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What Does It Mean to Decriminalize Marijuana?

A Cross-National Empirical Examination ^a

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Although widely used in discussions regarding alternative marijuana policy regimes, decriminalization is a policy that to date has gone largely undefined in the international policy arena. The term literally implies a reduction in the criminal status of marijuana possession offences; however, numerous countries and sub-jurisdictions that are recognized as having decriminalized marijuana in fact merely reduce the penalties associated with possession of specified amounts. Hence, the term marijuana depenalization has evolved in the scientific literature as a more accurate term reflecting the diversity in policies that exist across countries (e.g. MacCoun and Reuter, 2001). Decriminalization, nonetheless, remains a common term used in policy discussions and debates.

The ubiquitous use of the term decriminalization does more than obscure meaningful policy differences that exist across countries; it has led to the development and interpretation of policy research that is myopically focused on evaluating the impact of a single dichotomous indicator that is inconsistently defined within and across countries (MacCoun and Reuter, 2001; Pacula et al, 2003). Thus, it is not surprising that the literature does not provide a clear, consistent conclusion regarding the impact of decriminalization on marijuana use, its harmful consequences, and arrests when these different studies are in fact evaluating different policies.

Although all developed countries today prohibit in some fashion the possession, use, cultivation, distribution and/or sale of marijuana and marijuana products, the countries differ tremendously in the types of behaviours that are allowed, the resources devoted to enforcing the laws, the penalties that are imposed on those who break these laws, and their citizens' knowledge of these policies. Variations in laws, how they are enforced, and the penalties imposed together determine the policy and the public's understanding of the policy (MacCoun, 1993). Hence, those interested in evaluating the impact of specific policies like marijuana decriminalization

need to consider more than just the law and a simple binary label for its penalty structure. They must also consider how and to what degree specific policies get enforced in relevant jurisdictions.

This paper provides a framework for understanding what decriminalization means within the broader context of depenalization. To illustrate these concepts, it provides a detailed discussion of a range of depenalization policies observed in developed countries, highlighting for each country a distinct issue that influences how the policy is implemented and its potential impact. Those interested in analyzing or evaluating the impact of these policies can then use this information to better frame analyses so that policies can be evaluated and compared in a more meaningful way. The paper then demonstrates the problem of using a simple dichotomous indicator, such as “decriminalization”, to differentiate policies within a single country using the United States as the example. It shows that presumed differences in knowledge and enforcement of these laws, factors that should be related to a policy of decriminalization, are not consistent with the current labels that have been given to specific states.

I. Decriminalization: A Form of Depenalization

Decriminalization and depenalization are both terms that represent a range of policies targeting marijuana users in countries where the supply of marijuana for the purpose of recreational use is statutorily prohibited.¹ Hence, these policies do not relate to how the suppliers of marijuana get treated in specific countries. They only differentiate how those caught in possession (with the intent to use) get treated.²

¹ Although the Netherlands is recognized as having a partially legal marijuana market, their statutory law still prohibits the sale, cultivation and distribution of marijuana. The details of this policy are explained later in the document.

² Some countries do differentiate penalties imposed on those caught possessing marijuana and those caught using it.

Just as apples are a type of fruit, decriminalization is a specific type of depenalization policy. In this paper, depenalization refers to any policy that reduces the penalties associated with possession or use of marijuana. The penalties that get reduced can be criminal or civil in nature. For example, policies that retain the criminal status of possession offences but remove or reduce the amount of incarceration imposed as a penalty would be examples of depenalization policies. Decriminalization, on the other hand, refers specifically to depenalization policies that change the criminal status of possession offences from that of a crime to that of a non-criminal offence. Because penalties are usually graduated with the level of crime, a change in the criminal status of an offence will also imply a reduction in the level and type of penalties imposed with that offence, which is why decriminalization policies may be viewed as a special form of depenalization policies.

A country (or smaller jurisdiction for that matter) that is interested in reducing the criminal justice burden associated with marijuana possession offences could do so in one of at least two ways: (1) retain the criminal status of the offence, but remove any jail time imposed for these offences (depenalization), or (2) eliminate the criminal status of the offence, which will also eliminate the jail time imposed with this offence (decriminalization).³ The first method results in an incremental reduction in the burden for the criminal justice system mainly due to reduced incarceration costs, as court resources may still be required to adjudicate cases depending on the legal structure of the jurisdiction. The second method also generates savings due to incarceration, but may produce larger savings if the resources involved in enforcing and processing civil offences are less intensive than those used to enforce and process criminal offences. If this is not the case, then the non-incarceration savings associated with a change in

³ Of course, it is also possible to reduce the burden by simply adopting a policy of non-enforcement, not unlike what is currently being done in the Netherlands.

the criminal status of marijuana would simply reflect a redistribution of these costs from the criminal justice system to another government (or quasi-government) agency.⁴

Fundamentally, the primary difference between these two methods has to do with the outcome for users. Although the specific penalties imposed on users in each of these cases could be structured identically (e.g. a fine of \$1000 and no jail time), depenalization retains the criminal status of the offence while decriminalization does not. The importance of a criminal charge depends on the jurisdiction. In some jurisdictions, criminal charges can influence an individual's ability to obtain and/or retain work, student loans, and public assistance; hence decriminalization can substantially reduce the personal cost associated with getting charged with possession offences. In other, more rehabilitative jurisdictions, criminal charges do not impose these sort of additional personal burdens.⁵

II. Models of Depenalization

There are a variety of different depenalization models that have been adopted in developed countries. Even within specific countries, important variations to the model can exist. Many countries have adopted a policy of “partial depenalization,” in which the penalties for individual users vary on the basis of the quantity of marijuana that they possess and their number of prior offences. For example, first-time offenders who are caught in possession of small amounts of marijuana might receive civil penalties while those caught in possession of larger quantities or are repeat offenders may face criminal charges. Variants of this policy are seen in

⁴ It is also possible that a change in criminal status could generate an increase in the number of marijuana-involved arrests and/or citations, as was observed in South Australia and the United Kingdom, which would increase the burden of processing these cases under the alternative (or criminal justice) system.

⁵ The fact that some jurisdictions do impose harsh penalties can have implications for those living in other jurisdictions. For example, a conviction for marijuana possession in another country can lead to denial of a US visa. For young Australians interested in spending some time in the US, that might have some real deterrent effects.

Australia, Germany and the United States. Other countries have adopted a policy of “full decriminalization,” where the simple possession or use of any amount of marijuana is not a crime regardless of the number of prior offences. These offences remain illegal but have civil (or administrative) sanctions, typically involving mandatory treatment and a fine. Examples of European countries that have adopted policies of full decriminalization include Italy, which initially adopted its policy in 1975 and reinstated it after a brief period of re-criminalization from 1990-1993, Spain, which adopted its policy in 1983, and Portugal, which only recently adopted its policy in 2001.⁶ The Netherlands represents the single biggest outlier to marijuana policy models experimented with thus far, as it is the only country that has allowed a small, regulated market to develop. Even in this case, however, the market is severely limited and stiff penalties remain for individuals caught in possession of large quantities of the drug.

Australia

Since 1986, the goal of Australia’s national drug strategy has been to “minimize the harmful effects of drugs on Australian society” (Blewett, 1987, p. 2). Efforts to achieve this goal include the provision of education, a significant expansion of treatment and the collection of national data on drug use and drug-related harms (Bammer et al., 2002). In the Australian Federal system, states and territories are responsible for enacting legislation and implementing drug policies while the Federal government can influence national policy by tying funding for drug programs to compliance with broadly agreed national goals. Consequently, although harm minimization has been the national drug policy goal, there has been no uniform approach to marijuana and several Australian states and territories have experimented with their own marijuana policies (Bammer et al., 2002).

Since the mid 1980s, five Australian territories have replaced the criminal penalties

⁶ All three countries have decriminalized all psychoactive substances, not just marijuana.

associated with minor marijuana offences with administrative fines (referred to as expiation). South Australia was the first to adopt the Cannabis Expiation Notice (CEN) system in 1987, eight years after the South Australian Royal Commission into the Non-Medical Use of Drugs recommended that marijuana use not be treated as a criminal offence (Bammer et al., 2002). In 1992 and 1996, the Australian Capital Territory and Northern Territory, respectively, adopted similar systems. Western Australia has just recently made the change in 2003. Other states in Australia have retained the criminal status of these minor marijuana offences, although diversion to education and treatment are now the most common outcome for first offenders in all states.

Under the CEN, possession of up to one hundred grams of cannabis, twenty grams of marijuana resin, or equipment for consuming marijuana are all treated as minor marijuana offences that are punishable by a small fine ranging from Australian \$50 to Australian \$150. If this fee is paid within thirty to sixty days, there are no criminal proceedings and no offence is recorded. Failure to pay the fine leads to criminal proceedings and may result in imprisonment (Bammer et al., 2002).

Another unique aspect of the Australian policy is that the cultivation of a small number of plants was included in the category of “minor cannabis offences” in order to allow users to obtain cannabis without resorting to the black market. For example, South Australia initially allowed up to 10 plants to be grown for personal consumption, but this quantity was later reduced to just 3 plants. The prohibition against home cultivation of larger than statutory amounts is still enforced as evidence by a rise in the number of such cannabis offences detected (Christie, 1999).

Germany

As opposed to its Australian and U.S. counterparts, the German federal government is exclusively responsible for enacting criminal laws. German states (the so-called *Länder*) are merely in charge of implementing them. Nonetheless, in Germany there remains a considerable degree of heterogeneity in the handling of cannabis possession offences across states. In Germany, this variance results from the different interpretation and implementation of several provisions within the Act on Narcotics (*Betäubungsmittelgesetz*, hereinafter BtMG), the Code of Criminal Procedure (*Strafprozeßordnung*), and the Act on Juvenile Courts (*Jugendgerichtsgesetz*) that, under certain conditions, empower prosecutors and courts to dismiss criminal proceedings involving consumption-related drug offences.⁷

The provision most frequently used to dismiss consumption-related drug offences is section 31a BtMG, which was introduced by the German Parliament in 1992. Section 31a amended the previous law by expanding the discretion of individual public prosecutors, allowing them more authority to decide when to prosecute defendants charged with consumption-related drug offences. Prior to this amendment, public prosecutors needed judicial consent to refrain from prosecuting someone charged with a consumption-related drug offence (Körner, 2001: 1068-1071).

While the lawmakers' primary intention was to relieve public prosecutors from an overwhelming caseload of low-level drug offences, the introduction of section 31a BtMG also partially depenalized consumption-related drug offences. The underlying principle supporting this significant change is "help before punishment" (*Hilfe vor Strafe*): the lawmakers hoped that

⁷ In Germany, the federal law does not distinguish cannabis from other illegal drugs. In practice, however, consumption-related offences are handled (and dismissed) differently depending on the type of the substance involved.

the depenalization of low-level drug offences could induce drug consumers to contact drug advice and treatment centers and, if necessary, to start a detoxification therapy.

In 1994, section 31a BtMG was subject to a review by the Federal Constitutional Court with specific (and exclusive) reference to cannabis-related consumption offences. In general, the court upheld the constitutionality of the criminalization of cannabis offences, including those involving the mere possession of the drug (section 29 BtMG). However, the court added that criminal cases involving the possession, purchase or import of small amounts of cannabis for “occasional private use and if there is no danger to third parties” must be dismissed because the prosecution of such offences would amount to excessive state intervention and thus seriously infringe upon the constitutional principle of proportionality.

In addition, the Court emphasized that dramatic differences in non-prosecution policies across *Länder* cannot be accepted because they would amount to a serious violation of the right of equal and non-discriminatory treatment. The highest German judicial body thus concluded that the infringements of the basic rights of equal treatment and proportionality could be avoided by properly applying Section 31a BtMG and by implementing consistent non-prosecution policies throughout Germany in cases involving the possession of small drug quantities for personal use.

Despite this ruling, the German states are far from having developed and implemented a uniform policy of non-prosecution with respect to cannabis offences. A consensus has not been reached by the individual states, and thus considerable regional differences continue to exist. Several northern and middle states (Hamburg, Hesse, Lower-Saxony, North Rhine-Westphalia and Schleswig-Holstein among others) have adopted guidelines or recommendations requiring or allowing the non-prosecution in cases involving ten to fifteen grams of cannabis and, in

Schleswig-Holstein, up to thirty grams of cannabis. In contrast, the southern states and several eastern ones (such as Baden-Württemberg, Bavaria, Saxony-Anhalt and Thuringia) have issued more restrictive guidelines, ruling that prosecutor's offices and courts can only dismiss cases involving less than six grams of cannabis. The more liberal states also allow dismissals for repeat offenders, whereas conservative states usually rule out this possibility or allow dismissals only in exceptional circumstances. Some states (such as Mecklenburg-West Pomerania) have issued no such guidelines so far (Schäfer and Paoli, 2004; see also Körner 1996).

Portugal

Upon the recommendation of the Commission for a National Drug Strategy (CNDS) in 1998, the Portuguese Parliament and Council of Ministers decriminalized the simple possession and use of cannabis, along with all other drugs, in July 2001. This decision was based on a broad policy of harm reduction that aims to reduce the harms to the drug-using individual as well as to society.

A central element of this harm reduction strategy was the declaration that drug users were not to be cast out of society as criminals or pariahs, but were to be fully integrated members of society (van het Loo et al., 2002). This was demonstrated by the complete separation of drug offenders from the criminal justice system. If the police stop someone for using or possessing marijuana they do not arrest them. Instead they issue a citation to appear before the city's administrative committee, a 3-person administrative body consisting of two medically qualified and one legal member. This committee decides on a course of action based on the evidence of the case, including the severity of the offence, the type of drug used, whether the use was public or private, if the person is an addict, whether the use is occasional or habitual and the personal circumstances of the user (van het Loo et al., 2002). The possible sanctions range from the

suspension of individual rights (such as revocation of a professional license, a driver's license, or a ban on where the individual might travel) to fines. Sanctions can be removed or reduced after completion of voluntary treatment (van het Loo et al., 2002). Critics of the Portuguese policy claim that the police and criminal justice system is simply being replaced by a new system. Only time will tell if the system that is implemented realizes the intentions of the policy makers.

The Netherlands

The Netherlands is the only country that has successfully experimented with a reduction in penalties for possession *and sale* of small amounts of marijuana. In 1976 a formal written policy of non-enforcement made the possession and sale of up to 30 grams of marijuana *de facto* legal even though the Netherlands technically retained its prohibitionist policy against marijuana (Korf, 2002). The policy basically stated that prosecutors and police would refrain from enforcing the law in those cases where the quantity possessed or sold did not exceed 30 grams. They would also tolerate the sale of these small amounts in coffee shops (MacCoun and Reuter, 2001). By not enforcing the prohibition in these cases, the Dutch government in effect sanctioned the creation of a small retail marijuana market. They continue to aggressively enforce the prohibition against the sale, distribution and trafficking of larger quantities of cannabis. They also prohibit the cultivation of marijuana for personal or industrial use.

In the next ten years a series of formal and informal guidelines emerged that effectively regulate the *de facto* retail marijuana market. These regulations prevent coffee shops that sell marijuana products from (1) advertising these products, (2) selling hard drugs, (3) selling marijuana to minors, (4) selling amounts greater than the legally specified quantity, and (5) allowing public disturbances (MacCoun and Reuter, 2001). In the 1990s, a licensing system was created that enables the government to limit the number and location of coffee shops, and hence

to control where marijuana can be sold. In 1995, the formal non-enforcement policy was modified to reduce the quantity of marijuana that can be legally sold and/or possessed to 5 grams (Korf, 2002). Thus the Dutch policy has allowed a very small, moderately-regulated retail marijuana market to develop as a result of non-enforcement of the law while maintaining a statutory prohibition on marijuana use and supply.

The United States

During the late 1970s, eleven US states reduced the criminal penalties for possession of small amounts of marijuana (Alaska, California, Colorado, Maine, Minnesota, Mississippi, Nebraska, New York, North Carolina, Ohio and Oregon). Even though the federal policy maintained marijuana possession a criminal offence, these state policies reflected a significant change because the vast majority of marijuana possession cases are tried in state courts under state law (Ostrom and Kauder, 1999). Although a few states raised their penalties during the Reagan Administration, the general trend in state laws has been to reduce the penalties or remove the criminal status of marijuana possession offences involving small amounts of marijuana. Recent analyses of state legal statutes shows that by 1989 many states had reduced the penalties associated with minor marijuana possession offences, with forty-three states and the District of Columbia allowing offenders to circumvent statutorily imposed jail time through diversion programs (Pacula et al., 2003).

To more clearly articulate the legal situation across states in the U.S., we show in Table 1 information on decriminalization policy and statutory penalties in effect as of January 2001 for first time marijuana possession offenders caught in possession of small amounts of marijuana for all fifty states and the District of Columbia. As in the other countries, each state uniquely defines what it means by “small amounts”, and the laws described here are those associated with

the first quantity trigger (smallest amount referred to in the state law).⁸ In Column I we identify those states that are widely recognized as decriminalized states in 2001 based largely on policies enacted during the 1970s.⁹ In Column II we identify those states that reduced the criminality of minor marijuana possession offences by changing the criminal status of these offences to a non-criminal offence in their state law. When we compare states in Columns I and II, we see that as of January 2001 fourteen states actually remove the criminal status of minor possession offences, seven of which are not formally recognized as decriminalized states. Furthermore, five states that are widely recognized as having decriminalization statutes (Alaska, Arizona, California, North Carolina and Ohio) maintain the status of marijuana possession offences as a criminal charge.

In some of the U.S. states, a minor marijuana possession charge can also be removed through a formal process called expungement. Provided that the offender successfully completes mandated punishment for the offence, such as payment of a fine, drug education, treatment, or community service, then the charge is erased (or “expunged”) from the individual’s public record as if the crime never occurred. Column III identifies the twenty-two states that, as of January 2001, allowed for the possible expungement of minor marijuana possession offences. Again, we see by comparing Columns I and III that many of the states that have expungement provisions are not known as decriminalized states. However, it also shows that only three of the five so-called decriminalized states retaining the criminal status of minor marijuana possession offences (Arizona, California, and North Carolina) allow for the removal of the criminal charge upon completion of mandated punishment. Thus there are two remaining so-called decriminalized

⁸ The statutory data were collected through original legal research by experts at the MayaTech Corporation for the purposes of this project, as described later in the paper. For more information on the graduation of penalties for specific quantity amounts, see Chriqui et al (2002).

⁹ In 1996, Arizona implemented reduced penalties for marijuana possession offences involving small quantities that is widely recognized as a “decriminalization” statute.

states, Ohio and Alaska, which do not remove the criminal status of minor marijuana possession offences through statutory law. These states simply eliminate jail time as a potential penalty, a change that is more characteristic of depenalization than decriminalization.

Table 1 highlights the problem identified in previous work that revealed that not all of the so-called decriminalized states had *statutorily* removed the criminal status of minor marijuana possession offences while other so-called decriminalized states had (Pacula, et al, 2003). The label “decriminalization” may have been adequate for describing meaningful policy differences across US states when these policies were first adopted in the early 1970s, but it is clear that today this classification of US states is inappropriate for evaluating the effect of criminalizing marijuana across the states. Future researchers interested in evaluating U.S. policy need to construct a more accurate representation of state differences in statutory law reflecting dimensions that include the change in criminal status as well as a reduction in the severity of penalties.

Given the power of the judicial system, it is important for those interested in examining U.S. policy to also consider the extent to which specific laws get shaped by the state judicial system through sentencing guidelines, assignment of discretionary authority, and case law. Further, it is important to consider how the police enforce the laws. Recent research shows that both police and prosecutors have a lot of discretion over decisions to arrest and formally prosecute youths charged of minor marijuana offenders (Terry-McElrath and McBride, 2004). Hence, the local implementation of state laws through policing behaviours and judicial processing are likely to influence the actual policy adopted within the state.

III. Knowledge of the Severity of Penalties: A Look at the United States.

Various studies have examined the effects of particular depenalization regimes on the use of marijuana (see reviews in Hall & Pacula, 2003; MacCoun & Reuter, 2001). Although there is a general sentiment that marijuana decriminalization has no effect on demand, the more careful evaluations conducted on samples from the United States and Australia have inconclusive findings. For example, studies of decriminalization in South Australia (Christie, 1991; Donnelly, Hall & Christie, 1995) and in the Australian Capital Territory (McGeorge and Aitken, 1997) report no changes in marijuana use associated with this legal change, and no differences in marijuana use between these regions and non-decriminalization regions of Australia. However, two recent studies using individual level data from the National Drug Strategy Household Surveys (NDSHS) do find a positive effect of decriminalization (Cameron and Williams, 2001; Williams, 2003).

In theory, any deterrent effect of levels of marijuana sanctioning should be mediated by citizens' perceptions of their certainty and severity.¹⁰ Various lines of evidence suggest that citizens may have distorted or biased beliefs about sanctioning threats (see MacCoun, 1993). Thus, a possible explanation for the inconsistency in decriminalization effects in the literature is that citizens' perceptions may not vary in accordance with differences in law or enforcement.

To address this question we examined data on knowledge of U.S. state laws from the 2001 National Survey on Drug Use and Health (NSDUH) (formally the National Household Survey on Drug Abuse). The NSDUH is an annual national household survey of the non-institutionalized U.S. population 12 years and older conducted by the Substance Abuse and Mental Health Administration (SAMHSA). It is the primary source of information on the

¹⁰ We refer here to general deterrence; sanctions may also influence marijuana use through incapacitation, specific deterrence, price effects, availability effects, and stigma effects (see MacCoun, 1993; MacCoun & Reuter, 2001).

prevalence of use of illegal drugs for the U.S. population. Since 1999, approximately 70,000 individuals have been interviewed each year across the United States with at least 900 respondents in each of the 50 states. Great care is taken to ensure that information on illicit drug use is accurately reported. For example, the questions on illicit drug use are self-administered through a computer assisted interview survey, no names are used or collected during the interview, and interviews are conducted in private settings away from other people in the household.¹¹

In 2001, the NSDUH included questions for the first time pertaining to the individual's knowledge of state marijuana laws. All individuals taking the survey were asked, "What is the maximum legal penalty in (State of residence) for first offense possession of an ounce or less of marijuana for your own use?" Possible responses were (1) a fine, (2) probation, (3) community service, (4) possible prison sentence, (5) mandatory prison sentence, and (5) Don't know. Information on the weighted fraction of the state sample reporting specific penalties were aggregated to the state level and made available to us by the Office of Applied Studies (OAS) at the Substance Abuse and Mental Health Services Administration (SAMHSA).

To these state aggregated data we merged information on each state's statutory penalties associated with possession of one ounce of marijuana for first time offenders.¹² The penalties represent laws in effect as of January 1, 2001, and were collected and analyzed by a team of lawyers and policy analysts at the MayaTech Corporation. Penalties that were captured include the minimum and maximum jail term, minimum and maximum fine, conditional discharge

¹¹ Further information about survey methodology is available at www.oas.samhsa.gov/nhsda/2k1nhsda/PDF/cover.pdf.

¹² Penalties reported in this paper reflect only those penalties specified in statutory state law. Some state courts may also consider when sentencing offenders penalties proposed in sentencing guidelines or previous case law. This information was not collected as part of the project. However, its omission makes our results directly comparable to other studies that have also strictly relied on statutory penalties for analysis.

provisions, and expungement provisions for the lowest two quantity trigger amounts, which capture amounts of one ounce or less for all states.¹³ The conditional discharge variable reflects instances where compliance with the specified conditions leads to a dismissal of charges.

The first column of Table 2 presents the fraction of the state population reporting a particular maximum penalty across all states, regardless of the state's actual penalties. On average we see that nearly one-third of the population do not know what the maximum penalty is for marijuana possession offences in their state and another third believe that possible or mandatory jail is the maximum offence. What is particularly surprising is the result that 6% of the population reports that mandatory jail is the maximum offence for possession of an ounce of marijuana. This is surprising because no U.S. state requires a mandatory jail time for marijuana possession offences.

To evaluate whether individuals understood the maximum penalty for possession of marijuana in their state, we differentiated states based on their statutory provision of jail sentences. We first separated states based on whether they were recognized in the literature as having a decriminalization policy (“decrim”) or not (“non-decrim”). Although we showed in Table 1 that these policies do not reflect actual differences in the criminal status of marijuana offences, it may be the case that the mere label that has been applied to these states for the past 25 years might generate a greater awareness of the state's actual penalties for those living within these states. If people living in decriminalized states were actually aware of this labeled policy (i.e., that a violation was not subject to criminal penalties), then we would expect that they would be less likely to report jail as the maximum penalty and more likely to report fines, probation, or community service as the maximum penalty than people living in non-decrim states. The

¹³ Illinois is the only state in which the penalty for possession of an ounce of marijuana is captured in a higher quantity trigger (trigger number 3). In this one case we collected additional information so that we can reflect the penalties in place in all states for amounts involving one ounce of marijuana.

findings in the second and third columns of Table 2 show that this is indeed the case, as people living in so-called decriminalized states are statistically less likely to report jail as the maximum penalty and more likely to report fines and/or probation as the maximum penalty. However, the actual magnitude of these differences is extremely modest and nearly 30% of people living in a so-called decriminalized state still report jail as the maximum penalty imposed.

One explanation for this small difference in reported penalties is that we have misclassified people based on decriminalization status, as several other states have also eliminated jail time for possession offences (Pacula et al., 2003). So, in the second part of Table 2 we show differences in the fraction of the state population reporting specific penalties for states in which the jail times have been removed as a penalty (either by a change in the criminal status or a reduction in penalties) and those that do not. Again we find that individuals living in states that have statutorily removed jail sentences as penalties for possession of up to an ounce of marijuana are statistically less likely to report jail as the maximum penalty and more likely to report fines as the maximum penalty. However, again we see that the actual difference in knowledge across states is small.

Two other explanations, which are not mutually exclusive, remain for these findings. First, they may simply reflect citizen ignorance or misperception of actual differences in laws and their enforcement. Second, they may indicate that laws and enforcement practices differ less than is widely assumed.

Relevant evidence pertaining to the first plausible explanation comes from Johnston, O'Malley, and Bachman's (1981) report on decriminalization in the 1970s. Using the Monitoring the Future survey of high school seniors, they reported ratings for the Classes of 1976, 1977, 1978, 1979, and 1980 on the item "Which best describes the law IN YOUR STATE regarding

marijuana? Possession in private of an ounce or less of marijuana (by an adult) is..." In Table 3, we summarize their results for the high school classes of 1976 and 1980.

Although the MTF sample includes only high school students where the NSDUH analysis included adults and youth, there are some striking similarities across the tables. For example, perceptions of penalties in non-decriminalized states are remarkably similar, with roughly a third of high school seniors reporting that marijuana possession resulted in jail time (39% in 1976, 35% in 1980) and another 30% reporting that they just did not know the state's policy (28.4% in 1976 and 29.8% in 1980). These are consistent with those presented in Table 2 using the NSDUH data.

The differences across tables are even more striking, however. It appears that in the U.S. in the 1970s, many high school seniors were aware of their state's marijuana laws, as those living in decriminalized states generally reported that jail was not a probable penalty by 1980 regardless of when the policy passed. In the early decriminalization adoption states, only 14% (1976) to 16% (1980) of citizens believed marijuana possession carried a possible jail sentence. In the late decriminalization adoption states the proportion of citizens holding this belief dropped precipitously, from 58% in 1976 to 18% by 1980. As Johnston and colleagues summarized their results: "In sum, we can say from the data just reviewed that there were substantial shifts in the perceptions of prevailing laws, but also that there were sizeable segments of the population in all three types of states who either did not know what the law was, or who very likely had an incorrect perception of what it was."

Overall, these results suggest that more people were aware of their state penalties in 1980 than today. Why? One possibility is that it is the publicity surrounding a change in law, rather than the law's actual enforcement, that produces differences in citizen perceptions by state (See

MacCoun 1993 for relevant evidence from drunk driving interventions.). Another possibility, again not mutually exclusive, is that there has been erosion over time in what may have been, in the 1970s, a real policy change.

IV. Actual Enforcement Patterns Across Decrim and Non-Decrim States in the United States.

The number of marijuana possession arrests in the United States more than doubled between 1992 and 1998, accounting for 38 percent of all drug arrests by 1998 (FBI, 2001). Over the same period the National Household Survey on Drug Abuse shows that the prevalence of marijuana use in the general population (ages 12 and older) rose very slightly from 7.9% in 1992 to 8.6% in 1998 (SAMHSA, 2001). Critics of US policies argue that the enormous increase in marijuana possession arrests is the result of a law enforcement crackdown on non-violent drug offenders (Thomas, 1999; Gettman, 2000). Such a claim seems to be substantiated by the fact that of the 1,579,466 drug arrests in the US in 2000, 5.6% were for marijuana sales or cultivation and 40.9% were for simple possession (FBI, 2001).¹⁴ However, as reported previously, several U.S. states adopted so-called decriminalization policies in the mid-1970s and several other states have eliminated the criminal status of marijuana since. Hence, if these statutory changes in law did indeed reflect a real policy change that was truly enforced by law enforcement, one would not expect marijuana possession arrests to be as high in states decriminalizing possession of marijuana than those that did not. Further, we would not expect arrests to have risen as much in decriminalized states.

¹⁴ It is interesting to note that the fraction of drug arrests involving marijuana sales or cultivation did not change much during the 1992-1998 time period when marijuana possession arrests took off (FBI, 2001).

We examine the association between marijuana possession arrests and state statutory policy by linking statutory penalty data from our legal analysis of state statutes over the years 1991 through 2000 to arrest data collected by the Federal Bureau of Investigation's (FBI) Uniform Crime Report (UCR). The UCR system provides information on the number of crimes reported to the police in specific crime categories each year for every police jurisdiction in the United States. Arrests are also reported by criminal offence. Data is collected on a monthly basis from approximately 17,000 law enforcement agencies and jurisdictions, although the crime and arrest data are not always complete from every agency. Each year, the Intra-university Consortium of Political and Social Research (ICPSR) generates county-level arrest and crime estimates from the incomplete agency data collected by the Federal Bureau of Investigation and makes these data available to the public. While the shortcomings of these data are well documented (e.g. O'Brien, 1985), they remain the only source of geographically disaggregated crime and arrest data in the United States. The biggest limitation of the UCR arrest data is that they only report the arrest for the most serious crime committed. Hence, the data cannot be used to identify the total number of individuals arrested for specific charges because not all charges are reported in the data.¹⁵ However, the data remain useful for analyses such as these where the interest is cases where the most serious offence was marijuana possession.

ICPSR imputes most of the missing information at an agency level, which causes a significant time lag in when the data get released. Hence, our analysis here only examines data from 1991 through 2000. Further, a 1994 change in the imputation procedure makes time-series analyses using the ICPSR imputed data before and after this change took affect unwise. Because

¹⁵ Indeed a recent evaluation of charges in Baltimore City revealed that only one half (56%) of all marijuana possession charges in this area were cases where the marijuana possession charge was the most serious offence according to the FBI hierarchy of crimes (Reuter et al, 2001).

we were interested in examining changes in marijuana possession arrests throughout the 1990s we developed our own method for imputing missing information.¹⁶ For those counties where imputation was necessary, we identified a within-state county that had approximately the same population and used that county's arrest information as the imputed value for the county with poor coverage.¹⁷ We then summed all county-level arrests to generate state-level arrest rates (number of arrests per 10,000 residents) for marijuana possession offences in each state from 1991 through 2000.¹⁸

Table 4 reports the per capita marijuana possession arrest rates for each state for select years during the 1991 - 2000 time period. It also shows the percent change in per capita arrest rates during selected years. States that have statutorily lowered the criminal status of marijuana possession offences involving small amounts of marijuana to a non-criminal offence are indicated with yellow shading.¹⁹ The states shaded in gray are those commonly recognized as having adopted a decriminalization policy, but whose statutes still retain possession offences as a misdemeanor (ie. criminal) offence. The average across all states are reported at the bottom of the table for each column.

There are a number of things to note from Table 4. First, by examining the last row, one can see that there was a 264.4% increase in marijuana possession arrests across all states and that the vast majority of this increase occurred between 1991 and 1995. Second, in 1991 there was

¹⁶ Our algorithm is based on the "coverage indicator" (CI) developed by the ICPSR in 1994 to measure the integrity of the arrest data provided by the FBI. Each county has a score ranging from 0 to 100, with 100 denoting that arrest information for all agencies in the county. First, we calculated the lowest possible coverage indicators for counties pre-1994. Second, we imputed annual arrest information for counties that could be below a CI threshold of 30. This was done for every year from 1990 to 2000. The imputed data are based on the estimates provided by counties (above this threshold) with similar populations and within the same state.

¹⁷ Alternative imputation strategies were also considered and evaluated. Although differences exist in the level of arrests generated by each of these methods, trends in these arrests over time were incredibly consistent. Information on how this imputation strategy compared to alternative methods is available from the authors upon request.

¹⁸ There were significant reporting problems in a few states, including Illinois, Kansas, Florida and Montana. These states are generally viewed as problem states and are typically ignored in the analysis.

¹⁹ Specific definitions of "small amount" varies substantially across states from 10 grams to over 1 pound.

not a huge amount of variation in the number of arrests per capita. Although there were some states with relatively low arrest rates (e.g. Pennsylvania and South Dakota) and those with relatively high rates (e.g. Hawaii and Arizona), the difference in arrest rates per capita between the highest and lowest state was only slightly larger than 30 arrests per capita. If we look at arrest rates in 2000, we see that the level of arrests across states has gotten substantially larger. Now the difference between the state with the lowest arrest rate (Montana) and that with the highest arrest rate (New York) is four times what it was in 1991, or 120 arrests per 10,000 people.

A particularly important feature of Table 4 is that states that have eliminated the criminal status of possession offences involving amounts of one ounce or less of marijuana (highlighted in yellow) do NOT have systematically lower arrests per capita than those states retaining the criminal status. Indeed, several of the states, including New York and Louisiana, have larger per capita arrest rates in most years than the national average across states. Further, the increases in arrest rates during the 1991-1995 time period and the 1991-2000 time period is substantially larger than the national average for many of these states. This is further demonstrated in Figure 1, where arrests in states without criminal charges for marijuana possession amounts are graphed against the average total arrests for all states. Here it is easier to see that more than half of the states that do not consider small marijuana possession offences a criminal offence still have per capita arrest rates greater than the national average and they still experience a significant increase in arrests during the 1992-1995 time period.

There are at least two alternative interpretations of these data. First, it may be the case that the UCR marijuana possession arrest data do not generally reflect individuals in possession of small amounts of marijuana. If this is indeed the case, then these may not be the appropriate

data for evaluating this sort of small policy difference across states. However, such an interpretation also implies that the rise in arrests during the 1990s does not reflect a crackdown on people caught in possession of only small amounts of marijuana. A second interpretation of these data is that the enforcement of marijuana laws today is not highly correlated with the criminal status of marijuana possession offences. States that have removed the criminal status of marijuana or adopted a widely recognized decriminalization policy during the 1970s do not have systematically lower rates of arrest and they experienced increases in possession arrests at rates comparable to that of the other states, with some significantly higher (e.g. New York, Minnesota, Connecticut and New Jersey) and some significantly lower (Vermont, North Carolina, Arizona and California).

V. CONCLUSIONS

This paper provides important insights regarding the range of marijuana depenalization policies that can be observed in Western countries and provides a framework in which policy analysts and makers should consider and compare specific policies. Decriminalization, which literally means an elimination of the criminal status of minor marijuana possession offences, is but one form of depenalization. The ubiquitous application of the term “decriminalization” to describe these forms has, however, obscured from the debate and analysis meaningful policy differences that exist across countries both in the laws and their enforcement. Although numerous Western countries have adopted policies that reduce the penalties associated with minor marijuana possession offences, the extent to which criminal charges are removed, reduced penalties apply to all offenders, and “minor” is precisely defined varies substantially from country to country as well as within jurisdictions in the same country, as we showed for

Germany and the United States. Further, the extent to which those enforcing the laws (police and prosecutors in particular) influence the interpretation and implementation of these policies is largely unknown for most countries and cannot always be interpreted from official statistics on arrests.

Without a careful understanding of these nuances within each country and how they differ across countries, it is unclear what can be gained from analyses attempting to evaluate the impact of them. Even in the United States, new research is needed that more accurately evaluates real differences across the states in terms of the legal status of possession offences, how these laws are enforced and interpreted by police and prosecutors, how these differences get translated into arrest patterns, and how these differences in laws and their enforcement are perceived by citizens. Only then can we hope to accurately assess the real impact of a policy change on the primary outcomes of interest: consumption and harms. Strides are being made within particular countries to better understand these issues, but much work remains.

References

- Bammer, G., Hall, W.D., Hamilton, M. and Ali, R. (2002). Harm minimisation in a prohibition context: Australia. *Annals of the American Academy of Political and Social Sciences*, **58**, 80-93.
- Blewett, N. (1987). *National Campaign Against Drug Abuse: Assumptions, Arguments and Aspirations*, Canberra: Australian Government Publishing Service.
- Cameron, L. and Williams, J. (2001). Cannabis, alcohol and cigarettes: substitutes or complements? *Economic Record*, **77** (236), 19-34.
- Chriqui, J.F.; Pacula, R.L.; McBride, D.C.; Reichmann D.A.; VanderWaal C.J. and Y. Terry-McElrath (2002). *Illicit drug policies: Selected laws from the 50 states and the District of Columbia*, Berrien Springs, MI: Andrews University.
- Christie, P. (1999). *Cannabis Offences Under the Cannabis Expiation Notice Scheme in South Australia*, National Drug Strategy Monograph, Vol. 35, Canberra: Commonwealth Department of Health and Aged Care.
- Donnelly, N., Hall, W. and P. Christie. (1995). The effects of partial decriminalisation on cannabis use in South Australia 1985–1993. *Australian Journal of Public Health*, **19**, 281–287.
- Federal Bureau of Investigation (2001). *Crime in the United States 2000*, Uniform Crime Reports, Washington, DC: U.S. Department of Justice.
- Gettman, J (2000) “Part One: County Level Arrest Data 1995-1997” National Organization for the Reform of Marijuana Laws Research Brief.
<http://www.norml.org/facts/arrestreport/index.html>.
- Hall, W. and R.L. Pacula. (2003). *Cannabis Use and Dependence: Public Health and Public Policy*. Melbourne, Australia: Cambridge University Press.
- Johnston LD., PM. O’Malley, and JG. Bachman. 1981. “Marijuana decriminalization: The impact on youth 1975-1980.” Monitoring the Future Occasional Paper no. 13. Ann Arbor, Michigan: Institute for Social Research, University of Michigan.
- Korf, D.J. (2002). Dutch coffee shops and trends in cannabis use. *Addictive Behaviors*, **27** (6), 851-66.
- Körner, H. (1996). Die Entpoenalisierung und die Entkriminalisierung von Cannabiskonsumern mit geringen Cannabismengen zum Eigenkonsum. *Deutsche Vereinigung für Jugendgerichte und Jugendgerichtshilfen*, **3**: 232-241.
- Körner, H. (2001). *Betäubungsmittelgesetz- Arzenimittelgesetz*, 5th edition, München: Beck.
- MacCoun, R. J. (1993). Drugs and the law: A psychological analysis of drug prohibition. *Psychological Bulletin*, **113**, 497-512.

MacCoun, R. and Reuter, P. (2001). *Drug War Heresies: Learning from Other Vices, Times and Places*, Cambridge: Cambridge University Press.

Maloff, D. (1981). A review of the effects of the decriminalization of marijuana. *Contemporary Drug Problems, Fall*, 307-322.

McGeorge, J., and C. K. Aitken. (1997). Effects of cannabis decriminalization in the Australian Capital Territory on university students' patterns of use. *Journal of Drug Issues*, 27, 785-793.

O'Brien, Robert. Crime and Victimization Data (Beverly Hills, CA: Sage). 1985.

Ostrom, B. and Kauder, N. (1999). Drug crime: the impact on state courts. *National Center for State Courts Caseload Highlights*, 5 (1). Available online at http://www.ncsonline.org/D_Research/csp/Highlights/DrugsV5%20No1.pdf

Pacula, R.L., Chiqui, J.F. and King, J. (2003). Decriminalization in the United States: what does it mean? National Bureau of Economic Research Working Paper # 9690 [NBER: Cambridge, USA]

Schäfer, C and L. Paoli (2004). Zwischenbericht zur Untersuchung “Drogenkonsum und Strafverfolgungspraxis”, unpublished progress report submitted to the German Federal Ministry of Health and Social Security. January.

Substance Abuse and Mental Health Services Administration. (2002). Results from the 2001 National Household Survey on Drug Abuse: Volume I. Summary of National Findings (Office of Applied Studies, NHSDA Series H-17, DHHS Publication No. SMA 02-3758). Rockville, MD.

Substance Abuse and Mental Health Services Administration (2001). *Summary of Findings from the 2000 National Household Survey on Drug Abuse*, Washington, DC: Department of Health and Social Services.

Terry-McElrath, Y.M. & McBride, D.C. (2004). Local implementation of drug policy and access to treatment services. *Crime and Delinquency*, 50(1), 60-67.

Thomas, C. (1999). Marijuana arrests and incarceration in the United States. *FAS Drug Policy Analysis Bulletin*, 7 (June), 5-7.

van het Loo, M., van Beusekom, I. and Kahan, J.P. (2002). Decriminalization of drug use in Portugal: the development of a policy. *Annals of the American Academy of Political and Social Science*, 582, 49-63.

Williams J (2003). “The Effects of Price and Policies on Cannabis Consumption” *Health Economics* 13, 123-137.

Table 1
Recognized U.S. State Policies and Statutory Law as of January 2001

	I	II	III		I	II	III
State	Recognized Decrim State	Non-Criminal Status Offence	Expunge Charge Upon Completed Sentence	State	Recognized Decrim State	Non-Criminal Status Offence	Expunge Charge Upon Completed Sentence
Alabama				Montana			Yes
Alaska	Yes			Nebraska	Yes	Yes	
Arizona	Yes		Yes	Nevada			
Arkansas				New Hampshire			
California	Yes		Yes	New Jersey		Yes	
Colorado	Yes	Yes		New Mexico			Yes
Connecticut		Yes		New York	Yes	Yes	
Delaware				North Carolina	Yes		Yes
District of Columbia			Yes	North Dakota			Yes
Florida			Yes	Ohio	Yes		
Georgia				Oklahoma			Yes
Hawaii			Yes	Oregon	Yes	Yes	
Idaho				Pennsylvania			Yes
Illinois				Rhode Island			Yes
Indiana			Yes	South Carolina			Yes
Iowa			Yes	South Dakota			
Kansas			Yes	Tennessee			Yes
Kentucky			Yes	Texas			
Louisiana		Yes		Utah			Yes
Maine	Yes	Yes		Vermont		Yes	Yes
Maryland				Virginia			
Massachusetts		Yes		Washington			
Michigan				West Virginia		Yes	Yes
Minnesota	Yes	Yes		Wisconsin		Yes	
Mississippi	Yes	Yes	Yes	Wyoming			
Missouri				Total # of States	12	14	22

Table 2
Reported Maximum Penalty for Possession of One Ounce of MJ
Aggregated State-Level Data from the 2001 NSDUH

	Full Sample	Decrim	Non-Decrim	P-value		No Record or No Jail	Other	P-value	
Number of Observations	51	12	39			14	37		
Max penalty - fine	0.151	0.199	0.136	0.000	***	0.177	0.141	0.033	**
Max penalty - jail	0.326	0.307	0.331	0.076	*	0.309	0.332	0.059	*
Max penalty - mandatory jail	0.063	0.580	0.640	0.211		0.058	0.065	0.116	
Max penalty - probation	0.134	0.121	0.138	0.029	**	0.131	0.135	0.627	
Max penalty - community service	0.073	0.070	0.074	0.528		0.074	0.074	0.896	
Max penalty - Don't know	0.317	0.303	0.321	0.145		0.310	0.319	0.498	

Notes: Each cell represents the fraction of the weighted state-sampled population reporting that the specific penalty is the maximum penalty associated with first-time marijuana possession offences for amounts less than an ounce of marijuana. Significance is denoted as follows: *** indicates significance at the 1% level (two tailed test), ** indicates significance at the 5% level (two-tailed test), and * indicates significance at the 10% level (two-tailed test).

Table 3
Impact of Policy Change on Perceptions of Policy As Indicated by MTF Sample

	Early Adoption States (by April 1976)		Late Adoption States (by July 1977)		All Other states	
	1976	1980	1976	1980	1976	1980
A criminal offense, carrying a possible jail sentence	14.3	16.1	57.8	17.6	39.3	34.6
A criminal offense, carrying a possible fine, but not a jail sentence	14.3	16.4	15.6	23.1	16.1	22.9
A non-criminal offense—like a traffic ticket—carrying a small fine and no criminal record at all	33.1	20.6	1.5	18.7	4.2	5.2
I don't know if the offense is criminal, but I know it carries a fine	15.9	10.8	2.2	16.5	9.5	5.8
Not a legal offense at all	2.1	3.8	1.5	2.2	2.7	1.8
I just don't know	20.5	32.2	21.5	22.0	28.4	29.8
N	435	286	135	91	861	708

Table replicated from Johnston LD., PM. O'Malley, and JG. Bachman. 1981. "Marijuana decriminalization: The impact on youth 1975-1980." Monitoring the Future Occasional Paper no. 13. Ann Arbor, Michigan: Institute for Social Research, University of Michigan.

Table 4
Marijuana Possession Arrests per 10,000 Residents

	1991	1993	1995	1996	1998	2000	% change 91-95	% change 95-00	% change 91-00
AL	11.898		33.651	42.885	52.347	52.592	182.8	36.0	342.0
AK	21.834	22.282	48.677	46.037	78.736	52.285	122.9	6.9	139.5
AZ	39.861	65.721	94.740	105.407	100.721	98.582	137.7	3.9	147.3
AR	18.811	26.537	49.825	61.565	64.381	53.192	164.9	6.3	182.8
CA	18.387	30.014	45.840	51.400	52.942	50.436	149.3	9.1	174.3
CO	23.412	51.197	82.132	78.622	80.505	92.143	250.8	10.9	293.6
CT	15.129	38.881	70.221	70.239	69.167	59.881	364.2	-17.3	295.8
DE	17.176	9.923		68.554	60.459	88.759			416.8
DC	17.284	28.350	82.908				379.7		
FL	25.496	38.754	58.058				127.7		
GA	11.978	28.196	51.171	59.699	79.293	64.513	327.2	20.7	438.6
HI	37.551	40.745	62.943	57.745	57.883	45.135	67.6	-39.5	20.2
ID	18.102		63.176	62.877	66.448	61.160	249.0	-3.3	237.9
IL	11.907								
IN	13.044	15.075	39.796	46.364	59.338	62.022	205.1	35.8	375.5
IA			30.243	37.605	47.834	53.718		43.7	
KS	25.062					46.262			84.6
KY	28.610								
LA	15.629	25.386	59.016	66.557	69.223	76.953	277.6	23.3	392.4
ME	16.474	23.652	49.123	59.698	60.957	71.351	198.2	31.2	333.1
MD	21.780	38.049	82.430	81.712	96.462	102.624	278.5	19.7	371.2
MA	16.885	18.649	46.146	46.446	41.453	44.229	173.3	-4.3	161.9
MI	10.720	19.680	35.242	35.524	37.953	36.961	228.8	4.6	244.8
MN	11.139	20.871	45.479	45.128	58.846	61.862	308.3	26.5	455.3
MS			55.054	68.024	72.197	70.049		21.4	
MO	20.191	29.591	49.960	56.534	60.491	61.165	147.4	18.3	202.9
MT	11.359					11.703			3.0
NE	29.558	35.789	65.036	72.635	81.670	95.241	120.0	31.7	222.2
NV				68.777	72.548	71.782			
NH	20.813	32.753		72.682	90.666	86.824			317.2
NJ	22.678	41.072	83.563	84.111	78.854	73.094	268.5	-14.3	222.3
NM	20.104	21.770	82.034	80.132	62.376	54.321	308.0	-51.0	170.2
NY	20.629	37.325	71.223	79.033	111.995	139.755	245.3	49.0	577.5
NC	22.828	27.867	48.547	58.382	66.291	61.745	112.7	21.4	170.5
ND			29.435	31.473	40.352	43.522		32.4	
OH	11.689	16.897	37.215	48.061	48.834	54.262	218.4	31.4	364.2
OK	19.964	30.220	50.804	51.975	70.156	75.704	154.5	32.9	279.2
OR	24.439	33.059	62.080	74.375	57.469	60.898	154.0	-1.9	149.2
PA	7.926	12.575	25.345	27.617	36.125	41.738	219.8	39.3	426.6
RI	18.346	39.585	65.548	53.252	68.797	67.496	257.3	2.9	267.9
SC			65.641	74.814	83.979	85.175		22.9	
SD	8.867	31.846	66.442	78.012	74.770	89.416	649.3	25.7	908.4
TN					40.780	52.081			
TX	22.807	40.247	66.304	74.905	75.053	72.730	190.7	8.8	218.9
UT	23.585	44.741	68.578	70.013	60.299	60.552	190.8	-13.3	156.7
VT	10.617		19.310	3.004	12.980	28.148	81.9	31.4	165.1
VA	14.084	25.944	54.592	65.037	58.079	47.113	287.6	-15.9	234.5
WA	15.748	24.694	44.262	53.967	57.307	64.485	181.1	31.4	309.5
WV	9.142	11.866	25.898	32.349	33.752	30.352	183.3	14.7	232.0
WI	19.251	31.808	66.519	73.626			245.5		
WY	14.756	22.759	51.407	57.844	100.541	93.579	248.4	45.1	534.2
AVG	16.249	28.865	49.609	53.843	56.859	56.708	201.2	14.6	264.4

Figure 1
Marijuana Possession Arrests in 8 of 14 US States With
No Criminal Charge for Small Amounts of Marijuana

