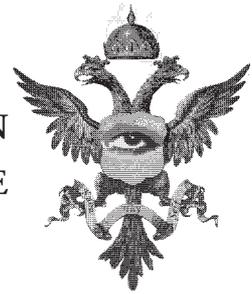


THE BECKLEY FOUNDATION
DRUG POLICY PROGRAMME

Incarceration of drug offenders: costs and impacts

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The Beckley Foundation Drug Policy Programme (BFDPP) is a new initiative dedicated to providing a rigorous, independent review of the effectiveness of national and international drug policies. The aim of this programme of research and analysis is to assemble and disseminate material that supports the rational consideration of complex drug policy issues, and leads to a more effective management of the widespread use of psychoactive substances in the future.

SUMMARY

Most governments make strong statements about the need to maintain, and often increase, police activity and penal sanctions for drug users. This is based on the idea that strong enforcement, and widespread incarceration, will deter potential users and dealers from becoming involved in the illegal drug market. In fact, very few countries actually follow through on the rhetoric – arrest and incarceration rates for drug users are relatively low in most countries in relation to the total number of users, and the often quoted maximum sentences are rarely, if ever, used. The one country that has consciously used large-scale incarceration as a drug prevention measure is the United States, where approximately 500,000 drug law offenders are currently in prison. Evidence from their experience over the last 20 years shows that, while some marginal impacts on drug prices and prevalence rates can be attributed to this policy, it has failed to fundamentally alter the scale and nature of the illegal drug market. In addition, there are significant financial, social and health costs associated with high rates of incarceration, which perhaps explains why most countries have not gone down this road.

INTRODUCTION

In attempting to reduce the availability of illicit drugs and the levels of use of such drugs, some governments have chosen to pursue law enforcement oriented domestic drug control policies that rely heavily upon incarceration. Such a policy choice is influenced by the desire to incapacitate, provide an element of retribution to and sometimes attempt to rehabilitate offenders. It is also largely underpinned by the concept of deterrence. Consequently, irrespective of its other roles, the prospect of time behind bars should discourage would-be offenders from engaging in criminal acts, (what is called *general deterrence*), and discourage the individual offender from re-offending upon release from prison, (a concept described as *specific deterrence*). The effectiveness of specific deterrence is believed to depend upon a number of factors including the *severity*, *certainty* and *immediacy* of legal sanctions. Policy makers are therefore often heard to state that police activity and tougher sentences are

needed to deter individuals from becoming involved in drug use or dealing.

Consequently, incarceration as a deterrent plays an important part in law enforcement strategies that attempt to discourage illicit drug consumption. It can be seen to operate at a number of levels in relation to different categories of drug offenders. First, by increasing the risks, in terms of arrest and imprisonment, faced by both high-level and street-level retail dealers, strategies aim to make illicit drugs scarce and expensive. The intention is to disrupt the market and reduce access to illicit drugs by users. Second, this situation is bolstered by applying sanctions against the drug users themselves should they still wish to procure drugs under these more difficult circumstances. It is hoped that fear of punishment will act as a deterrent by raising the risks, again in terms of arrest and imprisonment, of drug use and thus lead to less illicit use.

AN OVERVIEW OF INCARCERATION RATES

Imprisonment today plays a part in the crime policy of every country. Some use it lavishly while others use it with considerable parsimony (Stern, 1998). Today over 9 million people are held in penal institutions throughout the world (Walmsley, 2003). As we note in Beckley Foundation Drug Policy Programme Report Five, *Reducing drug-related crime: an overview of the global evidence*, recent years have seen increasing numbers of people arrested for drug related offences being sent to prison. The greatest rise has been in the US, where the increased use of imprisonment as a policy option in general has led one author to give it the title “The Great Incarcerator” (Stern, 1998). Today the majority of federal inmates in the United States are in prison due to a drug charge. Rises have also taken place in other nations including many in Europe, Asia, Africa, Oceania and the Americas (Stevens, Trace, Bewley-Taylor, 2005). It has been noted that law enforcement oriented approaches in most of Western Europe has caused persons sentenced for drug law offences to make up an increasing percentage of prison populations (Dunkel and van Zyl Smit, 2001).

Methodological differences, and the incomplete nature of national data sets make the compilation and comparison of European Union (EU) statistics, in terms of arrests and incarceration, rather difficult. Nonetheless, figures show that over the period 1997-2002 the number of reports¹² of drug law offences increased in most EU countries (EMCDDA, 2004, Aebi et al, 2003). In most EU Member States the majority of reported drug law offences relate to drug use or possession for use (EMCDDA, 2004). In the late 1990s drug offenders in EU prisons ranged from between 15 and 50% of the total jail population. The main drug offence related to dealing/trafficking in over 75% of the cases of incarceration (ECMDDA, 1999).

THE UNITED STATES: “THE GREAT INCARCERATOR.”

As one of those nations most explicitly using incarceration as a drug policy tool, data and research from the United States provides many useful insights into the use of the policy option to reduce levels of illicit drug use. In an attempt to reduce drug use and dealing, US administrations have for many years pursued punitive drug control policies; often collectively labelled the “war on drugs.” As we note in The Beckley Foundation Drug Policy Programme Report Three, *Law Enforcement and Supply Reduction*, a central objective of contemporary US drug policy is to reduce the scope and scale of drug markets via supply-side initiatives, particularly tough and uncompromising law enforcement (Roberts, Trace and Klein, 2004). The difficulties in achieving sustained and widespread success in the reduction of both foreign production and the flow of illicit drugs into the country have meant that US policymakers augment the supply-side policies overseas with punitive measures at home.

A key component of this approach, particularly since the early 1980s (when concern about cocaine became prominent), has been the threat of arrest and incarceration. Figures show that drug related arrests have more than doubled, rising from 581,000 in

1980 to nearly 1.6 million in the year 2000 (from 5.5% to 11 percent of total arrests) (Boyum & Reuter, 2005). Of the 450,000 increase in drug arrests during the period 1990-2002, 82% of the growth was for marijuana, with 79% for marijuana possession alone. These figures reflect the shifting law enforcement emphasis towards the drug since the early 1990s. Marijuana arrests now constitute nearly half (45%) of drug arrests annually. (King & Mauer, 2005) This trend in arrest rates has been accompanied by a greater increase in the number of drug offence related commitments to state and federal prison. These rose approximately ten-fold between 1980 and 2000 (Boyum & Reuter, 2005). This upward trend can be explained in large part by mandatory sentencing statutes. These were the product of a stepping up of the ‘war on drugs’ during the Reagan presidency. Mandatory minimums at both the state and federal levels lead to people serving a prison sentence after being convicted of possession of relatively small amounts of illegal substances.

It is important to note that drug treatment and drug prevention strategies do have their place within US domestic policies. Indeed, the US Government spends more on drug prevention and treatment than any other country. Nonetheless, it is the vigorous pursuit of law enforcement and criminal justice measures that remain dominant. At both the federal and state levels the US domestic “war on drugs” has increasingly relied upon incarceration as a deterrent.

Indeed, in 2000 a Human Rights Watch report concluded that drug control policies bore “primary responsibility for the quadrupling of the [US] national prison population since 1980 and a soaring incarceration rate, the highest among western democracies...” (Human Rights Watch, 2000). In that same year, nearly one in four persons imprisoned in the US was imprisoned for a drug offence and the number of persons behind bars for drug offences was roughly the same as the entire US prison and jail population in 1980. There were 100,000 more persons imprisoned in America for drug offences than the total number of prisoners in the EU, even though the EU had 100 million more citizens than the US (Schiraldi, Holman & Beatty, 2000). Today, almost half a million dealers and users are under incarceration in the US. (Boyum & Reuter, 2005) A significant proportion of these individuals are non-violent offenders (Schiraldi, Holman & Beatty, 2000).

There is considerable evidence to show that the costs of such drug laws do not fall equally across all segments of US society. Between 1985 and 1995, for instance, there was an increase of 200 percent in the number of females incarcerated in state and federal institutions, most for non-violent offences. Many commentators agree that much of this was the result of stricter enforcement, increased penalties and mandatory prison sentences for drug offenders (Reichel 2005, Bush-Baskette, 1999, Gray, 2001). Additionally, while punitive US drug policies can be seen to have significantly affected the imprisonment of women in general, the greatest increase in the percentage of inmates incarcerated for drug offences is seen in African American women (Bush-Baskette, 1999).

Figures concerning African-American women reflect the more general finding that it is predominantly minorities arrested for drug selling. For example, according to US government statistics in 1990, African-Americans constituted only 15-20% of the nation’s drug users, but in most urban areas constituted half to two-thirds of those arrested for drug offences (Duster, 1997). This relationship is also reflected with reference to marijuana in

A SNAPSHOT OF NATIONAL INCARCERATION FIGURES AND PROPORTIONS OF DRUG OFFENDERS¹

Country	Total Prison Population	Incarceration Rate (per 100,000 of national population)	Drug Offenders ² as proportion of total prison population.
Russian Federation	864,590 ³	606	3.5% ⁴
Australia	24,171	157	10% ⁵
UK (England and Wales)	74,452 ⁶	141	16% ⁷
Canada	36,024 ⁸	116	28% ⁹ (Federal Prisoners)
USA	2,131,000 ¹⁰	726	23% ¹¹

¹ The figures presented here are estimates due to limitations experienced when attempting to compare various data sets compiled using different methodologies and definitions. In some cases data from different years have also been conflated to provide estimates of drug offenders as a proportion of prison population.

² The term drug offender here refers to both trafficking/dealing and possession/use.

³ Walmsley, R. (2003) World Prison Population List (5th Edition).

⁴ Figures from Russian Federal Service for Penalty Execution, 2005. This figure reflects the reduction in people imprisoned for drug-related crimes after May 12, 2004 when federal anti-drug legislation removed criminal penalties for possession of small quantities of drugs and the courts pardoned and freed 12,000 people serving sentences for drug law violations. Prior to the change in the law the percentage of persons incarcerated who were drug offenders was approximately 8%. (May 1 2004)

⁵ All Australian figures, Australian Bureau of Statistics, Prisoners in Australia, 23/12/2004

⁶ Walmsley, R. (2003). World Prison Population List (5th Edition).

⁷ Population in Custody, England and Wales, Home Office Research Development Statistics, March 2005

⁸ Walmsley, R. (2003). World Prison Population List (5th Edition).

⁹ Substance Abuse in Corrections, FAQs, Canadian Centre on Substance Abuse, 2004.

¹⁰ Harrison, P. M., & A. J. Beck, (2005). US Department of Justice, Bureau of Justice Statistics Bulletin, Prison and Jail Inmates at Midyear 2004, (Washington DC: US Department of Justice.)

¹¹ Calculated using data from Harrison, P. M. & A. J. Beck, (2003). US Department of Justice, Bureau of Justice Statistics, Prisoners in 2002 (Washington, DC: US Department of Justice.)

¹² As noted by the EMCDDA the term "reports" (of drug law offences such as use, possession, dealing, trafficking, etc) is a broad one reflecting not only differences in national legislations but also the different ways in which laws are applied, enforced and recorded.

particular. African-Americans represent 14% of marijuana users in the general population, but 30% of arrests (King & Mauer, 2005). A similar disproportion can also be seen in the composition of prison sentence statistics (Boyum & Reuter, 2005). It is also important to note that within these figures young African-American males are a dominant group. According to the US based Sentencing Project, nearly one in three (32%) of Afro-American men between the ages of 20 and 29 were under criminal justice control in 1995. A report by the Building Blocks for Youth Initiative in the year 2000 found that African-American youths were admitted to state public facilities for drug offences at forty-eight times the rate of white youths (Schiraldi, Holman & Beatty, 2000). It has been suggested that the principal explanation for these disparities is probably that retail dealing, especially in open settings, and heavy use of cocaine and heroin are concentrated in poor minority communities (Boyum & Reuter, 2005). The reasons for this are multifaceted and complex, but have much to do with long-term structural changes within the US economy. A loss of manufacturing jobs has led to deteriorating social conditions within many communities and fewer employment opportunities within the legitimate economy. Law enforcement strategies that focus on low-level dealers consequently do much to create racial imbalances within both arrest and incarceration statistics (Duster, 1997).

A key point of controversy concerning racial disparities and US drug laws is that of mandatory sentencing for offences involving crack and cocaine powder. Under the Anti-Drug Abuse Act of 1986 the sale of five grams of crack brings a mandatory five-year sentence. Yet, as Human Rights Watch told the UN Commission on Human Rights in 1996, "It takes 100 times more powder cocaine than crack to trigger the same mandatory minimum

sentence" (Stern, 1998). This difference turns out to have a racially disparate impact since African-Americans are much more commonly charged federally with crack distribution than with distribution of powder cocaine (Boyum & Reuter, 2005).

While the US is one of the main exponents of incarceration as a policy tool both in terms of rhetoric and application, many other governments echo US-style rhetoric and logic without actually implementing heavy sanctions in the vast majority of cases. In the UK, for instance, under the 1971 Misuse of Drugs Act (MDA) custodial sentences for the possession and supply of illegal drugs range from two years to life. However, of the 104,400 people arrested for drug offences under the MDA in the year 2000 only nine percent were imprisoned, and the vast majority of these received sentences of less than one year (Drugscope, 2004).

COSTS OF INCARCERATION

Financial Costs

The financial cost associated with a focus on law enforcement and incarceration within the US is high. Federal spending on drug control in 2002 totaled \$18.822 billion, over half of which was spent on domestic law enforcement. It was calculated in the mid-1990s that within the US as a whole it cost approximately \$8.6 billion a year, or more than the Gross Domestic Product of Iceland, to keep drug law violators behind bars (Bureau of Justice Statistics, 1997). Such figures reflect the fact that large-scale incarceration is an expensive policy option. Put another way, it

was calculated that in the early 1990s the cost of a prison place per year was more than the cost of tuition, room and board at Harvard. It has also been estimated that in 1996 the cost of a life sentence for a prisoner in California was \$1.5 million (Stern, 1998). High costs are not unique to the US. Research shows that north of the border the annual cost of corrections in the late 1990s was about \$2 billion with the cost of housing an adult male inmate in a Canadian federal institution ranging from \$40,000 to \$70,000 (Canadian dollars.) (National Crime Prevention Centre, 1998).

A high level of spending on incarceration naturally generates opportunity costs to other areas of public expenditure. For example, research shows that in California and New York prison expenditure outstripped the budgets for higher education during the mid-1990s (Schiraldi, Holman & Beatty, 2000). In the US as a whole between 1987 and 1995 spending on corrections rose by 30%. On elementary and secondary education spending fell by 1.2% and on higher education by 18.2% (Stern, 1998). By 1999 many states in the US were spending more on building prisons than colleges (Irwin, Schiraldi & Ziedenberg, 1999). The American sociologist, Elliot Currie concluded in 1993 that funds for prisons were diverted from parts of the public sector that educate, train, socialize, treat, house and nurture the population, especially the children of the poor (Currie, 1994).

Collateral Costs

The wider costs produced by spending on prisons rather than schools and colleges are far from straightforward to calculate. It is likely that the diversion of funds to prisons has a deleterious impact upon many aspects of American society. It may even contribute to the creation of social conditions that lead some people to use illicit drugs.

Additionally, as noted above, race is a major component within US incarceration trends relating to drug policy. It is difficult to consider the issue without including a racial element, particularly with regard to crack. It remains a matter of debate whether or not tougher penalties for crack offences deliberately target minorities. What is important here, however, is that current US drug policies, not just those relating to crack, do have a disproportionate impact on minority groups. This is particularly so for low-income African-Americans. The result, as noted above, is high levels of incarceration among such groups. This reality has a negative impact upon wider race-class relations within the US (Currie, 1994) and as such can be seen as a considerable though immeasurable collateral cost.

The high proportion of individuals from minority groups in prison also means that such groups suffer more from the collateral costs that affect all communities and families touched by incarceration. For example, imprisonment disrupts family units often leaving one-parent or no-parent families. A 2002 study in New York revealed that since 1980 an estimated 124,000 children in that state have had at least one parent imprisoned on a drug charge. Data from a 1997 survey produced estimates showing that 58% of those in New York's prisons were parents of children under the age of eighteen, with a higher number of women (64%) reporting children than men (58%) (Human Rights Watch, 2002). Such a situation may contribute to criminality and problematic drug use among children who are forced to live with relatives, foster parents or in official institutions. It can also generate social security costs due to the removal of a family breadwinner and the costs associated with foster care for children. Further social

security costs may be generated if an ex-prisoner cannot find employment due to the stigma of a prison record.

Evidence also exists to suggest that mass incarceration as practiced in the US can have a deleterious impact upon informal social controls that exist within communities. Research in the US correlating community crime rates to imprisonment rates found that crime tended to fall with mild increases in imprisonment rates. This was due to offenders being taken out of the community. Crucially, however, the research suggested that when the rate of imprisonment reaches "mass" levels the criminal justice system starts to weaken processes of informal social control (Clear, Rose, Waring & Scully, 2003).

It has been argued that mandatory minimums and the associated increase in incarceration of non-violent offenders generate a further collateral cost; in this case by damaging the reputation and functioning of the US criminal justice system. Sentencing statutes that result in low-level drug offenders serving longer sentences than bank robbers, kidnappers and other violent offenders (including in some cases rapists and murders) undermine the notion of proportionality and fairness of the law (Bertram et al, 1996, Gray, 2001). Studies of state prisons often show that a majority of incarcerated drug offenders have no documented history of criminal violence. Research shows that most state inmates are dealers, but probably from the low end of the supply chain. Most have prior convictions but few show any indication of involvement in violent crime. It is possible to conclude, therefore, that their cells would be better utilized holding more violent offenders (Boyum & Reuter, 2005). Evidence suggests that the image of the US criminal justice system is further tarnished by the inefficiencies caused by an overburdening of the system; much of which can be attributed to drug law violators. A conference of judicial leaders as long ago as 1989 noted, "The overload causes backlog, the backlog feeds delay, delay along with the lack of jail and prison space imperils rights to timely consideration, undermines deterrence and breeds contempt for the law" (Gray, 2001).

Research suggests that significant collateral costs of incarceration also exist with regard to health issues; particularly surrounding blood borne infections like HIV/AIDS and Hepatitis C. Relative to national general populations prisoners have much higher levels of drug use, especially injecting. Risk of exposure to this practice can also be greatly increased upon incarceration (Hunt, Trace, Bewley-Taylor, 2004). It is significant that the AIDS rate is six times higher in state and federal prisons than in the US general population with 20%-26% of people living with HIV/AIDS in the US having spent time in the correctional system. The often frequent transfer of inmates between facilities can result in limited opportunities for adequate treatment. Furthermore, US authorities, unlike some in European countries, do not make sterile syringes available within the prison system (Kantor, 2003). As we note in Beckley Foundation Drug Policy Programme Briefing Paper Number Two (*Drug Policy and the HIV Pandemic in Russia and the Ukraine*) prisons are one of the chief centres of HIV infection within Russia. A report on seven prisons there found that 43% of inmates were injecting and that a worryingly high proportion (13%) had been initiated into injecting while in prison. The HIV infection in Russian prisons is currently 42.1 per 1,000 (4%). As these figures indicate, this is an extremely high-risk environment which led a 2004 UNDP report to describe Russian prisons as "HIV incubators" (Klein, Roberts & Trace, 2004).

BENEFITS OF INCARCERATION

Having examined the high costs of large-scale incarceration in the USA, we now move on to attempt to assess the potential drug prevention benefits of such a policy, in terms of incapacitation, rehabilitation and deterrence, and its impact on reducing levels of illicit drug use.

Incapacitation.

There is some evidence to suggest that domestic enforcement could reduce drug consumption by directly lowering demand. Put simply, if drug users are in prison they are not contributing to the illicit drug market. Additionally, since most drug sellers are also users, the incapacitation of sellers could reduce the number of active buyers (Boyum & Reuter, 2005). It is, however, difficult to find a correlation between trends in incarceration and a reduction of the market since research suggests that the US states with higher rates of drug related incarceration experienced higher not lower rates of drug use (Justice Policy Institute, 2000). Such discussions also ignore the existence of sizeable markets within many prisons worldwide. For example, a 2003 report estimated that 12%-60% of inmates housed in European prisons had used drugs during incarceration (ECMDA, 2003).

Rehabilitation

A large-scale review of research on imprisonment carried out for the Canadian government found that offenders who were imprisoned were no less likely to reoffend than those given community sentences. Furthermore, those given longer sentences were more likely to go back to crime (Stevens, Trace, Bewley-Taylor, 2005). Indeed, it is virtually universally accepted that imprisonment in itself does not have a reformatory effect, but that certain kinds of treatment programme can have a significant effect in reducing offending behaviour among certain groups of individuals (Dunbar and Langdon, 2002). This obviously has particular relevance to drug users. Comparisons of US studies of a wide range of community based programmes and in-prison treatment programmes including methadone maintenance treatment and substance abuse education reveal similar success rates (Prendergast, Podus, Chang & Urada, 2002, Pearson & Lipton, 1999). It is crucial to note, however, that similarities in success rates only apply to in-prison therapeutic communities for which aftercare after imprisonment is a very important component of success (Inciardi, Martin, Butzin, Hooper & Harrison, 1997). It should also be noted that therapeutic communities are not generally available in prisons. In most cases, diversion from prison into community based treatment is likely to provide greater treatment benefits than imprisonment. For example, the Drug Treatment Alternative to Prisons programme in New York found that only 26% of offenders diverted into treatment were reconvicted, compared to 47% of comparable offenders who were sent to prison (National Center on Addiction and Substance Abuse, 2003). It would seem, therefore, that imprisonment presents an opportunity for effective rehabilitation of drug addicts, but that equally successful treatment can be delivered more easily, and cheaply, outside of prison.

Deterrence

Impacts on Drug Dealers

In their 2005 study, Boyum and Reuter conclude that US domestic enforcement, particularly low-level enforcement, does have an impact on levels of illicit drug use. This has much to do with the fact that the risks of incarceration are distributed over much smaller quantities of drugs for street level retail dealers. For example, a retailer handling a gram of cocaine faces a prison sentence that might be one-quarter of that faced by a high-level dealer handling 1000 grams. Boyum and Reuter suggest that about 90% of the retail price of cocaine and heroin represents price markups within the US. This figure reflects an economic reaction, or market distortion, to the risks faced by dealers in terms of arrest and imprisonment. An increase in the price of the illicit drug subsequently has an impact on prevalence rates because some users are unwilling to pay the high prices. The 90% markup would seem to suggest a high risk factor. Indeed, a RAND study of the District of Columbia estimated that in 1988 street dealers faced about a 22% probability of imprisonment in the course of a year's selling and that given the expected amount of time served, they spent around one-third of their selling careers in prison. At first glance one-third of a career in prison does seem to make drug dealing a high risk pursuit. However, closer inspection reveals that the risk per sale may actually be small. A seller who works only two days per week may make 1,000 transactions a year. The imprisonment risk per transaction in the 1988 study could therefore be calculated to be only about 1 in 4,500. By that measure each transaction would be a great deal less risky than for example burglary or robbery with expected cell-years per dollar earned being low relative to property crimes (Boyum & Reuter, 2005).

It is also possible to assess risk in terms of aggregate figures. American users consume an estimated 300 tons of pure cocaine a year. If sold in 0.2 gram units the volume would involve 1.5 billion transactions. This would generate fewer than 1000 prison sentences, or less than a 1 in 15,000 risk of imprisonment per sale (Boyum & Reuter, 2005). When viewed like this incarceration does not appear to offer a great deal as a general deterrent to street-level retail dealers and certainly not to high-level dealers who have the means to better insulate themselves from the risk of arrest and imprisonment. While the risks faced by retail dealers, in terms of expected prison time per gram, are greater than for high level dealers, it seems likely that the potential profits to be made from inflated street prices will ensure a steady supply of street-level drug dealers; particularly in economically deprived inner city communities. The Canadian government report mentioned above also suggests that incarceration as a specific deterrent is far from effective. From a socio-cultural perspective, the effectiveness of both specific and general deterrence may also be undermined by the fact that many young criminals see prison time as a rite of passage (Gray, 2001).

We need also to consider the deterrent effect of the market distortion and price markups mentioned above. There is general agreement that US domestic drug enforcement policies, including incarceration, has an impact upon user rates by keeping drug prices much higher than they would otherwise be. That said it is not evident that massive increases in enforcement, particularly incarceration, in the US over the past 20 years or so has had the desired impact on prices (Boyum & Reuter, 2005). Although, as we have noted, incarceration for drug law violators has increased

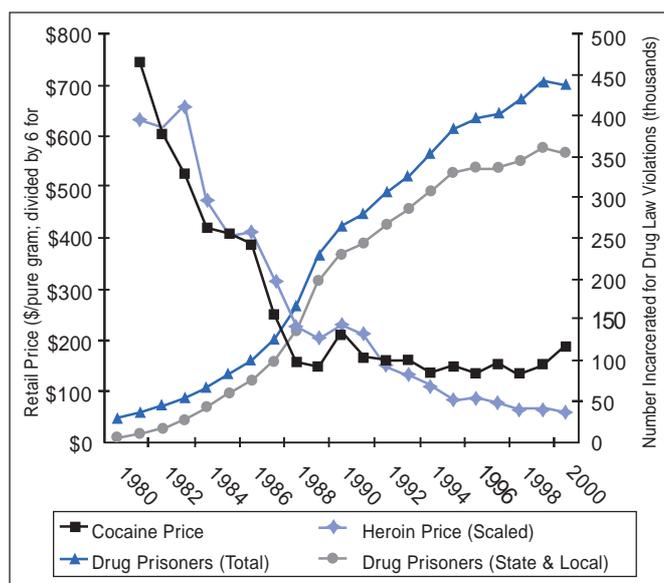


Figure 1. US Drug Prices and Incarceration of Drug Law Violators (Caulkins and Chandler, Unpublished).

dramatically, prices of cocaine and heroin have been in decline (See Figure 1.). It is likely that such a trend reduces the impact of market distortion upon many illicit drug users. Indeed, at the macro level it is possible to observe that while the US is consistently one of the biggest incarcerators in the world it retains among the highest drug use prevalence figures.

Impacts on Drug Users

Aggregate data suggests that in the 1999 the risk of being arrested for marijuana possession, conditional on using the drug in the previous year, was about 3%. For cocaine the figure goes up to 6% (Boyum & Reuter, 2005). It would seem that in terms of general deterrence these figures are not especially high.

A recent study comparing marijuana use in Amsterdam and San Francisco goes further in suggesting that relative risks of punishment make no difference on levels of use. Despite the significantly different law enforcement regimes in these cities, the research found remarkable similarities in drug use patterns (Reinarman, Cohen & Kaal, 2004). Recent research on marijuana use within the US also offers some further interesting insights into how the perception of risk might impact use. Figures show that from 1990 to 2002, daily use of marijuana by high school seniors nearly tripled from 2.2% to 6%. The current level of 6% is the same as the level in 1975. It has been suggested that the rapid increase in low-level arrests, many of which result in dismissals or misdemeanour convictions, reinforces a perception that a person can “get away with it” (King & Mauer, 2005).

While risk and perceptions of risk may impact the behaviour of some user groups, research literature points to the fact that punishment does generally have a severely limited impact upon deterring all types of illicit drug use, especially with regard to addicted drug users. In line with the findings concerning specific deterrence cited above, a review of available evidence in 1988 revealed that two-thirds or more of arrested drug users return to heroin/cocaine use and their diverse criminal patterns within three

months after release from detention (Bertram et al, 1996). Moreover, Jeffrey Fagen’s study of thousands of drug offenders found not only that punishment failed to deter but also that “the probability of rearrest increased with the length of the sentence.” “Findings from a number of studies,” Patricia Erikson concluded in 1990, “consistently indicate that the perceived certainty and severity of punishment are insignificant factors in deterring use” (Bertram, et al 1996).

For problematic drug users, it is perhaps not surprising that the threat of punishment will have a limited effect. Many suffer from other serious problems and it can be argued that being punished is not an over-riding concern for them. For example, according to the US government’s Alcohol, Drug Abuse and Mental Health Administration, 53% of drug users have a diagnosable mental disorder. Many hard-core users in inner cities already lead such high-risk lives on the streets that prison is not perceived as a much riskier or more threatening alternative (Bertram, et al, 1996).

Indications that punishment as a deterrent has limited utility are bolstered by research suggesting that factors other than arrest and incarceration have led heavy drug users to quit. Evidence suggests, for example, that many users have been led to control or give up their drug use because the toll on personal relationships and home and work lives was too high and the rewards for quitting were attractive (Bertram et al, 1996). One early study exploring the reasons why heroin addicts stopped drug use found that not one of the adult men and women mentioned concern about punishment as the reason for their first attempt to stop using heroin, and only 13% of the juvenile users did. Drug-related physical or family problems, the desire to change a life pattern, or the expense of maintaining a habit were much more commonly cited reasons (Brown et al, 1971). The latter variable fits in with the idea that inflating drug prices through increasing risks to dealers can impact prevalence rates. It does little, however, to suggest that the threat of incarceration will deter individuals from drug use. A 1991 study revealed a similar relationship between heavy cocaine users and motivations leading to the cessation of use. The fear of arrest was well below other factors including health problems, financial difficulties, problems at work and pressure from spouse or lover (Waldorf, Reinarman & Murphy, 1991).

CONCLUSIONS

It can be argued, then, that high rates of incarceration of drug users can have some impact on levels of drug use and problems. This can result from the temporary incapacitation of users, the increased access to treatment, or the deterrent effect. On this last point, it is clear that sustained and comprehensive enforcement action, including incarceration, increases the risks to a potential user or dealer, and can raise the price of the drug. However, the impacts that have been observed are at best marginal, and certainly have not led to a significant undermining of the drug market in any country:

- Fear of arrest and sanctions is not a major factor in an individual’s decision on whether to use or deal drugs.
- There is little correlation between incarceration rates and drug use prevalence in particular countries or cities.
- The impact of enforcement action on price is much less powerful than other market factors.

Given the significant costs of incarceration as a way of reducing drug problems, (in budget terms, but also in terms of the negative impact on community relations, social cohesion and public health), it is hard to justify a drug policy approach that prioritises widespread arrest and harsh penalties for drug users on grounds of effectiveness

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