

# **Costs of Illegal Drug Use**

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## **Abstract**

The prohibition against Australians using illicit drugs is ineffective, but still imposes a high burden on government revenues and indirectly contributes (because of its ineffectiveness) to additional costs paid by Australian households. These are the claims of those who argue for a change in policy in Australia towards illicit drugs and their use. How much does present policy cost the Australian taxpayer? To what extent does the ineffectiveness of the law in preventing illicit drug use indirectly add to costs paid by Australian households? This paper describes an attempt to estimate the costs falling on users and non-users of illicit drugs, including costs of the criminal-justice system, the social-welfare system, the health-care system, costs of commercial and domestic security systems, and the costs associated with ill-health or premature death. We argue that a large proportion of these costs would be eliminated if the drugs were made available, at cost, to regulated drug users. We estimate a total annual cost to Australia of \$776 million, as well as forced transfers of \$656 million (in 1987/88).

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## 1. Introduction

Before we can reduce harm, we must identify who is being harmed, and how. Moreover, we must be aware that, unless we have a good understanding of the behaviour of the individuals and organisations involved, policy to reduce harm may result in unintended and unforeseen consequences, which may, perversely, increase harm to some individuals and groups of individuals. To the economist, the concept of *cost* includes the *harm* spoken of above, since it should be borne in mind that cost does not only refer to financial or dollar costs — it also includes the wider sacrifices associated with drug use.

This paper uses a simple framework to identify four sorts of cost (or harm) associated with drug use. Possible links between the four are discussed, and a discussion follows which describes how this author has attempted to estimate these costs, in the light of a possible revision of existing policy towards drug use.

Following Mugford (1991), we distinguish drug-related costs in two ways: the first is by asking “who bears these costs?” If the answer is “the drug user”, then these are *Direct* costs. If the answer is “non-drug-users”, then these are *Indirect* costs.<sup>1</sup> The second way asks whether the costs are *Intrinsic* to the drug or whether they are *Extrinsic*, an artefact of the less-than-ideal circumstances of prohibition: lack of information about purity and strength of the drug, poor administration, external pressures. Given society’s almost universal attempts to regulate and control the use of psycho-active substances, drug use very often occurs in far-from-ideal conditions; indeed, society may actually design control mechanisms that increase the Direct, Extrinsic costs borne by drug users by virtue of the anti-drug-use laws in order to discourage their use of illicit drugs.

Before trying to answer these questions, it is necessary that the costs first be identified and measured. But even identifying some costs is not always trivial: only recently has scientific research revealed the extent to which, say, “passive smoking” imposes a cost on the non-smokers who breathe smoke in the vicinity of a smoker, an *Intrinsic Indirect* cost. Similarly, the public-health aspects of shared needles among intravenous drug users have only really led to such harm-reducing programmes as needle-exchange schemes after the risk of HIV infection by this route was identified, an *Extrinsic Indirect* cost.

But if the distinction between Direct and Indirect costs is sometimes subtle, and if the identification of Indirect costs is uncertain, then the distinction between *Intrinsic* and *Extrinsic* costs is downright difficult. Following Zinberg’s three factors which influence the effect of a drug on the (direct) user — *Drug, Set, and Setting* (1984) — the concept of *Intrinsic* costs is most obviously related to “drug”, that is, the pharmacology of the drug, when administered properly of pharmaceutical quality. But what of the

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1. Our Direct and Indirect costs are what Richardson (1992: Table 2) calls “internal” and “external” costs.

confounding effects of “set”, that is, expectations or mind-set, and of “setting”, that is, the surroundings and company during and after the experience of drug taking? Clinical studies of drug effects have been found unreliable when applied to identifying and estimating the costs associated with illicit drug use, perhaps because of these further determinants.

Ideally, we should like to label as Intrinsic costs or effects the outcomes of the use of pharmaceutical-quality drugs, properly administered, in appropriate social settings. In the case of alcohol, this would be the consumption of legal, regulated alcoholic drinks in pubs, clubs, out-of-doors, or in private dwellings, but would not encompass the consumption of illicit “rot-gut” in illegal speakeasies or under highway bridges or in inner-city allies.

Before moving on to examine possible links in the four-way classification which flow from the  $2 \times 2$  dichotomy, it is appropriate to ask just what the concept of cost might include. Physical harm, certainly: increased disease and illness, and the possibility of premature death. But what of non-physical consequences? Should a bad LSD “trip” be counted as a cost? If drug taking led to insanity or other mental illness, then this should count as a cost, even in cases where it was likely that the drug user had a predisposition to mental illness. Richardson (1992) argues that any foreseen Direct cost should not concern society and hence should not concern the policy analyst, since the user’s net gain must be positive, at least ex ante.

In practical terms, we shall extend “cost” to include, as an Indirect cost, the costs to society that may accompany drug-taking, together with society’s responses, as described below.

### 1.1 The Four-Way Classification

Table 1 divides the costs or harm associated with drug use into four categories.

		Who bears the costs?	
		Direct	Indirect
Nature of the costs?	Intrinsic	ID	II
	Extrinsic	ED	EI

**TABLE 1.** The Costs Matrix

Such harm can be classified into one or more classifications, depending on whether it is borne by the drug user or by others, and depending on whether the costs are Intrinsic to the drug (unavoidable even with pharmaceutical-

quality drug and proper administration) or are an artefact of the social conditions of drug use, Extrinsic costs.

Type *ID*, Intrinsic Direct, are the costs borne by the user, even when the drug is of pharmaceutical quality, properly administered, and of moderate dosage. For tobacco smokers, the expected cost of all the ailments their smoking leaves them open to: emphysema, cancers, heart disease, and so on. (I leave it to my fellow panelists to explore the costs of legal drug use.) For one illicit drug, heroin, there is much agreement that the *ID* costs are small, apart from the emergence in some users of physical dependence or addictive behaviour. For the moment, we postpone discussion of whether dependence should be counted as a cost, and if so to what extent.

In Type *ED*, Extrinsic Direct, we shall include the costs borne by the individual user as a consequence of society's efforts to reduce or eliminate drug use. *ED* costs, when anticipated, may be sufficient to discourage *any* consumption, which may be the desired effect of the laws and regulations. But those drug users not deterred bear the high *ED* costs. These may include the medical, legal, and financial risks which accompany the use of black-market drugs: uncertain strength, unknown purity, possible shared infections leading to illness or death, the risk of apprehension and conviction, the high prices and the activities undertaken to raise the money to meet them, and possibly the apparently aimless lives led by so many addicts (if not by the large, hidden mass of occasional users). As Moore (1977) points out, this is a dilemma common to all negative-incentive schemes: to the extent that people respond to the incentives, a desirable result occurs, from society's viewpoint; but the cost borne if the incentives are not responded to is a deadweight loss.

Types *II* and *EI* are the costs borne by non-users — the family, the friends, and society at large — the former even in ideal conditions, and the latter by virtue of the prevailing non-ideal circumstances of illegal drug use. The Intrinsic Indirect costs are low: with drugs legally available with few restrictions, the indirect spillovers or externalities will be manageable, given existing social controls on behaviour which adversely affects others, such as dangerous driving and disturbing the peace. There is, however, a fear, given the addictive image of some presently illegal drugs, that the numbers of people unable to stop themselves taking these drugs would rise with decriminalisation or legalisation, no matter that the total Indirect costs of this behaviour, if true, would be reduced, relatively and absolutely.

The Extrinsic Indirect costs associated with the existing illegal-drug-taking regime is the focus of this paper, as well as the Extrinsic Direct costs occasioned by the laws. We shall focus on the law-enforcement costs, the costs of associated crime, the medical costs (both Direct and Indirect), and the costs to society from forgone production.

Our four-way categorisation of the costs highlights the possibility of tradeoffs: for instance, the prohibition on the use of certain drugs can be interpreted as an attempt by society to reduce the costs, both Direct and Indirect, associated with this drug use. But if the prohibition attempts to do this by increasing the Extrinsic Direct costs (those borne by the drug users

who break the law), it may also increase the Extrinsic Indirect costs (borne by non-users as a result of the prohibition) to levels greatly above the costs the prohibition was meant to eliminate, including the Intrinsic Indirect costs that would fall on non-users when the drug use occurred under ideal, legal conditions, and also—paternalistically—the Intrinsic Direct costs that would be incurred by drug users under ideal, legal conditions.

A cost–benefit analysis would conclude that the prohibition were inefficient if the sum of the social costs under prohibition were greater than the sum of the social costs with legal, regulated drug use.<sup>2</sup> That is, if the Extrinsic and Intrinsic, Direct and Indirect costs of drug use under the prohibition exceed the Intrinsic costs (both Direct and Indirect) under a regulated regime of legal drug use, then the prohibition is inefficient and non-cost-effective.

In algebraic terms, the total cost to society is given by  $ID + ED + II + EI$ . Policy may be seen as having increased  $ED$  in order to deter drug use, even though  $ID$  is low, per-user and in total; perhaps because  $II$ , the cost of spillovers from drug-using under a legal regime, is considered excessive. The trouble is that as  $ED$  has increased in response to policy, so has  $EI$ , beyond the point where the total,  $ID + ED + II + EI$ , is anywhere near a minimum. Harm reduction is concerned with all four categories, not just the Intrinsic Direct and Indirect costs.

This study focuses on the Extrinsic Indirect costs of the prohibition; that is, those costs borne by the non-users which arise by virtue of the laws prohibiting the use of certain drugs. These include costs paid by the taxpayer for the criminal-justice system, the social-welfare system, and the health-care system, and costs paid by society at large for home security and because of such things as forgone production through ill-health or death. There are some costs which are intangible. These include the feelings of insecurity, fear, and anxiety from the threat of drug-related crime, and the costs of curtailed civil liberties as a result of attempting to enforce the prohibition. We do not attempt to measure these costs, which are nonetheless real.

This brief paper uses the four-way classification scheme of the costs associated with drug use to present the rationale of a larger study (Marks 1991). We do not rehearse the detailed commentary on the numbers there presented, but refer the interested reader to that study.

## 2. *Drug-Law-Enforcement Costs*

Drug-law-enforcement (DLE) costs include the expenditures by government to enforce the law against drug importation, drug manufacture, drug exchange, drug possession, and drug use. There are four costs associated with the criminal-justice system:

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2. We distinguish between the social costs and benefits of a cost–benefit analysis (Lind and Lipsky 1971) and external costs, which could justify government intervention (Wagstaff and Maynard 1988) up to some optimum (Stigler 1970).

- the costs of anti-drug law enforcement, that is, the costs of the Customs service and the various police drug squads;
- the costs of the lawyers involved in prosecution and defence;
- the costs of court time and forensic staff; and
- the costs of imprisonment and rehabilitation (if any) in custody.

We recalculated estimates from the Cleeland Report on *Drugs, Crime and Society* (1989) after adjusting for the proportions of DLE officers reported in each of the DLE organisations. The revised figures are presented in Table 2, in 1987/88 dollars.

	\$ million
Australian Federal Police	33.6
National Crime Authority	9.8
Australian Customs Service	6.9
State Police	64.3
Prisons (recurrent)	113.3
Prisons (capital)	42.3
Courts (recurrent)	43.5
Courts (Legal Aid)	5.9
Total	320

**TABLE 2.** Revised Drug-Law-Enforcement Costs, 1987/88.  
*Source:* Marks 1991.

The figures in Table 2 are approximations, since law-enforcement agencies do not present their budgets in such a way that their spending on drug law enforcement can readily be identified. Moreover, relaxation of the prohibition against these drugs would not eliminate all these expenditures; even if all drugs were legalised, Australia would still require the frontier controls and coastal surveillance undertaken by the Customs Service. They are total costs, not avoidable costs.

### 3. *The Costs of Crime*

Crimes committed by users of illegal drugs in order to obtain funds to purchase these drugs are Extrinsic Indirect costs, since they would be unnecessary if the drugs were legally available at cost, and since they fall on all members of society, not just drug users. From estimates of the number of heroin users and the average amounts of heroin consumed per user we derived a “bottom-up” estimate of the total quantity of heroin consumed in 1987/88. Estimates of the heroin prices and purities down the illicit

distribution pyramid resulted in an estimate of the total cost of black-market heroin purchases in 1987/88. Surveys of the various sources of heroin users' incomes allowed estimates of the proportion of income which is generated from drug-related crime, and this in turn enabled estimates of the total value of property stolen in these crimes.

To what extent should the value of stolen property be regarded as a social cost? Economists do not agree. Stigler (1970) would completely discount the criminals' gains, maintaining that the market value of stolen property is a social cost; others argue that, although involuntary, property crimes do not significantly destroy value—even though the prices of stolen property might be much less than those of legitimate sales. We counted the gains to the thieves as balancing the losses of the previous owners, but listed the value of these involuntary and illegal transfers separately.

Because of the DLE effort, the prices of the illegal drugs are much higher than the costs of supply (including the costs of growing, processing, transport, and distribution). This has the effect, we maintain, of increasing the Extrinsic Direct costs borne by the hapless users themselves.

In considering the crimes committed in order to obtain funds, it is relevant to examine estimates of the total amount of funds spent on illicit drugs in Australia. We examined the total funds expended on illicit drugs in general and on heroin in particular. We then examined the means by which this money is raised.

### *3.1 The Value of Heroin Turnover*

Despite the concern expressed in the Australian community over illicit drug use in general and heroin use in particular, there is no clear picture of the size of the problem. The Cleeland Report relies on a commissioned survey to derive its conservative estimates. It is possible, however, to estimate the net revenues generated by the exchange of black-market heroin in Australia. We used the prices cited in Dobinson and Poletti (1988), the structure of the industry confirmed by the 1981 Melbourne survey described in Marks (1990*b*)—in particular the consumption and prices paid by the frequent and regular users contrasted with the occasional users—and the numbers of frequent and regular users of heroin in 1987 from various trends (Marks 1990*a*).<sup>3</sup>

Dobinson and Poletti (1988) reported the price in Thailand for 80%-pure heroin at between \$12,000 and \$15,000 per kg, and the street price in Sydney at between \$800,000 and \$1,000,000 per 80%-pure kg equivalent, although the purity had fallen to less than 20%-pure during this odyssey.

Despite disagreement on the actual numbers, there is growing agreement on the ratio of the numbers of occasional or “social” heroin users to the numbers of frequent and regular users—addicts, in the popular view—of

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3. As Marks (1990*b*) confirms, there are many kinds of heroin users, so the two categories mentioned above are not meant to imply a clear division, rather they provide a convenient method of summarising the distribution of heroin users.

between eight and ten to one, which reflects the belief of many researchers that about 15% of heroin users are compulsive (compared, for example, to figures of 95% for tobacco smokers, and about 15% for alcohol drinkers). This ratio of ten to one has appeared in overseas studies (Zinberg 1979), and in an unusual survey made in 1981 Melbourne by the illicit industry itself (Marks 1990b). But what of the actual numbers of users?

After discussion of the estimates of the numbers of regular users and the numbers of occasional users, we used the conservative figures of 30,000 regular and frequent heroin users and 200,000 occasional heroin users. What can be said about the amounts of heroin they consume and the amounts of money spent in buying the drug? We used estimates of the per-user annual consumption in the two categories of regular and frequent users and occasional users to determine the total quantity of heroin consumed in Australia in 1987 of up to 3,840 kg of 80%-pure.

To err on the side of caution, however, we assumed that the total amount of heroin successfully smuggled into Australia in 1987 was 2,500 kg of 80%-pure equivalent. From the figures presented above, this would have cost between \$30 million and \$37.5 million in Thailand, with a theoretical value added of between \$2 billion and \$2.5 billion at Sydney street prices; “theoretical” because only a proportion of each imported kilo of 80%-pure reaches the street—the rest is consumed higher up the distribution pyramid. The consumption at the wholesale level reduces the theoretical value from \$2 billion per year to \$1.5 billion per year.

This amount, less distribution and handling costs, is the return to the people in the distribution pyramid. An enormous amount, it could readily be used for corrupting some of the band of law-enforcement officials discussed in Marks (1990a:149). It underlines the lure of heroin trading for unscrupulous entrepreneurs. It also represents the value of the income necessary to obtain heroin. How is this money raised?

### 3.2 *How Drugs are Paid For*

For the occasional users, the cost of their recreational drug use—about \$40 per week per user on average, or about \$600 million in aggregate—may well represent a burden that they are able to meet from legitimate sources of income, whether earnings, savings, or pensions. That leaves up to \$900 million per year spent by the regular and frequent users, who, because of their lifestyles and drug usages, are in general unable or unwilling to generate more than a small fraction of this amount legally. That is not to say that these users are *compelled* to commit crimes to support their habits—as Dobinson and Poletti (1988) note, the demand for heroin is not as price inelastic as was believed twenty or more years ago, and addicts are not as helpless as their stereotype would suggest.

Apart from dealing in illicit drugs, the major sources of income for the regular and frequent heroin users include property crimes, prostitution, and other illegal activities, such as shoplifting, fraud, and armed robbery. In their survey of 129 “active regular heroin user/sellers” in Sydney’s King’s

Cross/Darlinghurst area in 1987, Dobinson and Poletti (1988) gathered data on weekly income which show that for these user/sellers most income occurs from sales of the drug, but that up to two-thirds of the rest is obtained from illegal activities: 34.7% from property crimes, up to 30.3% from prostitution, and a further 1.8% from drug-related rip-offs. At some level in the distribution pyramid below the level surveyed by Dobinson and Poletti there must be an end to on-selling; the users buy for their own consumption alone. For this reason we focussed on the pattern of *Other income* of \$592 per week per user/seller, and ignore the revenues from sales to other drug users.

\$900 million is raised from non-drug-selling income, which means \$312 million from property crime, \$190 million from social security payments, \$174 million from family and friends (including some prostitution earnings), \$99 million from prostitution, and the balance of \$125 million from the remaining (legal) activities.

Although not all such burglaries are covered by insurance, nonetheless the costs associated with such crime are shared across Australian society, through higher insurance premiums, through expenditure on better security of homes, offices, factories, and shops, whether required by the insurance companies or chosen by the occupants themselves. Similarly, the cost of shoplifting is passed on to customers through higher prices, and the costs of fraud on financial institutions is passed on through higher charges for their services. These are mechanisms whereby the the Extrinsic Indirect costs increase, as the supply side is squeezed.

In the absence of data on the importance of the various types of property crimes in generating income, we used the percentages of the incidence of these crimes as a proxy for the average shares of income from property crime among regular and frequent heroin users: break-and-enter plus larceny 60.7%, shoplifting 11.8%, fraud 10.5%, receiving 5.3%, motor vehicle theft 5.3%, armed robbery 1.9%, and robbery 1.1%.<sup>4</sup>

Following the methodology of Casey and Preble (1974), we calculated the value of stolen goods necessary to generate the above proportions of the total proceeds of drug-user property crime, of at least \$312 million. Break-and-enter and larceny is a source of revenue for 60.7% or \$189 million of all income earned from the illegal sources. This figure represents the total revenues that addicts received either directly as a result of the criminal acts or by having obtained property from a break-and-enter, and then selling the goods for dollars. To determine the dollar transfers brought about by these crimes, it is necessary first to determine the proportion of the \$189 million that constituted cash stolen—the balance was derived from the sale of fenceable goods.

The amount raised by selling stolen goods would be somewhat less than their legal market valuation; Roumasset and Hadreas (1977) reported a 50% discount in the second-hand market in which such stolen goods are sold.

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4. From Dobinson and Ward (1985, Table 28; 1987, Table 26).

If only cash were taken, the transfer would be equal to \$189 million; if, instead, only fenceable goods were taken, the amount would be \$378 million (twice \$189 million). There is no direct evidence on the basis of which to predict where in this range the actual transfer will fall. We took the mean of \$284 million per year, which is conservatively less than the \$312 million mentioned above.

Shoplifting, motor vehicle theft, and receiving together generate 22.4% or \$70 million of all income from property crime. Since these crimes result in the theft of fenceable property, the total transfer that results is equal to \$140 million. Fraud, robbery, and armed robbery involve transfer of money. (We did not estimate the further losses due to personal injury.) These three crimes together generate 13.5% or \$42 million of all income from property crime, which is the value of the money taken. Our conservative estimate of the total value of forced transfers as a consequence of drug-related property crime was thus \$466 million in 1988. Furthermore, the value of prostitution by drug users or their de factos may have been as much as \$273 million in the prostitutes' hands.

### *3.3 Cannabis and Cocaine*

The Cleeland Report's conservative estimate of the annual turnover of the heroin industry in Australia was \$699 million in 1988. We have argued that a very conservative estimate of this turnover is \$1.5 billion, which is associated with forced transfers of property worth \$466 million, and other Direct and Indirect costs: the market for stolen goods is imperfect—we estimated a welfare gain to buyers of stolen property of up to \$165 million. If the Report's figures for cannabis and cocaine are pro-rated, these annual turnovers are \$4,090 million and \$28 million, respectively.

## *4. Other Social Costs and Transfers*

### *4.1 Crime*

In addition to these tangible Extrinsic Indirect costs of crime associated with drug use, there are the intangible traumas and fears which stem from higher levels of crime in society, against both property and persons. We do not argue that this cost is entirely due to the unsuccessful prohibition, but in the case either of an effective prohibition or of a regulated supply of drugs at cost of production, the evidence strongly suggests that the Extrinsic costs, both tangible and intangible, of drug-related crime would be much reduced.

There is a further cost associated with the large amounts of money changing hands in the black markets for illicit drugs. The very high returns to be made attract unscrupulous entrepreneurs into the trade, people who are willing and—through the profits of the black market—able to spend large amounts to achieve their nefarious ends, and who will readily hire “rough justice” or buy the blindness, deafness, and silence of corrupt law-enforcement officials.

In response to the property losses resulting from drug-related property crimes (which we conservatively calculated at \$466 million), households and firms will incur private costs of employing services, equipment, or techniques to prevent such crimes against their property or to reduce the impacts of such crimes, and further costs of insuring against such losses. Using US data on the ratio of such expenditures to the value of stolen property, we estimated these costs as \$230 million for 1987/88.

#### *4.2 Health Care*

Universal health insurance through Medicare results in society (that is, the taxpayer through the Medicare income-tax levy) bearing the cost of health care for those who could not otherwise afford it. One effect of the prohibition, especially on those who inject the illicit drugs, is to increase the risks that they will suffer bad health, and contract infectious diseases through sharing needles; that is, the Extrinsic Direct costs increase. Indeed, the spectre of HIV infection spreading rapidly into the heterosexual population has, in Australia at any rate, led to the slight relaxation of the anti-drugs law-enforcement effort of the needle exchange schemes. Nonetheless, the user of illicit drugs has no assurances about the purity of the drugs, the strength of the dose, the kinds of dilutants and adulterants, or even the presence of the promised drug. Moreover, as the Cleeland Report (1989:84) notes, their preoccupation with raising the required money and then using the drug when they can means that the regular and frequent heroin users will often pay little attention to their general health, fitness, and adequate nutrition. To the extent that this neglect adds to the burden on the public hospital and health-care systems it is properly counted as a further Extrinsic Indirect cost of the existing regime of prohibition.

Unfortunately, there is no consistent measure of hospital costs Australia-wide. Even data on drug-related hospital morbidity (which indicated for 1984/85 that cannabis, cocaine, and opiate-related drugs together accounted for less than 5% of total 100%-drug-caused separations) are severely deficient, since the principal condition recorded for in-patient admission to hospitals often overlooks the fact that drug use is a major underlying cause for this condition. As a consequence, the National Drug Abuse Data System conservatively estimates that as few as one in ten of the total number of drug-caused separations are identified. We have commented above on the importance of reducing the spread of HIV infection from intravenous drug users to the heterosexual population at large. The needle-exchange schemes instituted in Sydney and Melbourne are an attempt to reduce this spread. The emotional costs from the AIDS epidemic will be high. So too will the social costs: Coe (1987) estimated that the cost of the unchecked epidemic to Australia would be \$22 billion. As of June 1988, there were 6,120 clients in methadone maintenance programs, at an annual cost of \$48 million, from average per-client per-week costs.

### *4.3 Forgone Production due to Premature Deaths*

As well as adding to the taxpayers' burden, the morbidity and mortality associated with the prohibition impose a cost on Australia through reduced production. Using average income figures, segmented for age, we estimated this cost at \$178 million for 1987/88. At an average income tax rate of 25%, the present value of the tax forgone was \$45 million (including \$22 million from opiate deaths).<sup>5</sup> This understates the value of lives and health, since it does not include the value people place on the lives and health of themselves and their families.

### *4.4 Social Security Payments*

21.1% of the non-drug-dealing income of the group of user/sellers interviewed by Dobinson and Poletti (1988) came from government pensions. With minimal demands on users' time, government payments provide dollars for nothing. Moreover, for some frequent and heavy users these funds may be in the form of invalid pensions, as well as unemployment benefits or other payments. It may also be the case that some of the payments from family/friends also originate from social security payments. Pro-rating these direct payments across the required income implies a total annual cost of \$190 million, close to \$125 per week for each of 30,000 regular and frequent heroin users we have assumed. This is a transfer from taxpayers to unemployed drug users.

## *5. Conclusion*

We examined two sets of estimates of the cost of illicit drug use in Australia, both published in the Cleeland Report. Using data published in Marks (1990b), and the three studies by the NSW Bureau of Crime Statistics and Research (Dobinson and Ward 1985, 1987; Dobinson and Poletti 1988), we argued that the Cleeland Report underestimates the true costs of the law enforcement against illicit drug use by a factor of at least two. Our estimates of the social costs and drug-related transfers in 1987/88 are presented in Table 3. Following Richardson (1992), our cost estimates are "prevalence-based," rather than "incidence-based," in that we estimate the cumulative effects of all past behaviour for a given year, 1987/88. Incidence-based cost analyses estimate the present value of present and future behaviour. Although it may be true that policy analysis should be forward-looking and incidence-based, we have used prevalence-based estimates, given the difficulties of forecasting future costs, which may be much higher than those

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5. As Collins and Lapsley (1991: 92-94) discuss, there is an argument that the value of production forgone as a result of death should be calculated net of the consumption which the dead person would have undertaken. In their study, such consumption was about 28% of production for men and 44% for women. With a mortality ratio of 3:1 for males to females from illicit drug use, this would result in reduction of the production-forgone cost by about a third. We could not validate these figures using data available.

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<i>Losses</i>	
Drug-Law-Enforcement Costs	\$320 million
P.V. of Future Production Lost	\$178 million
Methadone Maintenance Costs	\$48 million
Defensive Costs against Theft	\$230 million
Total Costs	\$776 million
<i>Transfers</i>	
Property-Crime Losses	\$466 million
Social Security Payments	\$190 million
Total Transfers	\$656 million

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**TABLE 3.** Social Costs and Transfers from Illicit Drug Use 1987/88  
*Source:* Marks 1991.

outlined here. We believe that these estimates are very conservative: the paucity of data would not allow us to be more precise, so we have erred on the side of underestimating the costs.

The costs represent the value of goods and services denied to the community because of the laws with regard to illegal drugs. The transfers represent the value of the gains through the tax system and from property crimes to illegal drug users. In terms of the  $2 \times 2$  classification of Section 1, the losses are an attempt to estimate the Extrinsic Direct and Indirect costs associated with the drug laws. A reduction in the total Intrinsic Direct costs (incurred by the users) has been accompanied by an increase in total Extrinsic costs (to users and others). Although there remains uncertainty about the increase in numbers of users with a relaxation in the prohibition, it is likely, as discussed, that the total social costs, Direct and Indirect, Extrinsic and Intrinsic, would fall with a less draconian drug policy. We leave to other papers discussion of the possible forms of such a relaxation.

We have not included the costs of morbidity and mortality in terms of forgone production due to the drug-related spread of the AIDS epidemic. We have argued that a large proportion of these costs would be eliminated if the drugs were made available, at cost, to regulated drug users, rather than the existing situation of black-market availability. The cost of such regulation need not be high.<sup>6</sup> If only a relatively small number of addicts commence productive, tax-generating work under the regulated regime, its administration cost it will be recouped in higher income-tax receipts, and the

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6. In a study of methadone maintenance clinics in Sydney, Baldwin (1987) has costed a "bare-bones" clinic at \$61 per patient per week.

addicts and their families will experience great relief and a sense of accomplishment, which we have not attempted to evaluate here.

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