuse policy, in fact, drug abuse policy is designed to achieve much broader objectives than simply crime reduction. It is targeted at populations that do not commit crimes and is designed to influence more aspects of a user's behavior and condition than simply drug use. While the broadening of the objectives of drug abuse policy is desirable, it does raise the issue of coordination between drug abuse policy and crime reduction and crime reduction policy. Specifically, the issue is whether we can make some adjustments in drug abuse policy that do better with respect to crime reduction objectives, and no worse in terms of the other objectives of drug abuse policy.

The amount that drug abuse policy can contribute to crime reduction objectives depends fundamentally on the relationship between drug use and crime. To the extent that there is a population that commits crimes and does not use drugs, an upper limit to the potential contribution of drug abuse policy to crime reduction objectives is established. To the extent that a population exists which uses drugs but commits no crimes, drug abuse policy will be "diverted" from securing crime reduction objectives. The opportunity for drug abuse policy to influence aggregate levels of crime is limited to the population that both commits crimes and uses drugs. To the extent that drug use is merely correlated with crime (not a causal factor) within this population, drug abuse policy may influence levels of crime but will do so only to the extent that drug abuse policy instruments are targeted effectively on the real causes of crime. Impacts on drug use in itself will fail to change patterns of crime. To maximize the chance that this will occur, we should rely on treatment and prevention programs targeted at broad aspects of a user's behavior and condition--not merely on drug use. Also to the extent that drug use is a *cause* of crime within this population, drug abuse policy instruments designed to affect only levels of drug use will reduce crime.

One can construct several causal models linking drug use to crime. First, there is an "intoxification effect" which influences levels of negligent, passionate, and economic crime. Second, for stimulant drugs, there may be a "Mr. Hyde" effect which affects levels of passionate crime. Third, for dependence producing drugs in a

TABLE 3. PROBLEMS AND OPPORTUNITIES IN CURRENT POLICY
TOWARD HEROIN USERS

Potential Problems	and Risks	Opportunities
Excessive reliance on programs designed primarily to reduce heroin consumption	Changes in user behavior and condition are insignificant.	Slight increase in scope of supervision and shifts to services that expand opportunity could result in much more dramatic changes in user behavior
Insufficient investment in services to expand opportunities to users	Efforts to reduce heroin consumption or change personality and behavior fail to be broad or durable.	Reductions in unemployment, creation of sheltered workshops, and improved job counselling may complement existing supervised programs.
Too narrow a set of programs to deal with heterogeneous heroin-using population	Inability to treat users types: e.g.; "drug dependents" requiring extensive medical services; "hustlers" requiring extensive supervision; "dabblers" and "joy poppers" who need supervision not stigmatization.	Broader set of services geared for different users types may allow us to treat successfully a large segment of the heroin-using population.
Excessive reliance on volunteers	Volunteers may be users types who are behaving badly now and are likely to get better by themselves.	
Failure to supervise and treat users arrested for property and violent crimes	Arrested users may be those who cause most problems associated with heroin use; failing to treat them implies failure to deal with 80% of the problem.	More effective control and treatment of users could have a large impact on the size of heroin problem.

TABLE 4. PRIORITIES OF EXPERIMENTAL GROUPS IN THE EVALUATION OF SUPERVISED PROGRAMS

Kind of Supervised Program	Volunteer	Terms Under Which Users Participate*			Civil Commitment
		Arrested User Court-REFERRED	Users Criminal Commitment	Participate*	
Methadone Maintenance	I	I	III	III	III
Jail	NA	I	NA	NA	NA
Therapeutic Community	I	I	II	III	III
Probation and Parole	NA	II	NA	NA	NA
Holding Unit	II	III	III	III	III
NACC Facility	NA	NA	II	II	III
On the Street (Control)	I	I	II	II	III

*NA means not applicable.

world where drug use is prohibited, there is an "economic dislocation" effect which affects levels of economic crime. Among these effects, the economic dislocation effect is currently the most important effect.

While uncertainty remains about the exact relationship between drug abuse and crime, two adjustments in current drug abuse policy could conceivably result in large crime reduction benefits. First, we could reduce the price of heroin to current users by relaxing supply reduction efforts or creating a legitimate sector of heroin use in government supervised clinics. Second, we could concentrate more of our current treatment capacity on users diverted from the criminal justice system. In evaluating these policy options, we should consider the most likely effects on crime, the most likely effects on other objectives of drug abuse policy, and other possible effects if the shifts in policy. Specific conclusions about whether we should make these shifts are the following:

- *We should not relax supply reduction efforts.*

The reason is simply that the crime reduction benefits are likely to be small, and the effects on other objectives of drug abuse policy are likely to be disastrous. While these predictions are uncertain, these effects seem relatively more likely to be true than alternative hypotheses. Unfortunately, it is difficult to conduct experiments to resolve the major issues.

- *We should experiment with concentrating a much larger share of our treatment capacity on users arrested for property and violent crimes and diverted from the criminal justice system.*

The reasons for this judgment are simply that there is a reasonable chance that much of our current treatment capacity is provided to a population that is not behaving badly now and would get better soon even in the absence of treatment, and that unmotivated users under the supervision of treatment programs would show relatively large "net improvements" in behavior and condition. Priorities for evaluating specific groups in specific treatment programs are given in Table 4. These priorities are based on a calculation of which shifts in current policy could have the largest potential value.