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Mexican Drug Trafficking Organizations and Marijuana: The Potential Effects of U.S. Legalization

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Clarification of Terms

DTO - Drug Trafficking Organization

We acknowledge that all of the groups discussed in this report are engaged in a wide variety of illicit activities, many of which do not involve drugs. However, nearly all of them receive a majority of their revenues from illicit drug production, drug trafficking, and other drug-related activities. Therefore, for the sake of expediency, we will refer to them as DTOs (instead of poly-crime syndicates, organized crime syndicates, etc.).

Cartel - A commonplace term used to refer to certain drug trafficking organizations.

We acknowledge that the groups discussed in this report are not cartels (i.e. a group of actors which collude to fix prices). However, terms such as “The Sinaloa cartel” are more widely recognized than other nomenclature (e.g. the Joaquín Guzmán-Loera Organization, the Sinaloa Federation, etc.).

This explanation pertains to our terminology used to refer to the following DTOs:

The Tijuana cartel

The Juarez cartel

The Gulf cartel

The Sinaloa Cartel

Sinsemilla - Seedless, high-potency marijuana.

Chapter 1: Objectives, Methodology, and Definitions

Objectives

Mexico's drug war has claimed more than 30,000 lives since 2006. The intensity and duration of this violence has produced an environment in which "few Mexican citizens feel safer today than they did ten years ago, and most believe that their government is losing the fight."¹ However, the problem of drug violence in Mexico is not domestic, but transnational in nature. President Barack Obama recently noted that "we are very mindful that the battle President Calderón is fighting inside of Mexico is not just his battle; it's also ours. We have to take responsibility just as he is taking responsibility."² It is U.S. demand for illicit drugs that provides the primary incentive for Mexican narcotics trafficking. Therefore, there is a possibility that a change in U.S. drug policy could negatively affect the revenues of Mexican DTOs, and even their ability to wage violence. This paper will examine the validity of that argument, as well as several of the issues that would accompany such a fundamental policy shift.

The purpose of this report is to evaluate current U.S. policy on marijuana, extract lessons learned from policy changes in other countries, analyze the effects that legalization of marijuana in the United States might have on Mexican DTOs, and provide recommendations for future U.S. policies. Current U.S. laws will serve as a starting point to determine if existing decriminalization or medicinal marijuana reforms have had any impact on Mexican DTOs. After examining what effects, if any, these policies have had, reforms in other countries will be examined. From the case studies of Portugal, the Netherlands, and Mexico, lessons will be drawn to give context to any possible ramifications or benefits of U.S. marijuana legalization. Finally, concrete recommendations will be made on whether recent marijuana policy reforms should be maintained, improved, or repealed.

Methodology

While determining the future of any market can be a difficult task, prediction in the black market is nearly impossible. Licit markets have been studied thoroughly under the light of reporting requirements and a wealth of publicly available data, and yet monetary policy is still the subject of much debate and conjecture. However, studies which examine events in illicit markets are less informed due to the very nature of their subject. Estimates of the size of the U.S. marijuana market, the amount of Mexican production, even the amount eradicated each year vary so widely that they often cannot be trusted. What is most troubling is that "the irrelevance of these numbers is itself a condemnation of drug policy decision making."³

This report seeks not to simply answer a question but to give context to that answer and inform the policy making process. It draws upon data analysis and the most academically respected studies available in order to glimpse the complexity of one small part of the drug policy debate. It complements this data through interviews with local and federal law enforcement, government officials, marijuana growers, academics, and policy analysts from a

¹ David A. Shirk, "The Drug War in Mexico, Confronting a Shared Threat," *Council Special Report No. 60* (New York, NY: Council on Foreign Relations Inc., March 2011), 3.

² Barack Obama "Remarks by President Obama and President Calderón of Mexico at Joint Press Conference" *Press Briefings* (Washington, D.C.: The White House, Office of the Press Secretary, March 3, 2011). <http://www.whitehouse.gov/the-press-office/2011/03/03/remarks-president-obama-and-president-calder-n-mexico-joint-press-confer> (Accessed April 2, 2011).

³ Peter Reuter, "The Mismeasurement of Illegal Drug Markets: The Implications of Its Irrelevance," (Santa Monica, CA: RAND Corporation, 1997), 2. <http://www.rand.org/pubs/reprints/RP613> (accessed February 22, 2011).

variety of fields on both sides of the border (see **Appendix A**). These interviews are semi-structured, non-coded, and the interviewees are a small group of 13 experts in somewhat disparate fields. They are not used as a statistical sample, but as a qualitative resource to provide additional data, enriched context, and informed viewpoints. In addition, this report postulates what lessons could be learned from examples in other countries and points in history. This is an academic analysis of the current terrain, which concludes by reporting what issues could be on the horizon. The end result is not a prediction of the future or a magic bullet to be used by law enforcement, but instead some insights into a range of possibilities.

Terms: Possibilities Defined

Any white paper that includes a policy review of drug legislation must include key term definitions that are clear, accurate, and coherent. Thus, there are various definitions of ‘legalization’ of marijuana use and commerce strewn across countless reports, papers and analyses of drug policy. It is critical to note that legalization and decriminalization are terms for very different proposals even though they are sometimes conflated. Decriminalization proposes the removal of the criminal penalty for possession of marijuana, but not for its trafficking and production. ‘Legalization’ authorizes the possession, production and trafficking of marijuana, and therefore enables the state to tax and regulate its sale and consumption.⁴

This study takes a holistic approach to examining how legalization of marijuana in the United States would affect Mexican DTOs. However, in the United States there has been no example of true marijuana legalization since the inception of the modern drug control regime. This is why our case studies will look at changes that occurred after various countries relaxed their system of marijuana prohibition. We will look at decriminalization in Mexico and Portugal, as well as a special case of toleration/de facto legalization in the Netherlands. However, we will first lay out in detail what each type of change entails.

Decriminalization is one of the most common methods employed by countries that seek to ease or lighten anti-marijuana policies. A common definition of decriminalization is “the removal of the criminal sanction for possession,” in effect making the penalty for the possession of marijuana a civil (fines, counseling etc), rather than criminal offense.⁵ One common example of this type of reform is the 2001 Law 30/2000 in Portugal. What is important here is that criminal penalties for possession are removed, but there is still some type of civil sanction in place that punishes both users and producers. This is what separates decriminalization from legalization.

Depenalization is another term, which is often conflated with decriminalization, but there are subtle differences. At a minimum a country must enact a “substantial reduction of penalties for possession of modest quantities,” however, “true depenalization would presumably mean the removal of all penalties for possession for personal use.”⁶ Depenalization covers a much broader range of possibilities than decriminalization. One example discussed in this report is the 1976 Opium Law in the Netherlands, where possession of marijuana was still a criminal offense, albeit a reduced one due to the drug’s reclassification. Depenalization does not permit production, and usually requires countries to develop specific legislation. However, as the Netherlands has

⁴ Jeffrey A Miron, “The Budgetary Implications of Drug Prohibition,” (Cambridge, MA: Harvard University 2005), http://www.cannabis-commerce.com/library/Miron_Report_2005.pdf (assessed March 22, 2011).

⁵ Robin Room, Benedikt Fischer, Wayne Hall, Simon Lenton, Peter Reuter, *Cannabis Policy: Moving Beyond Stalemate*, (Oxford: Oxford University Press, USA, 2010), 78-79.

⁶ Robert J. MacCoun and Peter Reuter, *Drug War Heresies: Learning from Other Vices, Times, and Places*, (New York: Cambridge University Press, 2001), 74, 306.

shown, there is a new type of policy development which can turn any law into de facto legalization.

The policy of toleration is among the most interesting developments, but it is not a reform of drug laws. It is a mechanism whereby the law as written and as practiced differs widely. Toleration is a system where there are laws on the books preventing the sale, manufacture, and distribution of marijuana but the government decides not to enforce them. One example is the Public Prosecution Service's policy of non-enforcement in the Netherlands. Another would be the U.S. Attorney General's decision not to enforce federal laws against marijuana dispensaries in several U.S. states. Toleration allows states to remain in compliance with international agreements by keeping certain laws on the books, while at the same time producing de facto reform on the ground.

The term prohibition is probably the easiest to define, as there is a great deal of general agreement on its use. The policy of prohibition involves making every aspect of the marijuana trade illegal. This means that under systems of prohibition there are laws, or policies, in effect that make the possession, consumption, production, and trafficking of marijuana illegal and thus punishable by criminal penalties. These penalties vary dramatically by country and the nature of the offense. The approach of prohibition allows for the least flexibility in terms of law enforcement and public policy and means that police treat both users of drugs and drug traffickers as criminals. Such policies tend to lead to higher levels of imprisonment for drug users, which in turn often leads to high monetary and social costs for governments that pursue this policy with respect to marijuana.

Chapter 2: Current Issues for Consideration: the Laws, the Numbers, and the Organizations

The International Drug Control Regime

There are several international obligations that would prevent the United States from federally legalizing marijuana, and have led to the current incoherence in state and federal statutes that will be discussed later in this report. This is why, if legalization were to be implemented, it would certainly be accomplished only on a state, and not on the federal level. There are three main treaties on international drug policy: the 1971 Convention on Psychotropic Substances, the 1988 Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances, and the United Nation's 1961 Convention on Narcotic Drugs. The best-known of these treaties is the U.N's 1961 Convention on Narcotic Drugs. This treaty is used by the American government to pressure for eradication in countries that produce marijuana and other drugs.

The 1971 Convention on Psychotropic Substances created specific 'schedules' or levels of international restrictions associated with certain types of drugs. Under this convention, marijuana is a Schedule I drug, meaning that marijuana policies are to be subject to the "most restrictive" international controls.⁷ Were the United States to pursue marijuana legalization on the federal level, it could well be in violation of its own International Drug Control Certification Procedures.

The 1988 Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances presents a further stumbling block to any potential efforts to federally legalize marijuana. This is because it specifically targets, in its Article 3, consumers of marijuana and other "Psychotropic Substances" and mandates all parties of the treaty to adopt domestic legislation that, "establishes as criminal offenses... [the] production, manufacture...distribution sale" and "possession or purchase of any narcotic drug or Psychotropic Substance."⁸ Thus, marijuana legalization on the national level would force the United States to reevaluate and renegotiate its entire international drug policy framework, and would have far reaching implications on U.S. diplomacy beyond the realm of drug policy. This potential fallout is among the more prominent reasons why the White House and Congress have largely been so unwilling to even consider federal legalization of marijuana.

U.S. Marijuana Laws

U.S. Marijuana control policy began in 1937 with the Marijuana Tax Act, and became progressively more restrictive over time. This movement toward tighter control culminated in 1970 when it was finally assigned Schedule I status.⁹ Legally, this puts marijuana in the same category as heroin, LSD, and ecstasy.¹⁰ Schedule I drugs "are classified as having a high potential for abuse, no currently accepted medical use in treatment in the United States, and a

⁷ International Narcotics Control Board, *List of Psychotropic Substances Under International Control*, (Vienna, Austria: Vienna International Centre, 2008), 3. http://www.incb.org/pdf/forms/yellow_list/48thedYL_Dec_08E.pdf (accessed on March 22, 2011).

⁸ The United Nations, *The 1988 United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances*, (The United Nations, 1988), http://www.unodc.org/pdf/convention_1988_en.pdf (accessed April 2, 2011).

⁹ Shereen Khatapoush and Denise Hallfors. "Sending the Wrong Message: Did Medical Marijuana Legalization in California Change Perceptions About and Use of Marijuana?" *The Journal of Drug Issues*, (2004): 752.

¹⁰ U.S. Drug Enforcement Administration, "Drug Scheduling," <http://www.justice.gov/dea/pubs/scheduling.html>, (accessed April 2, 2011).

lack of accepted safety for use of the drug or other substance under medical supervision.”¹¹ Considered a misdemeanor under federal law, a first-time possession of marijuana conviction can carry a one-year prison sentence and up to a \$100,000 fine. Growing marijuana is considered felony manufacture of a controlled substance. This offense can carry a five to ten year prison sentence and up to a \$250,000 fine, even for a single plant.¹²

There is no distinction in the Controlled Substances Act between medical and recreational marijuana.¹³ However, despite the Controlled Substances Act’s prohibition of production, sale, and possession of marijuana, and its refutation of any medicinal properties, fifteen states and the District of Columbia have approved legislation allowing marijuana’s use for medical purposes.¹⁴ Each state with a medicinal marijuana legal regime differs in what amounts and forms of marijuana are permissible, and whether home cultivation is allowed. For example, in some states, possession of a “60 day supply” of medical marijuana is permitted. In Washington State that amount is set at 24 oz. In New Jersey, however, a “60 day supply” is considered to be only 4 oz.¹⁵

The simultaneous existence of a federal prohibition of marijuana and a patchwork of medical marijuana policies in several states demonstrates a conflict between federal and state powers. Although the U.S. Constitution gives federal law the power to supersede state law, the Controlled Substances Act (CSA) is not meant to take precedence over state law “unless there is a positive conflict between [the CSA and state law] so that the two cannot consistently stand together.”¹⁶ The U.S. Drug Enforcement Agency (DEA) maintains that marijuana is not medicine, but a dangerous drug, and federal agents still reserve the right to enforce federal law against medical marijuana growers, patients, and caregivers.¹⁷ However, in 2009 U.S. Attorney General Eric Holder made a statement announcing that federal resources will not be used to target people in compliance with their state’s medical marijuana laws.¹⁸ For the time being it appears that while the federal government disapproves of medical marijuana use, it will permit states to implement policies as they see fit. How far the states will be able to stray from federal prohibition remains to be seen.

California Marijuana Legislation

California has been at the forefront of marijuana law liberalization. It was the first state to legalize marijuana for medicinal use in 1996 with Proposition 215, and it nearly legalized marijuana for recreational use in 2010 with the failed Proposition 19. The passage of Proposition 215 in California, or the Compassionate Use Act, allowed for personal cultivation and consumption of marijuana by patients with the verbal recommendation of a doctor.¹⁹ In 2003 the California State Assembly passed the Medical Marijuana Program Act to supplement Proposition 215 and establish a registration and identification card system for medical marijuana caregivers and patients.²⁰

¹¹U.S. Drug Enforcement Administration, “Marijuana,” <http://www.justice.gov/dea/concern/marijuana.html>, (accessed April 2, 2011).

¹² Congressional Research Service, “Medical Marijuana: Review and Analysis of Federal and State Policies,” by Mark Eddy, (April 2, 2010): 3.

¹³ See also U.S. Drug Enforcement Administration, “Federal Trafficking Penalties,” <http://www.justice.gov/dea/agency/penalties.htm>.

¹⁴ Alaska, Arizona, California, Colorado, DC, Hawaii, Maine, Michigan, Montana, Nevada, New Jersey, New Mexico, Oregon, Rhode Island, Vermont, and Washington all allow medicinal use of marijuana. Procon.org, “15 Legal Medical Marijuana States and DC,” http://medicalmarijuana.procon.org/view_resource.php?resourceID=000881#details, (accessed April 3, 2010).

¹⁵ Diane E. Hoffmann and Ellen Weber, “Medical Marijuana and the Law,” *The New England Journal of Medicine*, (April 22, 2010): 1454.

¹⁶ Rebecca Dresser, “Irrational Basis: The Legal Status of Medical Marijuana,” *Hastings Center Report* (November-December 2009): 7.

¹⁷ U.S. Drug Enforcement Administration, “DEA Position on Marijuana,” (July 2010), www.justice.gov/dea/marijuana_position_july10.pdf, (accessed April 2, 2011).

¹⁸ Drug Enforcement Administration, “DEA Position on Marijuana,” 3.

¹⁹ Khatapoush and Hallfors. 752.

²⁰ Dresser, 7.

The legalization of medical marijuana in California undoubtedly contributed to its status as the foremost marijuana producing state.²¹ So widespread is the use of marijuana in California, that in November 2010 California came close to passing legislation that would legalize marijuana for recreational use. If passed, Proposition 19, or the Control, Regulate, and Tax Cannabis Act 2010, would have legalized "...the possession and cultivation of marijuana for personal use by individuals age 21 and over, and would allow local jurisdictions to further legalize the production, distribution and sale of marijuana for commercial purposes."²² The measure failed with 54 percent of voters opposed and 46 percent of voters in favor of its passage.²³ Encouraged by the relatively narrow margin of defeat, supporters of Proposition 19 have already begun preparations to place the legalization of recreational marijuana use on the California ballot in 2012.²⁴

In 2010, Governor Schwarzenegger signed SB 1449, which amended Section 11357 of California's Health and Safety Code and Section 23222 of the Vehicle Code relating to controlled substances.²⁵ This amendment changed marijuana possession from a misdemeanor to an infraction. The reclassification of marijuana possession from a criminal offense to a civil offense has established full decriminalization in California.²⁶ California's recent efforts in marijuana law liberalization highlight how in many ways it has become an experiment in the impacts of marijuana policy liberalization for the rest of the country.

Arguments in Favor of Prohibition

Considering California's recent initiatives in marijuana legalization, it is a real possibility that marijuana could be legalized for recreational use in California in the near term. This has sparked an intense national debate over the merits of maintaining or repealing prohibition of marijuana. Arguments for maintaining prohibition of marijuana in the United States largely revolve around the public health impacts of the higher usage rates that would inevitably accompany legalization for recreational use. The medical costs and benefits of marijuana use are highly controversial, which is likely because little research has been completed on the subject. The U.S. government does not recognize the purported medicinal properties of marijuana. Some experts, such as Dr. José Luis Vázquez of the Mexico's Comisionado Nacional contra las Adicciones, argue that other legal medicines are just as effective but do not have the same controversial side effects.²⁷ In addition to the drawbacks in medical use, some argue against recreational legalization because of the damaging physical and mental impacts of prolonged marijuana use.

Marijuana is thought to negatively impact cognitive abilities over time, and some studies have linked it to mental illnesses such as depression. In addition, it is thought to increase the likelihood of schizophrenic episodes in persons already predisposed to such maladies.²⁸ Marijuana is most commonly smoked, and the inhalation of marijuana smoke may have many of

²¹ See "Production and Revenues, California."

²² Mark Lovelace, "Position Paper on Proposition 19 and the Legalization and Regulation of Marijuana," Humboldt County Board of Supervisors (2010).

²³ Lisa Leff and Marcus Wohlsen, "Prop 19 Supporters Vow to Push Marijuana Legislation in 2012," Associated Press (November 3 2010), http://www.huffingtonpost.com/2010/11/03/prop-19-results-marijuana_n_778050.html, (accessed April 3, 2011).

²⁴ John Hoefel, "Marijuana Legalization Advocates Organize to Put New Measure on California Ballot," Los Angeles Times, (March 18, 2011), <http://latimesblogs.latimes.com/lanow/2011/03/new-medical-marijuana-initiative-in-california.html>, (accessed April 3, 2011).

²⁵ California State Assembly, *SB 1449*, (Sacramento, CA: 2010). http://info.sen.ca.gov/pub/09-10/bill/sen/sb_1401-1450/sb_1449_bill_20100405_amended_sen_v98.html

²⁶ Rosalie Liccardo Pacula, e-mail message to the authors. March 9, 2011.

²⁷ José Luis Vázquez, interview by authors, Mexico City, D.F., Mexico, March 17, 2011.

²⁸ Drug Enforcement Agency, "DEA Position on Marijuana," 18-21.

the same health risks as cigarette smoke, including gum disease and cancer.²⁹ Opponents of legalization fear that it would lead to increased use, and an increased incidence of marijuana-related health problems. Marijuana also impairs important functions, and some fear that it would lead to an increase in traffic accidents and other risks to the public.

Arguments Against Prohibition

Arguments against prohibition largely center on personal freedoms, and mitigations of harms associated with the black market. Proponents of medical marijuana argue that seriously ill patients should be permitted to use marijuana to relieve symptoms of their illnesses. Marijuana is known to provide pain relief, anxiety reduction, and increased appetite in chemotherapy patients.³⁰ The marijuana policy debate, however, now extends beyond solely medicinal use. In light of recent efforts to legalize marijuana for recreational purposes, the merits of repealing the prohibition of marijuana have been discussed with increasing frequency.

A popular and salient argument posits that the repeal of prohibition would allow for greater government regulation of marijuana, reducing some of the harms associated with marijuana use. Currently there is no government regulation of the production of marijuana, so there are no controls on the contents and potency of marijuana. Advocates believe that this could assuage the concerns of public health experts. Government regulation of marijuana could in theory standardize potency levels and reduce the risk of harmful additives. This could ease some of the public health concerns associated with legalization.

Despite the federal prohibition of marijuana, there is an enormous economy associated with the illegal use of marijuana. The illicit status of marijuana has allowed criminal groups in both the United States and Mexico to profit from the marijuana trade, harming communities in both countries. Fighting between criminal groups over the control of the illegal drug trade has been persistent in U.S. cities and has created critical levels of violence in Mexico. Some argue that legalizing marijuana would greatly reduce, if not entirely eliminate the black market for marijuana in areas where it can be purchased legally. This could have far-reaching effects on groups that traffic marijuana. This study will investigate the claim that legalizing marijuana would take away profits from criminal groups and therefore diminish their capacity to wage violence, while shedding light on other developments that could be associated with such a policy change.

Mendocino County: Legalization in Action?

As mentioned in the “**Terms**” section of this report, legalization is largely defined by the government’s acceptance, regulation, and taxation of production. Though there is no true example of legalization, northern California provides an interesting case study due to the local government’s abilities to capture profits from the medicinal marijuana industry. The tri-county area of Mendocino, Humboldt, and Trinity counties have come to be known as the “Emerald Triangle” because of the large quantity of marijuana grown in the area. A substantial portion of this marijuana is grown for medicinal use, though law enforcement has acknowledged that most is grown for the illicit market.³¹

In 2000 Mendocino County passed Measure G, which states the county’s support for marijuana decriminalization and directs law enforcement not to arrest anyone growing less than

²⁹ Ibid, 21-25.

³⁰ Eddy, 27.

³¹ Sheriff Tom Allman, interview by authors, Ukiah, CA, March 7, 2011.

25 plants for personal use.³² County law enforcement respects the 25 plant allowance, but continues to pursue illicit growers. To recoup costs for the regulation of medicinal marijuana cultivation and enforcement against illicit growers, the Sheriff of Mendocino County has started a voluntary registration program. Growers pay a fee for registration zip-ties to put on their plants, and in return law enforcement acknowledges the legality of their medical crops. This program generated \$30,000 in its first year of implementation. In its third year, 2011, it will generate an estimated \$600,000 for local law enforcement. Sheriff Tom Allman contends that this "... \$600,000 that will allow me to keep 6 deputy Sheriffs on the books."³³

Considering that one small-scale experiment in generating revenues from marijuana was so successful, supporters of legalization argue that taxation of the marijuana industry would create inflows for the government and help to ease budget troubles. One report estimates that legalizing marijuana would save the U.S. government \$13.7 billion dollars a year on the law enforcement costs of maintaining prohibition, while at the same time generating a potential \$6.4 billion in tax revenue.³⁴ Of course, in order to determine the security implications and other externalities of these changes, one must examine how they have already affected the illicit market and the organizations that control it.

Mexican Production

As previously stated, the purpose of this report is to determine the effects that legalization of marijuana production in U.S. states might have on Mexican DTOs. Therefore, it is obvious that revenues would present a primary starting point for discussion. There has been an increasing focus on the subject in recent years, but all analyses draw upon data that is sparse due to the nature of the black market. One way to measure the value of marijuana revenues would be to determine the amount of Mexican marijuana production that reaches the U.S. market. However, this 'supply side' option is limited by "nearly 25 years of improbable and inconsistent reporting by various government agencies and international organizations."³⁵

It is not surprising that methodologies for measuring production have changed over the long term, or even that different agencies have arrived at different figures. Nevertheless, figures from the same source change dramatically in the short term, making them unreliable for determining gross estimates. For example, CICAD's Multilateral Evaluation Mechanism (MEM), draws upon data submitted by participating governments in the form of a questionnaire. In the 2003-2004 questionnaire the government of Mexico reported the 2004 cultivated area of marijuana as 30,841.3 hectares. In the 2005-2006 questionnaire it revised this figure to 45,488 hectares. In that same report it put the cultivated area for 2006 at 36,386 hectares, but revised it in the next round to 31,747 hectares (see **Figure 1**). Since there was

Figure 1

Year	Cultivated Area (Ha)	Potential Production
2009	18,791	
2008	20,064	
2007	25,160	
2006*	31,747 36,386	1,200 kg/ha
2005	43,326	1,200 kg/ha
2004*	45,488 30,841.3	1,200 kg/ha 800 kg/ha

*Revisions in bold, most recent figures on top
 Organization of the American States, Inter-American Drug Abuse Control Commission, *Evaluation of Progress in Drug Control 2003-2004: Mexico* (June 2005), 9.
Evaluation of Progress in Drug Control 2005-2006: Mexico (2007), 15.

³² California NORML, "Mendocino County Activists Fight Anti-Pot Measure B on June 3rd Ballot," <http://www.canorml.org/news/MendoNoOnMeasureB.html> (accessed April 11, 2011).

³³ Ibid.

³⁴ Miron, "Budgetary Implications of Drug Prohibition."

³⁵ Beau Kilmer et al., *Reducing Drug Trafficking Revenues and Violence in Mexico: Would Legalizing Marijuana in California Help?* (Santa Monica, CA: RAND Corporation, 2010), 6. http://www.rand.org/pubs/occasional_papers/OP325.html

no reported change in methodology, and one revision increased the estimate for a given year while the other decreased it, the figures are inconsistent and unreliable.

Another example of this has occurred in the Government of Mexico's estimates for the amount of marijuana produced on each hectare. In one MEM questionnaire it reported 800 kg/ha for the years 2002-2004, and in another it reported 1,200 kg/ha for the years 2004-2006 (see **Figure 1**). Variations in reported cultivation area and production potential have consequences. To determine the potential marijuana production of Mexican DTOs, one must multiply these two estimates. If you utilize the revised cultivation area and production potential for 2004, you arrive at a potential production of 54,586 MT. If you use the original figures it is 24,673.04 MT. For analysts attempting to accurately determine the importance of marijuana for Mexican DTOs, the validity of these figures is certainly questionable.

Even if one were able to obtain accurate data on potential production, eradication and seizures would still have to be subtracted to arrive at the amount of marijuana that DTOs actually receive payment for. Even though governments do the eradication themselves, the figures can still be unreliable. For example, the Mexican government reports 2007 eradication as 22,348 hectares or 23,315.72 hectares depending on the publication. For 2008 this ranges from 15,756 hectares to 18,660.2 hectares.^{36 37} In terms of seizures, both U.S. and Mexican figures are more consistent. However, we still cannot use them to arrive at an accurate estimation of the flow northward, because it is unclear what percentage of production they represent. The RAND Corporation did a calculation using 'supply side' estimates and arrived at a figure of 16,730 MT. If this figure is reconciled with population surveys figures for the number of users it would require "one joint every two hours for every waking hour of the year for every past month user."³⁸ This does not even include marijuana from sources than other Mexican DTOs (i.e. domestic and Canadian), and the authors concluded it was unrealistic.

U.S. Consumption

Many analysts prefer to calculate revenues by looking at population surveys to determine the size of the U.S. market. Instead of relying on Mexican production estimates, U.S. consumption could be used as a starting point to arrive at an estimated value for Mexican DTO marijuana revenues. In 2009, 28.5 million people reportedly used marijuana in the U.S.³⁹ However, since marijuana is illegal and to some extent stigmatized, underreporting becomes an issue of concern. Most studies on the subject have found an underreporting rate of 20% (plus or minus 2%), but some outliers have gone as high as 40%.⁴⁰ There is also the issue of determining how much each user consumes. Despite marijuana being the most commonly used illicit drug worldwide, "there has been little academic study of the ways the drug is ... smoked."⁴¹ Finally, the share of U.S. consumption that is Mexican in origin is difficult to accurately determine. In summary, even the most academically sound method of determining the size of Mexican DTO production still relies on several assumptions and estimates.

³⁶ United States Department of State, Bureau for International Narcotics and Law Enforcement Affairs, *International Narcotics Control Strategy Report, Volume I: Drug and Chemical Control* (March 2008), 182. <http://www.state.gov/documents/organization/102583.pdf> (accessed February 1, 2011)

³⁷ Organización de los Estados Americanos, Comisión Interamericana para el Control del Abuso de Drogas, *Evaluación del Progreso de Control de Drogas 2007-2009: México* (Washington, D.C.: 2011), 16.

³⁸ Kilmer, et al., *Reducing Drug Trafficking Revenues and Violence in Mexico*, 8.

³⁹ United Nations, International Narcotics Control Board, *Report of the International Narcotics Control Board for 2010* (New York, NY: United Nations Publications, 2011), 70. http://www.incb.org/pdf/annual-report/2010/en/AR_2010_English.pdf (accessed February 8, 2011)

⁴⁰ Kilmer, et al. *Reducing Drug Trafficking Revenues and Violence in Mexico* ... 8.

⁴¹ Leggett, T., "A Review of the World Cannabis Situation" *Bulletin on Narcotics* Volume LVIII Nos. 1 and 2, United Nations Office on Drugs and Crime (New York, NY: United Nations Publications, 2006), 2. http://www.unodc.org/documents/data-and-analysis/bulletin/2006/Bulletin_on_Narcotics_2006_En.pdf (accessed 20 February 2011).

Assuming that the share of the U.S. market belonging to Mexican DTOs is between 40% and 67%, that the underreporting rate for household surveys is around 20%, and that the sparse statistics we have on usage are accurate, the RAND Corporation estimates that Mexican DTOs sold 3,300 MT to the United States in 2008. That was approximately \$1.1-\$2 billion in export revenues, or 15-26% of all drug revenues for Mexican DTOs that year.⁴² This was the most academically sound attempt to quantify DTO revenues, but it was an average for all cartels, and only for wholesale revenues. It did not address the concentration of marijuana production in specific DTOs, the concentration of wholesale revenues in specific states, and the importance of retail revenues. All of these issues will be discussed later in this report.

Eradication and Seizures

In order to determine whether or not Mexican DTOs will lose revenues due to changes in U.S. laws, we need to look at trends that have occurred in recent years. As was mentioned earlier in this report, marijuana laws have been modified in several key U.S. states, with the pace of reform picking up over the last decade. Although the amount of marijuana eradicated and seized is not useful in determining how much Mexican DTOs produce in gross terms, overall patterns in these numbers can tell us whether they are losing U.S. market share as legal frameworks change. By all accounts, the number of hectares of marijuana eradicated by the Government of Mexico has decreased since 2006 (between 52% and 62%).⁴³ Seizures by the Government of Mexico have increased in this same period, but only by roughly 11%.⁴⁴ However, U.S. border seizures of marijuana have increased 30% between 2006 and 2009.⁴⁵ If eradication and seizures represent a somewhat consistent percentage of Mexican marijuana exports, this would mean that overall production has most likely been declining.

In the United States, meanwhile, the number of past month marijuana users increased by 49% during the same period.⁴⁶ Rising domestic production presents a possible solution to this discrepancy, and since U.S. laws regarding marijuana consumption, possession, and even production have changed in several states it is reasonable to think they may be linked. One state in particular has led the trend toward the liberalization of marijuana laws. Interestingly, this state, California, is also the state which leads the country in licit and illicit marijuana production, and would be likely to replace Mexican production through export to other states if there were additional changes in state marijuana laws.

California

There are 7 states, known as the “M-7”, that are estimated to produce the vast majority of domestically grown U.S. marijuana. They are California, Oregon, Washington, Hawaii,

⁴² Kilmer, et al., *Reducing Drug Trafficking Revenues and Violence in Mexico*, 3 and 17.

⁴³ United States Department of State, *International Narcotics Control Strategy Report Volume I*, 182.

Organización de los Estados Americanos, *Evaluación del Progreso de Control de Drogas 2007-2009*, 16.

United Nations, Office on Drugs and Crime, *World Drug Report 2007* (New York, NY: United Nations Publications, 2007), 99.

<http://www.unodc.org/unodc/en/data-and-analysis/WDR-2007.html> (accessed February 5, 2011).

⁴⁴ United Nations, Office on Drugs and Crime, “Drug Seizures, Kg Equivalents, Cannabis Herb” *Online Database: Seizure Reports*,

<https://ras.unodc.org/ReportServerPublic/?/Seizures/SeizuresDataKgSim> (accessed 10 March 2010).

United Nations, *Report of the International Narcotics Control Board for 2010*, 67.

⁴⁵ United States Department of Justice, National Drug Intelligence Center, *National Drug Threat Assessment 2010* (Johnstown, PA: 2010), 37.

www.justice.gov/ndic/pubs38/38661/ (accessed February 7, 2011).

⁴⁶ United States Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Office of Applied Studies, “Past Month Users” *2007 National Survey on Drug Use and Health: Detailed Tables*, 30 December 2008,

<http://www.oas.samhsa.gov/NSDUH/2k7NSDUH/tabs/Sect1peTabs1to46.htm#Tab1.1> (accessed 10 March 2010)

United States Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Office of Applied Studies, *Results from the 2009 National Survey on Drug Use and Health NSDUH Series H-38A*, Publication No. SMA 10-4586 Findings (Rockville, MD: HHS Publication, 2010), 1. <http://www.oas.samhsa.gov/NSDUH/2k9NSDUH/2k9ResultsP.pdf> (accessed March 10, 2011).

Tennessee, Kentucky, and West Virginia. 89% of the plants eradicated in 2008 were located in these states. California alone was responsible for 66% of the 8 million plants eradicated nationally.⁴⁷ That is a significant increase from 1983, the year that California passed SB 11357B, when it only eradicated about 100,000 plants.⁴⁸ As was mentioned previously, there are three counties in California which are associated with marijuana production. These are Mendocino, Trinity, and Humboldt Counties.

Mendocino County eradicated an all time record of 641,000 plants in 2010. However, Mendocino has one of the most liberal medical marijuana laws in the state, and Sheriff Tom Allman estimates that seizures only account for roughly 10-15% of the total number of plants. If this figure is accurate, then there could potentially be 6 million plants which were not eradicated last year in Mendocino County.⁴⁹ Of course, there is no way to confirm that Mendocino County's eradication figures actually represent only 10-15% of total production. That is a hypothetical estimation, and should be viewed as such. However, the number of eradicated plants is factual, and can tell us something very important.

When guerilla marijuana producers are growing outdoors and attempting to avoid detection they often place their plants in dense clusters to avoid detection. In this setting, marijuana plants typically yield between 215 and 274 grams each. If the plants eradicated in Mendocino County last year were allowed to reach fruition, they would have produced a harvest of between 137.8 and 175.6 metric tons.⁵⁰ The midpoint of this (156.7 MT) represents slightly less than 5% of Mexican DTO production for 2008 in terms of tonnage. However, since California sinsemilla is worth more than Mexican marijuana, it would have fetched up to 57.6% of RAND's total estimate for Mexican DTO marijuana export revenues in 2008.⁵¹

It is important to note here that although this production is taking place outside of Mexico, there is the possibility that Mexican DTOs are still receiving some revenues from it. There has been a rising link between Mexican DTOs and guerilla marijuana operations on public lands in California. When asked whether organized crime groups growing marijuana in Mendocino National Forest are based in Mexico, Sheriff Tom Allman said "Absolutely... these are serious players in the drug game."⁵² In California as a whole, only 40% of seizures in 2001 occurred on public lands. By 2006 this figure rose to 80%.⁵³ The good news is that this "increased law enforcement pressure" on U.S. public lands may be leading these Mexican DTOs growers to channel their efforts back into producing in and smuggling from Mexico, according to the National Drug Intelligence Center.⁵⁴

It can be difficult to tell what illicit U.S. marijuana growth is domestic and what is controlled by Mexican DTOs. Since these DTO do not reside in northern California, and they most likely return their revenues to Mexico, one set of indicators that could indicate revenues for

⁴⁷ United States Department of Justice, National Drug Intelligence Center, *Domestic Cannabis Cultivation Assessment* (Johnstown, PA: 2009), 6. <http://www.justice.gov/ndic/pubs37/37035/37035p.pdf> (accessed February 25, 2011).

⁴⁸ State of California Department of Justice, Office of the Attorney General, "Campaign Against Marijuana Planting" <http://ag.ca.gov/bne/camp.php> (accessed March 12, 2011).

⁴⁹ Sheriff Tom Allman, interview by authors, Ukiah, CA, March 7, 2011.

⁵⁰ Leggett, "A Review of the World Cannabis Situation" *Bulletin on Narcotics*, 25.

⁵¹ Nathaniel Morris, interview by authors, Eureka, CA, March 6, 2011.

According to Nathaniel Morris of Humboldt Green Research the top price paid to farmers for outdoor-grown marijuana in Northern California \$2,500 per pound. For 156.7 MT that would be \$863,660,912.50.

Kilmer, et al., *Reducing Drug Trafficking Revenues and Violence in Mexico*, 3. "Mexican DTOs' gross revenues from moving marijuana across the border into the United States and selling it to wholesalers is likely less than \$2 billion, and our preferred estimate is closer to \$1.5 billion."

⁵² Sheriff Tom Allman, interview by authors, Ukiah, CA, March 7, 2011.

⁵³ State of California Department of Justice, Office of the Attorney General, "Campaign Against Marijuana Planting".

⁵⁴ United States Department of Justice, National Drug Intelligence Center *National Drug Threat Assessment 2010*, 36.

domestic U.S. producers may be unexplained income in the local economy. A study commissioned by the Mendocino County government to analyze the area's economic profile, trends, and prospects found irregularities that could only be explained by the informal economy. In addition to an undue labor shortage in the formal sector, the study found a "difference between current sales and estimated expenditure potential" which may be explained by marijuana sales providing "some households with additional unreported income."⁵⁵ This presents a very probable explanation for the \$20 million in excess retail sales for the county. It is hard to estimate the exact amount of marijuana revenues because not all revenues are spent, and not all expenditures take place in the county. However, any illicit revenues for domestic producers can be considered a loss for Mexican DTOs.

These figures represent the events taking place in one of California's 58 counties. In addition, it is a sparsely populated county that is focused solely on production. California alone consumes 16,000,000 ounces of marijuana a year.⁵⁶ As of 2008 there were an estimated 400 marijuana dispensaries across the state. These retailers generate, according to legalization advocates, an estimated \$100 million in sales tax revenue yearly.⁵⁷ All of the legal revenues from production and sales under California's medical marijuana statutes can also be counted as a loss of market share for Mexican DTOs. Therefore, if legalized marijuana pulls consumers from the illicit market then Mexican DTOs could stand to lose revenues. If RAND's estimate is correct, that means \$1.1 to \$2 billion in revenues.

This brings up several questions for policy makers. Before making a policy change we need to know if legal marijuana in California and other states will compete with Mexican marijuana on a national level. We would like to have an understanding of how Mexican DTOs might react to this loss. In addition, one wonders how this might affect retail operations linked to DTOs, and illegal grow operations in U.S. National Forests. The answers to these questions would be complex under any circumstances, but their difficulty is further compounded by the scarcity of data. The following sections will fill in the gaps presented by existing data and contribute to a more informed decision making process. After all, "if policy making with respect to drugs were rational, or at least as analytically driven as say monetary policy, then... exaggeration would be a serious problem."⁵⁸

Mexican DTOs and Marijuana

In order to determine what effect legalization of marijuana in key U.S. states might have, one must look at who is currently controlling the illicit trade. There are seven principal DTOs that operate in Mexico. They are the Tijuana cartel (also known as the Arellano Felix Organization), the Juarez cartel, the Sinaloa cartel, the Gulf cartel, Los Zetas, the Beltran-Leyva Organization, and La Familia Michoacana. Each DTO is different in terms of their financial and armed strength, the types of products they focus on, and the nature of the threat they pose to the local, state, and federal governments in Mexico. In addition, each of these organizations operates in both its established territory and territory that is disputed between groups (see **Figure 2**).

⁵⁵ Economic and Planning Systems Inc., *Final Report: Ukiah Valley Area Plan Economic Background* (Economic and Planning Systems Inc., Berkeley, CA: 2007), 37. <http://www.co.mendocino.ca.us/econdev/pdf/UVAP%20EconReport.pdf> (accessed March 14, 2011).

⁵⁶ California State Assembly, Committee on Public Safety on Examining the Fiscal and Legal Implications of Legalization and Regulation of Marijuana, Testimony by Robert Ingenito, (Sacramento, CA: California Board of Equalization, October 28, 2009) http://www.boe.ca.gov/legdiv/pdf/fiscal_impact_legalization_marijuana.pdf (accessed March 2, 2011).

⁵⁷ Richard Gonzales "Legitimacy of Pot Tax Revenue Remains Hazy" *National Public Radio* (April 3, 200), <http://www.npr.org/templates/story/story.php?storyId=89349791> (accessed February 26, 2011).

⁵⁸ Reuter "The Mismeasurement of Illegal Drug Markets: The Implications of Its Irrelevance," 64.

Figure 2



Source: Strategic Forecast Inc. "Areas of Cartel Influence in Mexico" *Mexico: Revelations From 72 Migrants' Deaths* (Aug 27, 2010) http://web.stratfor.com/images/northamerica/map/5-17-10_Mexican-drug-cartels-map_manufacturing_v5.jpg

While Los Zetas and La Familia have recently dominated the media coverage of the drug war in Mexico, they might not be objectively termed the strongest cartels in the country. They are the most active in attacking government forces and setting up *narco bloqueos* in major cities.⁵⁹ However, they do not have the financial strength, military prowess, territorial reach, or tactical discipline of Mexico's largest DTO, the Sinaloa cartel.⁶⁰ This DTO and the Tijuana cartel are major traffickers of marijuana, and their territories are the major marijuana production areas in Mexico. They have near exclusive control of the so called "Golden Triangle" region of Mexico where the mountainous areas of Sinaloa, Durango and Chihuahua states meet.⁶¹ This makes sense, because according to sources in the Drug Enforcement Agency these two DTOs likely make a majority their revenue from marijuana⁶².

The amount of marijuana trafficked by the Sinaloa cartel is evident by the scale of recent drug busts. In October of 2010 Mexican police and military forces seized more than 134 metric tons of marijuana in one Sinaloa facility. This was equal to almost \$200 million according to Mexican authorities.⁶³ The very next month 30 tons of marijuana was retrieved by law

⁵⁹ "En NL, 8 muertos y 11 narcobloqueos tras operativo militar," *La Jornada* (January 25, 2011).

<http://www.jornada.unam.mx/2011/01/25/index.php?section=politica&article=017n1pol>, (accessed on March 22, 2011).

⁶⁰ Nick Casey, interview by authors, Mexico City, D.F., Mexico, March 12th 2011.

⁶¹ Gerardo Badiraguato, "Sinaloa: Birthplace of Narcos, Sinking in Poverty," *The Borderland Beat* (February 23, 2011), <http://www.borderlandbeat.com/2011/02/badiraguato-sinaloa-birthplace-of.html>, (accessed on March 22, 2011).

⁶² Amy L. Roderick, e-mail message to the authors, February 23, 2011

⁶³ Richard Marosi, "Mexican army destroys 134 tons of marijuana," *Los Angeles Times*, <http://articles.latimes.com/2010/oct/21/local/la-me-1021-pot-burn-20101021> (October 21, 2010), (accessed on March 22, 2011).

enforcement on both sides of the border after a Tijuana drug smuggling tunnel was discovered.⁶⁴ The DTO behind this operation has not been determined, but based on the location it is likely to be either the Sinaloa cartel or Arellano Felix Organization. These seizures represent only a proportion of the amount marijuana trafficked into the United States from Mexico through the San Diego-Tijuana corridor in 2 months. There are other drug transport corridors that likely receive more marijuana traffic.

Although the Sinaloa cartel does not often target civilians, it is the most violent DTO in terms of overall casualties.⁶⁵ It has targeted hundreds of police officers and its leader, “El Chapo” Guzmán, is widely thought to have caused a recent upsurge in violence after breaking a truce with the other major criminal groups in the country.⁶⁶ The feud between the Sinaloa and Juarez organizations is the reason that Juarez is the most violent city in Mexico, and according to some accounts, the entire world.⁶⁷ The Sinaloa cartel’s huge financial resources make it a major threat to the government, because they are able to corrupt large numbers of local, state, and federal government officials. This was revealed in several high profile cases in recent years.⁶⁸ The Sinaloa cartel is constantly trying to expand its territory into that traditionally held by other cartels, particularly in Juarez, and this is a major cause of much of the violence.

The Sinaloa cartel has the greatest capacity to wage ‘all-out war’ because they have far more money than the other DTOs. Guzmán is also more focused on winning the favor and tacit protection of the populace, and thus is more involved in the drugs trade than kidnapping, and prefers to bribe rather than confront authorities.⁶⁹ However, in many ways this makes the Sinaloa cartel more dangerous to the Government in Mexico. Its use of bribes can make local state and even federal law enforcement unreliable. Furthermore, the Sinaloa organization’s outreach to the civilian population makes it even harder for the government to gain information about Guzmán. In addition, the massive strength of the Sinaloa cartel makes an eventual peace all the more allusive. In the event that the government would try to reduce the violence through talks with cartels, the Sinaloa organization would be unlikely to take them seriously. The government has little to offer big organizations like Sinaloa, which already enjoy near uncontested control over the areas in which they operate.⁷⁰

The Tijuana cartel is also a powerful, though often underrated organization. This group was infamous in 2008 and 2009, when it destabilized much of Tijuana with its attacks on the police and rival cartels.⁷¹ As with the Sinaloa cartel, the Tijuana cartel is a very important organization with networks mainly in the Tijuana and the San Diego area. This DTO is famous for both its violence and the brutality. Most notoriously, Teodoro García Simental’s war for control of Tijuana led to hundreds being tortured and killed until his arrest in 2010.⁷²

The main areas where the Sinaloa and Tijuana cartels tend to cultivate marijuana include Sonora, Michoacán, and Sinaloa states. They focus on trafficking in marijuana because it is easy

⁶⁴ Jason Ryan, “DEA: U.S.-Mexico Cross Border Drug Tunnel Bust Yields 30 Tons of Marijuana,” ABC News (November 4, 2010), <http://abcnews.go.com/News/secret-tunnels-mexico-us-smuggling-drugs-guns-people/story?id=12057362> (accessed on March 22, 2011).

⁶⁵ Nick Casey, interview by authors, Mexico City, D.F., Mexico, March 12th 2011.

⁶⁶ “A drug kingpin falls,” *Los Angeles Times*, Editorials (September, 7, 2010), <http://articles.latimes.com/2010/sep/07/opinion/la-ed-labarbie-20100907/2> (accessed March 22, 2011).

⁶⁷ Daniel Borunda, “Juárez deserves the title of most dangerous city in the world,” *El Paso Times* (June 7, 2010), http://www.elpasotimes.com/juarez/ci_15241689 (accessed on March 22, 2011).

⁶⁸ Nick Casey, interview by authors, Mexico City, D.F., Mexico, March 12th 2011.

⁶⁹ Ibid.

⁷⁰ Ibid.

⁷¹ “Mexican Police Arrest 2 in Tijuana Beheading,” CBS News (January 6, 2011), <http://www.cbsnews.com/stories/2011/01/06/world/main7221220.shtml> (accessed March 22, 2011).

⁷² “Mexico captures top Tijuana drug trafficker ‘El Teo’,” ABS-CBN, <http://www.abs-cbnnews.com/world/01/13/10/mexico-captures-top-tijuana-drug-trafficker-el-teo> (accessed on March 22, 2011).

to grow, profitable for wholesale, and cheap to pay laborers. In 2010 farmers received only 15 to 20 dollars for a pound of marijuana.⁷³ This price is just barely above the amount farmers could get for corn and other produce. Therefore, if the price farmers were to be paid for marijuana were to fall much further, it is not unlikely that many would turn to more legitimate crops.

These cartels represent a huge part of the Mexican organized criminal structure. Dealing a major blow to these groups could give the Mexican government a leg up. The Sinaloa cartel currently has the ability, due to its huge monetary reserves, to project its influence and carry out violence acts across vast swathes of Mexico. The Tijuana cartel holds large parts of its namesake city through violence and coercion. The following chapter will explore what effect, if any, the legalization of marijuana would have on the revenue, operational capacities, overall strength, and ability to wage violence for these two cartels.

⁷³ Tim Johnson, "Mexico's drug war leaves marijuana growers to thrive," *McClatchy Newspapers*, <http://www.mcclatchydc.com/2010/09/02/100069/for-mexican-cartels-marijuana.html>, (accessed on March 22, 2011).

Chapter 3: Conclusions

Lessons from the Case Studies of Portugal, the Netherlands and Mexico

- *The relationship between marijuana reform and demand is unclear.* Upon review of the drug policies in Portugal, the Netherlands, and Mexico it is important to take away the fact that cannabis use did not skyrocket following the implementation of a more liberal drug policy. Often times decriminalization, depenalization, and de facto legalization are unfairly associated with increased drug use. However, from the examples of Portugal, Mexico, and the Netherlands (see **Box 1**, **Box 2** and **Box 3** for more details on each case study), it becomes clear that drug policy is not the only thing that impacts drug use. In Portugal, marijuana use increased in some categories but decreased in others. In the Netherlands, it increased slightly, but this was similar to changes in other countries of similar income which did not undergo drastic reforms. In Mexico, the trend is unclear due to the short duration of reform and lack of base-line data. From the examples shown here, it seems as though drug policy may have little impact on drug use.
- *Decriminalization does not affect DTOs.* As Mexico demonstrates, decriminalization has little if any security benefits. This is due to the fact that decriminalization only affects the legal status of personal consumption and petty possession. It does not address the reason for a drug's profitability, and thus the root of its importance to DTOs. As long as the production and sale of a drug are illegal, the price will remain artificially inflated, and organized crime will control the market. This has also proven to be true in U.S. states like California, where possession of marijuana has been decriminalized, but Mexican DTOs still operate in the wholesale market supplying these consumers.
- *It is possible to reform without violating international conventions.* It is very important to note that all three countries were able to focus on public health issues relating to drugs, while at the same time adhering to the UN Treaty of 1961. The lesson of Netherlands is especially applicable, because the U.S. federal government is already using a form of toleration in regards to medical marijuana dispensaries, and decriminalization of possession in U.S. states. Toleration is the current middle ground in the state-federal conflict, because on a national level the United States remains at an impasse when it comes to changing marijuana policy.

BOX 1: Portugal

On July 1, 2001 Portugal introduced its new drug policy, Law 30/2000. This new law changed Portugal's drug policy from one of prohibition to one of decriminalization. Portuguese Law 30/2000 decriminalizes "the purchase, possession, and consumption of all drugs for personal use (defined as the average individual quantity sufficient for 10 days' usage for one person)."¹ Although Law 30/2000 allows purchasing, possession and consumption, the trafficking of drugs remains illegal. This is considered decriminalization not depenalization, because the criminal sanctions associated with drugs have been removed, but civil penalties remain. Unlike many other forms of decriminalization, Portugal's decriminalization refers to all drugs not just cannabis, and it focuses on public health instead of enforcement.

Law 30/2000 made the possession, consumption and purchase of drugs an administrative penalty instead of a criminal penalty; and, in order to administer the penalties Article 5 of Law 30/2000 creates the *Comissão para a Dissuasão da Toxicodendência* (CDT; Commission for the Dissuasion of Drug Addiction).² When a person violates Law 30/2000 the police have 72 hours to refer the offender to a CDT, at which time the CDT will review the case and make a ruling.³ When reviewing a case, the CDT takes into account the drug that was consumed, whether or not the offender is an addict and whether or not the individual is a first-time offender.

Upon review of the offender's case, the CDT will make a decision and issue a warning, suspend the proceeding, recommend treatment or issue a sanction. A key element of Portugal's policy is the use of treatment centers to reduce drug use. In instances where the consumer is deemed an addict, the CDT will recommend treatment. In conjunction with the implementation of Law 30/2000, Portugal increased the number of treatment centers in order to accommodate addicts. The purpose of the CDT is to assist Portugal's drug users by providing incentives, and when necessary, assistance. By eliminating criminal penalties, the hope is that the stigma associated with being a drug user will be removed and users will be more likely to seek the treatment that they need.

Nearly ten years since Law 30/2000 has been in effect it is now possible to see the results of the decriminalization of drugs in Portugal. Some are pleased with the outcome, and optimistic about the future of decriminalization in Portugal, while others are more skeptical of the effects that this policy change has had. In his report for the Cato Institute, Glenn Greenwald paints a somewhat misleading picture of the successes of Portugal's drug policy reform when he argues, "the data show that, judged by virtually every metric, the Portuguese decriminalization framework has been a resounding success."⁴ Law 30/2000's positive effects can be seen in some public health indicators. However, Greenwald paints an overly optimistic picture in relation to the reality on the ground.

While it is true that drug use has decreased for certain age groups, Greenwald does not address the fact that overall there has been an increase in drug use amongst adults.⁵ The 15-24 and the 20-25 age groups show an increase in lifetime prevalence, while only the 15-19 age group shows a decrease.⁶ That being said, it is also important to note that decriminalization may not have increased the lifetime prevalence. As Peter Reuter argues, there are many other contributors to the change in drug use; "In other countries you see quite variable changes over time, even when policy stays the same; but you can't chalk all of the changes in Portugal to the effects of policy shift. There are lots of things that affect drug use indicators, and policy is not even the most important of them."⁷ Although there were some decreases and increases in drug use in Portugal following decriminalization, it is hard to say whether the policy shift was the cause of this. What is important to acknowledge is the fact that following decriminalization, Portugal's drug use did not grow exponentially and Portugal did not become a hotspot for drug tourism that many predicted.

¹ Glenn Greenwald, *Drug Decriminalization in Portugal: Lessons for Creating Fair and Successful Drug Policies*, (Washington, D.C.: The Cato Institute, 2009).

² Portugal, Law no. 30/2000, art. 5, sec.1.

³ Robin Room et al., *Cannabis Policy: Moving Beyond Stalemate*, (New York: Oxford University Press, 2010), 89.

⁴ Greenwald, *Drug Decriminalization in Portugal*, 1.

⁵ Hughes and Stevens, "What Can We Learn From the Portuguese Decriminalization of Illicit Drugs?" 1005

⁶ Greenwald, *Drug Decriminalization in Portugal*, 14.

⁷ Dr. Peter Reuter, interview by authors, Washington, D.C., February 24, 2011.

BOX 2: The Netherlands

In 1976 the Netherlands changed its Opium Law (*Opiumwet*) and reclassified cannabis from a hard drug to a soft drug. This policy is considered depenalization because there was still a criminal offense associated with the drug, but the punishment was reduced.¹ Soon after this reclassification, the Netherlands began a formal nonenforcement policy (*gedoogbeleid*). The Public Prosecution Service announced that it would not bring cases against persons for the sale and possession of up to 30 grams of cannabis. It would still be illegal to sell and possess the drug, but police would refrain from detaining individuals that were within the limit.

Over time, the depenalization of cannabis in the Netherlands turned into de facto legalization as guidelines were created for the sale of cannabis in coffee shops and the consumption of cannabis in public areas became tolerated. Coffee shops are a place where cannabis is sold legally. It was believed that allowing coffee shops to sell cannabis would separate the markets of hard and soft drugs. Coffee shops are permitted to have up to 500 grams of cannabis on the premises at one time.² After 1976, guidelines on how coffee shops could avoid prosecution were created. Those guidelines are: 1) no advertising; 2) no hard drug sales on the premises; 3) no sales to minors; 4) no sales transactions exceeding quantity limit; and 5) no public disturbances.³ Coffee shops have created a place in which cannabis can be bought and the origin of this is the Opium Law of 1976, in combination with a decision not to enforce certain components therein.

Since the revised Opium Law and the creation of coffee shop guidelines, the Dutch have altered their policy slightly to appease national and international actors. Coffee shops now must be licensed and must adhere to the five guidelines outlined previously.⁴ The licensing of coffee shops helps ensure that civic order is maintained, but the Dutch government took it one step further in 1996 with the decision to give local governments the authority to decide whether or not coffee shops would be permitted within their jurisdiction. The Dutch government made another change to their cannabis policy when they reduced the amount of cannabis that individuals were allowed to sell and possess from 30 grams to 5 grams. The original 30 gram limit was deemed to be an exorbitant amount of cannabis and neighboring countries were concerned that cannabis was being trafficked across borders.⁵ Dutch cannabis policy has evolved over the years to accommodate the needs of the Dutch population as well as neighboring countries.

Since the Dutch policy reform in 1976, cannabis use rates in the Netherlands have increased to some degree, especially among youth. However, like the case with Portugal, the increase in cannabis use is not entirely based on the policy reform. In fact, many scholars agree that cannabis use follows a wave-like trend in that it goes from high to low. Therefore, the increase of cannabis use in the Netherlands could be a result of the standard trend of cannabis use, instead of being directly related to policy. Even with its liberal policy, the Netherlands' cannabis use rates follow a similar pattern to that of the U.S. and Europe. As Dirk Korf argues, "trends in cannabis use evolve rather independently from drug policy, and countries with a 'liberal' cannabis policy do not have higher or lower rates than countries with a more repressive policy."⁶

Even though the Netherlands allows coffee shops, the number of coffee shops in the country as a whole is not that large. In fact, around 80 percent of cities and towns in the Netherlands do not have coffee shops.⁷ Also, coffee shops have not created the public nuisance that many associate with the presence of drugs. In conclusion, the Netherlands has mitigated the negative side effects of cannabis through policy adaptation, such as coffee shop guidelines, licensing, a reduction of the quantity and local government involvement. As a result, even though the Netherlands has a liberal cannabis policy, it continues to have similar use rates as other countries, even countries without liberal policies.

¹ Marije Wouters and Dirk J. Korf, "Access to Licensed Cannabis Supply and the Separation of Markets Policy in the Netherlands," *Journal of Drug Issues*, Vol. 39 Issue 3 (Summer 2009): 627-651.

² Mirjam van het Loo, Stijn Hoorens, Christian van't Hof and James P. Kahan, *Cannabis Policy, Implementation and Outcomes*, (Arlington, VA: RAND Corporation, 2003).

³ Robert J. MacCoun and Peter Reuter. "Interpreting Dutch Cannabis Policy: Reasoning by Analogy in the Legalization Debate," *Science*, vol. 278 Issue 5335.

⁴ MacCoun and Reuter, *Drug War Heresies*, 248.

⁵ Room et al. *Cannabis Policy*, 95.

⁶ Dirk J. Korf, "Dutch Coffee Shops and Trends in Cannabis Use," *Addictive Behaviors* Vol. 27(2002), 851-866.

⁷ Wouters and Korf, "Access to Licensed Cannabis Supply," 630.

BOX 3: *The Ley De Salud: A Case Study in Latin American Decriminalization*

On the 21st of August 2009 the Mexican government enacted modifications to a law known as La Ley General de Salud. This legislation decriminalized the personal possession of small amounts of several drugs, including marijuana, cocaine, and heroin.¹ The law outlines the maximum "personal use" amount for these drugs and individuals within these limits will not receive a criminal penalty. However, these individuals will be informed about the locations of treatment and counseling centers that focus on drug prevention and addiction counseling.¹ It should be noted here that there were no enforcement measures explicitly or implicitly included in the modifications of the law for the enforcement of the aforementioned "mandatory treatment".¹ Under Mexican law it remains illegal to traffic, produce, sell and or manufacture marijuana or any other illegal drug. The modification to the law is directed at drug users only.

During the course of numerous interviews we found little consensus about the reasoning and objectives of the modifications to Mexico's Ley de Salud. Dr. Jorge Hernandez Tinajero, President of CUPIHD and a Professor of Political and Social Sciences at UNAM, argued that among the reasons for the modifications to Ley de Salud was to decrease marijuana possession incarcerations, which can drain the Mexican government resources during a war on organized crime.¹ This differed sharply with José Luis Vázquez, of CONADIC and the Secretaría de Salud of México, who claimed that the main reasoning behind the modifications to Ley de Salud was to "protect the people".¹

In terms of a more security-focused viewpoint, Ley de Salud has probably not been effective. Given that the reform only occurred in late 2009, and detailed Mexican detention figures are extremely difficult to come by, it is impossible to say with any certainty that Ley de Salud has caused any change in incarcerations. However, there one thing that it has not caused: success in fighting the DTOs and the violence that they bring. Mexico saw a 22.6% increase in the number of homicides between 2009 and 2010.¹ Last year was the most violent year on record since Calderón's drug war began, and there is no reason to believe that decriminalization is going to turn the tide.

In terms of health this law's success could also be questioned. In March of 2011 *El Universal* published an article claiming that in the last 6 years the consumption of cocaine had doubled and the consumption of marijuana had increased by half.¹ Once again, our two experts had different explanations, but both agreed that it had nothing to do with Ley de Salud. Dr. Jorge Hernandez Tinajero argued that the growth of marijuana and cocaine consumers shown in the *El Universal* study was a normal phenomenon for developing countries, and was not related to the modifications to the Ley de Salud. Dr. José Luis Vázquez noted that the Ministry of Health disagrees with the figures for marijuana.¹ Moreover, the reported increase was the result of increased polling as well as the rise in people's willingness to admit use and accept treatment.¹

The two conflicting positions on Ley de Salud's goals (i.e. security vs. public health), demonstrate different views in Mexico on what the country's priorities should be. These differences were also apparent in the two men's differing views on the social ills of marijuana. For example, José Luis Vázquez viewed marijuana as a dangerous narcotic that has, among other things, the potential to increase the risk of schizophrenia among certain users.¹ On the other side of the spectrum Dr Jorge Hernandez Tinajero felt that "marijuana is not a social problem in any country in the world,... [because] it does not generate violence like alcohol."¹ These are very different ways of looking at the issue of marijuana in Mexico and to some extent reflect those within the U.S. as well.

¹ Mexico, Ley de Salud, chapter 8, article 479.

¹ Mexico, Ley de Salud, chapter 8, article 481.

¹ "Mexico Legalizes Drug Possession," *The New York Times* (August 21, 2009), <http://www.nytimes.com/2009/08/21/world/americas/21mexico.html> (accessed March 22, 2011).

¹ Dr. Jorge Hernandez Tinajero, interview by authors, Mexico City, D.F., Mexico, March 14, 2011.

¹ José Luis Vázquez, interview by authors (translation by Nick Eiden), Mexico City, D.F., Mexico, March 17, 2011.

¹ Instituto Ciudadano de Estudios Sobre la Inseguridad, *Homicidios Dolosos: Total y por cada 100 mil habitantes*. http://www.icesi.org.mx/documentos/estadisticas/estadisticasOfi/denuncias_homicidio_doloso_1997_2010.pdf (accessed April 10, 2011)

¹ Silvia Otero, "Se dispara en el país consumo de drogas" *El Universal*, (March 13, 2011). A1.

¹ José Luis Vázquez, interview by authors, Mexico City, D.F., Mexico, March 17, 2011.

¹ Dr. Jorge Hernandez Tinajero, interview by authors, Mexico City, D.F., Mexico, March 14, 2011.

¹ José Luis Vázquez, interview by authors, Mexico City, D.F., Mexico, March 17, 2011.

¹ Dr. Jorge Hernandez Tinajero, interview by authors (translation by Nick Eiden), Mexico City, D.F., Mexico, March 14, 2011

How Legalization Would Unfold in the United States

- *Legalization of marijuana could hypothetically unfold in two different ways.* As was discussed previously, the Controlled Substances Act lists marijuana as a Schedule I drug, prohibiting its production, traffic, and consumption.⁷⁴ Federal legalization of marijuana would only be made possible by rescheduling marijuana. This would make it subject to far less stringent controls, or remove it from the controlled substances list altogether.⁷⁵ The other possibility would be de facto legalization utilizing reforms on the state level. Several U.S. states have decriminalized possession, and some allow for the legal production, sale, and use of marijuana for medical purposes. The federal government has decided not to enforce its laws prohibiting these measures. If several U.S. states were to legalize marijuana for recreational use, something California has already attempted to do, a federal response of toleration could translate into de facto legalization of marijuana. Each of these options has a different level of political probability, and different types of repercussions.
- *Federal legalization of marijuana is unlikely.* There is no indication that a complete removal of marijuana from the list of controlled substances is a politically viable option in the short, medium, or long term. To unilaterally do so would put the United States in noncompliance with several international legal obligations. In order to avoid this, the United States would have to convince the signatories to the international conventions discussed in **Chapter 2** of this report to agree to end marijuana controls.

Even ignoring the international angle, the domestic process for rescheduling of marijuana makes the task seem extremely arduous. First, both Congress and the Department of Health and Human Services have the authority to reschedule marijuana, and neither seems willing to consider the possibility.⁷⁶ Legislation has been introduced in Congress to reschedule marijuana to a Schedule II drug in order to allow for medical marijuana every year since 1997. In fourteen years of being introduced, proposals to reschedule marijuana have never moved beyond the committee referral process.⁷⁷

A citizen petition submitted to the DEA in 1995 to reschedule marijuana was denied in 2001. In its denial, the DEA cited the Department of Health and Human Services' guidance that due to marijuana's "high potential for abuse" and no proven medicinal value, it must remain a Schedule I drug.⁷⁸ Therefore, in order for this drug to be reclassified under any other schedule, it must be proven to have accepted medicinal uses. However, the Drug Enforcement Administration and the National Institutes of Health have made it difficult for scientists to procure the supply of marijuana necessary to perform experiments on the medicinal properties of marijuana.⁷⁹ All of this makes for a daunting task confronting anyone who would try to go the federal route in legalizing marijuana.

- *The repeal of alcohol prohibition does not provide an adequate model for repeal of the prohibition on marijuana.* When discussing the potential effects of the repeal of marijuana

⁷⁴ See U.S. Marijuana Laws.

⁷⁵ R. Eric Barnes, "Legal and Moral Issues Surrounding the Medical Prescription of Marijuana," *Bioethics* 14 no. 1 (2000).

⁷⁶ Eddy, 31.

⁷⁷ *Ibid.*, 7.

⁷⁸ *Ibid.*, 11.

⁷⁹ Dresser, 8.

prohibition, references are often made to the repeal of alcohol prohibition for applicable lessons and parallels. America's experience with alcohol prohibition is one reason the liberalization of marijuana laws in several states is worth noting. By the time national prohibition was implemented, twenty-seven states had already prohibited alcohol. Although marijuana laws are becoming less restrictive rather than more so, the federal government followed the lead of state governments in the case of alcohol in 1920.

Parallels between marijuana and alcohol can only be taken so far, however, because the prohibition frameworks for marijuana and alcohol are different in several ways. First of all, the possession of alcohol was never criminalized. Only the production and distribution of alcohol were outlawed.⁸⁰ In addition, alcohol was legal for religious and medicinal uses, and home production of beer and wine was permitted.⁸¹ Prohibition of marijuana carries criminal penalties for possession as well as production and distribution. Also, the prohibition of alcohol eventually became very politically unpopular, which led to its repeal.⁸² There is still popular support for the prohibition of marijuana, which is a large part of why the federal legalization of marijuana for recreational use appears to be impossible in the current political climate.⁸³

No alcohol sales data exists on consumption of alcohol during prohibition, so only consumption levels before and after prohibition can be compared. Alcohol consumption began to decline in the years preceding national prohibition, and after prohibition ended consumption was 70% of what it had been during the mid-teens. Consumption did not rise to pre-prohibition levels until after World War II.⁸⁴ How much this drop in demand can be attributed to prohibition is debated. Other important factors such as the Great Depression and demographic changes could also attribute to changes in consumption levels during this time.⁸⁵

Effects of Legalization on U.S.-Mexico Relations

- ***Relations between the U.S. and Mexico will deteriorate in the short-term if the U.S. legalizes marijuana.*** Relations between the United States and Mexico have improved over the last decade, and President Obama and President Calderón continue to work diligently to maintain relations and combat drugs. However, this relationship is likely to decay even if the United States legalizes marijuana in only a de facto manner on the state level. Last year President Calderón openly expressed his distaste for Proposition 19 before it was defeated in November. He believes that any form of legalization of marijuana in the United States would be a sign of hypocrisy as evident when he stated, "I think they [United States] have very little moral authority to condemn a Mexican farmer who for hunger is planting marijuana to sustain the insatiable North American market for drugs."⁸⁶ Although President Calderón has acknowledged the fact that the drug policy debate needs to take place, he has been adamant that legalization in the United States is not the

⁸⁰ Albert DiChiara and John F. Galliher, "Dissonance and Contradictions in the Origins of Marijuana Decriminalization," *Law & Society Review*, Vol. 28 no.1 (March 1994).

⁸¹ Wayne Hall, "What are the Policy Lessons of National Alcohol Prohibition in the United States, 1920-1933?" *Addiction*, Society for the Study of Addiction 105 (2010), 1165.

⁸² Cynthia Crossen, "Why We'll Never Know if Imbibing Really Rose After Prohibition Began," *Wall Street Journal*, (April 6, 2005).

⁸³ MacCoun and Reuter, 49.

⁸⁴ Hall, 1168.

⁸⁵ *Ibid*, 1169.

⁸⁶ Richard Marosi, "Mexico's Calderón Strongly Criticizes pot Measure Prop. 19 in Interview with the Times," *Los Angeles Times* (October 8, 2010), <http://latimesblogs.latimes.com/lanow/2010/10/mexican-president-felipe-calderon-strongly-criticizes-marijuana-legalization-measure-proposition-19.html> (accessed April 9, 2011).

best policy. In addition, other Latin American leaders, such as Juan Manuel Santos of Colombia, have expressed their support of President Calderón's position on the legalization of marijuana.

President Calderón and others believe that the legalization of marijuana in the United States would delegitimize the Mexican war on drugs. Some scholars note that if the United States legalized marijuana, the Mexican populace would be left wondering, "What team are you [United States] playing for?"⁸⁷ Mexico has spent a lot of blood and treasure fighting against DTOs over the last few years, and some feel that the legalization of marijuana in the United States, no matter how well intentioned, would be negating those efforts. Proof of the seriousness of Mexico's dedication to the drug war is evidenced by the recent tensions between the United States and Mexico.

Relations between the two countries have been terse ever since Wikileaks revealed that Ambassador Pascual wrote that he did not believe that President Calderón could win the war on drugs. This caused such strife that Ambassador Pascual resigned in March 2011. President Calderón has been dedicated to helping Mexico combat drugs, and he was unwilling to allow a U.S. Ambassador to openly criticize his efforts. If President Calderón was this forceful of the Wikileaks incident, the legalization of marijuana in the U.S. would likely be trying on the bilateral relationship. How far this distancing would go is up for debate, given Mexico's dependence on U.S. trade and counter-narcotics aid programs.

Were President Calderón no longer in office and U.S. states legalized marijuana, the effects would likely to be similar, although maybe not as severe. If the PRI were to return to power, it is likely that they would begin to distance themselves from the United States, as they did in the past. The PRI preferred to handle DTOs through a series of tacit agreements that maintained order instead of collaborating with the U.S. In this sense, the fallout between the United States and Mexico might not be as severe, but it is likely that Mexico would still publically reprimand the United States' actions. Either way, the legalization of marijuana in the United States would harm U.S.-Mexico relations and the United States should consider the repercussions before initiating policy reform.

Effects of Legalization on the U.S. Market: Supply

- ***Mexican marijuana would be replaced by local production.*** Marijuana legalization on the state level, even limited to one or a handful of states, would have notable implications for the U.S. marijuana market. As it has already been mentioned (see Chapter 2), a significant and growing portion of this market is supplied by domestic sources. This is especially notable in the 'M-7' states, which produce the largest quantities of cannabis. In any state where marijuana legalization takes place there are compelling reasons to believe that Mexican marijuana would be replaced by local production.

First, there is the economic advantage of a product grown within a legal market that is closer in proximity to its consumer. It is estimated that the wholesale price of marijuana increases by \$450 per pound for each 1,000 miles that it is trafficked in the U.S., which is significant considering the wholesale price of Mexican marijuana just after crossing the border is estimated to be only

⁸⁷ Dr. Luis Astorga, interview by the authors, Mexico City, D.F., Mexico, March 15, 2011.
Dra. Beatriz Ramirez, interview by authors, Mexico City, D.F., Mexico, March 16, 2011.

\$400.⁸⁸ Marijuana produced in a state where it is legal to grow, purchase, and consume would not be subject to the same inherent security costs that Mexican DTOs face. Namely, these U.S. producers would not have to for pay bribes, enhanced security costs, losses due to seizures, and elevated transportation costs.

Secondly, there is already a high rate of diversion, with the Sheriff of Mendocino County estimating that “a single digit percentage of marijuana grown under the medical program is actually going to medical patients.”⁸⁹ One analysis of the market under California potential legalization found that after taxes and transportation costs are included “diverted California sinsemilla would be cheaper, per unit of THC, than the current Mexican marijuana price in every state except New Mexico and Texas,” and therefore affect 95% of the Mexican marijuana market.⁹⁰ There is reason to believe that diverted sinsemilla would almost completely eliminate Mexican marijuana under these circumstances. This would occur for reasons in addition to the THC-to-dollar ratio.

This is where the second advantage of legally produced U.S. marijuana would come to bare, one that is more qualitative than quantitative. Mexican marijuana is inferior not only in terms of THC content, but also in many other aspects which cannot be easily quantified. This is because Mexican marijuana is made from inferior seed stock, the male plants are not removed to prevent pollination, it is sun-dried, and it is hydraulically pressed to aid in transportation. “It is a methodology that produces a D-grade product whose only benefit is that it can be mass-produced and smuggled.”⁹¹ The medicinal marijuana reforms in California have already nurtured a market which is primarily for high labor intensity marijuana, and is aimed at aesthetic as well as psychoactive qualities. Some claim that “the smell and the flavor have more to do with what people define as quality than a chemical analysis of the THC content.”⁹²

In other words, there is reason to believe that if California’s high-quality sinsemilla were diverted to other states it would be even more competitive than the THC-to-dollar ratio suggests. One example may be the market for alcohol in the United States. The popularity of microbrew and artisan beers demonstrates that many consumers look for qualities other than the simple alcohol-per-dollar ratio. Basically, “prohibition has generated the market and they [Mexican DTOs] position themselves where there are the most profits to be made.”⁹³ If there is little or no market for low cost, low-quality marijuana that can be easily smuggled, then it is safe to think that marijuana produced covertly in Mexico would no longer be profitable.

There are several other issues related to supply-side changes, which were brought up in our interviews. First, U.S. growers are concerned about the role of large-scale corporate farming, which would likely produce the more economical marijuana products replacing Mexican supplies. They feel that “these giant corporations have completely destroyed farming in the rest of the country... [and] people consider it a threat to everything they hold dear.”⁹⁴ These concerns would likely be mitigated by an artisan-type market, similar to microbrew beer products today.

⁸⁸ Kilmer, et al., *Reducing Drug Trafficking Revenues and Violence in Mexico*. 17, 21.

⁸⁹ Tom Allman, interview by authors, Ukiah, CA, March 7, 2011.

⁹⁰ Kilmer, et al., *Reducing Drug Trafficking Revenues and Violence in Mexico*. 21.

⁹¹ Nathaniel Morris, interview by authors, Eureka, CA, March 6, 2011.

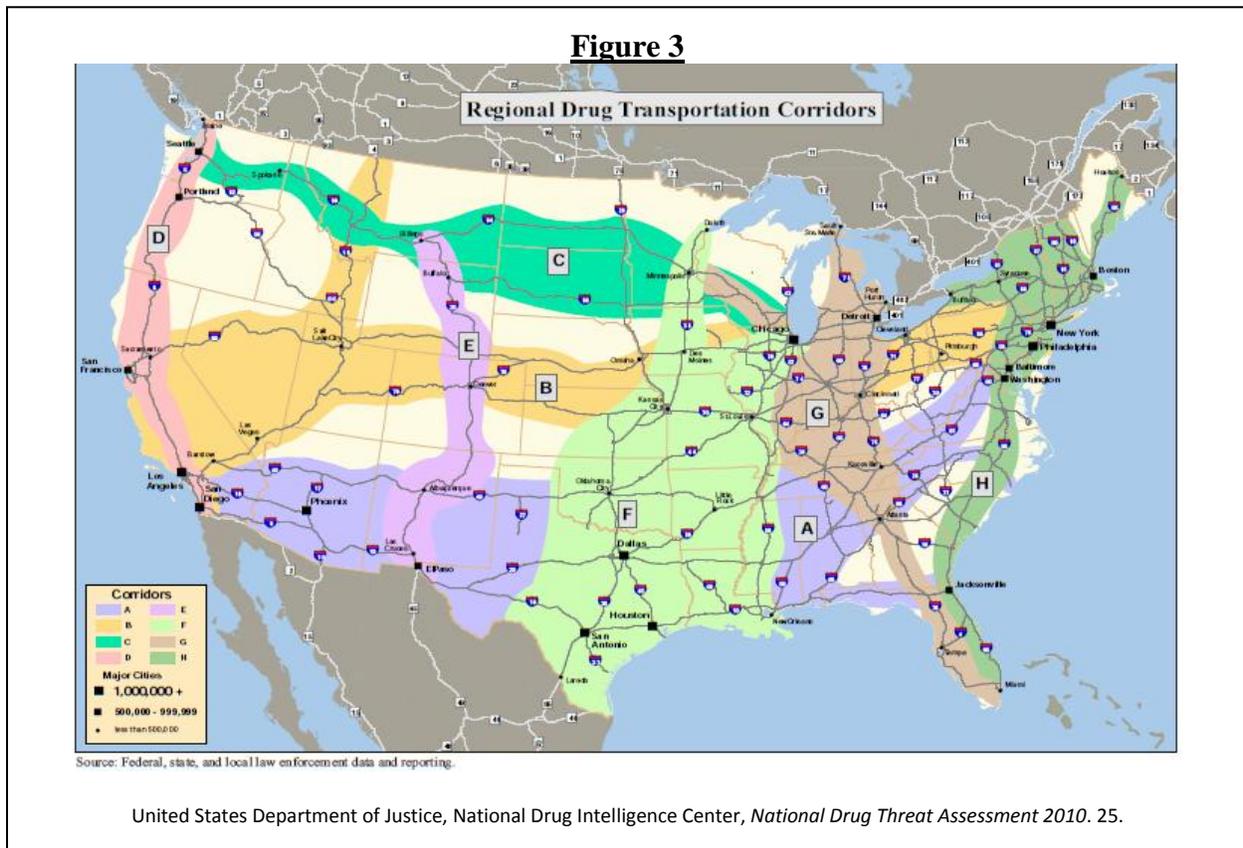
⁹² *Ibid.*

⁹³ Dra. Beatriz Ramirez, interview by authors (translation by Chad Murray), Mexico City, D.F., Mexico, March 16, 2011.

⁹⁴ Nathaniel Morris, interview by authors, Eureka, CA, March 6, 2011.

Also, there is the concern that the production centers would move from more remote locations which are now dependent on these revenues (Northern California and Appalachia) to other areas more ideally suited for the crops. After all, “if growers do not have to hide, what would keep them here?”⁹⁵

- *A weak federal response would be enough to shut Mexican DTOs out of the U.S. market.* If California alone legalized marijuana, and the federal government increased enforcement efforts against domestic interstate trafficking, there is reason to believe the effects on a national level would be stunted. However, if other states followed suit, or the federal government maintained or decreased current enforcement levels, the effects would certainly be more widespread. According to the National Drug Intelligence Center, there are two primary drug transportation corridors through which Mexican marijuana enters the United States and is trafficked to the rest of the country (see Corridors A and B in **Figure 3**).⁹⁶ Six states located along these corridors have already legalized medicinal marijuana; three of them are along the southwest border. Legalization of recreational marijuana in any of these states would likely have a significant effect. This is because states along these drug corridors often contain distribution centers, and they represent the areas where Mexican DTO influence over the wholesale marijuana market is most concentrated.⁹⁷



⁹⁵ Mark Lovelace, interview by authors, Bayside, CA, March 6, 2011.

⁹⁶ United States Department of Justice, National Drug Intelligence Center, *National Drug Threat Assessment 2010*. 25.

⁹⁷ Ibid

- Legalization would affect the prices of U.S. marijuana. The Sheriff of Mendocino County reported that the price of one pound of outdoor grown marijuana in his county dropped from \$3,500 to \$800 in the last 5 years.⁹⁸ This was consistent with statements made by the President of Humboldt Green Research and the Chairman of the Humboldt County Board of Supervisors, who stated that the average price of outdoor cannabis has sunk from \$5,000-\$6,000 to less than \$1,000 since the enactment of Proposition 215 (1996).⁹⁹ This price drop has occurred during reforms establishing legalization of medical cannabis and decriminalization of possession. It is reasonable to believe they would continue under full legalization, and have pronounced effects on consumers' choices at the retail level.

After accounting for distribution costs, a retail markup between 20% and 50%, and a state-level tax of \$25 per ounce, the price of legalized marijuana in California would likely be between \$60 and \$75 per ounce.¹⁰⁰ This means that legal marijuana in California would be roughly the same price as its Mexican competitor, and between 2 and 3.6 times as potent.¹⁰¹ There is no reason to believe that consumers would choose an inferior illegal product over a superior legal one. In purely economic terms it is safe to assume that this “would effectively eliminate Mexican DTOs’ revenues from supplying Mexican-grown marijuana to the California market.”¹⁰² However, this is only one state. The next step is to determine how the marijuana market might be affected in other parts of the nation.

Effects of Legalization on the U.S. Market: Demand

- The removal of legal sanctions would eliminate a significant deterrent to marijuana use. Though other deterrents such as religious and moral reasons would likely remain in place and discourage some potential users, the more widespread fear of legal repercussions would no longer exist. The portion of the population who does not use marijuana for fear of legal sanctions could potentially decide to use marijuana if it were legal. However, our case studies demonstrate that that this might not be the case. In Portugal and the Netherlands marijuana use indicators increased in some categories and decreased in others, but these were in line with developments in other developed countries which have more stringent laws. Mexico has witnessed an overall increase in reported marijuana use over the last 6 years. However, the recent reforms to Ley de Salud only went into effect in 2009. Furthermore, Mexican health officials believe that these figures are the result of more accurate polling, not increased use.¹⁰³ We do know that the removal of legal sanctions would lead to increased domestic production (see ***Effects of Legalization on the U.S. Market: Supply***), and cause the price of marijuana to drop significantly.
- Regulatory measures could be implemented to increase marijuana’s retail price. California’s recent failed attempt at legalization, Proposition 19, included a stipulation that an excise tax would be applied to every ounce of marijuana sold.¹⁰⁴ Taxes such as Proposition 19’s tax on marijuana, if effectively enforced, would raise the price of marijuana giving authorities a tool to

⁹⁸ Tom Allman, interview by authors, Ukiah, CA, March 7, 2011.

⁹⁹ Nathaniel Morris, interview by authors, Eureka, CA, March 6, 2011.

Mark Lovelace, interview by authors, Bayside, CA, March 6, 2011.

¹⁰⁰ Kilmer, et al., *Reducing Drug Trafficking Revenues and Violence in Mexico*. 20.

¹⁰¹ Ibid

¹⁰² Ibid 19

¹⁰³ José Luis Vázquez, interview conducted by authors, Mexico City, DF, Mexico March 17, 2011.

¹⁰⁴ Beau Kilmer, Jonathan P. Caulkins, Rosalie Liccardo Pacula, Robert J. MacCoun, Peter H. Reuter, “Altered State? Assessing How Marijuana Legalization in California Could Influence Marijuana Consumption and Public Budgets,” *Rand Drug Policy Research Center*, (2010).

establish a deterrent to use. Of course, state and local governments would not want to tax marijuana back to prohibition level prices, because this would defeat the purpose of legalization. For example, a simulation by the RAND Corporation found that raising an excise tax from \$25 to \$50 could affect California marijuana's ability to undercut Mexican prices in other states. This factor alone could mean the difference between Mexican DTOs maintaining 9%-15%, or 25%-33% of their overall U.S. market share.¹⁰⁵ However, it should not be assumed that price is the only determinant of consumption patterns in marijuana. As Nathaniel Morris, President of Humboldt Green Research points out, "when people pick out their favorite beverage it is not 'what is the alcohol to dollar ratio that I am getting'. That is true of... alcoholics. But for most people there is branding associated."¹⁰⁶ Price is not the only factor guiding consumer choices. It can be assumed that factors such as branding, flavor, and potency would all affect consumer decisions, and give U.S. marijuana an advantage over its illicit Mexican counterpart.

Effects of Legalization on Mexican DTOs

- ***Mexican DTOs would likely lose all of the revenue from selling Mexican-produced marijuana in the United States.*** The most academically sound estimate is that Mexican DTOs make \$1.5 billion a year in wholesale marijuana revenues. They would lose \$214, 285,714 a year in California alone, and \$1,275,000,000 from the total national market if only California legalized and the federal response was muted.¹⁰⁷ In this report, we postulate that Mexican DTOs could lose all of their profits from Mexican-produced marijuana under these conditions because the THC to dollar ratio is likely not the sole determining factor for marijuana consumers. Furthermore, if California legalized marijuana other states would likely follow suit and diversion would increase (assuming a consistent or weakened federal response).
- ***Mexican DTOs could still make some money off of marijuana by producing it in the United States.*** This is because, "Mexican criminal groups operate large outdoor cannabis plots, often composed of several thousand plants, particularly on public lands in western states."¹⁰⁸ One expert we spoke to believed that for the Mexican DTO grow operations on U.S. soil, legalization would have little, if any repercussions.¹⁰⁹ This report argues that for Mexican DTOs to compete in a legalized U.S. market the quality of their U.S.-produced product would have to increase significantly. In addition, they would have to produce on such a large scale that avoiding detection would be extraordinarily difficult.

A recent raid by the Mexican Army found 24 hectares dotted with greenhouses in the state of Sinaloa utilizing complex irrigation and fertilization systems.¹¹⁰ This demonstrates that Mexican DTOs are now attempting to compete with U.S. sinsemilla. However, establishing such complex operations on the U.S. side of the border would be a much more difficult undertaking considering the logistical requirements. This is especially true now that local, state, and federal law enforcement agencies are launching "unprecedented" efforts to combat illicit marijuana

¹⁰⁵ Kilmer, et al., *Reducing Drug Trafficking Revenues and Violence in Mexico*. 24.

¹⁰⁶ Nathaniel Morris, interview by authors, Arcata, CA, March 6, 2010.

¹⁰⁷ Total Mexican DTO marijuana revenue was \$1.5 billion in 2008. California represents 7% of that market and the RAND Corporation estimates that Mexican DTOs would lose 85% of their market share nationally if California sinsemilla were easily diverted to other states. Kilmer, et al., *Reducing Drug Trafficking Revenues and Violence in Mexico*. 21.

¹⁰⁸ U.S. Department of Justice, National Drug Intelligence Center, *Domestic Cannabis Cultivation Assessment*. 2.

¹⁰⁹ Dra. Beatriz Ramirez, interview by authors, Mexico City, D.F., Mexico, March 16, 2011.

¹¹⁰ Mica Rosenberg, "Mexico marijuana growers learn new tricks from U.S." *Reuters* (December 14, 2010)

<http://www.reuters.com/article/2010/12/15/us-mexico-drugs-idUSTRE6BE0CC20101215> (accessed February 10, 2011).

growth on public lands.¹¹¹ Moreover, these operations would not be viable on the Mexican side of the border due to the investments and trafficking costs associated with such endeavors.

- *Mexican DTOs would try to sell marijuana in other markets.* As discussed in Chapter 2, marijuana is probably not the largest revenue stream for all DTOs. However, it is more significant for some than others. Specifically, for Mexico’s largest DTO (the Sinaloa cartel) and one of its most violent (the Tijuana cartel), the losses would be significant. Based on their areas of operation, seizures to which they were linked, and law enforcement intelligence pertaining to these DTOs, marijuana “...is likely a majority of the revenue generated, with Mexican heroin, methamphetamine, and South American cocaine trailing.”¹¹²

If the marijuana produced by these DTOs were no longer viable in the U.S. market, they may try to unload existing stocks onto the domestic market. Based on the number of reported users in each country, some experts currently estimate that 90% of Mexican DTO marijuana production is destined for the U.S. while 10% stays at home.¹¹³ In Mexico, there has been a reported 20% increase in the lifetime prevalence of marijuana use since 2002, but health officials that we spoke with stated that this is most likely due to more effective surveying as opposed to increased use.¹¹⁴ However, even if these DTOs could expand the domestic market it still would not provide the profits necessary to make marijuana a significant revenue source, given the lower prices for this drug in Mexico.

There is also the possibility that Mexican DTOs could turn to other international markets for their marijuana. The likelihood of Mexican DTOs trafficking cannabis to the European market is possible but unlikely, due to the low weight to value ratio of marijuana and the transportation costs of overseas trafficking. It is possible that DTOs would unleash Mexican marijuana supplies on other Latin American countries. South American marijuana use has been steadily increasing, with the largest percentage of users in Chile, Argentina, and Uruguay.¹¹⁵ However, Paraguay, Columbia, and Brazil already produce the cannabis consumed in this region. Therefore, Mexican marijuana would have to compete with these already established bargain-priced suppliers.¹¹⁶ Even if they succeeded in controlling this market, it would take time. What is certain is that at least in the short-term, the Sinaloa cartel and Tijuana cartel would lose nearly all current revenues from marijuana if U.S. states legalized that product under a muted federal response.

Short-term Effects on Mexican DTOs and Security Implications

- *Mexican DTOs would likely branch into other avenues of crime.* Perhaps the most obvious short-term effect of marijuana legalization is that this would rob the Sinaloa and Tijuana cartels of up to half of their total revenue.¹¹⁷ The economic strain placed on the Sinaloa cartel and Tijuana cartel may not necessarily help Mexico in the short term. The short-term effects of legalization could very well create chaos for Mexico. “The cartels compensate for their loss of drug revenue by branching out into other criminal activities--kidnapping, murder-for-hire, contraband, illegal

¹¹¹ Tom Allman, interview conducted by authors, Ukiah, CA, March 7, 2011.

¹¹² Amy L. Roderick, U.S. Drug Enforcement Administration, San Diego Field Division, email correspondence with authors, San Diego, CA, February 23, 2011

¹¹³ Kilmer, et al., *Reducing Drug Trafficking Revenues and Violence in Mexico*. 8.

¹¹⁴ José Luis Vázquez, interview conducted by authors, Mexico City, DF, Mexico March 17, 2011.

¹¹⁵ United Nations, Office on Drugs and Crime, *World Drug Report 2010*. 196.

¹¹⁶ United Nations, Office on Drugs and Crime, *World Drug Report 2007*. 98.

¹¹⁷ Amy L. Roderick, e-mail message to authors, February 23, 2011

immigrant smuggling, extortion, theft of oil and other items, loan-sharking, prostitution, selling protection, etc.”¹¹⁸ This means that if the social and economic environment remains the same then “they are not going to return to the licit world.”¹¹⁹ If the Sinaloa cartel and the Tijuana cartel turn towards activities like kidnapping, human trafficking and extortion, it could lead to a spike in violence that would prove to be destabilizing in those organizations’ areas of operation.

- *The Sinaloa cartel and Tijuana cartel might splinter into smaller groups.* In addition, the loss of more than 40% of revenue would probably force them to downsize their operations. Like any large business going through downsizing, employees will likely be shed first in order to maintain profitability.¹²⁰ These former DTO operatives will likely not return to earning a legitimate income, but rather will independently find new revenue sources in a manner similar to their employers. Therefore it is possible that the legalization of marijuana in the United States could cause territories currently under the control of the Sinaloa cartel and Tijuana cartel to become more violent than they are today. This is troubling, as Sinaloa, Baja California, Sonora, and Chihuahua states are already among the most violent areas of Mexico.¹²¹

Medium-term effects on Mexican DTOs and Security Implications

- *The Sinaloa cartel’s ability to wage violence would likely be hampered.* With a massive drop in the revenue stream of the Sinaloa cartel, Mexico’s largest and most powerful DTO could be dealt a potentially devastating blow. The Sinaloa cartel could be financially and thus logistically hampered from expanding into other DTOs’ territory. If inter-cartel conflicts due to territory disputes are diminished, this could lead to a reduction of violence.
- *The PRI might negotiate with Mexican DTOs.* During the 1980s and 1990s the main policy of the PRI in dealing with Mexico’s criminal organizations was to negotiate with these powerful groups.¹²² In exchange for the agreement not to engage in violence against the state and civilians, the PRI tended to look the other way when it came to DTO’s trafficking activities.¹²³ Some experts speculate that if the PRI wins next year’s Presidential elections in Mexico they will attempt to resolve Mexico’s drug violence through negotiation.¹²⁴ However, the Sinaloa cartel would be unlikely to negotiate from its current position of strength, as it already has near total control of the areas where it operates and would receive little benefit.¹²⁵ It is possible, however, that a weakening of the Sinaloa cartel could force it to break up in to smaller groups, as has happened to other major DTOs in the past. The Mexican government would have a much easier time dealing with a splintered Sinaloa organization through negotiations or force. Obviously, Mexican government negotiation with DTOs is not desirable from a U.S. perspective, and the United States would advocate force.

¹¹⁸ Dr. George Grayson, e-mail message to authors, February 18, 2011

¹¹⁹ Dr. Beatriz Ramirez, interview by authors, Mexico City, D.F., Mexico, March 12, 2011.

¹²⁰ Amy L. Roderick, e-mail message to authors, February 23, 2011

Nick Casey, interview by authors, Mexico City, D.F., Mexico, March 12, 2011.

¹²¹ James Gregg, “Border Boletín: Fewer drug killings in Sonora than other Mexican states,” *Arizona Daily Star* (February 10, 2011), http://azstarnet.com/news/local/border/article_8d49edec-355a-11e0-889c-001cc4c002e0.html, (accessed March 22, 2011).

¹²² George Grayson, “Mexico’s Struggle with Drugs and Thugs,” *Foreign Policy Association* No.331 (Fall 2008), p.20.

¹²³ Ibid.

¹²⁴ Ioan Grillo, “Should Mexico Call for a Cease-Fire with Drug Cartels?” *TIME* (Mexico City, Mexico: April 7, 2011) <http://www.time.com/time/world/article/0,8599,2063696,00.html> (accessed April 8, 2011).

¹²⁵ Nick Casey, interview by authors, Mexico City, D.F., Mexico, March 12, 2011.

- *The Sinaloa cartel and Tijuana cartel would likely expand into the cocaine, heroin, and methamphetamine networks.* Several experts agree that if marijuana were no longer a profitable enterprise for the Sinaloa cartel and Tijuana cartel they would shift towards trafficking in other profitable drugs.¹²⁶ What is less clear, however, is how this type of transition would affect violence. As mentioned earlier in this paper, the Gulf Cartel, La Familia, and the Juarez cartel are already heavily committed to the cocaine, heroin, and methamphetamine industries to various extents. These other DTOs might respond violently to any attempts by the Sinaloa cartel or Tijuana cartel to take any of their shares of the trafficking market. Given that its revenue streams were disrupted, there is also the possibility that the Sinaloa cartel would make a deal with its allies, the Gulf Cartel and La Familia, rather than fight them. The implications of this are unclear. If this occurs then the legalization of marijuana will have brought few security dividends.

Long-term effects on Mexican DTOs and Security Implications

- *The Sinaloa cartel and Tijuana cartel could collapse.* The cartels could collapse and be either absorbed into other DTOs or destroyed by the Mexican government forces. This is only possible if virtually everything goes wrong for these two groups, and the authorities on both sides of the border properly exploit the short-term opportunities. This second scenario is more unrealistic than the first given the current landscape.
- *The Sinaloa cartel and Tijuana cartel could survive, but in a weaker form.* The authorities have much to gain from this third scenario as the groups will not be as strong financially, and thus not as well armed. This may affect their ability to carry out bold attacks on the military and police, but it will not cause them to implode in a violent and chaotic fashion either. If the Sinaloa cartel and the Tijuana cartel have fewer financial resources, this would make it much harder for them (especially the Sinaloa cartel) to keep up its huge network of police and government informants. This network is vital, because its absence would make them, and especially their leadership, much more vulnerable to raids by the authorities.¹²⁷
- *Violence could increase.* The most important long-term indicator by which to measure the effects of legalization on Mexican DTOs is the level of violence. While expert testimony throughout our project made it clear that in the short term violence would probably increase this is not necessarily true for the medium or long term. If the loss of marijuana revenue legalization would cost the Sinaloa cartel enough to prevent it from continuing its aggressive policy of expansion across Mexico this would certainly be a positive development, as it would lead to less clashes with other DTOs over transport corridors into the United States and perhaps a return to the truces that were largely in effect for much of the 1990s and early 2000s among the major DTOs. However, it must be acknowledged that any predictions about the future, despite the testimony to support such predictions are in their very nature mere speculation. It is impossible to predict whether the legalization of marijuana will have a definite effect on these two DTOS with any certainty. However if the history of drug trafficking tells us anything it is that you cannot remove a revenue source that supplies as much as half of an organizations income without having a major effect on that organization. The question is will the Mexican and American governments

¹²⁶ Dra. Beatriz Ramirez, interview by authors, Mexico City, D.F., Mexico, March 12, 2011.

Dr Luis Astorga, interview by authors, Mexico City, D.F., Mexico, March 15, 2011.

¹²⁷ Nick Casey, interview by authors, Mexico City, D.F., Mexico, March 12, 2011.

be able to exploit these effects quickly or will these DTOs simply regroup and continue trafficking other drugs. In any event the legalization of marijuana will, according to numerous experts, force these DTOs to stop trafficking by making it unprofitable to do so. Thus, the question policymakers may want to ask is “if we can deny traffickers the ability to profit off the sales of marijuana, how can we take advantage of that opportunity?”

Chapter 4: Recommendations for Implementation

The United States: Economic Opportunities

In 2008, U.S. states spent a total of \$2,301,542,000 on law enforcement costs related to marijuana possession.¹²⁸ In addition to drastically lowering these costs, legalization on the state level would likely produce significant tax revenues for state and local governments. This could greatly reduce the burden on law enforcement and the budget of any state that undertook this reform. These extra funds should be allocated properly in order to help law enforcement capitalize on the revenue disruption experienced by Mexican DTOs.

- *Tax revenues and savings resulting from legalization should be used to help push Mexican DTOs out of the marijuana market.* Increased state law enforcement efforts aimed at Mexican marijuana in the United States would work in synchrony with the market forces unleashed by legalization. The most obvious priority in this scenario should be eradication campaigns aimed at Mexican DTO grow operations in U.S. National Forests.

Mendocino County, California provides an excellent example of what would be possible by turning state marijuana revenues against DTOs. Sheriff Allman's 'zip-tie' and 'cooperative registration' programs have generated increased revenues which allowed his police department to recoup enforcement costs, retain personnel during an economic downturn, and increase eradication efforts. This partially explains why his department was able to achieve record eradication numbers last year.¹²⁹ Furthermore, this summer his department will participate in a \$1.5 million, 3 week operation in conjunction with 5 other counties in Northern California aimed solely at eradicating illegal grow operations in the Mendocino National Forest.¹³⁰ There are, however, other ways in which states could use revenues saved or generated by marijuana policy reform to go on the offensive against DTOs from Mexico.

- *Extra funds generated by marijuana legalization should be used by states to target retail distribution networks, and other criminal activities linked to Mexican DTOs.* As we mentioned earlier in this report, Mexican DTOs are poly-drug and poly-crime organizations. U.S. states that reap the economic benefits of marijuana legalization reforms could use their additional funds to hinder other transnational criminal activities which affect their territories. This is especially true for states along the southwest border, which face threats related to the trafficking of arms, people, and other drugs at the hands of Mexican DTOs. It would be particularly effective if these funds were used to increase police operations aimed at dismantling the large street gangs which purchase drugs in wholesale quantities from Mexican DTOs. The 2010 National Drug Threat Assessment lists 19 such gangs, which are able to "undersell other local dealers who do not have the capacity to buy large wholesale quantities directly from Mexican DTOs."¹³¹

The federal government would probably not receive tax revenues from marijuana sales created by legalization on the state level. Due to the international obligations discussed in this report,

¹²⁸ Jeffrey A. Miron, *The Budgetary Implications of Drug Prohibition*. 36.

¹²⁹ Tom Allman, interview by authors, Ukiah, CA, March 7, 2011.

¹³⁰ Ibid

¹³¹ United States Department of Justice, National Drug Intelligence Center, *National Drug Threat Assessment 2010*. 12.

marijuana will likely remain illegal on the federal level for the foreseeable future. However, there are several other federal policy changes which would aid the government of Mexico in their fight against DTOs. Many do not require additional funds, but instead necessitate intelligent policy reform.

Information Sharing and Transnational Security Cooperation

Information sharing and transnational security cooperation are primary weapons in the fight against DTOs. This cooperation component is vital because most of the violence is fueled by the transnational flow of money, drugs, and weapons throughout the hemisphere. Effective coordination informs the policy process. A lack thereof diminishes the effectiveness of operations, and limits any government's ability to have an impact on violence. It is therefore imperative that we examine our mechanisms for cooperation

- *The United States and Mexico need to make earnest efforts to increase cooperation.* This is not an innovative or revolutionary recommendation. In fact it has repeatedly been suggested in newspaper articles and been promised in government statements.¹³² Among the planned collaborative improvements is the creation of a trans-border, real time communication network between the United States and Mexico.¹³³ These types of agreements have long been discussed by various administrations in both the United States and Mexico, yet every year the deficiencies in bilateral information persist. One example of the failings in these efforts was on display in this year's ATF 'Fast and Furious' operation. This initiative, which allowed over a thousand U.S. weapons to be smuggled into Mexico as part of a vast sting operation, strained U.S.-Mexico relations and was carried out in secret and without coordination with Mexican law enforcement.¹³⁴

The main stumbling block to improved bilateral informational sharing and security cooperation is trust. As 'Fast and Furious' demonstrates, many U.S. agencies do not trust their Mexican counterparts. There are frequent corruption allegations against the Mexican police on all levels, with the local police being the most susceptible to bribery.¹³⁵ This problem is being addressed by the Calderón administration which has, among other things, sought to integrate the corrupt local police into the more reliable state police structure.¹³⁶ If these reforms prove successful in reigning in police corruption then transnational security between the United States and Mexico may hopefully improve. However, the United States needs to provide institutional development assistance to encourage these developments. In addition, Mexico must make policy changes that address the domestic roots of the problem.

¹³² Sivilia Otero, "Estados Unidos manda más de 130 aviones y helicópteros vigías," *El Universal* March 31, 2011), <http://www.eluniversal.com.mx/nacion/184458.html> (accessed April 2, 2011).

¹³³ Ibid.

¹³⁴ Nacah Cattán, "Mexico Lawmakers Livid over ATF Fast Furious Operation," Focus Mexico (March 9, 2011), <http://focusmexico.wordpress.com/2011/03/10/2011-03-09-mexico-lawmakers-livid-over-atf-fast-furious-operation/> (accessed March 22, 2011).

¹³⁵ Dudley Althaus, "Mexico's plague of police corruption," *Houston Chronicle* (October 18, 2010), <http://www.chron.com/disp/story.mpl/world/7251246.html> (accessed March 22, 2011).

¹³⁶ Nick Casey, interview by authors, Mexico City, D.F., Mexico, March 12, 2011.

Inequality and Poverty Reduction

The drug industry and the violence that is associated with it cannot be eliminated by U.S. policy reform and brute force alone, rather the Mexican government needs to take steps to improve its economic situation. Instead of looking at the drug war from a reactionary standpoint, the Mexican government needs to take proactive measures and determine the root of the drug problem. Poverty and inequality are two areas that the Mexican government needs to prioritize in order to improve its economy and, in turn, combat DTOs.

- *Mexico needs to reduce poverty and inequality.* As a region, Latin America is plagued with inequality and Mexico is no exception. The wealth disparity in Mexico is vast, and those living in poverty are left with few options and little assistance from the Mexican government. According to the U.S. Central Intelligence Agency's World Fact Book, in 2008, 47 percent of Mexico's population was living in poverty (using the asset-based definition of poverty).¹³⁷ This level of poverty leaves many Mexicans desperate to find a source of income. Poverty, coupled with weak institutions leaves Mexico "more vulnerable to drug trafficking and cartel violence."¹³⁸ Unfortunately, the types of improvements necessary to reduce poverty and inequality are difficult to sell to the public because they are long-term goals and their results are not seen for years. President Calderón chose to focus on using force against the DTOs because the results of these efforts can be seen immediately. However, as many Mexicans are now realizing, the use of force has not produced the results that were promised. Economic policy reforms are difficult because they do not provide immediate gratification that will be realized in one *sexenio*.¹³⁹ That being said, these difficulties should not outweigh the possible positive results that policy reform could have for Mexico.
- *Mexico should provide assistance programs that deter the populace from participating in illicit activities.* Involvement in the drug trafficking industry is a lucrative option to many Mexicans living below the poverty line. Small farmers saw the price of corn drop dramatically following the North American Free Trade Agreement (NAFTA), and some of these farmers turned to the cultivation of illicit crops, such as marijuana in order to compensate for their lost profits.¹⁴⁰ Farmers would likely be receptive to alternatives to growing illicit crops; the only problem is that there are not many viable alternatives for small farmers in Mexico. The Mexican government needs to provide low interest loans and technical assistance to help Mexican farmers switch from illicit crops to licit ones. Farmers, however, are not the only people involved in the drug industry.

Adolescents, who often serve as *sicarios* for the DTOs, view working for these organizations as a profitable and readily available option. Many cities in Mexico are wreaked with poverty and there are few career opportunities. To an adolescent, working for a DTO often appears to be the best way to break the cycle of poverty. DTOs exploit poverty in Mexico to their advantage by penetrating every aspect of a community and recruiting Mexico's poor.¹⁴¹ In order to reduce Mexicans' participation in DTOs, the Mexican government needs to bolster education, community development, and drug rehabilitation programs in the cities in order to reach

¹³⁷ United States Central Intelligence Agency. *The World Factbook*. <https://www.cia.gov/library/publications/the-world-factbook/index.html> (accessed April 10, 2011).

¹³⁸ Congressional Research Service, *Mexico's Drug Cartels*, by Colleen W. Cook (February 25, 2008), 18.

¹³⁹ Nick Casey interview by authors, Mexico City, D.F., Mexico, March 12, 2011.

¹⁴⁰ Douglas Monroy, *The Borders Within: Encounters Between Mexico and The U.S.* (Arizona: The University of Arizona Press, 2008).

¹⁴¹ George W Grayson, *La Familia Drug Cartel: Implications for U.S.-Mexican Security*. (Strategic Studies Institute, December 2010), 31.

Mexico's youth. There is "no possibility, realistically, of improving the situation of violence in Mexico if there is not a general change in the true national problems."¹⁴²

The Justice System and Corruption

Lamentably, Mexico is not just fighting organized crime, but is locked in several simultaneous struggles. In addition to the war against DTOs and the continuing fight against poverty and inequality, Mexico is also struggling to establish legitimacy and the rule of law. Mexico is plagued by a culture of impunity stemming from official corruption and a dysfunctional judicial system. As the president of a Mexican civil society organization stated during an interview for this report, "people don't believe in laws in Mexico. The laws don't work."¹⁴³

- *Mexico must create a reliable and professional police force.* One reason for the public's distrust in Mexican rule of law is the fact that the entity responsible for enforcing laws is notoriously corrupt. When President Calderón launched his offensive against drug trafficking organizations in 2006, he deployed the Mexican military to handle a law enforcement matter. He chose to use the military to fight DTOs in part because Mexican police are under-trained and ill equipped to deal with this type of threat. In addition, corruption is so widespread in the Mexican police that they cannot be relied upon for such a task. If Mexican law enforcement does not respect the laws, there is no incentive for the Mexican people to do so. The police reforms currently under way seem promising, but they must succeed if Mexico is to address its current climate of violence.
- *Mexico must reform its judicial system.* Unfortunately, the list of deficiencies in Mexico's justice system is lengthy. There are problems with every step of the Mexican judicial process, from arrest, to investigation, to trials, sentencing, and imprisonment. The culture of impunity in Mexico is fueled by the low rates of crimes investigation, and few investigations lead to trials and sentencing. As Beatriz Ramirez, a professor for Mexico's Judicial Professional Training Institute in Mexico City stated, "cases never arrive to trial. If you look at the level of impunity in Mexico it is extremely high. There is very little possibility of being detained. It is a matter of bad luck if you're detained; the probability is only 2 percent."¹⁴⁴ As a result of Mexico's inability to investigate crimes and execute trials, only one or two of every 100 crimes in Mexico leads to a sentencing.¹⁴⁵

Not only is a robust judicial system necessary for the consolidation of democracy in Mexico, it is an essential tool in the fight against DTOs. It is not enough to simply arrest players involved in the drug trade, because arrests must result in sentencing in order to have any impact. President Calderón's strategy has relied heavily on military offenses against DTO members, with the intent of capturing key players. Without a functional justice system, however, this strategy is ineffective. Furthermore, without any real threat of imprisonment, there is no deterrent to criminal involvement. The Mexican government is cognizant of weaknesses in its judicial system, and there have been efforts at reform. Several key reforms were introduced in 2008, but

¹⁴² Jorge Hernandez Tinajero, interview by authors, Mexico City, D.F., Mexico March 14, 2011.

¹⁴³ Jorge Hernandez Tinajero, interview by authors, Mexico City, D.F., Mexico, March 14, 2011.

¹⁴⁴ Dra. Beatriz Ramirez, interview by authors, Mexico City, D.F., Mexico, March 16, 2011.

¹⁴⁵ Matt Ingram and David A. Shirk, "Judicial Reform in Mexico: Toward a New Criminal Justice System," *University of San Diego Trans-Border Institute*, (May 2010).

are facing obstacles to being implemented.¹⁴⁶ Fighting corruption and implementing reforms to the judicial system are just part of the systemic transformation that will help Mexico ultimately defeat organized crime syndicates. It requires a multidisciplinary effort with an eye toward the future.

Marijuana Legalization in Context

As we mentioned at the beginning of this report, marijuana legalization is not a silver bullet. It would likely reduce DTO revenues in the short term, but this can either increase or decrease violence in Mexico. Ultimately, the success of legalization depends upon other actions by the stakeholders involved. Targeted U.S. domestic law enforcement programs, U.S.-Mexican security cooperation, and Mexican economic and judicial reforms are prerequisites for implementing marijuana legalization with any security gains in mind. Otherwise, such a measure would be ineffective and possibly damaging. What is important is that policy makers on both sides of the Rio Grande examine all available remedies and their possible side effects. With this in mind they can hope to create drug policies that are more informed, and therefore more effective, in the future.

¹⁴⁶ Ibid, 1.

Appendix A: Interviews

Name	Occupation	Interview Date/Location
Amy L. Roderick	Public Information Officer, U.S. Drug Enforcement Administration (DEA) San Diego Field Division	February 23, 2011 Email correspondence
Dr. Peter Reuter	Professor, University of Maryland/ Contributor, RAND Corporation	February 24, 2011 Phone interview
Dr. George Grayson	Professor, College of William & Mary	February 18, 2011 Email correspondence
Mark Lovelace	Supervisor, 3rd District Humboldt County Board of Supervisors	March 6, 2011 1602 Old Arcata Road, Bayside, CA 95524
Nathaniel Morris	President, Humboldt Green Research	March 6, 2011 Phone Interview
Tom Allman	Sheriff of Mendocino County, CA	March 7, 2011 589 A Log Gap Rd. Ukiah, CA 95482
Rosalie Liccardo Pacula	Co-Director, RAND Drug Policy Research Center Senior Economist, RAND Corporation	March 9, 2011 Phone Interview
Nicholas Casey	Reporter, Wall Street Journal	March 12, 2011 Col. Condesa, Ciudad de México, D.F., México
Dr. Jorge Hernandez Tinajero	Presidente, Colectivo por Una Política Integral CUPIHD/ Profesor de Ciencias Políticas y Sociales - UNAM	March 14, 2011 Ed. CUPIHD, Ciudad de México, D.F., México
Dr. Luis Astorga	Profesor, Instituto de Investigaciones Sociales-UNAM	March 15, 2011 Ciudad Universitaria, Ed. de Investigaciones Sociales, Ciudad de México, D.F., México
Dra. Beatriz Ramirez	Profesora Investigadora, Instituto de Formación Profesional de Justicia del Distrito Federal (PGJDF)	March 16 th , Avenida No. 85, Esq., Paseo de La Reforma, Ciudad de México, D.F., México
Dr. José Luis Vázquez	Asuntos Internacionales, Comisionado Nacional contra las Adicciones (CONADIC), Secretaría de Salud. México	March 17, 2011 Av. Paseo de la Reforma No. 450, Ciudad de México, D.F., México
Dra. Alejandra Pérez De León	Asuntos Internacionales, Comisionado Nacional contra las Adicciones (CONADIC), Secretaría de Salud. México	March 17, 2011 Av. Paseo de la Reforma No. 450, Ciudad de México, D.F., México

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