DRUG USE & CRIME

AN EXAMINATION OF DRUG USERS AND ASSOCIATED PERSONS AND THEIR INFLUENCE ON CRIME PATTERNS IN AUSTRALIA

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INTRODUCTION

To say that society is concerned about the actual and potential damage caused by the misuse of drugs is to state the obvious. We are confronted constantly with select committees, expert panels, and commissions of inquiry which address themselves to issues surrounding inappropriate drug use. At present there are three Royal Commissions[1] sitting in Australia which are solely devoted to drug matters.

Despite the findings of many of the above inquiries that the legal drugs alcohol and tobacco are the largest contributors to the social and economic costs of drug misuse, the public interest is focused overwhelmingly on the use of illegal drugs. In particular, the alleged relationship between illegal drug use and crime is a topic of central importance. The media frequently have sensationalised this relationship, giving widespread currency to the image of the drug user as predatory dope fiend, murderer, and rapist. Police sources, both here and overseas, have produced statistics which purport to demonstrate the heavy involvement of drug users in property crime. Consequently, the view is firmly entrenched that a major proportion of crime is directly linked to the use of illicit drugs. This belief is a foundation for a number of our law enforcement and drug control policies and strategies.

If, as Anslinger and Tompkins (1953) claim, use of illicit drugs "causes a relentless destruction of character and releases criminal tendencies" (pp.189-190), and if between 30 and 70 percent of property crimes are committed by users of illicit drugs (Pomeroy, 1974), then attacking and reducing the use of illicit drugs might be expected to have a significant impact on the incidence of crime. Unfortunately, the sorts of assumptions made about the degree and significance of the relationship between drug use and crime are typically based on conventional wisdom rather than empirical evidence. Too often the arguments advanced to support various points of view are faulty in logic and emotional in nature. As Shellow (1976) has noted:

> To evaluate current policy on drug abuse and crime and
> to develop more effective policy in the future, we need
> facts, not assumptions or suspicions (p.131).

One of the major reasons for the confusion in this field of

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[1] The Federal Royal Commission on Drugs, The South Australian Royal Commission into the Non-Medical Use of Drugs, and the New South Wales Royal Commission of Inquiry into Drug Trafficking.

policy is simply the glib use of the phrase "drug use and crime". In this context, with what drugs and with what crimes are we concerned?

Broadly speaking drug-related crimes may be classified as follows:

(1) *Drug-defined crimes.* These are offences such as possession or use of drugs, trafficking, supplying, etc., which are crimes only by virtue of legal sanctions against prohibited substances. While such crimes may occur with high frequency, they are not of immediate concern in themselves because they are not directly crimes against person or property.

(2) *Crimes in the distribution system.* These are offences such as hijacks, assaults, robberies, and bribery which are intended to maintain the physical integrity of a distribution network to ensure an uninterrupted flow of illicit drugs. Such crimes are of increasing concern to police officials in Australia, but because of their particularly covert nature (for example, the victim is not likely to report the offence) it is very difficult to judge the actual extent of such offending. Further, these crimes are linked to drug use only because the latter is illegal.

(3) *Crime directly attributable to the effects of a particular drug.* It is widely believed that particular drugs directly produce physiological or psychological changes in takers such that they will commit crimes, particularly violent ones.

(4) *Income-generating crimes committed against person or property in order to support expensive drug habits.*

It is important in any discussion of drug-related crime that we make clear to which of the above we are referring. In the present Report only types (3) and (4) will be dealt with. The justification for the exclusion of (1) and (2) is that they exist only by virtue of the drug laws and any discussion of them turns upon discussion of the necessity or otherwise of the laws themselves. Pharmacologically-induced crimes (type 3) will be discussed briefly because if they do in fact exist they do so independently of drug laws (that is, a drug will have the same pharmacological effect regardless of its legal status). However, income-producing, drug-related crimes will occupy prime place in this work because it is at this type of crime that drug enforcement is primarily aimed.

It is also important to define what is meant by the word "drug". Much of the difficulty experienced in trying to analyse the results of studies in this field is caused by the imprecise use of this term. The common habit of referring to a variety of pharmacologically-different substances as "drugs" or "narcotics" is especially problematic. On the other hand, there are many potential ways of classifying drugs (for example, by structure, by action, by effect, by price, or by some

combination of these) and it is notoriously difficult to arrive at a useful classification that is suitable for use in all circumstances.[2]

For the purposes of this Report the drugs of interest include the following because of their known or suspected relationship to crime (this classification is based upon that suggested by the Panel on Drug Use and Criminal Behavior convened by the United States National Institute on Drug Abuse):

(1) *Addictive/expensive drugs.* Addictive narcotics, expensive drugs, and their substitutes. These would include heroin, methadone, and cocaine. Users of these drugs would be the ones most likely to be pressured by economic forces into committing income-producing crimes.

(2) *Dangerous drugs.* Relatively inexpensive drugs such as stimulants other than cocaine, depressants, inhalents, and hallucinogens.

(3) *Cannabis and its derivatives.*

Alcohol will not be considered in this Report, although its criminogenic properties are acknowledged. Cannabis[3] will also not be discussed except in relation to the study of drug offenders in Australia set out in Chapter Three. As far as possible the drugs referred to in studies reported here will be specifically identified. Where this is not done, reference to "drugs" or "narcotics" should be read as reference to drugs in the addictive/expensive drugs category.

The following Report is an examination of a number of issues concerning the alleged drug-crime nexus which the Police Working Party on Drugs and Crime thought worthy of substantial research.

Chapter One sets the scene for discussion of the problem by reviewing the major research projects (mostly carried out in the United States) which have attempted to tease out some of the major variables in the relationship under study.

This is followed in Chapter Two by a study of the criminal histories

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[2] For comprehensive discussion of drug-use definitional problems see J. Elinson and D. Nurco (Eds.), *Operational definitions in socio-behavioral drug use research 1975* (Research Monograph Series 2), Rockville, Maryland: National Institute on Drug Abuse, 1975.

[3] For a thorough and balanced discussion of the research and policy issues surrounding cannabis see *Cannabis: A Discussion paper* which has recently been circulated by the South Australian Royal Commission into the Non-Medical Use of Drugs.

of a large sample of recent drug offenders in Australia. This study gives a first basis of comparison between empirical data here and overseas.

The Working Party expressed interest in the development of analytic tools and monitoring procedures with which trends in drug-associated problems could be assessed and upon which planning could be based. One such method, an index of heroin-related crime costs, is discussed in Chapter Three and the data necessary for establishing an Australian index are outlined.

Chapters Four and Five attempt analyses of the economics of the heroin industry and discuss some major policy implications of such analyses. The discussion of this area is vital so that accurate and pertinent information may be collected by future researchers for input into policy making.

Finally, these diverse threads are drawn together and recommendations for future research are contained in Chapter Six.

CHAPTER ONE

DRUG-RELATED CRIME: A RESEARCH REVIEW

THE TEMPORAL RELATIONSHIP BETWEEN DRUG USE AND CRIME

Many studies have attempted to discover whether persons involved in drug-related crime exhibited criminal behaviour prior to drug use or whether the use of drugs lead to criminal acts. Firm opinions have been expressed concerning both possibilities. Tappan (1960), for example, states that:

> ... the addict of lower socio-economic class is a
> criminal primarily because illicit narcotics are
> costly and because he can secure his daily re-
> quirements only by committing crimes that will
> pay for them (pp.165-166).

Other authors, however, view drug-related criminality as part of a generally pre-existing delinquent lifestyle. Thus, Blum (1967) writes:

> There is no evidence that opiates are a cause of
> crime in the sense [that] they inevitably lead to
> criminality, but there is no doubt that among
> addicts with a delinquent life-style drug use is
> part and parcel of their other activities, crime
> included (p.57).

Based on assessment of pre-and-post-heavy drug use criminal activity, data have now been obtained that indicate that a significant change in criminal activity associated with narcotic addiction has taken place over the last half-century. It appears that drug users are now much more likely to be involved in criminal activities prior to using drugs than they were in the past. Dai (1937) reported that 81 *per cent* of the 1047 Chicago addicts[1] he studied had never been

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[1] Where the terms "addict" or "addiction" are used in this Report they reflect the language of the original studies. No attempt is made to define these terms, as their meanings are generally apparent from the contexts in which they appear. Generally, however, the phrase "medium to heavy drug use" may be substituted for "addiction". Where the present author refers to "medium use", 25mg/day of heroin may be taken as being the average, with 85mg/day being the average for "heavy use". It is acknowledged that not all heroin users in these categories necessarily use the drug every day.

arrested prior to becoming addicted. Further, the majority of offences which were recorded for the 19 *per cent* with arrest records were found to be mainly limited to actual narcotic offences. Similar results were reported by Pescor (1938), who found that 75 *per cent* of a sample of over 1000 addicts admitted to a federal hospital in Lexington had no record prior to addiction. Those who did have records had mainly been arrested for misdemeanors. However, 82 *per cent* of the addicts under treatment had criminal records subsequent to addiction.

Studies conducted in the last two decades have found increasing percentages of drug users with pre-drug use criminal records. Chein and Rosenfeld (1957) estimated that three-quarters of the heroin addicts in their New York sample had been delinquent prior to drug use. They stated that virtually all of the 3500 drug-users they studied were at least on the periphery of the delinquent group (that is, had delinquent associates and interests). Chein, Gerard, Lee, and Rosenfeld (1964) concluded that illicit drug use does not in itself cause criminal be-haviour. Rather, they believed that people with criminal backgrounds of some description are attracted to drug use, and then are drawn more deeply into the criminal subculture in order to support their expensive habit.

Since 1960, an extensive literature has developed which addresses itself to the existence of crime prior to the use of expensive, illegal drugs (mostly heroin). O'Donnell (1966) studied 212 addicts at Lexington and found that 37 *per cent* had arrests prior to addiction. However, a more detailed analysis of the data showed that the year of addiction was a crucial variable. Of those in the sample who had become addicted before 1920, only 5 *per cent* had been arrested prior to heroin dependence. Of those addicted before 1950, the majority still evidenced the pattern of first arrest *following* drug addiction. However, of those addicted after 1950, the majority (53 *per cent*) had been arrested *prior* to addiction. Further, the criminal record was more likely to be a serious one. These data showed that in the five decades prior to the study, addicts had been increasingly recruited from those with criminal backgrounds. O'Donnell also found a relationship between crime prior to addiction and the age at onset of addiction. Except for the under-20 age group, the younger the age at addiction, the greater was the probability that an individual would have been arrested prior to addiction.

It is important to distinguish between types of drug users when analysing data such as those presented here. For example, Voss and Stephens (1973) found that only 20 *per cent* of addicts in a sample of over 990 patients at Lexington had been arrested before the use of *any* drug, including alcohol. If alcohol is excluded from the definition of drugs, 44 *per cent* of the sample had pre-drug use arrests. This per-centage rises to 53 *per cent* if alcohol and marijuana are both excluded. If all drugs but opiates and cocaine are excluded, 57 *per cent* are shown to have been arrested prior to drug use. Confirmation of these differences is found in a study by Chambers and Moffett (1969) which showed that the majority of heroin addicts in the sample had been arrested prior to addiction, but that only 10 *per cent* of non-heroin opiate addicts and non-opiate addicts had pre-addiction arrest records.

Morgan (1965) reported that the majority of addicts in his New York sample had criminal records prior to their identification as opiate users. Those who had no prior records confined themselves mostly to narcotic offences (that is, offences against drug laws). On the basis of his findings, Morgan concluded that addiction was a product of delinquent lifestyles rather than a cause of criminal behaviour.

Ball, Chambers, and Ball (1968) showed that 87 per cent of a large sample (2213) of narcotic addicts from throughout the United States had been arrested for non-drug offences prior to the onset of narcotic use. In this sample, approximately two years elapsed between the mean age at which the first arrest occurred and the mean age at which narcotic use began.

Nash (1968) found that 47 per cent of 422 institutionalised New York addicts had been arrested prior to heroin use.

Lukoff (1973) reported that 44 per cent of the 765 heroin addicts he studied in a New York methadone maintenance unit had pre-heroin use arrest records.

Gordon (1973) studied 60 consecutive admissions to a drug clinic in London and found that 48 per cent had been convicted of a non-drug crime prior to drug use. In contrast to the Chambers and Moffett (1969) study, he did not find differences in pre-drug use crime between heroin and non-heroin users. Both groups showed similar crime patterns in both extent and type. However, Gordon's definition of heroin users included those who had used heroin as infrequently as once per week in the month before the interview. It is rather doubtful whether such people are characteristic of heroin addicts and their inclusion could have seriously affected the nature of the results. However, an additional finding of interest was the similar criminal orientation (as measured by truancy, sibling crime and childhood theft) of pre-drug and post-drug offenders. Gordon concluded that all of these people came from a delinquent population with a potential for anti-social activity which could well lead to an attraction to drug use.

What the studies reviewed agree upon is that a significant proportion of drug offenders have pre-existing criminal records and that the percentage has increased over the past 50 years. In fact, it appears that prior to 1950 the majority of drug-offenders were non-criminal before addiction whereas subsequently the reverse is true.

One of the reasons for the striking change in percentages may be found by examining the composition of the samples in the early and later studies which were conducted in the United States. An analysis of the relevant samples shows that the more recent studies included fewer whites and almost four times as many blacks as the earlier studies. A considerably greater percentage of the later studies included people under 29 years of age and there was a predominance of people from urban areas. Also the mean age at first arrest was considerably older in the early studies as opposed to the more recent ones. A more detailed analysis of the samples shows that in the early 1930 studies a significant number (approximately 31 per cent) of the addicts became addicted

to opiates because they had been prescribed by a doctor for the relief of pain.   In summary, the typical addict in the 1930's United States studies was white, came from the rural south and was in his middle twenties at addiction.   Significant proportions of the sample had been medically addicted to morphine and had a non-criminal history.

> In contrast, the typical addict in the mid-60's was
> black, urban, young, non-medically addicted to heroin
> and had a long history of delinquency and crime prior to
> drugs (Greenberg & Adler, 1974).

There are a number of factors which must be taken into consideration when analysing the data presented in the studies referred to above.   The first factor is the age at addiction.   Increasingly addicts are becoming addicted at a fairly young age and therefore have a much longer time in which to commit criminal acts after their addiction than before.   For example, imagine a 26 year-old addict who became addicted at aged 18. He started his delinquent career at 14 years old - he had about four years of potential criminal activity before becoming addicted and about eight after.   He was therefore a much greater risk of arrest after addiction than before, if only because of involvement with drugs.   However, he also had twice as much time in which to commit criminal acts after addiction as before.   It could be therefore, that the percentages of addicts with pre-addiction records are limited by this "at risk" factor.

This fact, that the mean age at onset of addiction is decreasing, has important implications for intervention policies.   It is of particular importance when we remember that, increasingly, drug-users have pre-existing criminal careers.   The combination of the dependence of the drug-using subculture upon criminal associations and the declining age at addiction implies that contemporary addicts have less chance of returning to a conventional life-style than the addicts of two decades ago.   In fact, many contemporary addicts have *never* led a conventional life-style to which they can return.   This will pose serious problems for those who suggest that treatment programmes should address themselves primarily to the drug-taking behaviour itself, and assume that once this has been countered a desirable life-style will re-assert itself.   The accuracy of this prediction is borne out by a study of methadone-maintained addicts in New York (Hayim *et al.*, 1973).   For this sample, age at onset of addiction was significantly correlated with criminal behaviour during treatment.   The earlier the age at onset of addiction, the higher the criminality during treatment.

The data sources utilised in the studies under review are also a matter of some concern.   A number of the studies reported use official arrest statistics as their source.   It is almost obligatory in criminological writing to allude to the fact that these are notoriously unreliable statistics.   Inciardi and Chambers (1972) in a study of the criminal involvement of narcotic addicts concluded as follows:

> As noted earlier in this paper, the quality of reporting
> mechanisms for the accumulation of criminal and social
> statistics in the United States is extremely poor, and
> the extent of our present knowledge regarding volume and

trends is at best, insignificant. The data of
this study tend to dramatize this notion. Of some
13181 specific crimes against person and property
reported by this survey sample, it is not known
how many became part of official enumerations, yet
nevertheless, some tentative and arbitrary estima-
tions can be had. Using the recent FBI ratios of
'crimes known to the police' and 'crimes cleared by
arrest' and applying them to the present data, it
would seem that only 4% of the property crimes and
5% of the personal crimes reported here eventually
appeared in our national statistics (p.63).

Because drug offences are not generally reported by the public it
could well be that an even smaller percentage of these offences ever
become official statistics. An additional factor, as noted above, is
that when a person becomes addicted and/or known to the police, it is
probable that he is closely scrutinised and therefore more liable to
arrest. Those studies that depend on arrest statistics may therefore
have a built-in bias in this manner.

CRIMES COMMITTED TO SUPPORT A DRUG HABIT

Reports frequently appear in the media suggesting that drug users
are responsible for many crimes of violence. However, with the ex-
ception of robbery most studies have shown that drug users are not
likely to commit crimes against the person. An example of such a
study is that conducted by the United States Bureau of Narcotics and
Dangerous Drugs (BNDD)[2] (1971) which analysed the case histories of
1722 people arrested for serious crimes other than narcotic law viola-
tions in six major American cities. The data used included extensive
interviews with the offenders, analysis of urine samples to detect the
presence of drugs and a check of all names against the BNDD registry of
drug users and Federal Bureau of Investigation (FBI) registry of
criminal offenders. The findings of this study showed that 23 *per
cent* of the arrestees were heroin users and another 7 *per cent* had
previously used heroin and were currently non-users. Use of other
illegal drugs was admitted by 32 *per cent*. The charges show that
heroin users were most heavily represented in the crimes against property
classification (61 *per cent* of current heroin users) and least re-
presented in the crimes against the person category (7 *per cent* of
current heroin users were charged with serious crimes against the person
and 3 *per cent* with less serious personal crimes). In other words, non-
drug users were more likely to be arrested for crimes against the person
than drug users. The one exception in the BNDD sample was the ampheta-
mine user. In this study amphetamine users were more likely than any
other group (drug- or non-drug-user) to be arrested for forcible rape
and criminal homicide. Although only 30 individuals in the sample
were amphetamine users, and thus statistically-based inferences cannot

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[2] This agency has since been reconstituted as the Drug Enforcement
Administration.

be made, this finding accords with other studies indicating the potentially violent consequences of amphetamine use (Ellinwood, 1971; Tinklenberg and Woodrow, 1972). For example, Ellinwood (1971) examined 13 case histories of persons who had committed homicide while intoxicated with amphetamines, and concluded that the homicides were clearly related to an amphetamine-induced delusional process and/or state of emotional lability. However, amphetamine use in isolation was not the important causal agent. Ellinwood found the most important variables in amphetamine-induced violence to be a predisposing personality, environmental conditions, and the contemporaneous use of other drugs.

Smith (1972) reported spiralling levels of violence in the Haight-Ashbury area of San Francisco in early 1968 when the use of methamphetamine[3] reached its peak. The majority of this violence, however, was confined within the drug scene and could be viewed as a social and economic consequence of the "speed" (methamphetamine) marketplace rather than a consequence of the effects of the drug itself. The primary type of violence was, in fact, retaliation for "burning" (selling adulterated substances as drugs). An extensive survey of the literature by Blum (1967) for the President's Commission on Law Enforcement and Administration of Justice confirmed the primacy of social and psychological causes of amphetamine-related violence and revealed no compelling evidence to significantly link amphetamines *per se* to crimes of violence.

Some authorities have pointed to increases in violent crime following addiction to other types of drugs. Gordon (1973) reported that in a sample of 60 English drug addicts under inpatient treatment in a London clinic, violent offences by narcotic users rose from 17 *per cent* before drug use to 40 *per cent* subsequently. He also reported that the violence became more serious, and included assault with weapons, robbery with violence, and bodily harm. There were no changes in incidence of offending for non-narcotic drug users. These results are somewhat confused, however, by the fact that the narcotic (predominantly heroin) users were almost exclusively poly-drug users and frequently were heavily using amphetamines in addition to heroin.

The conclusion that is reached in most studies in that drug users, particularly heroin users, are not as a rule responsible for crimes whose primary motivation is violent. They are prepared, however, to engage in violent crime to the extent that it has a pecuniary return. Thus, money crimes with an element of violence, such as robbery, will be relatively more frequent, whereas violent crimes *per se*, such as murder and rape, will be relatively less so. A number of investigations have borne out the contention that drug users, unless they committed violent crime before the onset of drug addiction, tend to avoid crimes of violence unless there is a monetary return (Inciardi and Chambers, 1972;

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[3] Methamphetamine is the most commonly abused form of amphetamine in North America. Commonwealth Police figures show it to be the third most abused specific type of amphetamine in Australia. (*Commonwealth Police*, 1978, Table A10).

Plair and Jackson, 1970; Winick, 1967). Where violence does increase, the conclusion that it is a result of social and economic forces suggests itself. Fitzpatrick (1974) has expressed the view that consideration of drug-related crime at the level of organised crime is much more important than studying the relationships between drug use and crime at the individual user level. The evidence suggests that intense competition for the enormous profits associated with trafficking leads to substantial amounts of racket-associated violence, much of which never comes to official notice. Fitzpatrick suggests that it is not the much publicised "crime in the streets" which is frequently associated with drugs, but rather that the people associated with the drug traffic themselves are involved in underworld violence. Zahn and Bencivengo (1974) found that drug users are significantly more likely to be homicide victims than are non-users, and that the risk has increased in recent years. In a study of 476 homicide victims in Philadelphia they found that, where the killer was known, drug users were more often killed by the police or the person they were attacking than non-users (who were more likely to be killed in domestic quarrels, bar-room brawls, or be the victim of a robbery attempt). 18.5 *per cent* of users in the sample were killed while committing a major crime, whereas for non-users the figure was only 9 *per cent*. After robberies, drug-related arguments were the second-highest category of cause of death among users.

A major problem of interpretation in drug-related crime studies lies in the manner in which certain crimes are classified. This has to be borne in mind when evaluating the conclusions such as those derived from the BNDD study discussed earlier. For example, in that study, if burglary is classified as a crime against the person rather than a property crime, the percentage of current heroin users involved in crimes against the person increases from 7 *per cent* to 33 *per cent* (with a corresponding decrease in property offences from 84 *per cent* to 61 *per cent*. Such a re-classification would lead to totally different conclusions being made about the part played by drug users in violent crime than those made by the BNDD researchers.

Another similar example is Inciardi and Chambers' (1972) study of addicts certified to the New York State Narcotics Addiction Control Commission. In that sample, 97 *per cent* of the addicts reported the commission of property crimes, while only 60 *per cent* admitted to crimes against the person. The most prominent single crime was burglary, which was reported by 74 *per cent* of the sample and which was classified as a property crime. As Greenberg and Adler (1974) point out:

> It should be recognized, however, that regardless of
> legal labels, burglary carries a substantial risk of
> violence, particularly when it involves a private
> residence. Since this, coupled with robbery, seems
> to be the crime most closely associated with addic-
> tion it must be concluded that addicts *will* commit
> crimes involving a *risk* of violence, but usually
> only when necessary to obtain money (pp.243-244).

If drug-users are not substantially involved in violence-motivated

crime, it seems clear that many are involved in property crime. Reese, Knowles, and Aliano examined patterns of adult arrest records for property offences in Los Angeles for representative weeks in 1972 and 1975. For 1972, 40 *per cent* of the property offenders sampled had previous arrests for narcotic and/or other drug offences. The percentage was 38 *per cent* in 1975. Reese *et al.*, also attempted to show that drug users were disproportionately represented in the sample of property offenders. They made the assumption that addicts should be randomly distributed through the Los Angeles city population. With this assumption (which some would seriously question) if there is no relation between being arrested as a narcotic offender and as a property offender, the proportion of narcotic offenders should be similar among property offenders and non-property (non-drug) offenders. Basing their estimate of the number of addicts in Los Angeles on the "drug-overdose death" formula developed by Baden,[4] Reese *et al.*, calculated a probability of 0.014 of randomly finding an addict in the population at large. It would, therefore, be expected that approximately three addicts would be found in the 1975 property offender sample of 224. In fact, 38 narcotics users were so identified, thus establishing a relationship between drug use and crime for that sample at a highly significant level (p<0.0001). Further, a comparison of the property crime arrest records for those with narcotics arrests showed more than double the property crime arrests for those without narcotics arrests (p<0.001).

Studies such as Reese *et al.*, indicate that many drug users steal. What they do not tell us is what proportion of drug users need to steal to support their habit and how much they steal, and what proportion would have stolen even without using drugs. One of the problems with many studies which have set out to answer these questions is that they frequently use "hard core" heavy drug users, often in prison or treatment programmes, who are probably a very biased sample. In addition, most data are obtained by interview and there is a significant possibility that self-reports of crime are inflated for one reason or another.

However, there are now some data available from broader groups. Hughes, Crawford, Barker, Schumann, and Jaffe (1971) interviewed and observed 104 heroin addicts who regularly frequented one drug-selling centre. They determined the occupational breakdown of that sample to be as shown in Table 1 overleaf.

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[4] Michael Baden, New York City Office of the Chief Medical Examiner.

Table 1: Occupation of a sample of heroin addicts

	OCCUPATION	PER CENT
	(Big Dealers	4
	(Street Dealers	6
1	(Part-time dealers	15
	(Bag followers	3
	(Touts	5
2	Hustlers	38
3	Workers	29
	TOTAL:	100

All of the classifications in Group 1 are involved in some way in the sale of drugs. Group 2 (hustlers) are engaged in illegal, but not directly drug-related behaviour, and Group 3 (workers) derive their income primarily from employment, welfare or family. Thus, overall, 33 per cent of the users are involved in the sale of drugs as a primary income source, 38 per cent are involved in other illegal activities, and 29 per cent derive their income from legitimate sources. If we exclude those crimes which are created directly by drug legislation, we are left with only 38 per cent of these heroin addicts who are regularly engaged in non-drug crime. Even of this 38 per cent it is possible that a substantial proportion are not engaged in property or violent crimes, but rather in gambling, prostitution, and pimping. Further, it is difficult even with these categories to establish a causal link to drugs.

Thus, for drug users the most readily available income source is drug selling or associated activities. As Gould (1974) notes:

> Even after excluding drug importing and wholesaling,
> which are reportedly closed to addicts, there are
> still huge profits in street dealing. In New York
> City and surrounding communities, according to the
> report of current dealers, profit margins from retail
> drug sales range between 100 and 200 per cent. From
> this it follows that half or more of the money spent
> on heroin could be obtained through the sale of heroin.
> If all heroin users used the same amount, then hypothe-
> tically half the drug users could finance their drug
> use by selling to the other half. In practice, this
> does not follow directly, however, since some of those
> who sell drugs support themselves as well as their
> drug habit through income from drug sales (p.61).

A number of other studies have also indicated that a significant proportion of drug users do not commit crime to support their habit. Schut, Wohlmuth, and File (1972) investigated the income source of 87 heroin addicts in a methadone maintenance programme in Philadelphia.

Bearing in mind the caution on generalising from the cases of those seeking (or forced to take) treatment to the drug-user population in general, Schut *et al.*, found the following distribution:

Table 2: Means of support among addicts entering a methadone programme

Illegal activities	31.0
Legal employment	31.0
Dependent on spouse	2.3)
Dependent on parents	13.8)34.5%
Dependent on welfare	18.4)
No data/unknown	3.5

(After Schut *et al.*, 1972)

Data from another treatment-centre sample indicates yet another distribution.   Newmeyer (1972) studied heroin users in a San Francisco clinic and found the following sources of support:

Table 3: Primary and secondary means of support of 259 drug patients at the Haight-Ashbury (San Francisco) medical centres

	Primary support (percentages)	*Secondary support (percentages)*
Job	15	3
Spouse	4	1
Welfare	4	1
Other legal	13	18
Thievery, burglary, or "hustling" stolen goods	39	10
Dealing	21	7
Pimping or prostituting	5	2
	100	

(After Newmeyer, 1972)

Based on the studies discussed above, the following conclusion seems valid:

> Since those people who have turned to theft to support
> their heroin use are probably more likely to come to
> the attention of treatment programs than the occasional
> heroin "chippers" who support their heroin use out of
> legitimate sources of income, studies based on popula-
> tions of addict-patients probably over-estimate the pro-
> portion of all heroin users who are involved in theft.
> Even among this population, however, less than half were

involved in theft on a regular or part-time basis.
But whatever the proportion involved in theft, a
half, a third, or a quarter, addicts could account
for a lot of theft (Gould, 1974, p.62).

PROBABILITY OF ARREST AND IMPRISONMENT FOR DRUG-RELATED CRIMES

As with all categories of crime, there is ample evidence to show
that the number of offences reported to the police constitutes only a
small proportion of the actual number of offences committed (Congalton
and Najman, 1974; US National Crime Panel Surveys, 1974, 1975).
Further, for the categories of crimes in which drug-users are over-
represented, robbery and property offences, police clearance rates for
reported offences are generally low (Swanton, 1976). These two
factors imply for many offenders, drug-user and non-drug-user alike,
that the chances of detection are relatively low. Even if detected,
they may still be given lesser penalties than imprisonment. What
studies are available for narcotic addicts indicate that the probabili-
ties of both arrest and imprisonment are low. Inciardi and Chambers
(1972) found that under 1 *per cent* of the crimes reported by a sample
of heroin addicts in New York were cleared by arrest. (There was a
ratio of one arrest for every 120 crimes committed). Of those who
were arrested, somewhat less than 50 *per cent* were convicted; and of
those convicted, less than half were imprisoned.

Plair and Jackson (1970) studied heroin addicts in a treatment
programme in Washington, D.C. Of this sample, 98 *per cent* admitted
crimes for which they had not been arrested, and the researchers esti-
mated that for armed robbery, there was approximately one arrest for
every 180 offences.

These data illustrate the difficulty facing any researcher who
attempts to use either arrest or conviction records as a basis for
accurately determining the number of drug users involved in criminal
activities.

THE ECONOMICS OF DRUGS AND CRIME

If, as many people claim, there is an economic relationship
between narcotic abuse and property crime, we would expect changes in
the purchase price of narcotics to be reflected in changing crime
rates. Specifically, we would expect a sharp rise in prices to be
followed by a significant increase in income-producing crime. A
number of studies have attempted to study this relationship.

Alexander (1973) attempted to correlate changes in the cost and
availability of heroin, crime rates, and availability and use of metha-
done treatment in Atlanta, Georgia, from 1971 to 1972. This study was
conducted to assess the validity of the assumption that reducing the
availability of heroin forces addicts into abstention or treatment pro-
grammes and that methadone programmes, in particular, reduce crime. It

also, of course, provides a test of the alternative assumption that reducing the availability of heroin forces its price up and compels addicts to steal more to support their habits. Alexander found that from January 1971 to December 1972 there were significant correlations between heroin market factors (cost, availability, potency) and specific crimes. When heroin cost was high and potency low, offences of robbery, burglary, aggravated assault, and murder increased. In the property offence category, only burglary was correlated with potency. The author warns, however, against accepting the data as proof of a cause-effect relationship between addiction and crime. He was unable effectively to test the relationship between methadone treatment and crime and points out, with respect to the correlations he did find, that much longer time periods would be required to demonstrate their validity. His data are of interest, however, in that they are at variance with other findings which show increases in income-producing crimes and not in violent offences as found in Atlanta. We should note, though, that the apparent increase in violence may be a consequence of increases in income-producing crime rather than a reflection of an increasing penchant for violence *per se*. The offences coded in these studies reflect only the most serious category involved and we have no way of knowing how many attempted burglaries or purse-snatchings turned into serious assault or murders because of the resistance of the victim or discovery in the process of committing an offence, for example. The study points to the need for sophisticated, long-term data gathering before we will be in a position realistically to study the relationships between drug market forces and social consequences.

Brown and Silverman (1974) have pointed the way to a comprehensive statistically-based examination of trends indicative of drug-crime inter-actions. These researchers applied market statistics to information concerning heroin prices and developed price series which could be used to estimate the retail price of heroin in a number of large United States cities. They then correlated their model of the heroin market with crime statistics to study the relationship between fluctuations in heroin price and criminal behaviour. To examine the relationship, Brown and Silverman used the FBI's Uniform Crime Reports for nine major cities and devised a formula to relate monthly drug prices to specific offences. The formula included variables to account for seasonal temperature and time variations and the trend in crime levels over the two-year time span of the study.

The findings on the relationship between drug price fluctuations and crime were ambiguous but in many cases suggested a positive relationship between heroin prices and crime. In New York, eight of ten crime categories showed increases in response to heroin price rises. On the basis of the formula, a 10 *per cent* increase in the price of heroin would be predicted to lead to a 3.6 *per cent* increase in robberies, a 1.8 *per cent* increase in burglaries, a 2 *per cent* increase in petty larceny, 2.5 *per cent* increase in auto theft, and a 1.7 *per cent* increase in taxi-cab robberies. Findings for Houston were similar to those of New York, but those in Boston suggested a negative drug-price and crime relationship. The authors attribute different results in other cities to the relative paucity of heroin price data in those locations and suggest that the New York findings are indicative of the desirability of

continuing to collect more relevant and comprehensive statistics.

The New York results in this study are indicative of a short-term relationship between the price of heroin and the level of income-producing crime. Brown and Silverman, however, stress the importance of being aware of the possibility of there being both short- and long-term effects of a high heroin price. In the short-term (as shown in this study), high prices might lead addicts to commit more crimes in order to secure money to meet their increased costs.[5] However, high prices may also discourage entry into the addict population and thus lead to a long-term decrease in the amount of drug-related crime.[6] In other words, more crime may be committed in the short-term as a consequence of price rises, but those same rises may lead to a long-term decrease in the addict population and thus indirectly drug-related crime.

This latter proposition is supported in a study by Moore (1971) which analysed the micro- and macroeconomics of the heroin industry in New York city, and examined it as a unique production and marketing system. Moore characterised the heroin industry as having small distribution units, a centralised monopoly at the top of the system, and monopolistic competition at lower levels. He showed that there were six different distribution levels in the New York system, each differing substantially in risk, degree of monopolization, and other characteristics. Moore argued that while quality and cost are beyond the control of the addict-consumers, law enforcement activities can significantly alter the structure of the industry. A coherent policy on heroin could emphasise reducing drug-related crime, reducing suppliers' incomes, curing present addicts, and discouraging entry into the addict community. With these points in mind, what would be the

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[5] This may involve accepting the hypothesis that demand for heroin is inelastic. That is, "if addicts must consume a fixed quantity of heroin each period, then, to the extent that addicts support their habit through criminal behaviour, a rise in the price of heroin may be expected to lead to an increase in criminal activity. If this hypothesis is true, there is a positive relationship between the price of heroin and the level of crime" (Brown and Silverman, 1974, p.603).

[6] We can also reject the hypothesis of an inelastic demand for heroin and suggest that demand is price-elastic. In this case, not only will high prices discourage new users, but will discourage some current ones. " ... if criminal activity goes on independently of the price of heroin (even though criminals may spend some of their money on heroin), an increase in price presumably causes criminals to consume less heroin, possibly substituting other drugs or alcohol, or moving out of the illicit drug market altogether. When prices are low, they presumably choose to buy more heroin" (Brown and Silverman, 1974, p.603).

effects of different enforcement policies?   According to Moore's analysis,[7] increased enforcement would influence market conditions such that there would be a short-term increase in crime with a corresponding increase in illegal income rate; but there would also be an increase in the cure rate (because apprehended addicts would be directed to treatment programmes[8]) and a decrease in the number of new addicts.   De-emphasising enforcement measures would mean a decrease in the crime rate, illegal income rate, and cure rate, but would increase the number of new addicts. Holding that decreasing the number of addicts is a more important priority than decreasing (probably only in the short-term) the crime rate, Moore argues for a policy of more stringent enforcement.

Whatever policy is considered appropriate, we should remember that an economic analysis indicates that if we succeed in decreasing the number of addict-thieves the decrease in property crime may not be as great as many expect (even if drug-use is a motivational force which contributes significantly to property crime).   Gould (1974) suggests that the classical economic factors of supply and demand apply to criminal markets.   In this case, the market is the blackmarket upon which stolen goods are sold to realise cash.   To the extent that drug users are forced by the expense of their habits to enter the market and sell more goods, they should drive down prices for stolen goods, thus making theft less profitable.   In this situation, any individual thief will either have to steal more to maintain the same income or turn to other sources of income (including in some cases, legitimate sources).   It might be expected that, because of the nature of drug addiction, addicts are often compelled to escalate their criminal activities to maintain their income levels.   Non-addicts may not be so compelled, and Gould hypothesises that, as theft becomes less profitable, non-addicts will leave the field in greater numbers, and sooner, than addicts.   In other words, the real level of property crime may not change significantly, only the composition of the labour pool of thieves.   As Gould argues:

> Addiction, then, would not increase theft in direct
> proportion to the number of addicts who steal, but
> would change the composition of the labor force of
> thieves.   To the extent, however, that a labor market
> with a high percentage of addicts in it lowers the
> prevailing prices for stolen goods and keeps these
> prices depressed, there should be more theft because
> the lower prices should expand the total stolen goods
> market.   This expansion, however, would surely not be
> limitless.   There must be a profit margin below which
> even addicts cannot afford to operate and that margin
> may not be too much lower than it is for non-addicts.

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[7] Which is discussed in detail in Chapters Four and Five of this Report.

[8] This is the weakest part of the argument since there is little convincing evidence that the "cure" rate of treatment programmes is a significant factor in decreasing the number of drug-dependent persons.

For one thing, drug addicts have to spend a considerable
amount of their time "chasing the bag" and thus have
less time to devote to theft than non-addicts; and for
another thing, they are usually subject to considerable
police surveilance which makes theft riskier for them
than for the average thief. In balance, drug addicts
may out-hustle non-addicts in the marketplace of theft
and by so doing drive prices down and expand total
amounts of thefts, but in the long run a new balance
of supply and demand should be reached which may not
lead to much more theft than there was when addicts
were not in the market (Gould, 1974, p.65).

It is analysis of these sorts of complex interactions which are
necessary if we are to base drug policies on a rational, empirical
foundation. To date, such analyses have not been characteristic of
research in this area.

DRUG USE AND CRIME: THE EMPIRICAL EVIDENCE TO DATE

Based on the evidence reviewed thus far, the following conclusions
are supported by empirical studies:

1.   For the majority of contemporary narcotic addicts,
     criminal behaviour preceded addiction.

2.   A significant number of narcotic addicts commit
     crimes to support their habits.   Of these crimes,
     the majority involve property offences of goods
     which can be sold to derive money for the purchase
     of drugs.   There is an increasing tendency, however,
     for addicts to indulge in crimes against persons to
     obtain money directly.

3.   The younger narcotic addict appears to be more of
     an opportunist than his predecessor.   He will
     engage in whatever criminal opportunity presents
     itself.   This undoubtedly increases the probability
     of addicts committing violent crimes.

4.   The risk of arrest and conviction for drug-related
     criminal activity is very low.

5.   Drug-related criminal behaviour is multiply determined
     and is particularly influenced by social and economic
     factors.

These conclusions are largely based on United States data and,
although there has been little parallel work carried out in Australia,
there are no indications that they are not also true for Australian
society.   It is the aim of the following chapters to provide some pre-
liminary data on the Australian situation and to suggest further research

which will provide comprehensive bases upon which to build reasonable
and viable social policies in relation to drugs. The discussions that
follow will concentrate on the specific problems of heroin use. There
are a number of justifications for adopting such a narrow focus. First,
as the study of drug offenders in Australia has revealed, heroin is
significantly the most important of the substances involved in drug
offences (excluding cannabis). Because of the known medical complica-
tions of maladministration of heroin (usually disorders such as
hepatitis, tetanus and other effects of unsterile needles and unhygenic
living conditions, but including the possibility of acute toxic reactions
and complications caused by impurities in the drug) and because of its
expense, heroin would seem to be a drug worthy of particular attention.
It is emphasised, however, that many of the arguments to be presented
apply equally to other substances and are presented as an analytical
model rather than as the singling out of heroin as the only problem
worthy of consideration.

CHAPTER TWO

AN ANALYSIS OF THE CRIMINAL HISTORIES OF A SELECTED SAMPLE OF DRUG OFFENDERS IN AUSTRALIA

INTRODUCTION

Chapter One of this report discussed in detail some of the important relationships between drug use and the amount of crime in the community. In particular the analysis of data from the United States suggested that a substantial proportion of drug users committed criminal offences prior to addiction or heavy drug use. This finding casts serious doubt on at least part of the widely held belief that drug use is a major cause of crime. The United States data indicate that many drug-using criminals would have committed crimes regardless of their involvement with drugs.

The present study is an attempt to provide some substantial Australian data to form an empirical basis for making assumptions and predictions about the local situation. The problems associated with investigating the relationships under scrutiny have been alluded to already and were discussed in detail by the Police Working Party.

Basically, two approaches were considered by the Working Party. The first was to examine a sample of offences reported to the police and attempt to assess what, if any, drug involvement was apparent. The present author investigated at some length the possibility of adopting this approach and held extensive discussions with the officers-in-charge of the drug squads of the New South Wales and the South Australia Police Forces and with computer and research personnel from both forces. After careful deliberation, the consensus was reached that there is no feasible way of accurately extracting the necessary information using this approach.

The second method was to examine the criminal histories of a sample of known drug offenders to assess the extent of the pre-drug offending history of criminal behaviour. This is the approach adopted by the present study. In particular, we were interested in obtaining the following information:

1. A general statistical description of the sample population.

2. Age at first drug conviction. (Ideally, we would want to know age at first regular drug use and employ this as a reference point. However, this information is not available without individually tracing and interviewing the total sample).

3. Time elapsed between first conviction[1] and first
    drug conviction (for those whose first conviction
    is not a drug conviction).

4. Number of convictions prior to present drug
    convictions.

5. Number of convictions prior to first drug
    conviction.

6. Number of convictions after first drug
    conviction.

7. Any changes in type of offence for which
    convicted from before to after first drug
    convictions.

In order to test the frequently-voiced hypothesis that significant
differences exist between cannabis and other drug users, the sample was
broken into two groups.   In the following discussion part of the sample
is referred to as the cannabis user group, and consists of all persons
convicted of offences involving any form or derivative of cannabis (for
example, seeds, plants, marihuana, hashish, hashish oil, cannabinol,
"buddah sticks").   The other part of the sample is referred to as the
narcotic user group.   (It is emphasised, however, that the term
"narcotic" was chosen as a convenient label only, and that other than
narcotic drugs were included.   The specific categories coded were
opiates and synthetically related compounds, amphetamines, barbiturates,
hallucinogens, tranquillizers).   It should be noted that many of the
persons in the sample were polydrug users.   The drug coded in those
cases was the one present in the greatest quantity in each case. Only
convictions were analysed in this study.

All data in this study will be presented by drug category (narcotic,
cannabis, total sample), by State or Territory, and in both frequency
and percentage terms.   Detailed data will then be available to other
researchers who may wish to pursue particular issues or analyse the
data with respect to, for example, a particular State.

SAMPLE SELECTION

The sample consisted of a selection of cases extracted from the files
of the Australia Crime Intelligence Centre (ACIC) of the Commonwealth
Police Force.   The function of the ACIC is described as follows:

The ACIC has the national responsibility for the collection,
collation, analysis and dissemination of drug intelligence

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[1] Charges not proceeded with, dismissals, and unfinished proceedings
     were not included in the analysis of data.

information.   All Australian police forces and the
Narcotics Bureau of the Department of Business and
Consumer Affairs contribute information on drug-
related matters to the ACIC (Commonwealth Police,
1978, p.8).

The population to be sampled consisted of all offenders whose
names were recorded with the ACIC from 1 January 1977 to 30 December
1977.   It was intended to select a sample of 200 offenders (100
narcotics users and 100 cannabis users) from each State and Territory.
A systematic random sampling technique was used to generate an initial
sample.   In the case of the Australian Capital Territory the small
number of offenders meant that the total number of cases recorded
during the period were used (that is, 100 only).   In the cases of
Tasmania and the Northern Territory the samples were made up to 200
each by a further random sampling of cannabis offenders.   The total
sample therefore amounted to 1500 cases.

The list of names generated for each jurisdiction was then sent
to the appropriate police force which supplied the ACIC with a complete
criminal history for each offender.   (Confidentiality of names was
preserved by the ACIC removing all identification from the records and
supplying only a code number to the researcher).   When the criminal
histories were returned they were matched to the Drug Intelligence
Report (DIR) on each offender at the ACIC and information from both
sources was then used to compile the data used in the study.   When
DIRs and criminal histories had been matched the following were the
details of the final sample:

Table 4:   Composition of final sample used in the study

	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL
Narcotics Offenders	79	91	79	75	88	7	29	34	482
Cannabis Offenders	94	101	97	94	104	145	71	131	837
TOTAL:	173	192	176	169	192	152	100	165	1319

The decrease in the sample from 1500 to 1319 is accounted for by a
number of factors.   The original lists contained some duplication of
names where offenders appeared more than once in the same year in the
ACIC files.   Records were not available on some offenders because a
case may have still been proceeding and only conviction data were used
in this study.   Finally, when criminal histories were being matched
to DIRs, some of the latter were not available because they were in
operational use and not currently in an access file.

INFORMATION RETRIEVED

The following information about each offender was retrieved from the DIRs and criminal histories:

A. <u>General Statistical Information</u>:

1. Age at 1 January 1977.

2. Nationality.

3. Sex.

4. Type of drug involved in present offence.

5. Type of present offence.

6. Occupation.

B. <u>Criminal History</u>:

7. Date of first drug conviction.

8. Number of convictions prior to the current drug conviction.

9. Number of convictions prior to the first drug conviction.

10. Number of convictions after the first drug conviction.

11. Number of previous convictions by type of offence:

    (a) offences against the person (excluding armed robbery);

    (b) armed robbery;

    (c) income-producing property offences;

    (d) drug offences; and

    (e) other.

12. Type of conviction immediately prior to the first drug conviction and age when the offence was committed.

13. Type of conviction immediately after the first drug conviction and age when the offence was committed.

14. Age at first drug conviction.

15. Time elapsed between first conviction and
    first drug conviction (where the first con-
    viction was a non-drug charge).

RESULTS

For ease of reference and subsequent re-working of data, all
tables of results are presented as appendices to this Report.
Summary tables of national percentages will be presented in the text.

(a) *Description of the sample population.* Appendix 1 provides
a detailed statistical description of the sample population in
terms of age, country of origin, occupation, sex, type of drug
involved in the present offence, and type of offence. Tables
1.01-1.05 in Appendix 1 show the frequencies by State in each of
the above categories for narcotics users. Tables 1.06-1.10 show
the same data converted to percentages to allow State-by-State
comparisons. Tables 1.11-1.14 and 1.15-1.18 show the same
measures for cannabis users in frequency and percentage terms,
respectively. The aggregate frequency and percentage data for
the total sample on these descriptive measures plus occupational
data are given in Tables 1.19-1.24. For the purposes of the
present discussion, the national percentages have been summarised
in Table 5 below.

Table 5: Distribution of total sample by age - percentages

AGE	CANNABIS	PERCENTAGE NARCOTIC	TOTAL
<18	5.85	7.89	6.60
18-25	75.63	72.61	74.53
26-30	14.46	16.39	15.16
31-50	4.06	3.11	3.71
>50	-	-	-
TOTAL:	100.00	100.00	100.00

Table 5 shows the age distribution of the total sample by cannabis
group, narcotics group, and both combined. There are no significant
differences in age distribution between the cannabis and narcotic
groups. Overall the sample is overwhelmingly made up of persons in
the 18-25 year age range (74.53 *per cent*). A further 15.16 *per cent*
of persons were aged between 26 and 30 years, while 6.60 *per cent* were
under 18 years of age and 3.71 *per cent* were aged over 30 years.
These figures may be compared with the distribution of the total number
of offenders (10,990) recorded by the ACIC in 1976.

Table 6: Comparison of age distributions of present sample of 1977
ACIC files with total ACIC cases 1976 (N = 10,990)

	PERCENTAGES	
AGE	PRESENT SAMPLE	TOTAL ACIC SAMPLE 1976*
<18	6.60	13.70
18-25	74.53	72.40
26-30	15.16	10.09
31-50	3.71	3.51
>50	-	0.30

* Source: Commonwealth Police, 1978, Table 3, p.11.

Table 6 shows that the under 18 year group were possibly under-represented
by our sampling procedure and the 26-30 year-old group over-represented
by a similar margin. Table 7 shows the country of origin of persons in
the sample.

Table 7: Distribution of total sample by country of origin-percentages

NATIONALITY	CANNABIS	PERCENTAGE NARCOTIC	TOTAL
Australia	74.07	72.20	73.39
United Kingdom	9.20	8.71	9.02
New Zealand	3.47	3.32	3.41
Other	8.48	9.96	9.02
Not Known	4.78	5.81	5.16
TOTAL:	100.00	100.00	100.00

Again there are no significant differences between the cannabis and
narcotics user groups. Of the total sample, 73.39 *per cent* are
Australians. (As a comparison the 1976 ACIC figure is 81.23 *per cent*.
However, in that data set only 0.23 *per cent* of cases were unable to be
finally coded, whereas 5.16 *per cent* of the present sample were of
unknown nationality).

Table 8: Distribution of total sample by sex - percentages

SEX	CANNABIS	PERCENTAGE NARCOTIC	TOTAL
Male	80.88	77.18	79.53
Female	19.12	22.82	20.47
TOTAL:	100.00	100.00	100.00

Table 8 gives the sex distribution of the sample. Of the total sample
79.53 *per cent* were males and 20.47 *per cent* were females. The figures
for the total samples obscure some major differences between States
however. This is particularly true of the cannabis users. For
example, in New South Wales 92.08 *per cent* of cannabis offenders were
male, while in Western Australia the figure was only 36.54 *per cent*.
Whether these differences are due to a bias in the sample or reflect
the true distribution is impossible to tell from these data.

Table 9: Distribution of total sample by drug used - percentages

DRUG TYPE	CANNABIS	PERCENTAGE NARCOTIC	TOTAL
Opiates	-	78.00	28.66
Cannabis	100.00	-	63.46
Ampheta-mines	-	4.36	1.59
Barbituates	-	3.32	1.21
Hallucenogens	-	12.03	4.40
Tranquilizers	-	1.45	0.53
Other	-	0.42	0.15
TOTAL:	100.00	100.00	100.00

Table 9 shows the type of drug involved in the offences which led to
the person being included in this study. When the final sample was
derived 63.46 *per cent* of the offences were involved with cannabis.
Of the narcotic offences, 78.42 *per cent* involved opiates, followed by
hallucinogens (12.03 *per cent* of narcotic offences), amphetamines
(4.36 *per cent*), and barbiturates (3.32 *per cent*). Once again, these
aggregate figures tend to obscure differences between the States.
For example, in Victoria, 88.61 *per cent* of narcotics offenders were
involved with opiates (as compared with a range of 71.42 *per cent* to
82.76 *per cent* in other jurisdictions). In New South Wales 15.38 *per
cent* of offences involved barbiturates, whereas in other jurisdictions
either no offences or only a minor percentage involved this group of
drugs (1.27 *per cent* in Queensland and 1.14 *per cent* in Western
Australia). In all, however, the opiates were the most important
narcotic drugs by a wide margin.

Table 10: Distribution of total sample by offence - percentages

OFFENCE	CANNABIS	PERCENTAGE NARCOTIC	TOTAL
Unlawful Possession	26.64	23.44	25.47
Import	-	0.21	0.08
Use	66.79	64.11	65.81
Traffic	5.26	5.39	5.31
Receive	-	0.42	0.15
Steal	-	0.42	0.15
False Pretences	-	-	-
Forge Prescriptions	-	2.07	0.76
Possess Instruments	1.31	3.94	2.27
Other	-	-	-
TOTAL:	100.00	100.00	100.00

Table 10 shows the offences with which persons in the sample were charged.   Reference to Tables 1.10 and 1.18 will again show significant differences between jurisdictions.   In this case, however, the dif- ferences are due substantially to differences in the wording of relevant Acts under which charges are laid and in preferences exhibited by different forces in laying charges under different sections.   What is significant, however, is that of the total sample, 91.82 *per cent* were charged with either unlawful possession, or using a drug.   Only 5.31 *per cent* of offenders were charged with trafficking and only one in- dividual with importing drugs.[2]   The overwhelming amount of police resources, as measured by conviction, is therefore being concentrated on drug users rather than drug suppliers.   (It should be noted that the conviction rate is not a reliable measure of resource allocation, however.   It obviously needs far greater resource input to apprehend

[2]   The lack of importing charges is explained by the fact that offenders will mostly be dealt with by the Narcotics Bureau, not the Police Forces.

one large supplier than many ordinary users. However, the sheer volume of user apprehensions indicates that substantial resources are still being allocated to this group).

Table 11: Distribution of total sample by occupation - percentages

OCCUPATION	CANNABIS	PERCENTAGE NARCOTIC	TOTAL
Professional	2.75	2.91	2.80
Administra- tive	1.55	1.25	1.44
Clerical	6.09	3.94	5.31
Sales	2.27	2.28	2.27
Farmers/Fish- men Etc.	2.15	0.62	1.59
Miners	0.12	-	0.10
Transp. & Commun.	4.54	3.73	4.25
Craftsmen/Lab.	34.40	33.40	34.04
Service/Sport	7.65	8.30	7.88
Armed Services	0.60	0.21	0.45
Students - Primary	0.24	0.41	0.30
Secondary	1.20	0.21	0.83
Tertiary	4.06	2.49	3.49
Housewives/Pens.	0.84	1.87	1.21
Unemployed	24.61	26.97	25.47
Not known/ Inadequately described	6.93	11.41	8.57
TOTAL:	100.00	100.00	100.00

Table 11 shows the given occupations of persons in the sample. While there are some differences between narcotics and cannabis users, they are not significant. Of the total sample, the highest percentage (34.04 *per cent*) fall within the craftsmen/labourer occupational group (most of whom would be classified as unskilled). The next major group

were the unemployed (25.47 *per cent*). (A similar profile of
occupations is evident in the 1976 ACIC sample of 10990 offenders, see
Commonwealth Police, 1978, p.45, Table A4).

In summary, the data collected on major descriptive indices for these
offenders while showing some interesting differences between juris-
dictions (which will not be discussed in detail in this report) do not
reveal any significant differences in the general background character-
istics of cannabis and narcotics offenders.

The persons most prominent in this sample are Australian-born males,
males and females aged between 18 and 25 years, employed in unskilled or
semi-skilled occupations. Most were charged with possessing or using
cannabis or an opiate.

(b) *Criminal histories*. Appendix 2 tabulates the relevant criminal
history data for all offenders in the sample. Again, as an archival
source of data, the information is presented by jurisdiction, by drug
use category (that is, narcotics, cannabis, total sample), and in both
frequency and percentage terms. Most of the discussion for the pur-
poses of this report will focus on the aggregated percentage data.

Tables 2.01-2.05 in Appendix 2 contain information regarding the age of
persons in the sample at first conviction for a drug offence. This
age is taken as a reference point for later calculations in *lieu* of
information regarding the age that regular *use* first began. Table 2.01
gives frequencies of ages for narcotics offenders, and these data are
converted into percentages in Table 2.02. Tables 2.03 and 2.04 show
the same information for cannabis offenders, and Table 2.05 gives the
national frequencies and percentages. The percentage data are re-
produced in Table 12 below.

Table 12: Age at first drug conviction - total sample - percentages

AGE	CANNABIS	PERCENTAGE NARCOTIC	TOTAL
<20	38.59	37.34	38.14
20-25	49.94	50.42	50.11
26-30	7.29	8.30	7.66
>30	4.18	3.94	4.09
TOTAL:	100.00	100.00	100.00

This latter table reveals that there are no significant differences
between age at first conviction for a cannabis offence and that for a
narcotic offence. Of the total sample, 38.14 *per cent* were under 20
years old at their first drug conviction, and a further 50.11 *per cent*
were aged between 20 and 25 years. In total, therefore, 88.25 *per cent*
of drug offenders were aged 25 years or under at their first drug con-
viction.

Tables 2.06-2.10 show the period elapsed between first conviction and
first drug conviction (where the first offence was a non-drug offence).
Tables 2.06 and 2.07 give the frequency and percentage data, respecti-
vely, for narcotics offenders and Tables 2.08 and 2.09 give the same
data for cannabis offenders. The national data are displayed in
Table 2.10 (the percentage figures are shown in Table 13 below) and
reveal the first significant differences between cannabis and narcotics
offenders.

Table 13: Period elapsed between first conviction and first drug
conviction for offenders with previous criminal records -
national percentages

PERIOD ELAPSED	CANNABIS	PERCENTAGE NARCOTIC	TOTAL
0-3 mths.	4.07	6.20	4.99
3-6	2.71	7.08	4.61
6-12	6.78	9.29	7.87
1-2 yrs.	18.64	14.60	16.89
3-5	32.54	30.53	31.67
>5	35.26	32.30	33.97
TOTAL:	100.00	100.00	100.00

Narcotic offenders are more likely to have committed their first drug
offence sooner after their first offence than are cannabis offenders.
Thus, of those persons who had previous criminal records, a significantly
larger percentage of narcotics offenders (22.57 *per cent*) than cannabis
offenders (13.56 *per cent*) were convicted for their first drug offence
within twelve months of their first conviction (non-drug).

Tables 2.11-2.15 show the number of convictions (of any type) prior to
the present drug conviction. Tables 2.11 and 2.12 give frequency and
percentage data, respectively, for narcotic offenders, and Tables 2.13
and 2.14 for cannabis offenders. Table 2.15 displays the national
data and the percentage data are reproduced in Table 14 below.

Table 14: Number of convictions prior to present drug conviction -
total sample - percentages

NO. OF OFFENCES	CANNABIS	PERCENTAGE NARCOTIC	TOTAL
0	51.14	33.19	44.58
1-5	33.69	37.34	35.03
6-10	8.84	14.12	10.77
11-15	2.75	7.88	4.62
>15	3.58	7.47	5.00
TOTAL:	100.00	100.00	100.00

These figures show that narcotics offenders have substantially greater criminal histories than have cannabis offenders. Of the total cannabis group, 51.14 *per cent* were first offenders (compared with only 33.19 *per cent* of the narcotics group), 33.69 *per cent* had between one and five previous convictions (narcotics group 37.34 *per cent*), 8.84 *per cent* had six to 10 previous convictions (narcotics group 14.12 *per cent*), 2.75 *per cent* had 11-15 previous convictions (narcotics group 7.88 *per cent*), and 3.58 *per cent* more than 15 previous convictions (narcotics group 7.47 *per cent*).

Tables 2.16-2.20 and 2.21-2.25 show, respectively, the number of convictions prior to and after the first drug conviction. Tables 15 and 16 give the national percentages for each measure

Table 15: Number of convictions prior to first drug conviction - total sample - percentages

NO. OF OFFENCES	CANNABIS	PERCENTAGE NARCOTIC	TOTAL
0	62.96	53.11	59.36
1-5	27.48	34.02	29.87
6-10	5.50	6.43	5.84
11-15	1.19	3.53	2.05
>15	2.87	2.91	2.88
TOTAL:	100.00	100.00	100.00

Table 16: Number of convictions after first drug conviction - total sample - percentages

NO. OF OFFENCES	CANNABIS	PERCENTAGE NARCOTIC	TOTAL
0	65.95	47.93	59.36
1-5	29.74	34.02	31.31
6-10	2.75	9.13	5.08
11-15	0.84	4.77	2.28
>15	0.72	4.15	1.97
TOTAL:	100.00	100.00	100.00

Unfortunately, it is not possible to make direct comparisons between the two data sets because it was not possible to equate time before and after the first drug offence. For example, the before period may extend over 15 years and the after period over only one or two years (many first drug convictions in the present sample having been recorded in only 1976 or 1977). What the Tables are able to show, however, are the same differences between cannabis and narcotics users as are evident from Table 8E, that is, greater pre- and post-first drug conviction

offending among narcotics offenders.

Table 2.26 shows, jurisdiction by jurisdiction and for the total sample, the number of persons with no offences prior to the present drug offence.   The percentage data are shown in Table 17 below.

Table 17:   Persons with no convictions prior to the present drug conviction - total sample - percentages

	CANNABIS	PERCENTAGE	NARCOTIC
QLD	43.62		35.44
NSW	39.60		36.26
VIC	59.80		40.50
SA	37.23		32.00
WA	70.19		38.64
TAS	56.55		14.28
ACT	49.30		34.48
NT	48.85		38.24
TOTAL SAMPLE:	51.14		33.19

This table gives a jurisdictional breakdown of part of Table 2.15 and shows in detail how 51.14 *per cent* of cannabis offenders *versus* 33.69 *per cent* of narcotics offenders had no previous convictions.

Tables 2.27-2.31 detail the types of previous offences for which persons in the sample have been convicted.   Tables 2.27 and 2.28 give frequency and percentage data, respectively, for narcotics offenders and Tables 2.29 and 2.30 give the same data for cannabis offenders. Table 2.31 shows the national data which reveal no real differences in type of previous offence history between cannabis and narcotics users. Table 18 reproduces the percentage data.

Table 18:   Previous convictions by type - total sample - percentages

PREVIOUS OFF. TYPE	CANNABIS	PERCENTAGE NARCOTIC	TOTAL
Person	5.90	6.00	5.95
Armed Robbery	0.01	0.24	0.15
Property	44.00	38.48	41.05
Drug	23.85	33.54	29.01
Other	26.24	21.74	23.84
TOTAL:	100.00	100.00	100.00

What is revealed is a substantial percentage of income-producing property crime (41.05 *per cent* of all previous offences fell into this category) and previous drug crime (29.01 *per cent* of all previous offences). The majority of the 23.84 *per cent* of offences in the "other" category were minor offences such as drunkenness, obscene language, offensive behaviour, etc. Note that only 5.95 *per cent* of previous offences were against the person, and that there were no differences between cannabis and narcotics offenders on this measure (5.90 *per cent* and 6.00 *per cent* of previous offences, respectively). Armed robbery as a specific offence did not figure prominently either, with only 7 of the 4757 previous offences (or 7 of 1319 offenders) being involved in this category.

If previous drug offences are excluded from consideration, we find the following percentages:

Table 19: Percentages of previous convictions by type (excluding drug offences)

TYPE OF OFFENCE	CANNABIS	NARCOTIC	TOTAL
Person	7.74	9.03	8.38
Armed Robbery	0.05	0.36	0.21
Property	57.77	57.98	57.83
Other	34.44	32.72	33.58
TOTAL:	100.00	100.00	100.00

Thus, excluding drug offences, 57.83 *per cent* of previous offences were property offences.

Tables 20 and 21 show for narcotics users and cannabis users, respectively, the average number of previous convictions (by type) per person. This index is arrived at by dividing the total numbef of previous offences in each category by the number of offenders with previous criminal histories.

Table 20

AVERAGE PREVIOUS CONVICTIONS PER PERSON*

NARCOTICS USERS

AV. PREVIOUS OFFENCES	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
Person	0.29	0.63	0.89	0.12	0.39	-	0.58	0.52	0.47
Armed Robbery	-	-	0.09	0.02	0.02	-	-	-	0.02
Property	3.04	3.18	2.79	4.53	2.22	4.67	1.79	2.10	3.03
Drug	1.98	4.47	3.85	1.39	1.87	1.17	1.21	1.90	2.64
Other	3.86	1.05	1.57	1.73	0.94	1.83	1.00	1.62	1.71

* Note that the number of persons used in these calculations include only those with previous convictions.

35.

Table 21

AVERAGE PREVIOUS CONVICTIONS PER PERSON*

CANNABIS USERS

AV. PREVIOUS OFFENCES	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
Person	0.21	0.46	1.05	0.25	0.16	0.06	0.28	0.25	0.32
Armed Robbery	-	-	-	0.02	-	-	-	-	-
Property	1.45	3.61	2.92	3.58	1.39	1.75	2.42	1.73	2.39
Drug	0.75	1.39	1.10	1.66	1.65	1.54	0.36	1.54	1.30
Other	0.87	1.02	2.15	2.47	1.32	1.76	0.58	1.07	1.43

* Note that the number of persons used in these calculations include only those with previous convictions.

36.

A comparison of the two tables again illustrates the similar distribution of types of offence between the two drug user groups but illustrates the greater criminality of the narcotic users. For example, narcotic users had, on average, 3.03 previous property offences each, *versus* 2.39 for cannabis users. Of particular significance is the greater number of previous drug offences (2.64 per person) for narcotic users as compared with cannabis users (1.30 per person).

Tables 2.32-2.36 and 2.37-2.41 show, respectively, the type of offence for which convicted immediately prior to and after the first drug convictions. Tables 2.32 and 2.33, and 2.37 and 2.38 show frequency and percentage data for narcotics users on both measures. The same data for cannabis users are given in Tables 2.34 and 2.35, and 2.39 and 2.40. Tables 2.36 and 2.41 show the national data on both measures. The percentage data from the latter tables are reproduced below in Tables 22 and 23.

Table 22: Type of offence for which convicted immediately prior to first drug conviction - total sample - percentages

| TYPE OF | | PERCENTAGE | |
OFFENCE	CANNABIS	NARCOTIC	TOTAL
Person	10.06	11.84	10.81
Armed Robbery	0.32	0.88	0.55
Property	47.80	55.70	51.10
Other	41.82	31.58	37.54
TOTAL:	100.00	100.00	100.00

Table 23: Type of offence for which convicted immediately after first drug conviction - total - sample - percentages

| TYPE OF | | PERCENTAGE | |
OFFENCE	CANNABIS	NARCOTIC	TOTAL
Person	3.58	3.16	3.38
Armed Robbery	0.36	0.79	0.56
Property	17.92	17.39	17.67
Drug	63.44	62.85	63.16
Other	14.70	15.81	15.23
TOTAL:	100.00	100.00	100.00

Table 22 shows that the largest group of repeat offenders in both drug groups (55.70 *per cent* for narcotic offenders and 47.80 *per cent* for cannabis offenders) had committed a property offence immediately prior to their first drug offence. For 11.84 *per cent* of narcotic offenders and 10.06 *per cent* of cannabis offenders the prior offence was against the person. The importance of coming to notice for a drug offence is illustrated by Table 23. This shows that as a percentage of all offences committed immediately after the first drug offence, another

conviction for drugs was most likely.   Another drug conviction was
recorded for 62.85 *per cent* of narcotics offenders and 63.44 *per cent*
of cannabis offenders charged with further offences.

If drug convicitons are excluded, comparisons may be made directly be-
tween percentages before and after the first drug conviction.   These
comparisons are shown in Table 24.   This reveals that a greater percen-
tage of both cannabis and narcotics users were involved in an armed
robbery in the offence immediately after as compared with immediately
before their first drug conviction.   Before the first drug conviction
0.88 *per cent* of offences committed by narcotic users and 0.32 *per
cent* of those committed by cannabis users were for armed robbery.
After first drug conviction the figures were 2.13 *per cent* and 0.98
per cent respectively.   However, as a percentage of total offences,
income-producing property crime declined on the before-after measure
for narcotic users (55.70 *per cent* of narcotic offences before *versus*
46.81 *per cent* after).   Cannabis user property crime rose marginally
from 47.80 *per cent* to 49.02 *per cent*.

Table 24

COMPARISON OF TYPE OF OFFENCE FOR WHICH CONVICTED (EXCLUDING DRUG OFFENCES)

IMMEDIATELY BEFORE AND AFTER FIRST DRUG CONVICTION

TOTAL SAMPLE - PERCENTAGES

TYPE OF OFFENCE	BEFORE FIRST DRUG OFFENCE			AFTER FIRST DRUG OFFENCE		
	CANNABIS	NARCOTIC	TOTAL	CANNABIS	NARCOTIC	TOTAL
Person	10.06	11.84	10.81	9.80	8.51	9.18
Armed Robbery	0.32	0.88	0.55	0.98	2.13	1.53
Property	47.80	55.70	51.10	49.02	46.81	47.96
Other	41.82	31.58	37.54	40.20	42.55	41.33
TOTAL:	100.00	100.00	100.00	100.00	100.00	100.00

40.

DISCUSSION

The characteristics and criminal histories of 1319 drug offenders selected from the records of the ACIC were analysed to investigate the relationship between drug-user crime before and after the first conviction for a drug offence. Comparisons were also made within the sample between 482 persons convicted of narcotic drug offences (as defined earlier) and 837 persons convicted of cannabis offences.

An analysis of background characteristics failed to find any significant difference between the cannabis and narcotic groups. Of the total sample, the majority (74.53 *per cent*)were aged between 18 and 25 years and were born in Australia (73.39 *per cent*).

Males constituted 79.53 *per cent* of the sample. Of the drugs involved in what we have termed the narcotics category, 78.42 *per cent* were opiates or synthetically related compounds, and 12.03 *per cent* were hallucinogens. Amphetamines, barbiturates, tranquillizers, and other drugs constituted 9.55 *per cent* of the total. The vast majority of offenders (91.82 *per cent*) were charged with offences of unlawful possession or use of a drug. Only 5.31 *per cent* of offences related to trafficking, selling, supplying, or importing drugs. Finally, the majority of offenders were either employed in unskilled occupations or were unemployed.

An examination of the criminal histories of this sample of drug offenders confirmed that a substantial number had criminal records prior to coming to notice on a drug charge. Criminal records were more frequently found in the narcotic user group. Convictions prior to the present drug conviction were recorded for 66.81 *per cent* of the narcotics group and for 48.86 *per cent* of the cannabis group. The number of previous convictions per person was also considerably higher for narcotics offenders. In this group 29.47 *per cent* of offenders had more than five previous convictions, whereas only 15.17 *per cent* of cannabis offenders had records in this range.

Cannabis and narcotic users with criminal histories were not differentiated by the type of offence they had committed. Both groups had committed a substantial amount of property crime prior to the present offence (41.05 *per cent* of previous offences for the total sample), and also a significant amount of drug offences (29.01 *per cent* for the total sample). Most other offences were of a relatively trivial nature and, significantly, only 5.95 *per cent* of previous offences were against the person (most of these being sexual offences repeated by a few offenders).

It is often thought that drug use forces a substantial number of users to commit income-producing property crime in order to support their habits. If this is true, we would expect considerably more offenders to commit property offences after, in comparison with before, their first drug conviction (particularly for narcotics users). An examination of the data shown in Tables 22 and 23 throws light on this question. In percentage terms, a further drug offence was the most likely finding after the first drug offence for both groups of offenders. If drug offences are excluded from consideration (as shown in Table 24),

the probability of the next offence being an armed robbery is slightly increased and the probability of the offence being a property one is slightly decreased. However, property crime is still the largest contributor (47.96 *per cent* after *versus* 51.10 *per cent* before for the total sample).

The assumption that many drug offenders are first criminals and then drug users and that a criminal lifestyle *per se* rather than drug use may contribute importantly to drug-user crime is further evidenced by the periods elapsed between first conviction and first drug conviction. Of those in the total sample whose first offence was a non-drug one, 65.64 *per cent* were not convicted for their first drug offence until in excess of two years following their first offence (non-drug). Fully 33.97 *per cent* were not convicted on a drug charge until more than five years after their first offence. What is of significance is that of those who are convicted of a first drug offence within twelve months of their first offence, narcotics users are more likely than cannabis users to be represented (13.56 *per cent* for cannabis users *versus* 22.57 *per cent* for narcotics users).

In summary, this analysis of 1319 drug offenders shows that narcotics and cannabis users are essentially drawn from the same population (as measured by age, sex, nationality, employment etc.). What differentiates the two groups is their criminal involvement. While both groups are involved in criminal activities, narcotics users are considerably more so in terms of numbers of individuals involved, length of involvement, and amount of criminal activity.

On the basis of the data presented in Appendices 1 and 2 it would appear that while drug users commit what is probably a substantial amount of crime (particularly when unreported or undetected crime is accounted for), a large proportion of that crime is an extension of previous criminal activity and cannot be clearly attributed to drug involvement. This is not to deny that some unknown proportion of addicts are forced by the economics of a prohibition policy to commit crime to provide income for drug purchases. However, the data indicate that in the Australian context claims about drug use *causing* crime have been grossly exaggerated. Patterns of crime do not seem to change markedly following drug convictions. Drug users *do* commit crimes, but a substantial proportion were committing crimes many years before serious drug involvement (as measured by drug convictions). While narcotics users commit more crimes than cannabis users (and more individual narcotic users are involved) they also have more serious criminal histories.

These data, plus the considerations concerning the economics of drugs discussed earlier, indicate that the eradication of drug use would not on its own have as significant an effect on crime as many would have us believe. However, as will be argued in Chapters Four and Five, enforcement policies should continue to have an important place in a co-ordinated and comprehensive drug policy. The argument being put forward on the basis of the present data is not that crime is not associated with drug use, and sometimes caused by it, but that claims for the *strength* of the association or the causal link are not

supported by the evidence.   If our policies are to be realistic and rational we must not over-emphasise one aspect of the situation and must not expect to find simple and direct links between what are, in fact, complex social, economic, and physiological phenomena.   Dependence on such presumed simple links will lead to simplistic solutions which do not address the real issues.   In the following chapters we will discuss some of the more complex interactions of the heroin market-place and of heroin use which could be used as a model for policy analysis.   Although similar analyses and arguments may be applicable to other drugs, attention to heroin in particular is justified both by the nature of the drug itself and the fact that the present study has shown that opiate users constitute the most criminal portion of the drug-using population.

CHAPTER THREE

PROBLEMS INVOLVED IN ATTEMPTING AN ANALYSIS OF THE COST AND IMPACT OF DRUG-RELATED (SPECIFICALLY HEROIN-RELATED) CRIME IN AUSTRALIA

HEROIN-RELATED CRIME

We have noted the concern that is expressed over the alleged link between addiction and crime, particularly between heroin addiction and crime. We have reviewed the major studies in this area which have attempted to establish whether criminal behaviour precedes illicit drug use and whether a significant proportion of crime is drug-related. What emerges are some indications, but no definitive answers. We have indicated the difficulties faced by researchers in this area caused by inadequate data sources, different perceptions, and different definitions of many parts of the problem. Particularly when trying to estimate the amount and cost of drug-related crime, the potential for error is great and ranges from inaccurate data to deliberate distortion for political or organisational advantage. The DEA has tried to minimise some of the pitfalls by paying particular attention to adequacy of data sources and taking account of complex variables in its attempt to produce a realistic, if still tentative, estimate of the amount and cost of heroin-related crime in the United States. However, it is submitted that we do not yet have available sufficient data to make even a qualified, compromise estimate (which is essentially what the DEA work represents) of the extent of heroin-related crime in Australia.

This chapter will examine the common approaches to estimating the significance of the heroin-crime link, describe their strengths and limitations, and explain the derivation of the formula used by the DEA in their 1977 study. A discussion will follow which outlines the data that would have to be made available before a similar estimate of heroin-user crime in Australia could be developed.

METHODS OF ESTIMATING HEROIN-USER CRIME

1. *Identification of heroin users in an arrestee population.*   A
frequently used technique is to identify heroin users in a jail popula-
tion and attempt to estimate the percentage of crime committed by them.
While these studies have consistently found a high correlation between
drug and property crime they are not well enough founded to use as a
basis for an accurate estimate of heroin user crime.   Such studies are
frequently small in scale, have methodologies which are not comparable,
or do not specifically isolate heroin users from other drug users.   In
surveying a number of jail studies, DEA concluded:

> These reports all point to extensive drug use among an
> arrestee population, but they are generally local
> surveys conducted on a one time only basis, limited in
> sample size, producing incomparable data which cannot be
> used to measure the problem on a national basis (1977,
> p.8).

There are two further limitations to jail surveys (which also apply to
other attempts to estimate addict crime).   First, it is not necessarily
true that the percentage of heroin users in a particular sample (in this
case, a jail population) is the same as the percentage of heroin-related
crime in the area from which the sample is drawn.   To assume that this
is so would be a gross oversimplification.

Second, on their own, figures concerning drug-related crime do not
accurately portray the problem situation.   A gross percentage does not
easily translate into specific numbers of specific crimes and their
associated costs - and it is these data which will be useful for law
enforcement planning and decision-making.   The "dark figure of crime"
(Biderman and Reiss, 1967) is now a well established and recognised
concept.   Crime officially reported or becoming known to the police
vastly under-estimates actual crime and it is not legitimate to assume
that there is a constant under-reporting factor which allows us to
directly apply, for example, jail survey percentages to reported crime
and think that it is an accurate reflection (even in percentage terms)
of crime committed.   To have any real value, the percentages should be
related to the number and cost of actual (as opposed to officially
reported) property crime.   As the 1977 DEA report comments:

> Most data currently generated by the jail surveys do not
> give a concrete idea of the effects of heroin related
> crime, but rather, provide a percent or fraction of an
> unknown quantity (p.11).

2. *The addiction factors method.*   The other major method of estimating
the cost of heroin-related crime uses a formula which takes into account
a number of factors involved with addiction (e.g., Brown, Tabbush, Jamison,
and Carney, 1971; Holahan, 1976; McGlothlin, Tabbush, Chambers, and
Jamison, 1972).   Some of the items in the equation are almost univer-
sally used, for example, the estimated number of addicts, the average
daily cost of a habit, the percentage of addict income derived from
crime, and the "fence factor" - the money received from the sale of

stolen property, expressed as a percentage of its retail value. Other formulae attempt to increase the depth of their measure by incorporating factors such as the amount of cash stolen *versus* property, and an estimate of the time an addict is unable to actively pursue his criminal activities (because incarcerated, in treatment, etc.).

While this method is widely used, it too has limitations. The major drawback is that the estimate derived is so dependent on the choice of factors to be included and that the factors themselves are also estimates. As Freck, Cohen, Lawson, and Minnichiello (1972) comment:

> These are disparate variables and if the estimates for any are far off the mark, the total annual property theft by addicts will be off proportionally (p.152).

Further, as mentioned earlier, deriving a figure on the dollar cost of addict crime does not indicate in any detailed manner the impact of that crime on society. Only rarely are dollar cost estimates extended to estimate the actual number of addict crimes or their relationship to total property crime. It is these data which are necessary for decision-making rather than polemics. In all, however, the addiction factors method provides the greatest hope for an accurate estimate. What we must do is take cognisance of the pitfalls and try to refine the method to help overcome them.

UTILISING THE ADDICTION FACTORS FORMULA - THE DEA REPORT

In their 1977 Report, the DEA used the factors listed below to make their estimate of heroin-related crime:

Factor A   ....   Average daily cost of a heroin habit
Factor B   ....   Estimated number of heroin addicts
Factor C   ....   Days on the street annually
Factor D   ....   Percentage of funds derived from theft
Factor E   ....   Cash return for stolen goods (fence factor)
Factor F   ....   Percentage of heroin substitution/ supplementation

In order to understand what would be involved in producing an Australian estimate it will be necessary to describe by what methods the DEA calculated a value for each factor and to discuss the problems associated with each calculation. The method used by the DEA was to produce a preliminary estimate and then to progressively refine it by taking account of more complex interactions or stringent assumptions. Their initial values were chosen as follows:

Factor A - Average daily cost of a heroin habit. DEA estimated that a user who is truly addicted to heroin would require approximately five 10mg doses per day (50mg). Based on actual purchases of drugs by undercover agents, DEA estimated the average price per milligram

pure was $1.15 at the time of the study. Thus, the average daily cost of a 50mg habit would be $58.

Factor B - Estimated number of heroin addicts. DEA maintains a nation-wide reported narcotic abuser system with which state and local police agencies record the names of known drug users. This sole statistical base gave an estimated heroin addict population of 558,000.

Factor C - Percent time in circulation. DEA acknowledged that any estimate of the effects of heroin use would be grossly inflated by assuming that all addicts are active all year. They may be incarcerated, undergoing treatment, unable to procure a supply, or simply not using consistently. DEA adopted an estimate that addicts actively pursue their habits 70 *per cent* of the time by reviewing evidence presented in studies by the U.S. Special Action Office for Drug Abuse Prevention (SAODAP) (1974), and by Casey (1972), McGlothlin, Tabbush, Chambers, and Jamison (1972), and O'Connor, Wurmser, Brown, and Smith (1971).

Factor D - Funds derived from theft. It is obvious that the figure assigned to represent the percentage of an addict's income which is derived from theft will be an important determinant of the final cost estimate. As with the other factors, there have been a number of attempts to arrive at this figure, often with quite different results. These studies have generally indicated that most addicts have more than one source of income, some sources being illegal, but they fail to arrive at specific agreement as to the percentage of addict income derived from theft. Most estimates fall within the range of 30 *per cent* - 60 *per cent*. Because of this lack of agreement, DEA decided to base their estimate on data from the New York State Narcotic Addiction Control Commission (NACC) collected between 1968 and 1973 in New York State treatment facilities. They chose this source because the data were comprehensive in size, spanned a number of years, and represented heroin users at various levels of habit. These data give a figure of 45 *per cent* as the percentage of addict funds acquired through theft.

Factor E - Cash return for stolen goods (fence factor). It is well-known that addicts do not receive the full market-value for the property they steal. The so-called "fence factor" (the percentage of the property's true value which is realised as cash) is divided into the amount of funds acquired by addicts *via* theft in order to determine the dollar cost of goods stolen. The conventional wisdom is that the "fence factor" is in the vicinity of 33 *per cent* but there appears to be little empirical basis for this "guestimate". However, some empirical data were provided by Plair and Jackson (1970), and utilising this basis, plus an adjustment to account for cash stolen (which obviously does not need to be "fenced"), DEA estimated the "fence factor" at 45 *per cent*.

Factor F - Drug substitution/supplementation. As noted earlier, there is increasing evidence of polydrug use among heroin addicts. Any esti-mate of heroin user crime, therefore, must take into account the degree to which the cost of addiction is reduced by the use of major data sources to determine what proportion of a heroin addict's drug use would involve drugs other than heroin. They arbitrarily chose a factor of 20 *per cent*, that being the lowest percentage in the data

reviewed, and being within 10 *per cent* of their three major sources: NACC data, DAWN files (Drug Abuse Warning Network, a DEA system which collects nationwide information on drug-related deaths and injuries), and a study by Eckerman, Bates, Rachel, and Poole (1971). Thus, for the purposes of the final estimate, the overall cost of heroin is reduced by 20 *per cent* to account for that part of the heroin addict's habit for which another drug is substituted.

Multiplication of the factors. Substituting these values into the formula given earlier enabled DEA to arrive at a preliminary estimate of the dollar cost of property crime committed by heroin users. Thus:

> *Formula:* Cost per day ($58) x estimated heroin addicts (558,000) x time on the street (70 *per cent* = 256 days) x funds derived from theft (45 *per cent*) ÷ fence factor (45 *per cent*)- drug substitution/supplementation (20 *per cent*).

> *Estimate:* = $6,628,147,200 (based on 1974 figures).

This figure, and the way in which it was calculated, is representative of the quality of estimate which has so far been forthcoming in published studies. If accurate, the figure of $6.6 billion would indicate that approximately one-third of all property crime in the United States in 1974 was committed by heroin users. DEA have critically examined this conclusion and the method by which they reached their estimate and have, as a result, considerably increased the sophistication of their methodology.

If, on a national scale, heroin addicts were responsible for one-third of all property crime, then where addicts are most numerous they should account for considerably more than a third of offences. One way to examine this proposition is to compare rates of heroin injury (as an index of number of addicts) and rates of property crime. DEA made this comparison for 10 United States cities with 1975 data. The results are given in Table 25.

Table 25: Comparison of heroin injury rates and reported property crime rates for 10 U.S. cities in 1975

CITY	HEROIN INJURY RATES*	REPORTED PROPERTY CRIME RATE*
New York	30	5,544
Los Angeles	58	6,274
Chicago	32	5,449
Philadelphia	8	3,781
Detroit	74	6,922
San Francisco	69	7,293
Washington	8	5,527
Boston	16	5,911
Cleveland	3	4,691
Minneapolis	6	5,350

*   Rate per 100,000
    [Source: DEA, 1977, p.53].

The table shows evidence of some correlation between heroin injury rates and property crime rates in that San Francisco and Detroit, which have the highest reported property crime rate also have the highest incidence of heroin injury. However, except at this end of the spectrum, the relationship is not constant. For example, the reported property crime rate is between 5,350 and 5,911 reported incidents per 100,000 in New York, Washington, Minneapolis, and Boston, but the incidence of heroin injury varies widely. To cite two examples, Washington, D.C.'s injury rate is only one quarter of Chicago's, but it has a higher property crime rate; and New York's property crime rate is less than Boston's, but it has double the heroin injury rate. In considering these figures the DEA report concludes:

> Other conflicts could be cited but the general point to
> be made is that many factors affect the property crime
> rate. It is not responsive to a single factor - e.g.,
> heroin addiction. Thus, heroin use should not be con-
> sidered the single overwhelming force behind the property
> crime rise in the last few years, and it does not appear
> to be responsible for one-third of all U.S. property crime,
> since many cities with documented addiction problems have
> reported property crime rates similar to or higher than
> those with apparent lesser problems (1977, p.54).

This conclusion reinforces the admonition given by the U.S. President's Commission on Law Enforcement and Administration of Justice:

Since there is much crime in cities where drug use is
not thought to be a major problem, to commit resources
against abuse solely in the expectation of producing a
dramatic reduction in crime may be to invite disappoint-
ment (1967, p.11).

This is particularly true when it is remembered that a substantial
number of criminals who use drugs illegally would continue to offend
in the absence of drug use.   For these individuals, the correlation
between drug use and crime is a spurious one.

Consideration of these factors led DEA to examine the adequacy of
their original estimate, which in their opinion, vastly over-estimates
the dollar cost of heroin-user crime.   Many possible errors are
evident in the unsatisfactory manner in which values were assigned to
the various factors.   (The often arbitrary way in which values were
selected was dictated, in the main, by lack of existing adequate data
sources).   However, in DEA's opinion, the major "flaw" in their
original estimate was the assumption that the 558,000 heroin users all
had a $58 a day habit.   As users apparently fall on a continuum from
occasional, light use to continuous, heavy use, an "average" figure
could well give a distorted view of the drug scene.   Therefore, DEA
analysed a number of data sources to determine the probable size of
habit classifications of their estimated 558,000 heroin users.   The
results were as follows:

    (a)   274,000 small habit users (average 10mh/day);
    (b)   151,060 medium habit users (average 28mg/day);   and
    (c)   132,940 large habit users (average 87mg/day).

Based on studies which show that addicts with different-sized habits
exhibit differing amounts of theft as a primary income source and per-
centages of their total incomes spent on drugs, DEA produced a table
summarising the profiles of the three habit-size groups.   Their data
are given in Table 26.

Table 26

COST OF HEROIN USER BY HABIT SIZE - FINAL ESTIMATE 1974 (U.S.A.)

| | | HEROIN USER HABIT CATEGORIES | | | TOTAL / |
		SMALL	MEDIUM	LARGE	AVERAGE
1.	Percentage of heroin user population	49%	27%	24%	100%
2.	Number of heroin users in group	274,000	151,060	132,940	558,000
3.	Percentage of total funds expended for heroin by group	15%	23%	62%	100%
4.	Annual funds expended for heroin by group	$.650 bil	$.989 bil	$2.710 bil	$4.349 bil
5.	Annual average heroin expenditures per addict (256 days)	$2,374	$6,548	$20,382	$7,794 av.
6.	Daily average heroin expenditures per addict	$9,27	$25,58	$79,62	$30,45 av.
7.	Cost required to meet daily addict demand	$11.59	$31.98	$99.53	$38.06 av.
8.	Percentage of addicts who steal for primary support	14%	24%	42%	23% av.
9.	Percentage of funds acquired from theft	17%	29%	50%	40% av.
10.	Total funds acquired from theft by group	$.111 bil	$.287 bil	$1.355 bil	$1.753 bil
11.	Amount stolen by group (45% Fence Factor)	$.246 bil	$.637 bil	$3.011 bil	$3.894 bil
12.	Percentage of total theft by group	6.3%	16.4%	77.3%	100%
13.	Annual income from theft per user	$404	$1,899	$10,191	$3.140 av.
14.	Annual amount stolen per user	$897	$4,220	$22,648	$6,979 av.

[Source: DEA, 1977, p.74.]

Table 20 shows how taking habit size into account changes the values of some of the factors entered into the addiction factors equation. Using these new values, DEA was able to produce the following estimate of heroin user property crime (by habit size):

Table 27:   Final estimate - heroin user property crime 1974 (U.S.A.)

ADDICTION FACTORS	HEROIN USER HABIT CATEGORIES			
	Small Habit	Medium Habit	Large Habit	Total or Average
Factor A: Cost per day (times)	$ 11.59	$ 31.98	$ 99.53	$38.06 av.
Factor B: Heroin users (times)	274,000	151,060	132,940	558,000
Factor C: Annual days on street (times)	256	256	256	256 av.
Factor D: Percentage of funds derived from theft (divided by)	17%	29%	50%	40% av.
Factor E: Fence Factor (less)	45%	45%	45%	45% av.
Factor F: Substitution/Supplementation (equals)	20%	20%	20%	20% av.
TOTAL THEFT:	$.246 bil	$.637 bil	$3.011 bil	3.9 bil

[Source: DEA, 1977, p.75].

This final estimate of $3.6 billion represented 19 *per cent* of all property crime in the United States for 1974.[1]

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[1] The amount of property crime referred to here in an estimate of *actual* rather than *reported* crime.   DEA calculated this figure on the basis of rates of victimisation reported in the study *Criminal Victimization in the United States: A Comparison of 1973 and 1974 Findings*, U.S. Law Enforcement Assistance Administration, May 1976, and dollar costs of individual types of crime as reported in *The Cost of Crime Against Business*, U.S. Department of Commerce, January 1976, and *Crime in the United States: Uniform Crime Reports*, U.S. Federal Bureau of Investigation, 1974.

DISCUSSION

The foregoing discussion of the DEA Report has been presented in some depth as an indication of the serious problems encountered in attempts to estimate heroin user crime rates and costs.   The unsatisfactory nature of some of the values entered into the addiction factors equation is acknowledged by DEA, but they consider that the final estimate is a valid attempt based on current knowledge.   Obviously, as more satisfactory data become available, the estimate will have to be revised.

The estimate does, however, have great value for planning purposes if its accuracy can be increased.   For example, DEA have used the breakdown illustrated in Tables 26 and 27 to derive statistical charts which display (a) the relationship of heroin user crime to overall levels of specific categories of property crime, and (b) the annual criminal behaviour of heroin users on an individual user basis (both according to habit size).   These breakdowns have immense potential as a planning and decision-making tool in such areas as organizing priorities for law enforcement efforts.   Such charts show where the biggest costs to society occur, indicate where resources might be most usefully employed, and suggest which types of addict or offence class are of current concern.   If continually updated they also provide a valuable method of monitoring the effects of policies and procedures.   It is suggested that serious consideration be given to the development of a heroin-user crime estimate for Australia, utilising the addiction factors methods.   However, if it is to be of practical value, considerable attention will have to be paid to refining the methods by which values are assigned to the factors in the equation.   At the present there are no adequate data to enable even a preliminary estimate of heroin user crime in Australia.

It is therefore recommended that the Australian Police Commissioners' Conference should sponsor a research programme to develop the data base necessary for the calculation of a heroin-related crime index for Australia.   Once developed, this data system should be maintained and integrated into police operations and management.   The data necessary for the calculation of such an index include measures of numbers of drug users and levels of drug use which presently do not exist.   As the development of these measures will require the active participation of State Health Departments, it is suggested that the National Standing Control Committee on Drugs of Dependence would be an appropriate forum for the Commissioners to raise this matter.

CHAPTER FOUR

POLICY ALTERNATIVES BASED ON AN ANALYSIS OF THE ECONOMICS OF HEROIN DISTRIBUTION

INTRODUCTION

It was noted earlier that the economics of the heroin trade may be vital determinants of the extent of heroin usage. Unfortunately there has been little analysis of these economics and therefore of the policy options which may be most viable given certain conditions in the heroin market-place. The lack of this information has not, however, stopped people making confident assertions about economic factors in drug usage and basing suggested or actual policies on these assertions. Many of the assertions are quite plausible, and some are undoubtedly wholly or partially accurate, but the fact is that important decisions have been taken without testing or empirically validating a great number of them. Some typical assumptions about the heroin market forces include the following:

(i) the drug trade is controlled by a monopoly run by organised crime;

(ii) the economics of the market-place lead to a situation in which pushers are constantly expanding their clientele by "hooking" new people on heroin; and

(iii) the fact that possession of heroin is illegal forces its price up. Some argue that this is good because it discourages new users. Others say that price is only a discouragement to a few potential users and that the major consequence of high prices is to force otherwise law-abiding (or relatively so) citizens into committing crimes to support their habits (or in forcing existing criminals to engage in even higher levels of crime to support their habits).

A moment's reflection will reveal the importance of these assumptions. The extent to which they are *thought to be* valid will have a major impact on the choice of overall drug policies and of specific strategies (particularly law enforcement strategies). The extent to which they *are* valid will markedly affect the success of the policies and strategies. It is therefore a matter of some priority to discover just how the heroin market does operate in order to know whereabouts in the system to concentrate our efforts. In view of this, it is somewhat surprising that so little work has been done in this area. An outstanding exception is the work of Mark Moore of Harvard University (Moore, 1971, 1973, 1977) and this section of the Report will draw very

substantially on his research.

THE HEROIN INDUSTRY - MICROECONOMICS

Because the success of drug policies will be greatly dependent upon an accurate knowledge of the structure of the heroin industry it would be useful to analyse the microeconomics of the system.

Because of both the illegal and intrinsic nature of the product, the heroin industry has organisational features which differ substantially from most production and marketing systems. An understanding of these differences is important if we wish to make effective interventions in the system. Moore (1971) lists the following as being the most important differences:

1. A marketing system that operates through small, highly-personalized, face to face networks rather than through impersonal advertising and public stores.

2. Many more people engaged in marketing rather than in producing the product.

3. An extremely large mark-up (about 3000%) between the first wholesale and final retail exchange.

4. A high degree of monopolization despite low capital and technological barriers to entry .... (The degree of monopolization varies from level to level in the heroin industry. This proposition refers primarily to the highest levels of the distribution system where we will find a tightly organized monopoly (p.2).

Let us examine how these differences arise and what their implications are.

1.   *HEROIN AS A COMMODITY*

Because of the addictive nature of heroin, demand for it is usually thought to be very inelastic.[1] However, ethnographic studies have indicated that this may not be necessarily true over some ranges of the demand curve. If the price levels are low, demand may well be fairly elastic because more people will be tempted to try the drug and an unknown (though possibly significant) number will not continue to use it or will do so only intermittently. The result of this would be that the *proportion of addicts* in the total user population would decline

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[1]   The economic concept of "price elasticity of demand" refers to the percentage change in the quantity of the purchased goods, in the present instance heroin, divided by the percentage change in its price.

(although the *absolute* number of addicts would increase) and there would be an increase in the proportion of the population which is not addicted and who, therefore, will be sensitive to price changes to some extent.

Demand is probably also more elastic at very high price levels than is commonly assumed, and there is reason to believe that demand will decrease at very high levels. There are two lines of evidence for this belief. First, there are eventually limits to the amount of time and energy an addict can expend on gaining income (legally or other- wise) to supply a habit. Second, there are substitutes for heroin (either cheaper illegal drugs or prescribed methadone) which may be turned to. Both of these factors indicate that at very high prices demand for heroin might fall. This has been confirmed by Baridon (1976) in an intensive study of 101 addicts registered with the Narcotics Treatment Administration in Washington, D.C.

To these two factors may be added a third possibility. Motivation is an important determinant of heavy drug use and varies both from person to person, and in the same person from time to time. Hence, as moti- vation to use drugs changes there is a possibility of different drop- off rates in demand even amongst addicts as price rises. As stressed in other parts of this Report, addiction is not an all or none phenomenon.[2]

To summarise, although demand for heroin may be inelastic over most parts of the price range, it is relatively less so at very low or very high ranges.

2. *THE ILLEGAL NATURE OF HEROIN: PROBLEMS FOR SUPPLIERS*

Heroin suppliers face three general problems as a result of the illegality of the drug.

2.1. *The possibility of arrest and its consequences.* The first problem faced by a supplier is that he may be arrested, convicted, and possibly imprisoned. The supplier must consider costs such as lost income, loss of freedom, increased police surveillance and so forth. To some extent suppliers must absorb these costs, which are costs of staying in the heroin business. The more likely the consequences are to an individual supplier, the greater the cost to him of continuing to supply heroin. If we assume that we can view these costs in terms of economic theory we can make some testable predictions about the behaviour of heroin suppliers. There are two major reactions to this cost structure. First, the supplier will pass his increased costs on to the heroin buyer as increased prices. Second, he will

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[2]   I am grateful to Dr Les Drew, Federal Health Department, for drawing this third possibility to my attention.

invest money and time to reduce the costs to himself,
i.e., to reduce the probability of arrest and penalty.
It is worthwhile looking further at these responses.

2.1.1. Price increases as a response to risk - Moore
(1971) points out that price increases do not always
result in increased revenue to the supplier.   For example,
an industry-wide price increase may lead to the marginal
(price-sensitive) buyers dropping out of the market to such
an extent that total revenue decreases.   Similarly, if
suppliers were competitive, price increases by one supplier
relative to a second may be to the former's detriment if
consumers "(a) know the prices charged by the distributors,
(b) have equal access to the two distributors, and (c) are
sensitive to price differentials" (Moore, 1971, p.8).   In
such a situation buyers may desert the first supplier to
such an extent that, even though his loyal clientele pay
higher prices, his total revenue will fall.

In general, then, price increases only lead to increased
revenue to the extent that (i) price is not a major factor
in a user's decision to buy and (ii) market conditions
are such that an individual supplier can increase prices
without losing too much of their existing share of the
market.   As Moore (1971) notes however:

> Because these conditions that allow profitable
> price increases are typical of the heroin industry,
> price increases will be a common response to the
> risks of distributing heroin (p.8).

Probably the main factor responsible for the above situa-
tion is the strong monopolistic element which exists at
both the top and bottom of the heroin distribution
system.   At the top, significant monopoly advantages
are held by a small group with good operations and in-
telligence networks which systematically attempts to
minimise or eliminate competition.   Such organisation
is not typical of the lower end of the system but because
customers have difficulty in obtaining extensive informa-
tion about suppliers and prices each supplier is able to
exercise a significant degree of control over his clients.
Thus:

> ... high prices for heroin relative to the actual
> costs of production are possible because of market
> imperfections and an inelastic demand for the pro-
> duct.   The high prices allow individuals operating
> in the heroin industry to increase their revenues
> enough to compensate them for the risks associated
> with staying in the heroin business.   If they
> could not be compensated to this extent, they would
> voluntarily leave the business (Moore, 1971, p.9).

2.1.2.   Strategies to avoid arrest and penalty -
Suppliers may also spend time and money to manipulate
the situation to avoid arrest and penalties such as
imprisonment.   Such strategies are profitable to
the extent that their costs are less than the reduc-
tion in costs brought about by employing them.   The
nature of these strategies should be closely examined
for they tell us a great deal about the mechanics of
heroin distribution systems and have significant
implications for law enforcement efforts.   Moore (1971)
identifies three groups of strategies used as a
defence against the activities of enforcement agencies:

   (i)   concealing all connections with the heroin
          industry;

  (ii)   obscuring illegal activities and substituting
          legal activities for illegal ones;   and

 (iii)   corruption and manipulation of enforcement
          agencies.

We will examine each of these strategies in some detail.

-    Concealing all connections with the heroin industry.

There are three problems suppliers must face in trying to conceal
their connections:

(i)   not doing things obviously involved in the process
       of producing, distributing, or using heroin;

(ii)   avoiding being identified with known industry
       figures;   and

(iii) preventing those who know about their connections
       from informing others.

These are all very serious problems which are often extremely
difficult, if not impossible, to overcome.   Producers of heroin
must have access to large amounts of anhydrous acetic acid which
may be able to be traced.   It is difficult for addicts to conceal
scars from the use of needles.   Because of the need to gain informa-
tion from other addicts to make purchases of heroin it is also
difficult to avoid contact with people known to the involved with
heroin.

Distributors also face this problem.   It is dangerous to hold
large supplies of drugs but by minimising their inventories they
may miss out on unexpected sales.   They therefore also need to
maintain extensive communication with addicts and with other
suppliers in order to be able to judge demand and adjust their
inventories accordingly.

Probably the single most difficult problem, however, is that
of maintaining security so that those who know a supplier do
not pass information about him.   As noted above such communica-
tion is a major feature of the heroin market and is often in
the interests of all concerned.   However, it is also a source
of extreme danger and so suppliers will frequently try to
discipline customers to prevent them talking to others about
their connections.   How then can suppliers move to minimise
these problems?

The traditional solution is for a supplier to keep his market
very small.   This has numerous advantages.   First, the pro-
bability of an information leak is considerably reduced simply
because fewer people are aware of the supplier's heroin-related
activities.   If a leak is imminent the supplier is more likely
to be able to take rapid action to stop it if the market is
small (because (a) he can effectively keep watch on everyone,
and (b) he can more easily identify the source of a leak when
it does occur).   The fact that the supplier has to communicate
with fewer customers also reduces the chance of law enforcement
personnel observing him in contact with those known to be in-
volved in the system.   Finally, if a supplier is able to
hold his customers to a small, single market they will have a
vested interest in ensuring the continuity of his operation,
thereby reducing some of the security problems.   Face-to-
face contacts also decrease the likelihood of information
leakage.

Of course, these strategies do not eliminate all the dangers and
have some in-built liabilities.   The main disadvantage to the
supplier is that they limit aggressive market expansion (and
therefore increased profits).   Conversely, the strategies are
limited in their effectiveness to the extent that the market
expands.   This puts the supplier in a double bind situation
which is characteristic of the heroin market.   Obviously, as
new people become addicted they will need supplies and it is to
the supplier's financial advantage to oblige them.   On the
other hand, as soon as the supplier has new people introduced
into his market he is particularly vulnerable and open to all
the risks he has sought to minimise.

There is, however, another strategy he may use to overcome
these dangers.   He may never personally engage in illegal
activity but may employ agents to work for him, thus adding
another level to the distribution system.   The advantages are
that:

> The supplier may more effectively screen his own
> activity and connections without losing control over
> the consumers.   Indeed, he may be able to increase
> dramatically the number of consumers he can control
> (Moore, 1971, p.13).

The disadvantage is that while agents screen the supplier they

also hold an exploitable strategic position because they can expose him. The supplier may be obliged to pay his agents dearly for the protection this system allows and his problem is to control his agents without losing too much of his profit by having to pay for this shield. One factor which works in favour of the supplier is his relation to the supplier above him. If the agents believe that only through the person they work for can access be gained to goods from the next supplier up the chain they will not exploit their positions too much, thus allowing their employer to maintain a reasonable share of the profits. Their employer, to maintain this situation, must ensure that his agents can have no direct access to his supplier (and thus to his supplies). Often this suits the upper supplier who also wants to minimise contacts and illegal activities, thus ensuring the success of the lower supplier's efforts to isolate him from the agents.

Finally, a supplier can sell only in a small market over which he exercises considerable discipline, thus reducing the flow of information by penalising leaks and rewarding those who inform on others. The disadvantage here is that monitoring customers and rewarding and punishing them is extremely costly in terms of time, money, and increased chance of being connected with known market figures. Further, there are fewer clients who are willing to be disciplined in this manner, thus lessening the opportunities for market expansion.

In summary, a number of strategies are employed by suppliers to minimise evidence of transactions in the heroin market. Primarily, strategies aim to establish boundaries outside of which the activities are not visible and to reduce the actual amount of activity. According to Moore (1971):

> The size, character and discipline of organizations
> are the critical variables in establishing the
> boundaries and in determining the amount of explicit
> negotiation and uncoordinated activity that are
> associated with the exchanges necessary in the heroin
> industry. Consequently, they are the variables that
> must be manipulated to limit the probability that a
> heroin supplier will be identified with the heroin
> industry (p.14).

- Obscuring illegal activities and substituting legal activities for illegal ones.

As law enforcement authorities are well aware, it is possible to use the rules governing investigation and prosecution to avoid punishment. Even though a supplier is known to be such, he can take steps not to be caught with evidence or in the process of performing an illegal act, thereby avoiding arrest.

The first obvious line of defence for a supplier is concealment

of illegal goods.   The police will generally search for drugs
only when they believe there is a high probability of finding
them.   To do otherwise would be both wasteful of resources
and contrary to some of the rules governing searches and enter-
ing premises.   This means that to avoid close investigation
a supplier must try to create as much uncertainty as possible
about the location of his heroin.   The police, on the other
hand, must try to limit the potential locations as far as
possible to increase the probability of a search at any parti-
cular location being successful.

Moore's (1971) analysis of the heroin trade shows that suppliers
can adopt three possible strategies to protect themselves in
this situation.   First, they can construct elaborate hiding
places.   This is often a cheap solution but is open to the
danger of discovery by well-trained police who have sufficient
justification to make a concentrated search.   This problem can
be overcome by constantly changing hiding places.   Such move-
ment is very risky in terms of increased (observable) drug-
related activity, but has the advantage of rendering obsolete
much of the information the police may receive about the loca-
tion of drugs.

Finally, the supplier may try to avoid contact with the drugs
as much as possible, particularly at the time of an exchange
when police surveillance is most likely.   This may be arranged
by the use of "drop" systems whereby what would otherwise be
an illegal transaction becomes, for all practical purposes, a
legitimate one.   For example, the supplier may leave the heroin
to be sold in a location not under observation and then arrange
a subsequent meeting with the purchaser where money changes hands
(perhaps as a "loan" which is legitimate) and the buyer is told
where he can retrieve the drugs.   Such arrangements make it
extremely dificult to prove that drugs in one location were under
the control of a person in another location.   Even if the
arrangement is uncovered, it is hard to provide the evidence
that is necessary to secure a conviction.

The "drop" system, of course, leaves both the supplier and buyer
in vulnerable positions.   The supplier runs the risk of having
someone other than the purchaser find the drugs and the purchaser
risks being double-crossed or "ripped off" by the supplier.   For
this reason such an arrangement needs considerable negotiation
and communication between parties, all of which consumes a good
deal of time and effort.   Finally, as Moore (1971) notes:

> ... the strategy is often vulnerable to informers
> since the strategies cannot change quickly without
> dramatically increasing the amount of time that a
> dealer must spend in negotiating new arrangements
> with his customers (p.16).

- Corruption and manipulation of enforcement agencies.

Another way for a supplier to protect himself is to take such

action that an enforcement agency is unwilling or unable to enforce the laws with respect to heroin. At the high levels of the distribution network this may involve promoting those with influence who may be in a position to persuade an agency to change its enforcement policies or strategies. At all levels, but particularly at the lower ones, the major strategy is to bribe or coerce enforcement personnel not to enforce the provisions of the law. Bribery, however, has some major drawbacks. First, it is expensive. Second, to bribe some-one involves revealing one's identity as being positively involved in the heroin trade. Finally, bribery is itself a crime and may (for example, because of internal investiga-tions or monitoring procedures within an agency) lead to increased risk of detection. Nevertheless, bribery is still a strategy considered useful by many suppliers, particularly those whose initial defensive strategies have proved in-adequate and have been identified as members of the system.

In this section eight strategies have been identified which may be employed by suppliers to reduce the probability of arrest and its consequences. Table 28 lists these strategies and shows for each an estimate of the magnitude of operating costs to the supplier and the probability of arrest.

Table 28

STRATEGIES EMPLOYED BY HEROIN SUPPLIERS TO REDUCE THE PROBABILITY OF ARREST,
ESTIMATES OF THEIR OPERATING COSTS AND PROBABILITY OF ARREST

STRATEGY	MAGNITUDE OF OPERATING COSTS	PROBABILITY OF ARREST
1. Sell only in small markets	Low	Moderate
2. Sell only in disciplined markets	Moderate-High	Moderate-Low
3. Sell through agents	High	Low
4. Conceal drugs in hiding places	Low	High
5. Move drugs frequently	Moderate	High
6. "Drop" strategies	Moderate-High	Moderate-Low
7. Bribery	Moderate-High	Moderate-Low
8. Manipulation of law enforcement by influence	Moderate-High	Moderate

(After Moore, 1971, p.19).

Note that a supplier will not choose only one strategy but must decide which combination of strategies best suits his needs and situation within a framework of maximising security and minimising operating costs to himself. Thus suppliers at different levels in the chain may employ different combinations. Strategies 1 (small markets) and 6 ("drop" strategies) are common at all levels because they are reasonably effective and not too expensive. Organisational strategies such as 2 and 3 are typical of higher levels and larger units because of their high operating costs and the necessity for more extensive organisational resources. Strategy 4 (hiding drugs) is used at all levels but is particularly relevant at higher levels where importing and breaking up a shipment occur. Bribery (strategy 7) is well organised at upper levels and haphazard and opportunistic at lower levels.

Overall it is skilful manipulation of combinations of these strategies that ensures the heroin industry is still profitable.

2.2. *Other problems faced by suppliers.* Suppliers face two other problems which should be briefly mentioned. The first is that they must absorb the costs of protection and contract enforcement. These costs are high because drugs are very vulnerable to thefts and abscondings and protection is a constant necessity. This means a heavy investment in both time (in organising or supervising enforcement) and money (in payoffs).

The second problem is that of finding reliable employees. This problem is particularly severe at the higher distribution levels where employees must be especially reliable and thus it is an expensive and time-consuming process to train someone to fill an important position. Generally this means that the distribution industry does not grow quickly and is relatively slow in responding to change. When growth is rapid, however, the risk of employing unskilled or unreliable workers is increased significantly.

3. *THE ILLEGAL NATURE OF HEROIN: PROBLEMS FOR CONSUMERS*

To a large extent the strategies available to suppliers are used by consumers who also have to conceal their association with heroin and protect their own supplies. However, they also face additional problems which should be examined, as we will show later that the characteristics of consumer responses have important implications for the development of enforcement policies. Moore (1971) considers the following factors relevant.

3.1 *High prices.* Because of its illegality, heroin is an expensive commodity. Especially for those who are addicted there are immense pressures to pay the high prices to secure supplies. This has important consequences for consumer behaviour.

First high prices may force some consumers to commit
crimes to bring in sufficient income to cover the cost
of their purchases. Lack of income is not the only
factor in making criminals of some consumers, however.
The other major attraction is the flexibility of hours
that a criminal life-style allows. It will often be
necessary to spend significant lengths of time locating
suppliers and setting up deals. In many situations
regular employment does not allow the necessary flexi-
bility.

High prices also motivate buyers to locate wholesale
suppliers where prices are lower than on the street.
This is another time-consuming proposition. In addition
it is an added impetus to significant income-producing
crime because wholesalers obviously deal in larger
quantities of drugs which necessitates larger sums of
money at any particular purchase.

Finally, the high price of heroin makes it worth stealing.
Thus the risks of both buying and selling are significantly
increased.

3.2.   *The quality of heroin.* The problem of ensuring that
heroin is of consistent quality always faces consumers.
This unreliability of quality means that consumers may
either lose money (because the product may contain little
or no heroin) or risk death (because a particular purchase
may contain a greater proportion of pure heoin than usual).
Unreliability is usually due to one of three causes: (i)
the supplier is greedy and trying to "stretch" his inventory
as far as possible to make more profit, (ii) the supplier
may have to quickly "unload" his inventory because of
danger occasioned by surveillance or law enforcement
pressures, or (iii) the supplier may deliberately penalise
addicts for misbehaviour by giving them either a dose
containing a greater amount of pure heroin or heroin
mixed with (e.g.,) a poison (a "hot shot").

For many suppliers, however, it is desirable to ensure
consistency as much as possible so that he has a secure
and stable market. This is particularly the case with
larger operations.

3.3.   *Difficulty in obtaining information.* Because heroin is
illegal consumers find it difficult to obtain information
about price, quality, and location and identity of
suppliers. Because of the strategies described earlier
which keep the market in a state of constant change,
this information is always necessary to keep up with the
market.

Consumers react to this situation in two ways. First,
there may be some well-known places of addict concentration

where information can be swapped. The other approach
is to belong to a small and loyal market where the
changes are not as great and where communication is
easier. Both of these strategies, however, cost the
user time and/or money. Belonging to a small market
puts the supplier in a monopoly situation which he
may exploit for profit. Using places of addict con-
gregation may provide information, but it is time-
consuming and, more importantly, identifies the
individual as part of the heroin scene - a result
he is often trying hard to avoid or minimise.

3.4.   *Difficulty in obtaining access to markets.*   Finally,
brief mention must be made of the fact that even if a
customer identifies a supplier he may have considerable
trouble being included in his market. This is parti-
cularly the case with small, disciplined markets.
Since, for the reasons outlined earlier, suppliers are
suspicious of and cautious with new customers it may
take a considerable expense in time (to establish *bone
fides*) or money (to pay an existing customer to make
an introduction, for example) to enter a particular
market.

As Moore (1971) sums up:

> The illegality of the heroin industry clearly
> has a substantial impact on the behavior of
> consumers. The higher prices affect employment
> opportunities. Unreliable quality increases
> the risk of any purchase for heroin consumers.
> Finally, gathering information and obtaining
> access to markets for heroin are likely to
> require expensive strategies from heroin con-
> sumers (p.27).

Having analysed the behaviour of consumers and suppliers
in the heroin market system we must try to uncover the
organisational structure that copes with the problems
discussed above. Only with an understanding of this
structure will we be in a position to evaluate the
potential impact of alternative law enforcement policies.

THE HEROIN INDUSTRY - ORGANISATIONAL STRUCTURE

Moore (1971, 1977) has completed a detailed and systematic
description of the heroin industry based on extensive research and
information from experienced addicts. His analysis assumes that the
organisation has evolved to cope efficiently with or exploit the pro-
blems faced by suppliers and consumers. This description is based on
an in-depth study of the heroin industry in New York city, but informa-
tion available in Australia together with the present writer's experience

in dealing with drug offenders in New Zealand indicate that valid
extrapolations may be made to Australasia. Suggestions concerning the
testing of the validity of this model will be made later in this Report.

Moore (1971) argues that the heroin industry may be characterised
as follows:

1. Small distributional units that are closed off
   from one another.

2. A monopoly at the top of the distribution system
   that eliminates competition, controls the aggregate
   supply, and taxes and disciplines some lower levels.

3. Upward pressure generated by lower levels trying to
   gain access to upper levels that is resisted by
   upper levels.

4. Monopolistic competition among markets at lower
   levels (p.28).

This structure will now be analysed in detail.

1. *GENERAL CHARACTERISTICS OF THE HEROIN INDUSTRY*

1.1. *Small distribution units.* The most significant organisa-
tional feature is the existence of small distribution
units separated from one another by restrictions on informa-
tion flow (as described earlier). The advantages of
small units include easy within-unit communication, easy
supervision and discipline, reduced chance of information
leaks, more opportunity for testing employees, and the
ability to adjust to changing market conditions without
elaborate organisational changes. If units are separated
from one another it reduces the possibility of errors in
one unit affecting another, allows the suppliers to exploit
monopoly powers over their customers, and places the
customer in a dependant relationship such that he has a
vested interest in ensuring the survival of the unit.

In the context of the earlier discussion of problems, it
can be seen that this organisation is an efficient solution
to many of them. Restricted information flow, good dis-
cipline, and ability to react to changing conditions all
function as risk-reduction mechanisms. Monopoly powers
increase revenue to the suppliers.

As usual, however, there are compensating disadvantages
to be weighed. As noted earlier, small units mean that
suppliers cannot indulge in market expansion and still
maintain the advantages of small markets. Isolated,
individual suppliers may also have difficulty in adjusting
to very large changes in demand. They risk the possibility
of foregoing profits by underholding inventories or face

the dangers inherent in holding inventories that are too large. It is the fact that these disadvantages exist that tempts some suppliers to deviate from the small unit pattern. However, a significant number of those who do so will either be arrested or threatened by the actions of other suppliers into whose markets they intrude. As a result:

> The general proposition then is that a heroin supplier's productivity is the greatest when he is bound closely to a small organization of customers and a slightly mysterious but reliable supplier above him (Moore, 1971, p.29).

1.2. *Monopoly at the top.* A common assumption is that the top levels of the heroin distribution network are controlled by some form of organised crime group(s). While there is considerable uninformed speculation and many unsubstantiated claims about organised crime involvement there is good reason to believe that an organised group (or very small number of groups) does exercise monopoly control over the highest levels of the heroin distribution network. Apart from the evidence of those who claim to have worked for such an organisation, there are some highly persuasive analytic reasons for assuming monopoly control of heroin distribution by an organised group.[3] To understand why this is so, however, we must first examine what functions must be performed by an organisation at this level in the hierarchy.

First, the organisation must act to restrict the total supply of heroin to allow conditions to give rise to high prices so that each distributor in the system is able to compensate himself for the risks or finance the evasive strategies necessary to avoid detection and/or arrest.

Second, it must be able to regularly and reliably match supply to demand to avoid either holding dangerous excess stocks or forcing customers to find new suppliers (thereby both increasing the amount of activity, and therefore chance of detection, in the market and increasing pressure on suppliers to deal with new, and untried, customers).

Third, it is extremely desirable that supply conditions

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[3] Evidence is strongest for this case in the United States but considerable doubt exists concerning the situation in Australia. Investigation of the local organisational patterns is therefore essential before the appropriateness of the model under discussion can be evaluated in the Australian context.

with respect to importing be manipulated with the
minimum of explicit discussion and negotiation in
order to reduce visibility or surveillance.   Any
necessary communication with, for example, overseas
sources in response to sudden changes in demand should
be accomplished as quietly and efficiently as possible -
therefore, the fewer the people involved, the better.

There are three general organisational models which
could theoretically try to fulfil the above conditions.
They are:

(a)   a competitive market with a large number of
      intermittent and/or competing sellers;

(b)   a cartel, that is, a few suppliers who together
      effectively monopolise the market, but are
      bound by no particular hierarchical structure;
      and

(c)   a highly centralised top level which exercises
      monopoly control over all lower levels.

For a number of important reasons, mostly relating to
activities leading to increased chance of detection, the
first two alternatives are not very efficient in per-
forming the functions required at the top of the hierarchy.
A centralised organisation however, is.   Other forms
of organisation are possible where law enforcement pres-
sure is not great.   But under conditions of law enforce-
ment pressure a centralised organisation would have the
highest probability of functioning efficiently.[4]   Moore
(1971) summarises the reasons for this position as follows:

> The centralized organization will be in a position
> to have an optimal ordering policy that successfully
> accommodates for lumpiness and lead time.   They will
> also be in a position to make smooth adjustments by
> forcing agents to hold inventories or being able to
> discreetly re-supply an agent who is under-supplied.
> Even if the adjustment is not smooth, the tight
> control over circulation of information keeps the
> risks of adjustment low.   In addition, the centralized
> organization may be able to internalize some econo-
> mies of scale in protecting inventories if they are
> over-supplied.   Also, because the centralized organiza-
> tion becomes a monopsonist with respect to producers
> of heroin, they will be in a strong enough position to

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[4] Note that this analysis applies only to the top end of the
     distribution network.   At the bottom end, operators are frequently
     inefficient, careless, or simply more vulnerable.

> command better performance from suppliers.
> Lead times may be reduced, lumpiness overcome.
> and quality improved by the clear demands made
> by a knowledgeable monopsonist. Finally, it
> will always be in the interest of a centralized
> organization to restrict the total supply,
> allowing distributors up and down the line to
> charge higher prices (p.34).

Just as a centralised organisation has the features
which allow it to establish a monopoly position, it also
is able to maintain its position at the top of the
distribution system. This is because the size and nature
of the organisation allow it to afford the risk and
expense of eliminating opposition and to prevent new
entrepreneurs entering at the top. A centralised organi-
sation is much better able than either a cartel or a
competitive system to intimidate or kill opponents,
bribe law enforcement personnel in a systematic manner,
and establish a reputation for reliability which in-
hibits participants in the market from selling to or
buying from a new dominant group. Whether or not such
an organisation operates in Australia is currently a
matter of conjecture only.

1.3. *Strong upward pressure from lower levels.* Another
important feature of the heroin distribution system
is that, because of the economic advantages and lack
of barriers, there is always pressure for those lower
in the system to advance upwards. Consumers want to
become suppliers, and low-level suppliers want to be
bigger suppliers. However, it is in the interest of
suppliers to resist this upward mobility. Suppliers
low in the hierarchy are afraid they will become ex-
pendable if their customers themselves become suppliers.
Intermediate and higher-level suppliers are afraid of
becoming known to less reliable and trustworthy people,
and to greater numbers. Therefore, each supplier does
as much as possible to isolate his customers from his
own supplier. These barriers are stronger, the more
powerful the organisation, implying that they will be
very effective at the top of the system and less so the
nearer the hierarchy gets to the customers.

1.4. *Monopolistic competition at lower levels.* The existence
of small units at low levels of the heroin distribution
system allows monopolistic competition to exist there.
Monopolistic competition is defined as "a situation
where there are many competitive firms that maintain
some monopolistic prerogatives with customers because
of product differentiation or restricted access to
markets" (Moore, 1971, p.36). If low-level suppliers
were able to enforce strict discipline on their small
markets they would exercise complete monopoly control

over them.   However, this is not possible because a
significant number of customers try to buy from a
number of suppliers, and without a strong organisational
structure, small suppliers are unable to restrict
reliable consumers to just their markets.   Further,
because there is a higher arrest rate amongst those
lower in the system, the necessary stability does not
exist for strong controls to evolve and the full ex-
ploitation of monopoly powers is not possible.

However, there are reasons why free competition does not
entirely replace a monopolistic situation.   Because to
some extent suppliers are able to restrict information
(for their own protection) they restrict the markets in
which consumers may conveniently do business.   If a
supplier is able, in addition, to gain a reputation for
quality and reliability he is able to build up a loyal
and steady clientele.   Thus, restricted information
and product differentiation preserve some of the features
of monopolism.   These two features lead to a situation
of monopolistic competition.

In conclusion, the general structure of the heroin
industry may be summed up as follows:

> ... there are strong incentives for the heroin
> distribution system to be organized into small
> discrete marketing units.   These discrete
> marketing units confer various degrees of
> monopoly power on distributors at different
> levels.   At the top level, requirements for
> controlling the total supply of heroin, plan-
> ning ordering schedules, and discretely and
> evenly adjusting for errors in the supply of
> heroin imply that the organization must be
> fairly well coentralized.   Once centralized,
> there are many opportunities for strong monopoly
> controls.   At lower levels, strong upward
> pressure from customers combines with rapid turnover
> in personnel and correspondingly weaker, smaller
> organizations to create a more fluid situation.
> This situation is described by the term "mono-
> polistic competition", for "imperfections" in
> the market continue to confer some degree of
> monopoly power on suppliers (Moore, 1971, p.37).

THE EFFECTS OF TWO POLICY OPTIONS ON THE HEROIN INDUSTRY

A considerable amount of time has been devoted thus far to
describing and analysing the characteristics of the heroin industry and
the behaviour of suppliers and customers.   Such an examination is

necsssary to be able to begin to predict what effect the introduction of strategies based on various drug policies will have on the industry. The two areas to be examined in detail here are the effects of law enforcement pressure on the system and the appearance of competition from legal, close substitutes for heroin.

1. LAW ENFORCEMENT STRATEGIES

The analysis thus far has indicated that much of the structure of the heroin industry is determined by its illegal nature. In view of this, particular law enforcement strategies will have a major influence on both the general and precise organisational details of the system.

As police administrators are well aware, scarce resources mean that efforts and resources must be focused on particular strategies and particular targets. Thus, police are not able to put pressure widely on the industry for long periods of time, but must set priority areas and concentrate their efforts there. On the face of it, this implies that under current conditions law enforcement operations will dramatically increase the costs of only a few suppliers on whom they concentrate, but will not raise the costs of many non-targeted individuals enough to force them to leave the business.

Moore (1971) argues, however, that the heroin industry tends to diffuse and generalise the threats created by specific operations so that the effects do spread further than the targeted individuals. He claims that the industry reacts to an individual threat as if the whole system were threatened, thus magnifying the police efforts.

If this is so, it follows that the tendencies specified in earlier sections of this report will be followed to an even greater extent. Suppliers will try not to sell to unknown or risky customers thus making it more difficult for newcomers to find markets in which to buy. Much time and money will be expended in the organisation and execution of the evasive strategies described earlier. Suppliers will try not to hold excessive inventories and will try to adjust their supply. The end result will be an increase in costs of running the system and tightening of centralised, monopolised control. The supply of heroin will not be as free, and high prices will result.

If there is strong generalised pressure and some individuals perceive the risk of staying in the business as too great, there will be some exodus. However, this will not happen easily. One of the most important reasons for this is that dealers are able to raise prices to compensate themselves for increased risks and know that to a large extent consumers are able to absorb such rises. Athough there are obviously limits to the amount of money (or the time it takes to raise it) that addicts can secure, suppliers are at least able to exploit that considerable range of demand which is inelastic.

A second factor inhibiting people from leaving the market is the fact that many have no skills which can be used outside the market. This is particularly true of lower-level participants. (Suppliers at the higher levels, on the other hand, can merely turn their

organisational resources to alternative, usually other criminal,
businesses).   Because their alternative employment options are few,
many suppliers will, in fact, accept less profit and still stay in the
industry.   Once again, however, there are limits below which it is
not worth continuing.

These influences lead us to conclude that while the system tends
to generalise the impact of police pressure thus increasing costs
within the system, this will not have a significant impact in reducing
the number of suppliers.   However, we should still examine how police
strategies may be used to maximise impact on the system.   This may then
allow us to select those strategies (or combinations thereof) which
will have the largest payoffs rather than merely attempting to put
general pressure on the system.

Moore (1971) outlines a number of possible strategies of which we
will consider the following:

- strategies aimed at tight markets *vs* those aimed
  at free markets
- securing convictions *vs* overt surveillance
- systematic follow-ups on arrests
- policies to eliminate bribery.

1.1.   *Strategies aimed at tight markets vs those aimed at free
markets*.   It is reasonable to assume given what we know
about it, that the heroin scene is composed of both tight
and loose markets.   Tight markets are those in which
the supplier has a small number of stable and loyal
customers.   Loose markets might be typified by a
desperate young addict-dealer who sells to a constantly
changing market of strangers.   While we do not know in
what proportions these markets exist, we can make some
predictions about whether it is best to strike at loose
or tight markets.

Strategies may be evaluated in terms of their probability
of reaching specific law enforcement objectives and in
terms of both long- and short-term effects.   Two primary
objectives might be considered.   One is to eliminate the
suppliers who deal in the largest volumes of drugs.   The
other is to force the most people to adopt defensive
strategies which are so expensive or risky that they will
exit from the industry.

If we concentrate on arresting loose-market dealers the
short-term outcome will probably be a significant reduction
in the total supply of heroin at street level.   However,
the effect is not likely to be long-lasting and it will
not pose a serious threat to others.   Let us examine the
situation more closely.

Because "loose" markets are often large-volume enterprises,
a strategy that resulted in the elimination of x% of

dealers in such markets would reduce the supply by
considerably more than x%. This is the advantage
of targeting such suppliers. However, such a
strategy may in the long run, play into the hands
of the tight market dealers. Such a dealer will not
be threatened by this strategy because he has taken
steps to limit his market precisely to avoid getting
himself into the situation that allowed the loose-
market dealer to be arrested. Thus, tight market
dealers will have no need to embark on further expensive
strategies to avoid arrest. In addition, the re-
stricted supply caused by the arrest of loose-market
dealers will allow them to charge higher prices and
to very carefully take on customers from the destroyed
markets. In the long-run, therefore a strategy con-
centrating on loose markets may well prove to be counter-
productive.

The alternative is to place resources so that tight
markets are the targets. This will have a much less
obvious effect on the total supply of heroin because
fewer people are involved. However, in the medium-
to long-term the payoffs may be greater. Such a
strategy aimed squarely at tight-market dealers will
naturally be perceived by them as a direct threat
requiring defensive action. However, it will also
threaten loose-market dealers who see that even well-
protected markets are vulnerable. People higher up
the chain will also be threatened because they depend
on the security of those below them.

It would seem, then, that in the longer term concentra-
ting on tight markets might be the best strategy.
What we need to know to really evaluate the trade-off
between the two strategies, however, is how the types
of markets are distributed in the heroin industry.

1.2. *Securing convictions vs overt surveillance.* Again
assume that the major objective of enforcement is to
restrict the supply of heroin by either eliminating
suppliers by arrest or forcing them to leave the
industry because the risks are too great and the profits
too small. There are two broad ways if proceeding to
meet this objective. Strategies may be designed to
secure convictions or a policy of overt surveillance may
be implemented to put widespread pressure on the system.

If the police are successful in securing convictions they
directly remove suppliers and also pose a more general
threat to the system. The long-term success of a con-
viction policy will depend on the "lead time" required
to replace convicted suppliers (that is, the time re-
quired to train a new supplier, set up contacts, arrange
for supplies, etc.). This time is unlikely ever to be

very long, unfortunately, but is likely to be longer
in restricted markets.   However, convictions do eliminate
some suppliers and do threaten others.

Overt surveillance strategies are much less expensive than
trying to secure convictions and, while not directly
eliminating suppliers, may force marginal suppliers out
of business because of increased risks and operating
costs.   There is a fine edge, however, over which overt
surveillance may become counter-productive. First, it
must never be employed without some police resources being
aimed solely at conviction, for without convictions
surveillance is not a credible threat.   More seriously,
surveillance may in fact make future convictions more
difficult.   A policy of overt surveillance provides both
time and incentive to suppliers to develop better evasive
strategies and protect themselves from intrusion more
effectively.   This development of a tighter organisational
structure may make future penetration and conviction parti-
cularly problematic.

1.3.   *Systematic follow-ups on arrests.*   A further strategy is
the employment of sophisticated crime intelligence and
surveillance techniques to monitor the consequences of
arrests.   The argument advanced by Moore (1971) is that
unexpected arrests disorganise the market and threaten
the security of alternative suppliers.   If the police
know some of the customers of the arrested supplier they
could track them in order to identify other suppliers.
As Moore (1971) argues:

> The customers are apt to know more directly (or
> know more about how to find out more) about al-
> ternative suppliers.   There will be strong
> incentives for customers to follow up on that
> information.   With the police on their heels, the
> police may also learn more about alternate suppliers.
> Additional arrests may then be possible or easier
> to plan for.   Thus, observing closely the readjust-
> ment of the system after it is disrupted may expose
> additional pieces of the system.
>
> The effectiveness of this strategy also suggests
> the importance of acquiring as much information as
> possible about the moves and contacts of suppliers
> before they are arrested.   The identification of
> those agents and contacts increases the number of
> leads that are available following the arrest.
> The broader net may be more difficult to haul in,
> but is also likely to catch more fish (p.50).

The implication is that much more attention ought to be
paid to the advantages accruing from cumulative intel-
ligence information.

1.4. *Policies to eliminate bribery.* As noted earlier
in this analysis, bribery of law enforcement
officials can be an effective weapon used by
suppliers to escape arrest. It may be particularly
useful to high level suppliers who are able to use
bribery in a systematic fashion. A concerted
effort on the part of administrators to have a
clearly-stated anti-bribery policy and to use admini-
strative arrangements to reduce corruption should be
an important part of any drug enforcement policy.
A side benefit of such a policy could well be an
increase in information flow from hitherto unco-
operative communities who may increase cooperation
with the police if they believe they do not take
bribes and enforce the law impartially. Although an
unpalatable topic of discussion for police, the role
of corrupation cannot be ignored and, in fact, has
generally received more attention in recent police
publications (see for example the articles by Doucet
(1977), De Garmo (1976) and Territo and Smith (1976)
in recent issues of *Police Chief*, published by the
International Association of Chiefs of Police).

2. *LEGAL COMPETITION STRATEGIES*

The most commonly voiced alternative to law enforcement measures
to control heroin use is the creation of a system of *legal* suppliers of
heroin (or close substitutes). Under such a system it is predicted
that most or all of the heroin users would buy from legal sources
because, not having to carry the expensive operating costs generated
by the current illegal nature of heroin, they would be able to charge
less than illicit suppliers. This prediction rests on two implied,
and often ignored, conditions. First the competing product must be
heroin or an extremely close substitute. To the extent that it is a
substitute less desirable than heroin, the legal supply system will
have less impact on the illegal market. Second, customers must have
equal access to both markets. If demand cannot be met fully by the
legal market or if it erects barriers to the entry of some present or
potential users (for example, by limiting access only to "proven"
addicts) then, again, its share of the total market will be limited.

It is important to appreciate these conditions because some over-
enthusiastic claims for legal supply have tended to ignore the limiting
nature of these factors. It is clear that most seriously proposed
legal systems do not meet the conditions necessary to eliminate the
illegal market. Some of the schemes propose methadone as a substitute
for heroin. But methadone is not regarded by many addicts as a desira-
ble substitute particularly if it has to be taken orally. Such users
will, therefore, be inclined to seek heroin on the illegal market.

Most schemes propose to limit legal supplies to defined groups
(for example, established addicts) or to exclude other groups (for

example, users or others under a certain age or those suspected of
selling drugs).   Some also want to limit consumption of the drugs to
certain locations (for example, making addicts take methadone orally
under supervision).   Further, there are generally limits to be set
on the amount of drugs which are to be legally dispensed.   This is
intended to be both a safety measure (to prevent overdoses) and a
barrier to users building up supplies to sell (for example, to the
young who will not be able to legally purchase them).   All of these
factors are sources of dissatisfaction with a legal system which would
force a certain proportion of consumers to continue to purchase from the
illegal market.

Thus it would appear that we should critically examine the assump-
tions underlying legal supply systems[5] in any evaluation of their poten-
tial impact.   As Moore (1971) writes:

> The continued existence of the illegal heroin supply system
> is a serious threat to any effort to control addicts by
> controlling the legal supply.   Any effort to raise the cost
> of legal heroin to addicts by requiring them to perform
> useful social functions, or live in undesirable conditions,
> or give up their freedom will lose some addicts to the
> illegal market.   Similarly, any effort to guarantee that
> reformed addicts or potential addicts will not be able to
> obtain heroin except in legal markets will also be limited
> when the illegal system continues to operate.   Thus, the
> continued operations of the illegal heroin supply system
> significantly reduce the control capabilities of the legal
> supply system.

> In conclusion, it is not realistic to expect that legal supply
> systems which are currently proposed are likely to completely
> replace the illegal industry.   To the extent that the legal
> system fails to replace the illegal system, efforts to con-
> trol the behavior of consumers of heroin by rigidly controlling
> the distribution of the legal heroin will be sharply limited.
> Thus, the legal competition currently envisioned will probably
> not have the effects that are often predicted or expected
> (p.54).

Of course one could design a legal system so liberal that the above
limitations would not apply.   This would be the total legalisation of
heroin, allowing its free availability to all.   Such a policy is un-
acceptable, however, as it would be highly likely to increase the
total market for heroin.   Because of this possibility no absolutely
legal system is likely to be introduced and we will consequently not be
able to eliminate the illegal heroin market through legal supply
strategies alone.

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[5] The major alternatives available, including the much-discussed
     British system will be set out in the following chapter.

SUMMARY AND POLICY IMPLICATIONS

Having now analysed the nature of the heroin distribution system and its likely responses to two types of general interventions it is convenient here to summarise the main points we have covered and to draw out their implications for the determination of drug law enforcement policies.

Among the most significant features of the heroin market drawn out by analyses such as Moore's (1971) are the following:

1. Over most price ranges, demand for heroin is relatively inelastic because of the drug's addictive properties.

2. Suppliers try to increase their revenue from drug sales in order to compensate themselves for the risks of participating in this market.   Because the market for heroin is imperfect and because demand, for the most part, is inelastic suppliers are able to increase revenue by raising prices.

3. Suppliers also invest time and money in evasive strategies to keep their businesses profitable.   The three general classes of strategies are:

    (a) concealing physical evidence of involvement in the industry;

    (b) minimising contacts which imply operation in the market;   and

    (c) corrupting law enforcement efforts.

4. Suppliers are faced with severe personnel problems.   They must find and train reliable operatives.   This may be expensive and may prevent rapid organisational changes in response to market changes.

5. The most important problem facing the consumer is the high price of heroin.   High prices encourage indulgence in income-producing crime and wholesale buying of drugs.

6. A consumer is also constantly at risk because of the uncertain quality of the drugs purchased.

7. Consumers have difficulty obtaining information about the location, quality and price of heroin.

8. Because suppliers are wary of new customers, consumers often have difficulty gaining access to markets.

9. Organisationally, the heroin industry is characterised by:

    (a) small distribution units;

(b)   a centralised monopoly at the top of the
      distribution system;   and

(c)   monopolistic competition at lower levels.

10.   Volume and price of heroin supplied can be significantly
      affected by law enforcement.   Reducing bribery and con-
      centrating on tight markets are likely to be the most
      effective strategies.

11.   Legal distribution systems are not likely to be struc-
      tured in such a way that the illegal supply system
      will become redundant and disappear.   To the extent
      that the illegal market continues to operate, the
      effectiveness of the legal system as a controlling
      agent will be diminished.   It is also probable that
      a legal supply system would increase the absolute
      demand for heroin.

If the above features are in fact an accurate analysis of the
heroin distribution system, what implications do they have for policy
decisions?   The major objectives of a policy on heroin might include
the following:

(i)   to reduce the amount of heroin-user crime;

(ii)   reduce the drug-derived incomes of heroin
       suppliers;

(iii) to cure existing addicts of their addiction;
       and

(iv)   to reduce the recruitment of new heroin
       users.

With these objectives in mind, and considering the structure of
the industry that has been outlined, we can discuss the likely con-
sequences of improving and increasing our law enforcement measures or
diminishing them.

1.   *The effects of improved law enforcement*

The previous analysis has shown that the general effects of
improved[6] law enforcement would be the exclusion of marginal customers,
the tightening of distribution organisations, and an increase in the

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[6]   In this context, "improved" law enforcement means selective, better
      targeted, efficient enforcement based on clearly enunciated, empiri-
      cally-based policies.   It does not mean a simple increase in
      enforcement resources or effort.

retail price of heroin. Price rises and the exclusion of marginal customers would almost certainly reduce the accessibility of heroin to non-regular (non-addicted) consumers. This, in turn, would mean a decreased rate of new addictions. For those who continue to use, the price would be greater. A certain (unknown) percentage of these would find the cost too high (either in direct money terms or in terms of the time, effort and risk necessary to raise the money, for example, by crime) would opt out and either stop using or enter treatment. Others however, will increase their participation in income-producing crime to sustain their habits. (However, this may only a short-term effect. In the long-term the decreasing rate of new addictions should result in less drug-related crime, other things being equal). Of these, some (perhaps more than at present) will be arrested and of the arrestees, some will be placed in treatment programmes which may succeed in reducing or eliminating their habits.[7] Increased prices would result in more profit to suppliers who stay in the market, but the actual amount will depend on how much they must spend on additional evasive strategies. A potential negative result could be that those organisations that do survive will be those that are the most dangerous, that is, high profit, highly organised structures.

In sum, improving law enforcement probably implies that addict crime will increase by some amount, addict cures will increase because people give up addiction or are arrested and rehabilitated, incomes of illegal suppliers increase, and the rate of new addiction drops (Moore, 1971, p.57).

2. *The effects of diminished law enforcement*

The alternative general option is to decrease our law enforcement efforts. Reference to the earlier market analysis indicates that this will mean shorter supply chains, less elaborate organisation, and the admittance of more marginal customers. Prices, however, would probably not fall significantly because, as Moore (1971) notes, they are supported at artificially high levels by imperfections in the heroin market. If this is an accurate prediction the rate of new addictions could increase, addict crime would not fall (and, in fact, may rise in the long-term because of the increased rate of new addictions), the cure rate would not be affected, and suppliers would make more profits because they could lower their operating costs and risks.

We can summarise these effects in tabular form as follows:

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[7] Little faith should be placed in the probability of treatment making significant inroads into the problem, however. The evidence is that treatment is an extremely weak factor in this analysis.

Table 29: Probable effects of law enforcement options on heroion
policy objectives

Policy Choice		Crime Rate	Illegal Income	Cure Rate	New Addictions
Improved Law Enforcement	(a)	Short-term increase	Increase	Increase or no change	Decrease
	(b)	Long-term increase			
Diminished Law Enforcement	(a)	No change	Increase	No Change	Increase
	(b)	Long-term increase			

    With a Table such as that above we may be able to evaluate effects
in terms of set priorities and make informed and rational policy
decisions. On the basis of the above information, for example, it
would seem that a policy of better quality, selective enforcement is
preferable. In terms of our set of four objectives the law enforce-
ment alternative is most successful in the long run. Of course a
similar exercise would then have to be conducted comparing other alterna-
tives, and presuming the law enforcement model is accepted further
evaluations would need to be made of the likely impact of alternative
strategies. However, it cannot be stressed too strongly that it is only
on the basis of extensive analyses of the heroin distribution system such
as those presented here, that such evaluations will be meaningful and
policies will be rationally and realistically based. It is submitted
that exercises such as the present one are not idle academic speculations,
but practical, operational tools for police (and other public policy)
decision-making. As acknowledged at the beginning of this section, the
model presented here is almost entirely based on Mark Moore's analysis
of the New York heroin industry. While some evidence confirms the
general outline with respect to the Australian situation futher research
is necessary to check the validity of the assumptions and observations
with Australian empirical data. In particular, it will be necessary
to uncover the organisational structure of heroin distribution system
here. It is possible that this information will emerge from the current
New South Wales Royal Commission of Inquiry into Drug Trafficking. If
this does not eventuate, it is recommended that the Police Commissioners'
Conference should sponsor research into the structure of the heroin
market in, for example, Sydney so that the appropriateness of the fore-
going model may be assessed in the Australian context.

    The following chapter will present an example of policy analysis

which might flow from knowledge of the type gained in an examination
of the characteristics of the heroin distribution system.

CHAPTER FIVE

THE EVALUATION OF DRUG POLICIES: A FURTHER EXAMINATION OF THE LEGAL PRESCRIPTION *VS* PROHIBITION OPTIONS

INTRODUCTION - DISCRIMINATION ON THE EFFECTIVE PRICE OF HEROIN

The mechanisms by which an effective price for heroin is struck were discussed earlier in this Report. It was emphasised that the effective price is not only the dollar value of a transaction, but also includes the other "costs" associated with seeking out and using heroin (for example, probability of arrest and conviction, amount of time needed to arrange purchase, probability of purchasing adulterated or otherwise variable-quality drugs, etc.). The nature of the product and its associated requirements mean that the effective price of heroin will be different for different users. In particular, it will be different for confirmed *versus* novice users. Novice users will often face higher effective prices than experienced users.[1] This observation is particularly relevant when one remembers the previously discussed greater elasticity of demand in new users. Taken together these two factors suggest that new users will be the first to be dropped from (or will not choose or be able to enter) the market under conditions of restricted supply.

The fact that systematic differences in the effective price of heroin might exist for experienced *versus* new users is crucially important to one aspect of designing a policy on heroin. Obviously, it would be useful to have a high effective price for new users so that their probability of entering or staying in the market is reduced. Conversely, it would be advantageous to have a low effective price for confirmed addicts so that, to the extent that the cost of drugs motivates crime, there will be a reduction in the economic pressure to commit crime.

Moore (1973) argues that the existence of discrimination on the effective price means that both objectives can be pursued simultaneously, i.e., we can have high effective prices for new users and low effective prices for addicts. A discussion of policy alternatives in this area turns upon an understanding of the factors that influence effective prices. The major factors may be listed as follows (Moore, 1973):

(i) *The influence of the aggregate supply of heroin.*
Effective prices to both new and experienced users
will be driven down to some extent by a large total
supply.

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[1] For example, the personal social cost of imprisonment is probably higher the first as compared to the third time. Novice users will have to spend considerably more time establishing contacts and making purchases than will experienced users.

(ii)   *Strength of incentives which motivate suppliers
         to discriminate against new users.*
         The motivation of illegal suppliers to deal with
         new users will be influenced by their assessment
         of the risks involved and the potential profits.
         Doctors will be more or less motivated to dis-
         criminate against new users depending on the
         penalties for prescribing to non-addicts or
         their beliefs about the harm addiction could
         do.   The stronger the motivation to discriminate,
         the greater will be the price differential between
         prices to new and established users.

(iii)   *Ability of suppliers to distinguish between old and
         new users.*
         To the extent that suppliers misread the signals
         by which they decide a user is experienced as
         opposed to a novice they will make one of two types
         of error.   They will either identify as new user
         someone who is in fact an experienced one (Type I
         error), or identify as experienced user one who is
         in fact a novice (Type II error).   Type I errors
         mean that the effective price to experienced users
         is higher than would otherwise be the case.   Type
         II errors mean that the effective price to new users
         is lower than would otherwise be the case.   Obviously,
         then, the more frequently either of these errors
         occurs, the less will be the price differential
         between established and new users.

(iv)   *Extent to which experienced users sell to new users.*
         If experienced users act as "brokers" for new users
         price discrimination will again tend to be broken
         down.   The extent of brokerage depends on the
         experienced users' ability to obtain more heroin than
         they need themselves, on the extent to which they
         circulate in the market, and on the extent to which
         they feel they have to conceal their market con-
         nections.

It is now possible to make informed predictions about the impact
of different policies on effective prices by examining how the above
four factors would be influenced by policy alternatives.

THE MAJOR POLICY OPTIONS - PROHIBITION *VERSUS* LEGAL PRESCRIPTION

The two ends of the option spectrum are represented by the continua-
tion of the prohibition of heroin or the introduction of a system of
legal prescription of heroin (often referred as as the "British

system").[2]   Within these major policies, important variants can be produced by either different enforcement strategies or different levels of supervision over doctors.   Let us examine some of these variants and their possible price consequences:

1.   *PROHIBITION POLICY VARIANTS*

As examples, we can analyse three commonly employed enforcement strategies:

1.1.   *Surveillance of known locations.*   This tactic affects the ease with which new users are able to locate and buy supplies because regular users and dealers will avoid known locations.   Access time for regular users will also be increased, but because of their information sources and contacts the increase will not be as significant as for new users.   Surveillance, therefore, raises the effective price for all users, but substantially more so for new users.

1.2.   *The use by the police of addict informants.*   This tactic may serve to decrease price discrimination because if dealers know that experienced addicts are being recruited as police informants they will have reason to discriminate against experienced users in favour of new ones.   The overall effect, though, is generally to raise the effective price to all users.

1.3.   *Use of undercover operatives.*   The use of young police officers as undercover operatives provides further impetus for dealers to discriminate among their customers, with the emphasis again being on recognition of experienced users.   To the extent that officers are not successful in imitating hard core users, the motivation to avoid inexperienced users will increase (although such an inability to play the addict role also puts the officer in potential danger).   Overall, this tactic means a large increase in the effective price to new users, and little or no effect on the price to experienced users.

It is probable that a combination of these and other strategies

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[2]   For an extensive discussion of the history and operation of British drug control mechanisms see Philip Bean, *The Social Control of Drugs*, London: Martin Robertson, 1974.

would be more effective in producing the desired price discrimination
than any one in isolation. For example, we might direct attacks at
middle and upper levels of the distribution system in order to reduce
the total supply of heroin. As discussed earlier, such pressure will
encourage dealers to look for ways of reducing risk as well as increa-
sing profit. If it is also known that young police officers are working
undercover, dealers will be encouraged to discriminate against young,
unknown buyers. Thus, sufficient high-level pressure to reduce
supplies and an undercover programme may result in a considerable
effective price discrimination between new and experienced users.
Obviously all combinations of enforcement strategies can be evaluated
in this manner to judge their likely consequences in terms of set
priorities and goals.

2. *LEGAL PRESCRIPTION POLICY VARIANTS*

Moore (1973) identifies the four major suggested legal prescription
policies:

2.1. *Prescription of heroin without close government supervision.*
This is the situation that existed in Britain prior to
1968 (when the Regulations made under the *Dangerous Drugs
Act* 1967, came into force). Under this policy, doctors
are free to diagnose addiction and prescribe maintenance
doses of heroin according to their own beliefs and
experience. The major problem with such a system, as
the Brain Committee noted in its second report[3] is a
tendency towards overprescription. The particular
causes of overprescription are mainly connected with
the difficulties of diagnosing addiction and determining
maintenance doses. Within the time and resource con-
straints governing most general practitioners, an
accurate diagnosis of addiction is hard to make.
Similarly, determining maintenance doses tends to be
a hit-and-miss affair and is not accurately calculated
by, for example, a series of titrating experiments
(which are costly and time-consuming). These two
factors in combination mean that doctors tend to make
many Type II errors under a liberal prescription system
(that is, they diagnose non-addicts as addicts, and
prescribe larger doses than necessary for personal con-
sumption). Moore (1973) summarises the results of these
actions:

> Because doctors cannot reliably distinguish new
> users from old users, and because overprescriptions
> subsidise extensive brokerage activity, the price
> differential under this policy is small. Both
> new and old users face low effective prices (p.275).

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[3] *Drug Addiction, the Second Report of the Interdepartmental Committee*
(the Brain Committee). London: HMSO, 1967.

2.2. *Prescription of heroin in government-supervised clinics*
(current British system). Control over doctors making
Type II errors can be gained by either punishing errors
when they occur or by directly controlling diagnostic
and prescription procedures. Punishing Type II errors
will decrease their probability of occurrence because
doctors will respond by either adopting more conservative
criteria with present diagnostic tests, or by changing
to more accurate ones. However, the response of changing
to more conservative criteria will have the undesirable
consequehce of reducing Type II errors only at the
expense of increased Type I errors (i.e., diagnosing as
non-addicts those who are, in fact, addicted, and under-
estimating maintenance dosage rates). Type I errors
are undesirable because they increase the effective
price to experienced users and force addicts who are
excluded from the system to support an illegal market
which, in turn, will support new users. One solution,
therefore, is the introduction of government-controlled
or supervised clinics which set high standards in dia-
gnostic testing and dosage determination.

We are faced still with the reality that errors will
continue to occur regardless of the criteria used in
diagnosis and prescription. To the extent that such
errors occur, the price differential that we want to
establish will be eroded. The adoption of conservative
criteria will lead to greater price increases to esta-
blished users than we would like and would not increase
the price to new users as much as we would like.
Liberal criteria would mean a low price to established
users but at the risk of a low effective price to new
users (to whom addicts would sell their excess drugs
and who would, to some extent, be accepted as established
users).

2.3. *Prescription of heroin to be consumed only under govern-*
ment supervision. The major drawback of the preceding
policy is that it fails to control fully the behaviour
of addicts, in particular their brokering activities
and support of an illicit market. One solution is to
obtain some control of actual consumption of drugs.
At one extreme is the policy of allowing only a limited
short-term supply (say one week) to be prescribed and
taken from the clinic. At the other extreme is total
in-patient treatment.[4] Unfortunately, when used in

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[4] Note the example of Queensland whose policy lies somewhere between
these two extremes. In that State addicts may self-inject on
clinic premises. I am again indebted to Dr Les Drew for pointing
out this provision.

isolation, neither scheme is satisfactory in terms of meeting the price discrimination goal. With a total in-patient system many addicts will refuse to participate and will support the illegal market. Allowing the dispensing of a week's allocation of heroin will encourage widespread brokerage immediately after the supply has been dispensed followed by buying on the illegal market later in the week when addicts discover they have already used or sold their supply.

On balance, depending on the actual level of supervision decided upon, the outcome of such a policy:

> ... will probably be to raise the effective price to new users (due to some reductions in both brokering and the size of a residual illicit market), and to raise slightly the effective price to old users (due to less generous prescriptions and the difficulty of showing up at the clinics) (Moore, 1973, p.276).

2.4. *Prescription for use only under supervision and aggressive enforcement against residual sales and use.* A final variant is to adopt the preceding policy and also maintain effective law enforcement efforts against the remaining unauthorised market activities. Law enforcement under this option is the key aspect of the policy. As Moore (1973) points out, it would take only a small number of illegal dealers to remain in business to push the effective price to new users under what it would be in a prohibition environment. Enforcement strategies must be aimed at reducing this possibility. As Moore explains:

> Suppose that 10 *per cent* of the users at any given time were inexperienced users. Because they were not particularly heavily addicted, they would constitute less than 10 *per cent* of total heroin consumption - perhaps as little as 2-3 *per cent.* Now suppose that a legal distribution system is developed. Many of the addicted people flock to the legal prescription system. Many illegal dealers decide to go out of business. However, if less than 97 *per cent* of the former illicit supply capability disappears, inexperienced users will face *improved* supply conditions; the supply to them will be greater than under the prohibition policy. The small proportion of total consumption required to support large growth rates in the using population requires that one has to drive out nearly 100 *per cent* of the illegal supply capacity (1973, pp. 276-277, italics in original).

What this means, of course, is that the law enforcement
attack on the residual market must be very successful
if it is to effectively reduce the total supply to new
users.   However, by analysing the law enforcement
options discussed earlier and testing combinations for
effectiveness, a combined law enforcement/supervised
legal prescription policy should result in maximum
price discrimination (i.e., very low effective price
for addicts and very high effective price for new
users).

CONCLUSION

To conclude, this section has used the goal of price discrimina-
tion as an example of how policies can be analysed to reveal the
factors entering into drug consumer behaviour and to show how such
an analysis can be used as a basis for policy design and evaluation.
Further, it may be seen that law enforcement policy cannot be either
viewed or determined in isolation but must be seen in the context of
an overall drug policy and its goals.   The method of analysis outlined
in this chapter should, it is recommended, be closely examined by the
law enforcement community as a model for drug policy determination
and evaluation.

CONCLUSIONS AND RECOMMENDATIONS

It is now appropriate to sum up the relevant knowledge about the relationship between illicit drug use and criminal behaviour, to begin to delineate significant issues for further research, and to assess the relevance to analysis of drug policy options of the information that has been discussed in the preceding chapters.

First we must acknowledge that criminal behaviour and drug use are complex phenomena not susceptible of simple analysis. The general level of current debate of drug-related issues belies this fact, however,and prevents rational analysis and clearly reasoned policy. It must also be admitted that research in the area has not always been rigorous and, because of unclear definitions and imprecise measurement techniques, it has been difficult to compare directly the results of many studies. In particular, it has been difficult to make generalisations about the questions under scrutiny. The key difficulties have been acknowledged in the foregoing pages and need not be laboured. With these in mind it is possible, though, to draw a number of conclusions which rest on reasonably strong empirical support.

1. The population of narcotic users[1] is composed of individuals with widely varying habit sizes and frequencies. Even particular individuals may show considerable variations in amount and frequency of use over time. The evidence indicates that persons falling into the "addict" stereotype probably constitute a minority (*albeit* possibly a substantial one) of users. This implies that aggregate estimates of habit sizes and analyses based thereon may be inappropriate.

2. A significant percentage (probably between 30 and 50 *per cent*) of the income needed to support large habits is generated within the drug distribution network itself (that is, by buying and selling illegal drugs). Evidence also indicates that a significant number of heavy users of expensive drugs obtain substantial financial support from family, welfare, and employment. Thus, probably in the vicinity of 30 to 40 *per cent* of income expended on drugs is earned from non-drug revenue-producing crime. Of this percentage, not all will be from property crime. Gambling offences and prostitution feature prominently in the criminal histories of a large number of drug offenders.

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[1] Narcotic user will be used here as a convenient label to refer to consumers of addictive/expensive drugs, primarily heroin, cocaine, and methadone.

3.   A substantial percentage of persons arrested for narcotic drug offences have criminal histories which pre-date their first arrest for a drug offence.   In the United States most studies report that between 45 and 85 *per cent* of narcotics users have previous non-drug criminal records.   In Australia, the present study found that 66.81 *per cent* of users of expensive/addictive drugs had been previously convicted for non-drug offences.

4.   In Australia, those convicted for cannabis offences come from substantially the same age groups, ethnic backgrounds, and occupational groups as do narcotics offenders.   Substantial percentages of both groups have criminal backgrounds, but cannabis users significantly less so (48.86 *per cent* of cannabis users *versus* 66.81 *per cent* of narcotics users had criminal records prior to their first drug conviction).   Further, the extent of criminality is greater for narcotics than for cannabis offenders.   Narcotics offenders had committed substantially more offences and had longer histories than had cannabis offenders.[2]

5.   There is no reliable evidence to show that drug users commit crimes of violence as a direct consequence of the pharmacological action of the drugs they consume.

6.   An analysis of the economics of the heroin distribution system reveals the following characteristics which are of value in determining heroin policies and strategies:

(a) Over most price ranges, demand for heroin is relatively inelastic because of the drug's addictive properties.

(b) Suppliers try to increase their revenue from drug sales in order to compensate themselves for the risks of participating in this market.   Because the market for heroin is imperfect and because demand, for the most part, is inelastic suppliers are able to increase revenue by raising prices.

(c) Suppliers also invest time and money in evasive strategies to keep their businesses profitable.   The three general classes of strategies are: (i) concealing physical evidence of involvement in the industry; (ii) minimising contacts which imply operation in the market; and (iii) corrupting law enforcement efforts.

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[2]   It might also be noted that the impression gained from reading the criminal histories is that many cannabis offenders were arrested on other charges and then additionally charged with drug offences when cannabis was found in their possession.   In such cases a cannabis charge was really incidental.   This did not seem to be true of narcotics offenders, who were almost exclusively charged only with drug or drug-related offences.   This difference could fruitfully be researched further to establish the validity of the impression.

(d)   Suppliers are faced with severe personnel problems.
They must find and train reliable operatives.   This may
be expensive and may prevent rapid organisational changes
in response to market changes.

(e)   The most important problem facing the consumer is
the high price of heroin.   High prices encourage in-
dulgence in income-producing crime and wholesale buying
of drugs.

(f)   A consumer is also constantly at risk because of
the uncertain quality of the drugs purchased.

(g)   Consumers have difficulty obtaining information
about the location, quality and price of heroin.

(h)   Because suppliers are wary of new customers, con-
sumers often have difficulty gaining access to markets.

(i)   Organisationally, the heroin industry is characteri-
sed by (i) small distribution units;   (ii) a centralised
monopoly at the top of the distribution system;   and
(iii) monopolistic competition at lower levels.

(j)   Volume and price of heroin supplied can be signifi-
cantly affected by law enforcement.   Reducing bribery
and concentrating on tight markets are likely to be the
most effective strategies.

(k)   Legal distribution systems are not likely to be
structured in such a way that the illegal supply system
will become redundant and disappear.   To the extent
that the illegal market continues to operate, the
effectiveness of the legal system as a controlling agent
will be diminished.   It is also probable that a legal
supply system would increase the absolute demand for
heroin.

The above conclusions, with the exception of those based upon the
criminal history data collected specifically for this Report, are
drawn substantially (in some cases exclusively) from research conducted
in the United States.   While the broad accuracy of many of the para-
meters has been informally checked by the present author in consultation
with police and other authorities, there is an urgent need to replicate
a number of the studies analysed in the Report to check the applica-
bility of the data to Australian conditions.   Further, if monitoring
and planning systems such as the DEA's heroin-crime index are to be of
operational use to Australian police forces they clearly must utilize
current local data.   Bearing these factors in mind, the following
recommendations are made:

1.   That the Police Commissioners take whatever steps are
necessary to establish and maintain a heroin-user crime index based upon
that devised by the United States Drug Enforcement Administration.

2.   That the Police Commissioners sponsor (either directly or through a grant-awarding body such as the Criminology Research Council) an intensive study of the heroin distribution system in a major Australian city (preferably Sydney).   Such a study should be based on the work of Dr Mark Moore of Harvard University which has been discussed extensively in this Report.   The major objective of the study should be to determine to what extent Moore's analysis is characteristic of the Australian heroin market.

3.   That the Police Commissioners take the lead in initiating a thorough analysis of drug policies in Australia with a view to setting attainable, realistic goals in drug enforcement and relating enforcement measures to a coherent national policy[3] on drugs.   It is suggested that the National Standing Control Committee on Drugs of Dependence may be an appropriate forum for such an analysis.   The analyses of the heroin situation detailed in Chapters Four and Five of this Report present a model which could fruitfully be followed in the suggested discussion.

4.   That the Police Commissioners take whatever steps are necessary to establish a data collection system which routinely and accurately collects data on narcotic prices and purity of narcotics illicitly sold. These data should then be related by multivariate techniques to cross-sectional and trend data on crime patterns, unemployment rates, law enforcement policies and other relevant indicators in order to analyse trends in drug use and crime and examine the relations between these two phenomena.   Such a data flow system would not only be of immense value as a research tool in answering fundamental questions about the relations between drug use and crime, but also would be of considerable value in monitoring the effectiveness of enforcement procedures. Finally, it would be useful to use such a system to monitor the effects of changes in legislation relating to drugs.

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[3]   As recommended by the Senate Standing Committee on Social Welfare in its report *Drug Problems in Australia - An Intoxicated Society?* (Canberra: Australian Government Publishing Service, 1977).

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APPENDIX 1

DESCRIPTION OF THE SAMPLE POPULATION

TABLE 1.01

AGE OF NARCOTICS USERS - FREQUENCIES

YRS.	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
<18	2	6	4	3	1	-	1	21	38
18-25	58	74	57	58	62	5	26	10	350
26-30	18	9	14	9	22	2	2	3	79
31-50	1	2	4	5	3	-	-	-	15
TOTAL:	79	91	79	75	88	7	29	34	482

TABLE 1.02

COUNTRY OF ORIGIN OF NARCOTICS USERS - FREQUENCIES

COUNTRY OF ORIGIN	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
Australia	40	64	70	57	63	6	22	26	348
United Kingdom	5	7	3	7	16	1	2	1	42
New Zealand	5	3	2	2	2	-	-	2	16
Other	22	6	3	6	6	-	3	2	48
Not Known	7	11	1	3	1	-	2	3	28
TOTAL:	79	91	79	75	88	7	29	34	482

TABLE 1.03

SEX OF NARCOTICS USERS - FREQUENCIES

SEX	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
Male	65	71	58	63	63	4	23	25	372
Female	14	20	21	12	25	3	6	9	110
TOTAL:	79	91	79	75	88	7	29	34	482

TABLE 1.04

NARCOTICS USERS-DRUG TYPE - FREQUENCIES

DRUG TYPE	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
Opiates	57	69	70	54	72	5	24	27	378
Amphet-amines	1	3	5	4	5	-	3	-	21
Barbit-uates	1	14	-	-	1	-	-	-	16
Hallu-cenogen	20	3	1	16	9	1	2	6	58
Tran-quilizers	-	1	3	1	1	-	-	1	7
Other	-	1	-	-	-	1	-	-	2
TOTAL:	79	91	79	75	88	7	29	34	482

TABLE 1.05

NARCOTICS USERS-OFFENCE - FREQUENCIES

OFFENCE	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
Unlawful Possession	57	-	20	6	21	2	2	5	113
Import	-	-	1	-	-	-	-	-	1
Administer/ Use	5	81	43	63	61	4	23	29	309
Traffic	3	10	5	3	1	1	3	-	26
Receive	2	-	-	-	-	-	-	-	2
Steal	-	-	1	-	1	-	-	-	2
False Pretences	-	-	-	-	-	-	-	-	-
Forge Prescriptions	1	-	8	-	-	-	1	-	10
Poss.Instru.	11	-	1	3	4	-	-	-	19
TOTAL:	79	91	79	75	88	7	29	34	482

TABLE 1.06

AGE OF NARCOTICS USERS - PERCENTAGES

YRS.	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
<18	2.53	6.59	5.06	4.00	1.14	-	3.45	-	7.89
18-25	73.42	81.32	72.15	77.33	70.45	71.43	89.65	61.77	72.61
26-30	22.78	9.89	17.73	12.00	25.00	28.57	6.90	29.41	16.39
31-50	1.27	2.20	5.06	6.67	3.41	-	-	8.82	3.11
TOTAL:	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

TABLE 1.07

COUNTRY OF ORIGIN OF NARCOTICS USERS - PERCENTAGES

COUNTRY OF ORIGIN	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
Australia	50.63	70.33	88.61	76.00	71.59	85.71	75.86	76.47	72.20
United Kingdom	6.33	7.69	3.80	9.33	18.18	14.29	6.90	2.94	8.71
New Zealand	6.33	3.30	2.53	2.67	2.27	-	-	5.88	3.32
Other	27.85	6.59	3.80	8.00	6.82	-	10.34	5.88	9.96
Not Known	8.86	12.09	1.26	4.00	1.14	-	6.90	8.83	5.81
TOTAL:	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

TABLE 1.08

SEX OF NARCOTICS USERS - PERCENTAGES

SEX	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
Male	82.28	78.02	73.42	84.00	71.59	57.14	79.30	73.53	77.18
Female	17.72	21.98	26.58	16.00	28.41	42.86	20.70	26.47	22.82
TOTAL:	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

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TABLE 1.09

NARCOTICS USERS - DRUG TYPE - PERCENTAGES

DRUG TYPE	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
Opiates	72.15	75.82	88.61	72.00	81.82	71.42	82.76	79.41	78.42
Amphet-amines	1.27	3.30	6.33	5.34	5.68	-	10.34	-	4.36
Barbit-uates	1.27	15.38	-	-	1.14	-	-	-	3.32
Hallu-cenogen	25.31	3.30	1.26	21.33	10.22	14.29	6.90	17.65	12.03
Tran-quilizers	-	1.10	3.80	1.33	1.14	-	-	2.94	1.45
Other	-	1.10	-	-	-	14.29	-	-	0.42
TOTAL:	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

TABLE 1.10

NARCOTICS USERS - OFFENCE - PERCENTAGES

OFFENCE	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
Unlawful Possession	72.15	-	25.32	8.00	23.86	28.57	6.90	14.71	23.44
Import	-	-	1.26	-	-	-	-	-	0.21
Admini-ster/Use	6.33	89.01	54.44	84.00	69.32	57.14	79.31	85.29	64.11
Traffic	3.80	10.99	6.33	4.00	1.14	14.29	10.34	-	5.39
Receive	2.53	-	-	-	-	-	-	-	0.42
Steal	-	-	1.26	-	1.14	-	-	-	0.42
False Pretences	-	-	-	-	-	-	-	-	-
Forge Pre-scriptions	1.27	-	10.13	-	4.54	-	3.45	-	2.07
Possess Instruments	3.92	-	1.26	4.00	-	-	-	-	3.94
TOTAL:	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

TABLE 1.11

AGE OF CANNABIS USERS - FREQUENCIES

AGE	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
<18	5	8	7	11	2	13	3	-	49
18-25	73	76	70	72	82	102	59	99	633
25-30	13	12	17	9	18	26	5	21	121
31-50	3	5	3	2	2	4	4	11	34
TOTAL:	94	101	97	94	104	145	71	131	837

TABLE 1.12

COUNTRY OF ORIGIN OF CANNABIS USERS - FREQUENCIES

COUNTRY OF ORIGIN	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
Australia	48	75	83	73	70	116	53	102	620
United Kingdom	5	5	10	12	17	10	5	13	77
New Zealand	7	2	1	1	3	9	1	5	29
Other	23	6	3	4	12	8	5	10	71
Not Known	11	13	-	4	2	2	7	1	40
TOTAL:	94	101	97	94	104	145	71	131	837

TABLE 1.13

SEX OF CANNABIS USERS - FREQUENCIES

SEX	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
Male	86	93	88	84	38	115	58	115	677
Female	8	8	9	10	66	30	13	16	160
TOTAL:	94	101	97	94	104	145	71	131	837

TABLE 1.14

CANNABIS USERS - OFFENCE -FREQUENCIES

OFFENCE	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
Unlawful Possession	83	7	71	10	27	8	4	13	223
Import	-	-	-	-	-	-	-	-	-
Use	2	81	23	78	75	119	64	117	559
Traffic	3	12	3	2	2	18	3	1	44
(Poss. Instr. (Other, grow	6	1	-	4	-	-	-	-	11
TOTAL:	94	101	97	94	104	145	71	131	837

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TABLE 1.15

AGE OF CANNABIS USERS - PERCENTAGES

AGE	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
<18	5.32	7.92	7.22	11.70	1.92	8.97	4.23	-	5.85
18-25	77.66	75.25	72.16	76.60	78.85	70.34	83.10	75.57	75.63
26-30	13.83	11.88	17.53	9.57	17.31	17.93	7.04	16.03	14.46
31-50	3.19	4.95	3.09	2.13	1.92	2.76	5.63	8.40	4.06
>50	-	-	-	-	-	-	-	-	-
TOTAL:	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

TABLE 1.16

COUNTRY OF ORIGIN OF CANNABIS USERS - PERCENTAGES

COUNTRY OF ORIGIN	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
Australia	51.30	74.26	85.57	77.66	67.31	80.00	74.65	77.86	74.07
United Kingdom	5.32	4.95	10.31	12.76	16.35	6.90	7.04	9.92	9.20
New Zealand	7.45	1.98	1.03	1.06	2.88	6.21	1.41	3.82	3.47
Other	24.47	5.94	3.09	4.26	11.54	5.52	7.04	7.63	8.48
Not Known	11.70	12.87	-	4.26	1.92	1.37	9.86	0.77	4.78
TOTAL:	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

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TABLE 1.17

SEX OF CANNABIS USERS - PERCENTAGES

SEX	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
Male	91.49	92.08	90.72	89.36	36.54	79.31	81.69	87.79	80.88
Female	8.51	7.92	9.28	10.64	63.46	20.69	18.31	12.21	19.12
TOTAL:	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

TABLE 1.18

CANNABIS USERS - OFFENCE - PERCENTAGES

OFFENCE	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
Unlawful Possession	88.30	6.93	73.20	10.64	25.96	5.52	5.63	9.92	26.64
Import	-	-	-	-	-	-	-	-	-
Use	2.13	80.20	23.71	82.98	72.12	82.07	90.14	89.31	66.79
Traffic	3.19	11.88	3.09	2.13	1.92	12.41	4.23	0.77	5.26
Possess Instruments	6.38	0.99	-	4.25	-	-	-	-	1.31
TOTAL:	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

TABLE 1.19

AGE OF TOTAL SAMPLE - FREQUENCIES/PERCENTAGES

AGE	FREQUENCY			PERCENTAGE		
	CANNABIS	NARCOTIC	TOTAL	CANNABIS	NARCOTIC	TOTAL
<18	49	38	87	5.85	7.89	6.60
18-25	633	350	983	75.63	72.61	74.53
26-30	121	79	200	14.46	16.39	15.16
31-50	34	15	49	4.06	3.11	3.71
>50	-	-	-	-	-	-
TOTAL:	837	482	1319	100.00	100.00	100.00

TABLE 1.20

COUNTRY OF ORIGIN OF TOTAL SAMPLE - FREQUENCIES/PERCENTAGES

COUNTRY OF ORIGIN	FREQUENCY CANNABIS	FREQUENCY NARCOTIC	TOTAL	PERCENTAGE CANNABIS	PERCENTAGE NARCOTIC	TOTAL
Australia	620	348	968	74.07	72.20	73.39
United Kingdom	77	42	119	9.20	8.71	9.02
New Zealand	29	16	45	3.47	3.32	3.41
Other	71	48	119	8.48	9.96	9.02
Not Known	40	28	68	4.78	5.81	5.16
TOTAL:	837	482	1319	100.00	100.00	100.00

TABLE 1.21

SEX OF TOTAL SAMPLE - FREQUENCIES/PERCENTAGES

SEX	FREQUENCY			PERCENTAGE		
	CANNABIS	NARCOTIC	TOTAL	CANNABIS	NARCOTIC	TOTAL
Male	677	372	1049	80.88	77.18	79.53
Female	160	110	270	19.12	22.82	20.47
TOTAL:	837	482	1319	100.00	100.00	100.00

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TABLE 1.22

DRUG TYPE - TOTAL SAMPLE - FREQUENCIES/PERCENTAGES

DRUG TYPE	FREQUENCY CANNABIS	FREQUENCY NARCOTIC	TOTAL	PERCENTAGES CANNABIS	PERCENTAGES NARCOTIC	TOTAL
Opiates	-	378	378	-	78.42	28.66
Cannabis	837	-	837	100.00	-	63.46
Amphet-amines	-	21	21	-	4.36	1.59
Barbit-uates	-	16	16	-	3.32	1.21
Hallu-cenogen	-	58	58	-	12.03	4.40
Tran-quilizers	-	7	7	-	1.45	0.53
Other	-	2	2	-	0.42	0.15
TOTAL:	837	482	1319	100.00	100.00	100.00

TABLE 1.23

OFFENCE - TOTAL SAMPLE - FREQUENCIES/PERCENTAGES

OFFENCE	FREQUENCY			PERCENTAGE		
	CANNABIS	NARCOTIC	TOTAL	CANNABIS	NARCOTIC	TOTAL
Unlawful Possession	223	113	336	26.64	23.44	25.47
Import	-	1	1	-	0.21	0.08
Use	559	309	868	66.79	64.11	65.81
Traffic	44	26	70	5.26	5.39	5.31
Receive	-	2	2	-	0.42	0.15
Steal	-	2	2	-	0.42	0.15
False Pretences	-	-	-	-	-	-
Forge Pre-scriptions	-	10	10	-	2.07	0.76
Possess Instruments	11	19	30	1.31	3.94	2.27
Other	-	-	-	-	-	-
TOTAL:	837	482	1319	100.00	100.00	100.00

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TABLE 1.24

OCCUPATION - TOTAL SAMPLE - FREQUENCIES/PERCENTAGES

OCCUPATION	FREQUENCY			PERCENTAGE		
	CANNABIS	NARCOTIC	TOTAL	CANNABIS	NARCOTIC	TOTAL
Professional	23	14	37	2.75	2.91	2.80
Administrative	13	6	19	1.55	1.25	1.44
Clerical	51	19	70	6.09	3.94	5.31
Sales	19	11	30	2.27	2.28	2.27
Farmers/Fishermen Etc.	18	3	21	2.15	0.62	1.59
Miners	1	-	1	0.12	-	0.10
Transp. & Commun.	38	18	56	4.54	3.73	4.25
Craftsmen/Lab.	288	161	449	34.40	33.40	34.04
Service/Sport	64	40	104	7.65	8.30	7.88
Armed Services	5	1	6	0.60	0.21	0.45
Students - Prim.	2	2	4	0.24	0.41	0.30
Second.	10	1	11	1.20	0.21	0.83
Tert.	34	12	46	4.06	2.49	3.49
Housewives/Pens.	7	9	16	0.84	1.87	1.21
Unemployed	206	130	336	24.61	26.97	25.47
Not known/Inadeq. described	58	55	113	6.93	11.41	8.57
TOTAL:	837	482	1319	100.00	100.00	100.00

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APPENDIX 2

CRIMINAL HISTORY DATA

TABLE 2.01

AGE AT FIRST DRUG CONVICTION - NARCOTICS USERS - FREQUENCIES

AGE	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
<20	33	48	21	26	30	1	10	11	180
20-25	40	39	42	39	47	5	16	15	243
26-30	6	2	10	5	8	1	3	5	40
>30	-	2	6	5	3	-	-	3	19
TOTAL:	79	91	79	75	88	7	29	34	482

TABLE 2.02

AGE AT FIRST DRUG CONVICTION - NARCOTICS USERS - PERCENTAGES

AGE	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
<20	41.77	52.74	26.58	34.66	34.09	14.29	34.48	32.35	37.34
20-25	50.63	42.86	53.16	52.00	53.41	71.42	55.17	44.12	50.42
26-30	7.60	2.20	12.66	6.67	9.09	14.29	10.35	14.71	8.30
>30	-	2.20	7.60	6.67	3.41	-	-	8.82	3.94
TOTAL:	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

TABLE 2.03

AGE AT FIRST DRUG CONVICTION - CANNABIS USERS - FREQUENCIES

AGE	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
<20	39	45	33	47	38	57	31	33	323
20-25	47	43	50	39	55	73	32	79	418
26-30	5	8	11	6	9	10	4	8	61
>30	3	5	3	2	2	5	4	11	35
TOTAL:	94	101	97	94	104	145	71	131	837

TABLE 2.04

AGE AT FIRST DRUG CONVICTION - CANNABIS USERS - PERCENTAGES

AGE	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
<20	41.49	44.55	34.02	50.00	36.54	39.31	43.65	25.19	38.59
20-25	50.00	42.58	51.55	41.49	52.89	50.35	45.09	60.30	49.94
26-30	5.32	7.92	11.34	6.38	8.65	6.90	5.63	6.11	7.29
>30	3.19	4.95	3.09	2.13	1.92	3.44	5.63	8.40	4.18
TOTAL:	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

130.

TABLE 2.05

AGE AT FIRST DRUG CONVICTION - TOTAL SAMPLE - FREQUENCIES/PERCENTAGES

AGE	FREQUENCY			PERCENTAGE		
	CANNABIS	NARCOTIC	TOTAL	CANNABIS	NARCOTIC	TOTAL
<20	323	180	503	38.59	37.34	38.14
20-25	418	243	661	49.94	50.42	50.11
26-30	61	40	101	7.29	8.30	7.66
>30	35	19	54	4.18	3.94	4.09
TOTAL:	837	482	1319	100.00	100.00	100.00

TABLE 2.06

PERIOD ELAPSED BETWEEN FIRST CONVICTION AND FIRST DRUG CONVICTION
FOR OFFENDERS WITH PREVIOUS CRIMINAL RECORDS
NARCOTICS USERS - FREQUENCIES

PERIOD ELAPSED	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
0-3m	3	4	-	2	2	-	-	3	14
3-6	2	-	10	-	4	-	-	-	16
6-12	2	6	1	6	2	-	2	2	21
1-2yrs	8	2	4	4	5	1	5	4	33
3-5	4	23	9	17	9	1	3	3	69
>5	13	18	8	14	9	2	4	5	73
TOTAL:	32	53	32	43	31	4	14	17	226

TABLE 2.07

PERIOD ELAPSED BETWEEN FIRST CONVICTION AND FIRST DRUG CONVICTION
FOR OFFENDERS WITH PREVIOUS CRIMINAL RECORDS
NARCOTICS USERS - PERCENTAGES

PERIOD ELAPSED	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
0-3m	9.38	7.55	-	4.65	6.45	-	-	17.65	6.20
3-6	6.25	-	31.25	-	12.91	-	-	-	7.08
6-12	6.25	11.32	3.13	13.95	6.45	-	14.29	11.76	9.29
1-2yrs	25.00	3.77	12.50	9.30	16.13	25.00	35.71	23.53	14.60
3-5	12.50	43.40	28.12	39.54	29.03	25.00	21.43	17.65	30.53
>5	40.62	33.96	25.00	32.56	29.03	50.00	28.57	29.41	32.30
TOTAL:	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

TABLE 2.03

PERIOD ELAPSED BETWEEN FIRST CONVICTION AND FIRST DRUG CONVICTION
FOR OFFENDERS WITH PREVIOUS CRIMINAL RECORDS
CANNABIS USERS - FREQUENCIES

PERIOD ELAPSED	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
0-3m	3	3	2	1	-	1	1	1	12
3-6	-	1	1	1	-	-	3	2	8
6-12	1	6	1	1	-	3	4	4	20
1-2yrs	11	8	2	4	7	10	5	8	55
3-5	8	14	8	23	1	20	11	11	96
>5	10	13	14	20	6	16	8	17	104
TOTAL:	33	45	28	50	14	50	32	43	295

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TABLE 2.09

PERIOD ELAPSED BETWEEN FIRST CONVICTION AND FIRST DRUG CONVICTION
FOR OFFENDERS WITH PREVIOUS CRIMINAL RECORDS
CANNABIS USERS - PERCENTAGES

PERIOD ELAPSED	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
0-3m	9.09	6.67	7.14	2.00	-	2.00	3.12	2.33	4.07
3-6	-	2.22	3.57	2.00	-	-	9.37	4.65	2.71
6-12	3.03	13.33	3.57	2.00	-	6.00	12.50	9.30	6.78
1-2yrs	33.33	17.78	7.14	8.00	50.00	20.00	15.63	18.60	18.64
3-5	24.25	31.11	28.58	46.00	7.14	40.00	34.38	25.58	32.54
>5	30.30	28.89	50.00	40.00	42.86	32.00	25.00	39.54	35.26
TOTAL:	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

TABLE 2.10

PERIOD ELAPSED BETWEEN FIRST CONVICTION AND FIRST DRUG CONVICTION
FOR OFFENDERS WITH PREVIOUS CRIMINAL RECORDS
TOTAL SAMPLE - FREQUENCIES/PERCENTAGES

PERIOD ELAPSED	FREQUENCY CANNABIS	NARCOTIC	TOTAL	PERCENTAGE CANNABIS	NARCOTIC	TOTAL
0-3m	12	14	26	4.07	6.20	4.99
3-6	8	16	24	2.71	7.08	4.61
6-12	20	21	41	6.78	9.29	7.87
1-2yrs	55	33	88	18.64	14.60	16.89
3-5	96	69	165	32.54	30.53	31.67
>5	104	73	177	35.26	32.30	33.97
TOTAL:	295	226	521	100.00	100.00	100.00

TABLE 2.11

NUMBER OF CONVICTIONS PRIOR TO PRESENT DRUG CONVICTION
NARCOTICS USERS - FREQUENCIES

NO. OF CONVICTIONS	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
0	28	18	32	24	34	1	10	13	160
1-5	30	33	25	30	36	4	13	9	180
6-10	7	17	7	12	10	-	4	11	68
11-15	8	12	7	7	3	-	1	-	38
>15	6	11	8	2	5	2	1	1	36
TOTAL:	79	91	79	75	88	7	29	34	482

TABLE 2.12

NUMBER OF CONVICTIONS PRIOR TO PRESENT DRUG CONVICTION

NARCOTICS USERS - PERCENTAGES

NO. OF CONVICTIONS	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
0	35.44	19.78	40.50	32.00	38.64	14.28	34.48	38.24	33.19
1-5	37.97	36.26	31.65	40.00	40.91	57.14	44.83	26.47	37.34
6-10	8.86	18.68	8.86	16.00	11.36	-	13.79	32.35	14.12
11-15	10.13	13.19	8.86	9.33	3.41	-	3.45	-	7.88
>15	7.60	12.09	10.13	2.67	5.68	28.58	3.45	2.94	7.47
TOTAL:	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

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TABLE 2.13

NUMBER OF CONVICTIONS PRIOR TO PRESENT DRUG CONVICTION

CANNABIS USERS - FREQUENCIES

NO. OF CONVICTIONS	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
0	41	40	58	35	73	82	35	64	428
1-5	44	39	24	32	25	39	29	50	282
6-10	7	9	10	15	1	18	3	11	74
11-15	-	7	2	4	-	3	3	4	23
>15	2	6	3	8	5	3	1	2	30
TOTAL:	94	101	97	94	104	145	71	131	837

TABLE 2.14

NUMBER OF CONVICTIONS PRIOR TO PRESENT DRUG CONVICTION

CANNABIS USERS - PERCENTAGES

NO. OF CONVICTIONS	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
0	43.62	39.60	59.80	37.23	70.19	56.55	49.30	48.35	51.14
1-5	46.81	38.62	24.74	34.04	24.04	26.90	40.85	38.17	33.69
6-10	7.44	8.91	10.31	15.96	0.96	12.41	4.22	8.40	8.84
11-15	-	6.93	2.06	4.26	-	2.07	4.22	3.05	2.75
>15	2.13	5.94	3.09	8.51	4.81	2.07	1.41	1.53	3.58
TOTAL:	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

TABLE 2.15

NUMBER OF CONVICTIONS PRIOR TO PRESENT DRUG CONVICTION
TOTAL SAMPLE
FREQUENCIES/PERCENTAGES

NO. OF CONVICTIONS	FREQUENCY CANNABIS	NARCOTIC	TOTAL	PERCENTAGE CANNABIS	NARCOTIC	TOTAL
0	428	160	588	51.14	33.19	44.58
1-5	282	180	462	33.69	37.34	35.03
6-10	74	68	142	8.84	14.12	10.77
11-15	23	38	61	2.75	7.88	4.62
>15	30	36	66	3.58	7.47	5.00
TOTAL:	837	482	1319	100.00	100.00	100.00

141.

TABLE 2.16

NUMBER OF CONVICTIONS PRIOR TO FIRST DRUG CONVICTION

NARCOTICS USERS - FREQUENCIES

NO. OF CONVICTIONS	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
0	47	37	47	30	57	3	18	17	256
1-5	22	40	24	32	21	2	7	16	164
6-10	3	9	3	8	4	-	3	1	31
11-15	2	5	3	4	3	-	-	-	17
>15	5	-	2	1	3	2	1	-	14
TOTAL:	79	91	79	75	88	7	29	34	482

TABLE 2.17

NUMBER OF CONVICTIONS PRIOR TO FIRST DRUG CONVICTION

NARCOTICS USERS - PERCENTAGES

NO. OF CONVICTIONS	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
0	59.49	40.66	59.49	40.00	64.77	42.86	62.07	50.00	53.11
1-5	27.85	43.95	30.38	42.67	23.86	28.57	24.14	47.06	34.02
6-10	3.80	9.89	3.80	10.67	4.55	-	10.34	2.94	6.43
11-15	2.53	5.50	3.80	5.33	3.41	-	-	-	3.53
>15	6.33	-	2.53	1.33	3.41	28.57	3.45	-	2.91
TOTAL:	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

TABLE 2.18

NUMBER OF CONVICTIONS PRIOR TO FIRST DRUG CONVICTION

CANNABIS USERS - FREQUENCIES

NO. OF CONVICTIONS	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
0	62	56	68	44	87	84	39	87	527
1-5	26	29	18	32	13	48	27	37	230
6-10	4	8	6	11	1	9	1	6	46
11-15	-	2	2	1	1	1	3	-	10
>15	2	6	3	6	2	3	1	1	24
TOTAL:	94	101	97	94	104	145	71	131	837

TABLE 2.19

NUMBER OF CONVICTIONS PRIOR TO FIRST DRUG CONVICTION

CANNABIS USERS - PERCENTAGES

NO. OF CONVICTIONS	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
0	65.96	55.45	70.10	46.81	83.66	57.93	54.93	66.41	62.96
1-5	27.66	28.71	18.56	34.05	12.50	33.10	38.03	28.24	27.48
6-10	4.25	7.92	6.19	11.70	0.96	6.21	1.41	4.58	5.50
11-15	-	1.98	2.06	1.06	0.96	0.69	4.22	-	1.19
>15	2.13	5.94	3.09	6.38	1.92	2.07	1.41	0.77	2.87
TOTAL:	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

TABLE 2.20

NUMBER OF CONVICTIONS PRIOR TO FIRST DRUG CONVICTION – TOTAL SAMPLE

FREQUENCIES/PERCENTAGES

NO. OF CONVICTIONS	FREQUENCY CANNABIS	NARCOTICS	TOTAL	PERCENTAGE CANNABIS	NARCOTICS	TOTAL
0	527	256	783	62.96	53.11	59.36
1-5	230	164	394	27.48	34.02	29.87
6-10	46	31	77	5.50	6.43	5.84
11-15	10	17	27	1.19	3.53	2.05
>15	24	14	38	2.87	2.91	2.88
TOTAL:	837	482	1319	100.00	100.00	100.00

TABLE 2.21

NUMBER OF CONVICTIONS AFTER FIRST DRUG CONVICTION

NARCOTICS USERS - FREQUENCIES

NO. OF CONVICTIONS	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
0	40	28	37	43	46	4	16	17	231
1-5	25	35	23	25	34	-	12	10	164
6-10	6	11	9	5	6	1	1	5	44
11-15	6	8	5	2	-	1	-	1	23
>15	2	9	5	-	2	1	-	1	20
TOTAL:	79	91	79	75	88	7	29	34	482

TABLE 2.22

NUMBER OF CONVICTIONS AFTER FIRST DRUG CONVICTION

NARCOTICS USERS - PERCENTAGES

NO. OF CONVICTIONS	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
0	50.63	30.77	46.84	57.33	52.27	57.16	55.17	50.00	47.93
1-5	31.64	38.46	29.11	33.33	38.64	-	41.38	29.41	34.02
6-10	7.60	12.09	11.39	6.67	6.82	14.28	3.45	14.71	9.13
11-15	7.60	8.79	6.33	2.67	-	14.28	-	2.94	4.77
>15	2.53	9.89	6.33	-	2.27	14.28	-	2.94	4.15
TOTAL:	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

TABLE 2.23

NUMBER OF CONVICTIONS AFTER FIRST DRUG CONVICTION

CANNABIS USERS - FREQUENCIES

NO. OF CONVICTIONS	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
0	59	61	70	53	78	98	58	75	552
1-5	32	34	24	32	24	41	12	50	249
6-10	2	4	2	6	-	5	1	3	23
11-15	1	2	-	1	-	1	-	2	7
>15	-	-	1	2	2	-	-	1	6
TOTAL:	94	101	97	94	104	145	71	131	837

TABLE 2.24

NUMBER OF CONVICTIONS AFTER FIRST DRUG CONVICTION

CANNABIS USERS - PERCENTAGES

NO. OF CONVICTIONS	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
0	62.77	60.40	72.17	56.38	75.00	67.58	81.69	57.25	65.95
1-5	34.04	33.66	24.74	34.05	23.08	28.28	16.90	38.17	29.74
6-10	2.13	3.96	2.06	6.38	-	3.45	1.41	2.29	2.75
11-15	1.06	1.98	-	1.06	-	0.69	-	1.52	0.84
>15	-	-	1.03	2.13	1.92	-	-	0.77	0.72
TOTAL:	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

TABLE 2.25

NUMBER OF CONVICTIONS AFTER FIRST DRUG CONVICTION – TOTAL SAMPLE

FREQUENCIES/PERCENTAGES

NO. OF CONVICTIONS	FREQUENCY CANNABIS	NARCOTICS	TOTAL	PERCENTAGE CANNABIS	NARCOTICS	TOTAL
0	552	231	783	65.95	47.93	59.36
1-5	249	164	413	29.74	34.02	31.31
6-10	23	44	67	2.75	9.13	5.08
11-15	7	23	30	0.84	4.77	2.28
>15	6	20	26	0.72	4.15	1.97
TOTAL:	837	482	1319	100.00	100.00	100.00

151.

TABLE 2.26

PERSONS WITH NO CONVICTIONS PREVIOUS TO THE PRESENT DRUG CONVICTION

TOTAL SAMPLE

FREQUENCIES/PERCENTAGES

	FREQUENCY		PERCENTAGE	
	CANNABIS	NARCOTIC	CANNABIS	NARCOTIC
QLD	41	28	43.62	35.44
NSW	40	18	39.60	36.26
VIC	58	32	59.80	40.50
SA	35	24	37.23	32.00
WA	73	34	70.19	38.64
TAS	82	1	56.55	14.28
ACT	35	10	49.30	34.48
NT	64	13	48.85	38.24
TOTAL SAMPLE:	428	160	51.14	33.20

TABLE 2.27

PREVIOUS CONVICTIONS BY TYPE OF OFFENCE - NARCOTICS USERS

FREQUENCIES

PREVIOUS CONV. TYPE	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
Person	15	46	42	6	21	-	11	11	152
Armed Robbery	-	-	4	1	1	-	-	-	6
Property	155	232	131	231	120	28	34	44	975
Drug	101	326	181	71	101	7	23	40	850
Other	197	77	74	88	51	11	19	34	551
TOTAL:	468	681	432	397	294	46	87	129	2534

153.

TABLE 2.28

PREVIOUS CONVICTIONS BY TYPE OF OFFENCE - NARCOTICS USERS PERCENTAGES

PREVIOUS CONV. TYPE	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
Person	3.21	6.75	9.72	1.51	7.14	-	12.64	8.53	6.00
Armed Robbery	-	-	0.93	0.25	0.34	-	-	-	0.24
Property	33.12	34.07	30.32	58.12	40.82	60.87	39.08	34.11	38.48
Drug	21.58	47.87	41.90	17.88	34.35	15.22	26.44	31.01	33.54
Other	42.09	11.31	17.13	22.17	17.35	23.91	21.84	26.35	21.74
TOTAL:	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

154.

TABLE 2.29

PREVIOUS CONVICTIONS BY TYPE OF OFFENCE - CANNABIS USERS - FREQUENCIES

PREVIOUS CONV. TYPE	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
Person	11	28	41	15	5	4	10	17	131
Armed Robbery	-	-	-	1	-	-	-	-	1
Property	77	220	114	211	43	110	87	116	978
Drug	40	85	43	98	51	97	13	103	530
Other	46	62	84	146	41	111	21	72	583
TOTAL:	174	395	282	471	140	322	131	308	2223

TABLE 2.30

PREVIOUS CONVICTIONS BY TYPE OF OFFENCE - CANNABIS USERS - PERCENTAGES

PREVIOUS CONV. TYPE	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
Person	6.32	7.08	14.53	3.18	3.57	1.24	7.63	5.52	5.90
Armed Robbery	-	-	-	0.21	-	-	-	-	0.01
Property	44.25	55.70	40.43	44.80	30.71	34.16	66.41	37.66	44.00
Drugs	22.99	21.52	15.25	20.81	36.43	30.13	9.93	33.44	23.85
Other	26.44	15.70	29.79	31.00	29.29	34.47	16.03	23.38	26.24
TOTAL:	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

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TABLE 2.31

PREVIOUS CONVICTIONS BY TYPE OF OFFENCE - TOTAL SAMPLE

FREQUENCIES/PERCENTAGES

PREVIOUS CONV. TYPE	FREQUENCY CANNABIS	FREQUENCY NARCOTIC	TOTAL	PERCENTAGE CANNABIS	PERCENTAGE NARCOTIC	TOTAL
Person	131	152	283	5.90	6.00	5.95
Armed Robbery	1	6	7	0.01	0.24	0.15
Property	978	975	1953	44.00	38.48	41.05
Drug	530	850	1380	23.85	33.54	29.01
Other	583	551	1134	26.24	21.74	23.84
TOTAL:	2223	2534	4757	100.00	100.00	100.00

157.

TABLE 2.32

TYPE OF OFFENCE FOR WHICH CONVICTED IMMEDIATELY PRIOR TO FIRST DRUG CONVICTION

NARCOTIC USERS - FREQUENCIES

TYPE OF OFFENCE	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
Person	4	4	10	4	3	-	2	-	27
Armed Robbery	-	-	1	-	1	-	-	-	2
Property	14	35	14	24	19	2	5	14	127
Other	14	15	7	17	8	2	6	3	72
TOTAL:	32	54	32	45	31	4	13	17	228

TABLE 2.33

TYPE OF OFFENCE FOR WHICH CONVICTED IMMEDIATELY PRIOR TO FIRST DRUG CONVICTION

NARCOTIC USERS - PERCENTAGES

TYPE OF OFFENCE	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
Person	12.50	7.41	31.25	8.89	9.68	-	15.39	-	11.84
Armed Robbery	-	-	3.13	-	3.23	-	-	-	0.88
Property	43.75	64.82	43.75	53.33	61.29	50.00	38.46	82.35	55.70
Other	43.75	27.77	21.87	37.78	25.80	50.00	46.15	17.65	31.58
TOTAL:	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

TABLE 2.34

TYPE OF OFFENCE FOR WHICH CONVICTED IMMEDIATELY PRIOR TO FIRST DRUG CONVICTION

CANNABIS USERS - FREQUENCIES

TYPE OF OFFENCE	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
Person	6	5	5	4	-	3	4	5	32
Armed Robbery	-	-	1	-	-	-	-	-	1
Property	16	20	14	24	7	30	18	23	152
Other	11	19	8	22	10	37	10	16	133
TOTAL:	33	44	28	50	17	70	32	44	318

TABLE 2.35

TYPE OF OFFENCE FOR WHICH CONVICTED IMMEDIATELY PRIOR TO FIRST DRUG CONVICTION

CANNABIS USERS - PERCENTAGES

TYPE OF OFFENCE	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
Person	18.18	11.36	17.86	8.00	-	4.29	12.50	11.36	10.06
Armed Robber-	-	-	3.57	-	-	-	-	-	0.32
Property	48.49	45.46	50.00	48.00	41.18	42.86	56.25	52.27	47.80
Other	33.33	43.18	28.57	44.00	58.82	52.85	31.25	36.37	41.82
TOTAL:	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

TABLE 2.36

TYPE OF OFFENCE FOR WHICH CONVICTED IMMEDIATELY PRIOR TO FIRST DRUG CONVICTION

TOTAL SAMPLE - FREQUENCIES/PERCENTAGES

TYPE OF OFFENCE	FREQUENCY			PERCENTAGE		
	CANNABIS	NARCOTIC	TOTAL	CANNABIS	NARCOTIC	TOTAL
Person	32	27	59	10.06	11.84	10.81
Armed Robbery	1	2	3	0.32	0.88	0.55
Property	152	127	279	47.80	55.70	51.10
Other	133	72	205	41.82	31.58	37.54
TOTAL:	318	228	546	100.00	100.00	100.00

TABLE 2.37

TYPE OF OFFENCE FOR WHICH CONVICTED IMMEDIATELY AFTER FIRST DRUG CONVICTION

NARCOTIC USERS - FREQUENCIES

TYPE OF OFFENCE	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
Person	-	6	2	-	-	-	-	-	8
Armed Robbery	-	-	2	-	-	-	-	-	2
Property	7	13	10	5	7	-	-	2	44
Drug	23	37	20	24	32	3	10	10	159
Other	10	7	8	3	5	-	3	4	40
TOTAL:	40	63	42	32	44	3	13	16	253

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TABLE 2.38

TYPE OF OFFENCE FOR WHICH CONVICTED IMMEDIATELY AFTER FIRST DRUG CONVICTION

NARCOTIC USERS - PERCENTAGES

TYPE OF OFFENCE	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
Person	-	9.52	4.76	-	-	-	-	-	3.16
Armed Robbery	-	-	4.76	-	-	-	-	-	0.79
Property	17.50	20.64	23.81	15.63	15.91	-	-	12.50	17.39
Drug	57.50	58.73	47.62	75.00	72.73	100.00	76.92	62.50	62.85
Other	25.00	11.11	19.05	9.37	11.36	-	23.08	25.00	15.81
TOTAL:	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

TABLE 2.39

TYPE OF OFFENCE FOR WHICH CONVICTED IMMEDIATELY AFTER FIRST DRUG CONVICTION

CANNABIS USERS - FREQUENCIES

TYPE OF OFFENCE	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
Person	3	2	-	3	-	-	-	2	10
Armed Robbery	-	-	-	1	-	-	-	-	1
Property	7	7	7	12	6	3	1	7	50
Drug	18	28	17	21	20	28	7	38	177
Other	7	4	4	5	1	7	6	7	41
TOTAL:	35	41	28	42	27	38	14	54	279

TABLE 2.40

TYPE OF OFFENCE FOR WHICH CONVICTED IMMEDIATELY AFTER FIRST DRUG CONVICTION

CANNABIS USERS - PERCENTAGES

TYPE OF OFFENCE	QLD	NSW	VIC	SA	WA	TAS	ACT	NT	TOTAL SAMPLE
Person	8.57	4.88	-	7.14	-	-	-	3.70	3.58
Armed Robbery	-	-	-	2.38	-	-	-	-	0.36
Property	20.00	17.07	25.00	28.57	22.22	7.90	7.14	12.96	17.92
Drug	51.43	68.29	60.71	50.00	74.07	73.68	50.00	70.38	63.44
Other	20.00	9.76	14.29	11.91	3.71	18.42	42.86	12.96	14.70
TOTAL:	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

TABLE 2.41

TYPE OF OFFENCE FOR WHICH CONVICTED IMMEDIATELY AFTER FIRST DRUG CONVICTION

TOTAL SAMPLE - FREQUENCIES/PERCENTAGES

TYPE OF OFFENCE	FREQUENCY			PERCENTAGE		
	CANNABIS	NARCOTIC	TOTAL	CANNABIS	NARCOTIC	TOTAL
Person	10	8	18	3.58	3.16	3.38
Armed Robbery	1	2	3	0.36	0.79	0.56
Property	50	44	94	17.92	17.39	17.67
Drug	177	159	336	63.44	62.85	63.16
Other	41	40	81	14.70	15.81	15.23
TOTAL:	279	253	532	100.00	100.00	100.00