UP IN SMOKE: REMOVING MARIJUANA FROM SCHEDULE I

DAVID R. KATNER*

I. INTRODUCTION

Billions of dollars are spent each year arresting, prosecuting, and incarcerating Americans convicted of possession of cannabis or marijuana.[1] During the 1970's, annual marijuana arrests ranged between 420,000 and 500,000 people each year.[2] By 1995, there were roughly 600,000 marijuana arrests nationwide, with more Americans being imprisoned for possession of marijuana than at any other crime in the nation's history.[3]

* Professor of Clinical Law & Director, Tulane Law School Juvenile Law Clinic

[1] The ACLU estimates the total national expenditure of enforcing marijuana possession laws at approximately $3.613 billion. *The War on Marijuana in Black and White*, ACLU FOUNDATION 1, 22 (2013), https://www.aclu.org/files/assets/aclu-thewaronmarijuana-rel2.pdf.

[2] Dwight S. Fullerton & Marc G. Kurzman, *The Identification and Misidentification of Marijuana*, 3 CONTEMP. DRUG PROBS. 291, 291 (1974).

[3] Eric Schlosser, *More Reefer Madness*, THE ATLANTIC (Apr. 1997), https://www.theatlantic.com/magazine/archive/1997/04/more-reefer-madness/376827. "Among the 360,000 arrests for marijuana possession in New York City between 1997 and

For a period of time our legal system had no prohibitions against possession, use, or distribution of marijuana. However, in the 1930s, the federal government imposed a tax on marijuana, and then adopted criminal sanctions with severe penalties for possession and distribution of the substance.[4] Subsequently, the government adopted specific controlled substance "schedules," classifying marijuana as a Schedule I substance. Consequently, states from coast to coast began prosecuting Americans for possession of marijuana.[5]

The Controlled Substances Act of 1970 is the federal law that categorizes and regulates certain controlled substances.[6] The law organizes controlled substances into five categories: Schedule I, II, III, IV, and V.[7] Schedule I drugs are the most severely restricted under the law and marijuana is currently included in this category.[8] The federal government's policy regarding marijuana has cost states time, energy, and resources.[9] This article advocates removing marijuana from Schedule I and rethinking the imposition of federally imposed criminal penalties on those possessing or distributing cannabis.[10] It is misleading to assert that marijuana has no medicinal application, one of the defining components required by a Schedule I classification.[11] More than half of the state legislatures and the District of Columbia have enacted laws recognizing medical applications of

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2006. . . . 84 percent of the people [arrested] were black or Latino, mostly young men." Steven Wishnia, *Debunking the Hemp Conspiracy Theory*, ALTERNET (Feb. 20, 2008), www.alternet.org/story/77339/debunking-the-hemp-conspiracy-theory.

[4] Marihuana Tax Act of 1937, Pub. L. No. 75-238, 50 Stat. 551.

[5] Marijuana arrests have risen over the past two decades. Between 2001 and 2010 alone, there were 8,244,943 marijuana arrests, more than 7 million of which were for marijuana possession. There were 100,000 more marijuana possession arrests in 2010 than in 2001 (an 18% increase), 200,000 more than in 1995 (a 51% increase), and over 500,000 more than in 1990 (a 193% increase). ACLU, *supra* note 1, at 36.

[6] Controlled Substances Act, 21 U.S.C. § 812(c) (2012).

[7] *Id.*

[8] *Id.*

[9] In 2010, there was one marijuana arrest every 37 seconds, and states spent combined over $3.6 billion enforcing marijuana possession laws. ACLU, *supra* note 1, at 4.

[10] In fact, soon after President Obama was sworn in as president, the U.S. Department of Justice (DOJ) prepared a memo on October 19, 2009 acknowledging the problem with marijuana's Schedule I status, and in the interest of properly utilizing "limited investigative and prosecutorial resources," the DOJ instructed U.S. Attorneys to "not focus federal resources in your States on individuals whose actions are in clear and unambiguous compliance with existing state laws providing for the use of medical use of marijuana." Memorandum from David W. Ogden, Deputy Att'y Gen., U.S. Dep't of Justice (Oct. 19, 2009), http://www.justice.gov/opa/documents/medical-marijuana.pdf.

[11] Beau Kilmer & Robert J. MacCoun, *How Medical Marijuana Smoothed the Transition to Marijuana Legalization in the United States,* 13 ANN. REV. OF LAW & SOC. SCI. 181, 184 (2017).

marijuana,[12] and a growing number of physicians and scientists have recognized the medical benefits of marijuana and now call for the elimination of criminal sanctions. Consumers spent $5.9 billion on legal cannabis in the United States last year, according to the Arcview Group, which studies and invests in the industry.[13] That figure is expected to reach $19 billion by 2021.[14]

The 2017 appointment of a new United States Attorney General by the Trump Administration may have ushered in a major change in the federal government's policy of enforcement laws pertaining to marijuana.[15] The appointment may signal a sudden reversal of previous federal prosecutors' relaxed policies and attitudes towards charging individuals in marijuana possession or distribution cases.[16] This paper argues that, despite the announcements by the appointed Attorney General, marijuana no longer satisfies the statutory definition of Schedule I, and that states should devote their resources to other law enforcement priorities, such as violent offenses or the developing opioid crisis.[17]

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[12] LESTER GRINSPOON & JAMES B. BAKALAR, MARIHUANA, THE FORBIDDEN MEDICINE, 17 n.23 (1997) (explaining marijuana is available for medical use in 35 states).

[13] Avantika Chilkoti, *States Keep Saying Yes to Marijuana Use. Now Comes the Federal No*, N.Y. TIMES (July 15, 2017), https://www.nytimes.com/2017/07/15/us/politics/marijuana-laws-state-federal.html.

[14] *Id.*

[15] Tessa Berenson, *Attorney General Jeff Sessions Just Hinted at a Crackdown on Legal Marijuana,* TIME (Feb. 28, 2017), http://time.com/46854 14/jeff-sessions-recreational-marijuana-legal-crackdown/; Carrie Johnson, *Legal Marijuana Advocates Are Uneasy With Sessions' Stance*, NPR (Apr. 6, 2017), http://www.npr.org/2017/04/06/522821701/legal-marijuana-advocates-are-uneasy-with-sessions-stance; Paul Waldman, *Will Jeff Sessions Launch a War on Weed? If So, It Could Accelerate Marijuana Legalization*, WASH. POST (Apr. 20, 2017), https://www.washingtonpost.com/blogs/plum-line/wp/2017/04/20/will-jeff-sessions-launch-a-war-on-weed-if-so-it-could-accelerate-marijuana-legalization/?utm_term=.ffab3f8bde2d.

[16] Trevor Burrus, *Jeff Sessions's Reefer Madness*, FORBES (June 16, 2017), https://www.forbes.com/sites/trevorburrus/2017/06/16/jeff-sessionss-reefer-madness/#17ac49e01f95 ("Attorney General Jeff Sessions has reefer madness. It was revealed this week that Sessions personally asked Congress for the authority to prosecute medical marijuana providers in the 25 states and three additional jurisdictions (D.C., Guam, and Puerto Rico) where some form of medical marijuana is legal. Sessions wanted Congress to repeal the broadly supported Rohrabacher-Farr Amendment, which prohibits the Justice Department from using federal funds to go after medical marijuana providers and users in those states where it has been made legal.").

[17] *See* Ameet Sarpatwari et al., *The Opioid Epidemic: Fixing a Broken Pharmaceutical Market*, 11 HARVARD L. & POL'Y REV. 463, 467, 473 (2017) (discussing the surge in prescription opioid use due to widespread prevalence and under-treatment of pain., especially chronic, non-malignant pain).

II. DESCRIPTION OF MARIJUANA AND PUBLIC OPINION

The botanical classification for "marijuana" is Cannabis Sativa L. Botanical classifications are unusual for controlled substances listed in Schedule I.[18] Marijuana contains tetrahydrocannabinol ("THC"), the active ingredient in the plant.[19] THC is responsible for most of the psychoactive effects of cannabis, including the "high."[20] Some courts have recognized that more than one species of marijuana exists, creating additional issues for jurisdictions seeking to prosecute marijuana cases and forcing the use of botanical experts to eliminate the presence of a species which has not been specifically prohibited by the federal criminal statute.[21]

The statutory definition of Schedule I requires that the substances listed under it have no medical application.[22] At the time of the original classification of controlled substances, the scientific literature on substances such as marijuana was far less extensive. However, as the scientific study of marijuana has expanded, physicians and researchers have identified many unique applications of cannabis in the treatment of physical ailments,[23] diseases,[24] and medical conditions.[25] Parkinson's Disease is one of the conditions that marijuana appears to provide treatment, which other medications fail to provide.[26] Post-traumatic Stress Disorder

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[18] *See* Bruce Stein et al., *An Evaluation of Drug Testing Procedures Used by Forensic Laboratories and the Qualifications of Their Analysts*, 1973 WIS. L. REV. 727, 767-69 (1973).

[19] *See* Mechoulam, *Marihuana Chemistry*, 168 SCIENCE 1159, 1161 (1970).

[20] J. Cook, D.M. Lloyd-Jones, E. Ogden & Y. Bonomo, *Medical Use of Cannabis: An Addiction Medicine Perspective*, 45 INTERNAL MED. J. 677, 677 (2015).

[21] *See* Stein, *supra* note 18, at 768-69.

[22] The role of the Food and Drug Administration is to review, test and determine what substances are safe and effective for consumption. *See The FDA's Drug Review Process: Ensuring Drugs Are Safe and Effective*, U.S. FOOD & DRUG ADMIN., http://www.fda.gov/drugs/resourcesforyou/consumers/ucm143534.htm (describing the FDA proscribed 12-step approval process pharmacists must comply with to potentially dispense marijuana).

[23] *See* Dr. David Casarett, *A Doctor's Case for Medical Marijuana*, YOUTUBE (May 17, 2017), https://www.youtube.com/watch?v=0ygtX2nyexo.

[24] *See Marijuana: The Latest Scientific Findings and Legalization*, YOUTUBE (Apr. 4, 2017), http://www.youtube.com/watch?v=HvRf_3Bil0A (discussing a finding of a 42% reduction in the use of opiates by patients using medical marijuana for treatment regimens).

[25] *See generally* Penny F. Whiting et al., *Cannabinoids for Medical Use A Systematic Review and Meta-Analysis*, 313 JAMA 2456 (2015).

[26] *See Medical Marijuana and Parkinson's Part 1 of 3*, YOUTUBE (Nov. 21, 2016), https://www.youtube.com/watch?v=LHvPIXGsrHk (documenting a former police captain from South Dakota who has suffered with Parkinson's for twenty years and the impact of his cannabis treatment); *Medical Marijuana and Parkinson's Part 3 of 3*, YOUTUBE (Nov. 21, 2016) https://www.youtube.com/watch?v=*zNT8Zo_sfwo* (showing the effects of cannabis

("PTSD") and some childhood disorders,[27] such as pediatric epilepsy,[28] are also being studied to determine if patients respond favorably to cannabis treatment. Some studies have shown that the use of cannabis and cannabis products is effective in reducing the side effects of chemotherapy for cancer patients.[29] For example, THC preparations nabilone and dronabinol, which have been available and in use for over 30 years, have been shown to counter the effects of chemotherapy-induced nausea and vomiting.[30] Cannabis has also been used to decrease chronic pain in patients otherwise dependent on opiate-based medications.[31] The use of cannabis for treatment of PTSD,[32] Tourette's syndrome,[33] dementia,[34] and epilepsy[35] is

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consumption by the former police officer).

[27] *See generally* R.S. Phillips et al., *Antiemetic Medication for Prevention and Treatment of Chemotherapy-Induced Nausea and Vomiting in Childhood*, COCHRANE DATABASE OF SYSTEMATIC REVIEWS 1 (2016) (showing cannabis has been studied for effectiveness in treating chemotherapy-induced nausea and vomiting); *Medical Marijuana for Kids*, YOUTUBE (July 23, 2010), https://www.youtube.com/watch?v=BP-RHZqTEVs; *Meet the 14-Year-Old Who Helped Legalize Medical Marijuana in NY*, YOUTUBE (July 7, 2014), https://www.youtube.com/watch?v=7UR1UTAVplM (showing reasoning behind NY legislature's legalization of medical marijuana for 14-year-old). *But see Impact of Cannabis on the Brain: The Current Evidence*, YOUTUBE (Apr. 28, 2016), https://www.youtube.com/watch?v=VNhc76S_7VY (indicating opposition to exposing children to cannabis based on current neuroscience research results).

[28] *See Kara's Cannabis Treatment for Autism Self Aggression*, YOUTUBE (Feb. 17, 2017), https://www.youtube.com/watch?v=BcuZ3C9Q3Jg (showing treatment for children with severe autism spectrum disorder receiving treatment with cannabis vapors or other cannabinoid products); *Medical Marijuana for Autism*, YOUTUBE (Jan. 23, 2013), https://www.youtube.com/watch?v=mRUWWtTjHPE (showing a family that enrolled their child suffering from tubular sclerosis in medical marijuana program); *The Surprising Story of Medical Marijuana and Pediatric Epilepsy—TEDx Boulder*, YOUTUBE (Oct. 14, 2013), https://www.youtube.com/watch?v=ciQ4ErmhO7g (discussing non-psychoactive marijuana treatment administered to a 5-year-old girl which greatly reduced her seizures).

[29] NATIONAL ACADEMIES OF SCIENCES, ENGINEERING, & MEDICINE, THE HEALTH EFFECTS OF CANNABIS AND CANNABINOIDS 91-93 (2017) (summarizing research results that showed cannibinoids were similar to conventional antiemetics in treating chemotherapy side-effects) [hereinafter NATIONAL ACADEMIES].

[30] *Id.* at 93; Vincent Vinciguerra, Terry Moore & Eileen Brennan, *Inhalation Marijuana as an Antiemetic for Cancer Chemotherapy,* 85, N.Y. ST. J. OF MED. 525, 525-27 (1988).

[31] Kevin F. Boehnke, Evangelos Litnas & Daniel J. Clauw, *Medical Cannabis Use is Associated with Decreased Opiate Medication Use in a Retrospective Cross-Sectional Survey of Patients with Chronic Pain*, 17 J. OF PAIN 739, 740 (2016).

[32] *See* Marcel Bonn-Miller, *Study of Four Different Potencies of Smoked Marijuana in 76 Veterans with Chronic, Treatment-Resistant PTSD*, U.S. NAT'L LIB. OF MED. (May 3, 2016), https://clinicaltrials.gov/ct2/show/study/NCT02759185.

[33] *See generally* M. Hemming & P.M. Yellowlees, *Effective Treatment of Tourette's Syndrome with Marijuana*, 7 J. OF PSYCHOPHARMACOLOGY 389 (1993).

also currently being studied. Additionally, multiple sclerosis and Alzheimer's patients have found the use of cannabis to be beneficial.[36]

Although most Americans view cannabis principally as a recreational drug, a growing number of people today recognize the medical benefits derived from the properties of cannabis.[37] It is the very recognition of these medical applications that pits the federal definition of a Schedule I controlled substance against the reality of medical benefits derived from this substance. A recent CBS poll concluded that sixty-one percent of Americans favored full legalization of marijuana, the highest percentage recorded.[38] A Quinnipiac poll found that ninety-four percent of responders believed that marijuana ought to be available if their doctors prescribed it[39] (the CBS poll put that number at eighty-eight percent[40]). An overwhelming majority of Americans (seventy-one percent according to the CBS poll and seventy-three percent according to the Quinnipiac poll) said that the federal government should not interfere with states that have already legalized marijuana.[41] This article advocates removal of marijuana from the list of Schedule I controlled substances, or in the alternative, elimination of marijuana altogether from federal controlled substance schedules to allow states to determine the regulatory scheme for cannabis and cannabinoid products.

The elimination of all criminal sanctions for marijuana use and distribution at the federal level makes sense following the numerous state legislatures that have enacted laws de-criminalizing marijuana.[42]

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[34] *See generally* S.R. Krishnan, R. Cairns & R. Howard, *Cannabinoids for the Treatment of Dementia,* 2 COCHRANE DATABASE OF SYSTEMATIC REVIEWS 1 (2009).

[35] *See generally* E.C. Rosenberg et al., *Cannabinoids and Epilepsy*, 12 NEUROTHERAPEUTICS 747 (2015).

[36] *See generally* Ladislav Volicer et al., *Effects of Dronabinol on Anorexia and Disturbed Behavior in Patients with Alzheimer's Disease*, 12 INTERNAT'L J. OF GERIATRIC PSYCHIATRY 913 (1997); John Zajicek et al., *Multiple Sclerosis and Extract of Cannabis: Results of MUSEC Trial,* 83 J. OF NEUROLOGY, NEUROSURGERY & PSYCHIATRY 1125, 1129 (2012).

[37] *See* GRINSPOON & BAKALAR, *supra* note 12.

[38] *U.S. Voters Support for Marijuana Hits New High: Quinnipiac University National Poll Finds*, QUINNIPIAC U. POLL (Apr. 20, 2017), https://poll.qu.edu/images/polling/us/us04202017_Ummk29xq.pdf.

[39] *Id.*

[40] Jennifer De Pinto et al., *Marijuana Legalization Support at All-Time High*, CBS NEWS (Apr. 20, 2017), http://www.cbsnews.com/news/support-for-marijuana-legalization-at-all-time-high/.

[41] *Id.*

[42] JONATHAN PAUL CAULKINS, BEAU KILMER & MARK KLEIMAN, MARIJUANA LEGALIZATION: WHAT EVERYONE NEEDS TO KNOW 208 (2012) ("Decriminalization typically refers to removing criminal penalties for possession of amounts suitable for personal

Alternatively, the shifting of marijuana from Schedule I to Schedule II should create a reduction of criminal cases brought against citizens for the possession of marijuana.[43] Further analysis would provide an opportunity for the federal government to determine whether recategorizing marijuana as a Schedule II substance is even necessary.[44] The elimination of marijuana from federal regulation would open the door for states to determine whether or not to impose any regulatory structure[45] or criminal sanctions[46] for the possession or distribution of marijuana.[47]

The recorded shift in public attitudes towards cannabis should diminish political opposition to the adoption of this proposal.[48] At one time, elected officials feared that support for decriminalization of marijuana might make them vulnerable to political accusations that they were "soft on crime."[49]

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consumption, at least for first time offendersFalse That does not require that possession of a small amount be made legal; it could still be punished with fines. Treatment mandates, or other civil sanctions: just not criminal conviction or criminal penaltiesFalse about a dozen U.S. states "decriminalized" marijuana possession in the 1970s, beginning with Oregon in 1973, and a few more have joined them since.").

[43] In nearly half of all states, over 90% of marijuana arrests were for possession. In only seven states did possession arrests account for less than 80% of all marijuana arrests, and in only two. . .was the figure below 65%." ACLU, *supra* note 1, at 39.

[44] *See* MARK EDDY, CONG. RESEARCH SERV., MEDICAL MARIJUANA: REVIEW AND ANALYSIS OF FEDERAL AND STATE POLICIES 32 (2010) (describing the legal definition of schedule II substances).

[45] NATIONAL ACADEMIES, *supra* note 29, at 377 ("Several states have legalized cannabis for medical or recreational use since the release of the 1999 Institute of Medicine (IOM) report Marijuana and Medicine: Assessing the Science Base. As of October 2016, 25 states and the District of Columbia had legalized the medical use of cannabis, while 4 states and the District of Columbia had also legalized recreational cannabis use. In November 2016, voters in California, Maine, Massachusetts, and Nevada approved ballot initiatives to legalize recreational cannabis, while voters in Arkansas, Florida, Montana, and North Dakota approved ballot initiatives to permit or expand the use of cannabis for medical purposes.").

[46] Schlosser, *supra* note 3 ("The laws of at least fifteen states now require life sentences for certain nonviolent marijuana offenses. In Montana a life sentence can be imposed for growing a single marijuana plant or selling a single joint. Under federal law the death penalty can be imposed for growing or selling a large amount of marijuana, even if it is a first offense.").

[47] *See, e.g.*, CAL. MED. ASS'N, PHYSICIAN RECOMMENDATION OF MEDICAL CANNABIS: GUIDELINES OF THE COUNCIL ON SCIENTIFIC AFFAIRS SUBCOMMITTEE ON MEDICAL MARIJUANA PRACTICE ADVISORY 5 (2011).

[48] *See, e.g.*, Tom Huddleston, *U.S. Surgeon General Warms to Medical Marijuana*, FORTUNE (Feb. 4, 2015), www.fortune.com/2015/02/04/surgeon-general-medical-marijuana/.

[49] Schlosser, *supra* note 3 ("Millions of ordinary Americans have been arrested for marijuana offenses in the past decade, and hundreds of thousands have been imprisoned, yet marijuana use is increasing and has regained its status as a symbol of youthful rebellion. Instead of debating the wisdom of our current policies, members of Congress and of the

However, the acceptance of medicinal uses for marijuana, now acknowledged by the medical community and much of the general public, help to eliminate the political barriers that have dominated this substance since 1937. The call for decriminalization or even legalization of marijuana "have been frequent and have come from highly respectable institutions as well as individuals,"[50] including the Shafer Commission, who recommended that President Nixon repeal criminal sanctions for marijuana, the American Medical Association, the American Bar Association, President Carter, and the National Academy of Sciences panel, which through the National Research Council suggested decriminalization in 1982.[51]

III. HISTORY OF MARIJUANA USES AND LAWS IN THE U.S. AND ABROAD

Many European settlers, dating back to the 1600s, used cannabis plant stalks to produce hemp.[52] Hemp fiber, seed, and oil were used to make products like twine, paper, and clothing.[53] George Washington[54] and Thomas Jefferson[55] were both believed to have cultivated hemp. Even the Declaration of Independence was written on hemp.[56] Hemp was a major cash crop and it was grown throughout the nineteenth and early twentieth centuries.[57] Additionally, physicians and pharmacists used the cannabis flower to treat numerous sicknesses.[58] Marijuana use, which generally refers to smoking the flower for medicinal, recreational, or spiritual purposes, was seen as providing a multitude of medical benefits, and marijuana was listed in the United States pharmacopoeia due to its medicinal value in 1850.[59] Marijuana was so widespread prior to the early 1900s, there was no social stigma attached to using or possessing it.[60]

Administration are competing to see who can appear toughest on drugs.").

[50] ROBERT J. MACCOUN & PETER REUTER, DRUG WAR HERESIES: LEARNING FROM OTHER VICES, TIMES, AND PLACES 376-77 (2001).

[51] *Id.* at 376.

[52] ROBERT DEITCH, HEMP-AMERICAN HISTORY REVISITED, VITAL RESOURCE TO CONTENTIOUS WEED 19 (2003).

[53] *Id.*

[54] *Id.*

[55] *Id.*

[56] MARTIN A. LEE, SMOKE SIGNALS: A SOCIAL HISTORY OF MARIJUANA – MEDICAL, RECREATIONAL, AND SCIENTIFIC 18 (2012).

[57] *See id.* at 19 (alleging that it was the third largest cash crop in the U.S. by mid-nineteenth century).

[58] DEITCH, *supra* note 52.

[59] *Id.*

[60] *Id.*

By the end of the 19th century, morphine addiction was on the rise[61] and Congress passed the Food and Drug Act of 1906.[62] The legislation established the Food and Drug Administration ("FDA") and required that, if the agency aimed to regulate a drug, it first had to prove that it was unsafe.[63] In 1914, Congress passed the Harrison Act in response to an increase in the amount of drug use, but the Act held the physicians who wrote the prescriptions liable for illegal distribution, and Congress consequently amended the law in 1922.[64] Marijuana was first identified in federal legislation with the adoption the Marihuana Tax Act of 1937. The Marihuana Tax Act allowed marijuana to be sold and allowed physicians to issue prescriptions for its medical use, provided that a tax was paid.[65]

In 1951, Congress passed the Boggs Act which punished marijuana possession and distribution with severe sentences.[66] In 1970, Congress adopted the Controlled Substances Act ("CSA") which listed marijuana as a Schedule I substance, the drug class that carries the highest penalties.[67] Congress passed the CSA as part of the Comprehensive Drug Abuse Prevention and Control Act of 1970,[68] making it illegal to "manufacture, distribute, . . . dispense, or possess with intent to manufacture, distribute, or dispense, a controlled substance."[69]

In 1971, President Richard Nixon declared a "War on Drugs," in large measure as a response to the drastic increase of drug and alcohol related crimes and fatalities in America.[70] In 1973, President Nixon signed into law the Reorganization Plan Number 2, requiring all taxable employers to

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[61] *See* D. COURTWRIGHT, DARK PARADISE: OPIATE ADDICTION IN AMERICA BEFORE 1940, at 46 (1982).

[62] DAVID F. MUSTO, THE AMERICAN DISEASE, ORIGINS OF NARCOTIC CONTROL 5 (1987) ("By 1900, America had developed a comparatively large addict population, perhaps 250,000, along with a fear of addiction and addicting drugs. This fear had certain elements which have been powerful enough to permit the most profoundly punitive methods to be employed in the fight against addicts and suppliers.").

[63] Katherine A. Van Tassel, *Slaying the Hydra: The History of Quack Medicine, the Obesity Epidemic and the FDA's Battle to Regulate Dietary Supplements Marketed as Weight Loss Aids*, 6 IND. HEALTH L. REV. 203, 220-21 (2009).

[64] *Regulation of Narcotics and Controlled Substances*, 21 ILL. PRAC., THE LAW OF MEDICAL PRACTICE IN ILLINOIS § 15:74 (3d ed. 2011).

[65] Marihuana Tax Act of 1937, Pub. L. No. 75-238, 50 Stat. 551.

[66] Boggs Act of 1951, Pub. L. No. 82-255. 65 Stat. 767.

[67] Controlled Substances Act, 21 U.S.C. § 801 (1970).

[68] *Id.*

[69] *Id.* at § 841(a)(1).

[70] Andrea Walker, Brianne Posey & Craig Hemmens, *What Are the Legal Implications of Marijuana Legalization?, in* LEGALIZING MARIJUANA, A SHIFT IN POLICIES ACROSS AMERICA 187, 191 (Nancy E. Marion & Joshua B. Hill eds., 2016). *See generally* A. BENAVIE, DRUGS: AMERICA'S HOLY WAR (2012).

report employees who consumed illegal drugs while working their jobs.[71] The Nixon administration also created a federally subsidized drug treatment program, which dominated federal antidrug spending from 1971 to 1975.[72] After the decline of the heroin epidemic in the United States in the mid-1970s, interest in drug policy at the federal level diminished, federal expenditures declined, and Presidents Ford and Carter both "distanced themselves from the drug issue."[73] Although President Carter endorsed the removal of criminal penalties for possession of small amounts of marijuana for personal use, no legislation was enacted in support of this proposal.[74]

By 1988, Congress passed the Drug-Free Workplace Act, which established requirements for employers to conduct drug tests for employees of government organizations and those working with vulnerable populations like children and the elderly. If an employer found evidence of controlled substance use, they were allowed under this Act to terminate that employee.[75] In the final year of the Reagan administration, Congress passed the Anti-Drug Abuse Act of 1988, creating an office within the White House dedicated to managing federal drug-control efforts: the Office of National Drug Control Policy ("ONDCP").[76] The Clinton administration made no substantial official changes to federal drug policy, although between 1992 and 2000, the number of federal prisoners serving time for drug offenses rose.[77] During the George W. Bush administration, marijuana was again in the federal spotlight with the ONDCP publishing many documents claiming that marijuana was far more dangerous than previously thought, and certainly more dangerous than it was twenty years earlier when it had a lower THC content.[78] Meanwhile, Canada had decided to remove criminal penalties for possession of small amounts of marijuana,[79] consistent with the policies of at least eleven U.S. states at the time.[80]

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[71] Walker, Posey & Hemmens, *supra* note 70, at 191.

[72] DAVID BOYUM & PETER REUTER, AN ANALYTIC ASSESSMENT OF U.S. DRUG POLICY 6 (Marvin H. Kosters ed., 2005).

[73] *Id.* at 6-7.

[74] *Id.*

[75] Walker, Posey & Hemmens, *supra* note 70, at 191.

[76] BOYUM & REUTER, *supra* note 72, at 7-8.

[77] *See generally* U.S. DEP'T OF JUST., COMPENDIUM OF FEDERAL JUSTICE STATISTICS (2003).

[78] *Id.* at 9.

[79] *Id. See also* MARCEL MARTEL, NOT THIS TIME: CANADIANS, PUBLIC POLICY, AND THE MARIJUANA QUESTION, 1961-1975 (2006).

[80] *Id.*

IV. CREATION OF SCHEDULES OF DRUGS

In 1937 Congress enacted the Marihuana Tax Act.[81] One scholar connects the passage of the Marihuana Tax Act to the Supreme Court upholding the National Firearms Act ("NFA"), which prevented gifting or loaning someone a machine gun without purchasing a transfer stamp, however, the government never made transfer stamps.[82] A month after the Supreme Court's decision, the Treasury Department went before Congress seeking adoption of a marijuana tax stamp system, similar to the NFA transfer stamp system.[83] The Marihuana Tax Act required all individuals who sold marijuana commercially, prescribed it professionally, or possessed it in any other way to purchase a tax stamp in order to legally possess marijuana.[84]

Because of the high cost of the tax, however, the Marihuana Tax Act was tantamount to a legal prohibition.[85] Anyone who violated the provisions was subject to fines of up to $2000 and imprisonment up to five years.[86] It also authorized the Secretary of the Treasury to grant the Commissioner and agents of the Treasury Department's Bureau of Narcotics absolute administrative, regulatory, and police powers for enforcement.[87] Various states quickly followed Congress' enactment and, by the end of 1937, forty-six out of forty-eight states had officially classified cannabis as a narcotic, similar to morphine, heroin, and cocaine.

At the time the Marihuana Tax Act was passed by Congress, medical professionals were strongly opposed to the legislation, indicating that the substance provided significant medical applications, and that it did not

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[81] Marihuana Tax Act of 1937, Pub. L. No. 75-238, 50 Stat. 551.

[82] *Dr. David F. Musto Interview*, PBS FRONTLINE (1997-1998), https://www.pbs.org/wgbh/pages/frontline/shows/dope/interviews/musto.html.

[83] *Id.*

[84] *Id.*

[85] *Taxation of Marijuana: Hearing on H.R. 6835 Before the H. Comm. on Ways & Means,* 75th Cong. 7 (1937) (statement by H.J. Aslinger, Commissioner of Narcotics, Bureau of Narcotics, Department of Treasury, suggesting that the purpose of the tax was to make it virtually impossible for some to acquire marijuana).

[86] *Id.*

[87] LESTER GRINSPOON & JAMES B. BAKALAR, MARIHUANA: THE FORBIDDEN MEDICINE 8 (1993) ("The law was not aimed at medical use of marihuana—its purpose was to discourage recreational marihuana smoking. It was put in the form of a revenue measure to evade the effect of Supreme Court decisions that reserved to the states the right to regulate most commercial transactions. By forcing some marihuana transactions to be registered and others to be taxed heavily, the government could make it prohibitively expensive to obtain the drug legally for any other than medical purposes. Almost incidentally, the law made medical use of cannabis difficult because of the extensive paperwork required of doctors who wished to use it.").

possess addictive qualities in nature, like other classified narcotics.[88]

> The Controlled Substances Act ("CSA"), enacted as Title II of the Comprehensive Drug Abuse Prevention and Control Act of 1970, replaced the Marihuana Tax Act of 1937. Today, the CSA serves as the key federal drug policy under which controlled substances, including marijuana, are regulated. The Drug Enforcement Administration ("DEA") within the Department of Justice ("DOJ") is the lead federal law enforcement agency responsible for enforcing the CSA. The CSA categorizes all controlled substances into one of five Schedules (classifications) based on medicinal value, harmfulness, and potential for abuse or addiction. Schedule I is reserved for the most dangerous drugs that have a high potential for abuse and no recognized medical use in the United States. No doctor may prescribe Schedule I substances under federal law, and such substances are subject to production quotas by the DEA. Marijuana was placed on Schedule I, in part, because it was no longer being prescribed for medicinal purposes and because some believed that marijuana use posed unreasonable risks of harm.[89]

Additionally, due to the classification as a Schedule I substance, any research projects involving cannabis must now surpass a labyrinth of barriers:

> Investigators seeking to conduct research on cannabis or cannabinoids must navigate a series of review processes that may involve the National Institute on Drug Abuse (NIDA), the U.S. Food and Drug Administration (FDA), the U.S. Drug Enforcement Administration (DEA), institutional review boards, offices or department in state government, state boards of medical examiners, the researcher's home institution, and potential funders.[90]

V. EVOLUTION OF MEDICINAL APPLICATIONS OF MARIJUANA

Cannabis sativa is thought to be one of the world's oldest cultivated plants, and some of the earliest written records of cannabis use date back to

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[88] William C. Woodward, American Medical Association Opposes the Marijuana Tax Act of 1937 (July 10, 1937), http://www.marijuanalibrary.org/AMA_opposes_1937.html (publishing a letter from William C. Woodward, Legislative Counsel, American Medical Association, to Pat Harrison, Chairman, Committee on Finance, United States Senate).

[89] Helia Garido Hull, *Lost in the Weeds of Pot Law: The Role of Legal Ethics in the Movement to Legalize Marijuana*, 119 PENN ST. L. REV. 333, 338-9 (2014) (discussing the scheduling under the CSA).

[90] NATIONAL ACADEMIES, *supra* note 29, at 378.

the 6th century B.C.[91] Chinese Emperor Fu His refers to "Ma," the Chinese word for cannabis, around 2900 B.C. as a popular medicine that possessed both yin and yang.[92] Cannabis was prescribed in ancient Egypt to treat inflammation and other ailments.[93] In addition to medical use, marijuana has an extended history of religious use.[94] In fact, there are a wide variety products and applications that derive from marijuana.[95]

Marijuana is currently classified as a Schedule I drug based on data suggesting that it has a high potential for abuse and no currently accepted medical use,[96] despite its long history of medicinal use in other cultures.[97] Today, many states have enacted laws which identify specific medicinal and therapeutic uses for marijuana.[98] Thus, there is a split between the federal government and many state governments on the criminalization of marijuana use and possession.[99]

This disagreement regarding marijuana's potential medicinal benefits has not been settled by science. The history of marijuana as medicinal treatment and various state laws stand in contrast to some studies that insist marijuana does not have any health benefits:

> Marijuana has no officially recognized health benefits according to the U.S. Food and Drug Administration ("FDA") and more than twenty leading medical and scientific organizations. Recent studies, however, have identified potential benefits from marijuana for treating a limited number of medical conditions, including chronic neuropathic or

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[91] *Id.* at 43; Michael Aldrich, *History of Therapeutic Cannabis, in* CANNABIS IN MEDICAL PRACTICE 35-52 (Mary Lynn Mathre ed., 1997) (providing an overview of the historical origins of marijuana for medicinal uses from ancient Egypt to the modern era).

[92] Deitch, *supra* note 52, at 9.

[93] Lecia Bushak, *A Brief History of Medical Cannabis: From Ancient Anesthesia to the Modern Dispensary*, MEDICAL DAILY (Jan. 21, 2016), http://www.medicaldaily.com/brief-history-medical-cannabis-ancient-anesthesia-modern-dispensary-370344.

[94] *See* ERNEST ABEL, MARIJUANA: THE FIRST 12,000 YEARS 19-21 (1981).

[95] *See generally* ROWAN ROBINSON, THE GREAT BOOK OF HEMP: THE COMPLETE GUIDE TO THE ENVIRONMENTAL, COMMERCIAL, AND MEDICINAL USES OF THE WORLD'S MOST EXTRAORDINARY PLANT (1996) (describing the wide variety of products derived from the hemp plant).

[96] Controlled Substances Act, 21 U.S.C. §§ 80-904 (1970); U.S. v. Bauer, 84 F.3d 1549 (9th Cir. 1996)
(stating the Religious Freedom Restoration Act of 1993 should permit Rastafarian defendants to show use of marijuana for bona fide religious reasons in their defense against charges of possession of marijuana).

[98] *See* Bushak, *supra* note 93.

[98] Rosalie Liccardo Pacula et al., *State Medical Marijuana Laws: Understanding the Laws and Their Limitations*, 23 J. PUB. HEALTH POL'Y 413, 415 (2002).

[99] Controlled Substances Act, 21 U.S.C. § 872(e) (2012) (indicating the use of marijuana is federally illegal for any purpose except specifically authorized research).

> cancer pain, spasticity associated with neurological disorders like multiple sclerosis, nausea, appetite loss, and sever weight loss associated with wasting illnesses such as cancer and AIDS. Comparable benefits are often achieved, however, from FDA-approved pharmaceutical medications that are synthesized from chemicals found in the marijuana plant (cannabinoids), which are not smoked and have far less or no intoxicating effects.[100]

The most current version the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders Fifth Edition ("DSM-5") also reflects the tension between marijuana's effects as a narcotic versus potential beneficial medicinal effects.[101] The DSM-5 notes that synthetic versions of marijuana are available by prescription for several medical issues, including recognizes that:

> Synthetic oral formulations (pill/capsule) of delta-9-tetrahydrocannabinoid (delta-9-ZTHC) are available by prescription for a number of approved medical indications (e.g., for nausea and vomiting caused by chemotherapy, for anorexia, and weight loss in individuals with AIDS.[102]

While acknowledging the medicinal applications of cannabis, the DSM-5 also recognizes that,

> Individuals who regularly use cannabis can develop all the general diagnostic features of a substance use disorder. Cannabis use disorder is commonly observed as the only substance use disorder experienced by the individual; however, it also frequently occurs concurrently with other types of substance use disorders (i.e., alcohol, cocaine, opioid).[103]

The lack of consensus in the scientific community has not dissuaded some states from taking steps validate the use of marijuana for medical purposes. In 1978, New Mexico adopted a law that permitted the use of marijuana for medical research with cancer patients, establishing the Lynn Pierson Therapeutic Research Program.[104] Shortly thereafter, thirty states passed similar laws.[105] Individual municipalities also began passing laws

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[100] Douglas B. Marlowe et al., *Malpractice Liability and Medical Marijuana*, 29 HEALTH L. 1, 3 (2016) (citations omitted).

[101] AMERICAN PSYCHIATRIC ASSOCIATION, DIAGNOSTIC AND STATISTICAL MANUAL OF MENTAL DISORDERS 511 (5th ed. 2013).

[102] *Id.*

[103] *Id.*

[104] N.M. ST. LEG. HEALTH & ENV'T DEPT., THE LYNN PIERSON THERAPEUTIC RESEARCH PROGRAM: A REPORT ON PROGRESS TO DATE 1 (1983).

[105] *See* RICHARD GLEN BOIRE & KEVIN FEENEY, MEDICAL MARIJUANA LAW 26-27

allowing for marijuana use. For example, in November of 1991 San Francisco passed an ordinance legalizing marijuana, opening the door for the state of California to follow.[106]

Furthermore, foreign governments are recognizing medical applications for the use of cannabis. In 2013, the Australian New South Wales parliamentary committee reviewed and was generally supportive of the use of medical cannabis, even though a strong evidence base for assessing balance between therapeutic benefits and potential harms had not been conducted.[107] There seems to be an international trend toward less aggressive criminal sanctions for the use of marijuana, indicated by legal changes in Italy,[108] Spain, Luxembourg, Austria, Belgium,[109] and the Netherlands.[110] Currently, other countries, including Germany, Switzerland, and Britain, are exploring the possibility of changing their sanctions.[111]

VI. ADDICTIVE?

A common perception is that substances are placed in the federal Schedules because of their addictiveness. Addiction is considered a disease, defined as "a chronically relapsing [disorder] characterized by compulsive drug taking, an inability to limit the intake of drugs, and the emergence of a withdrawal syndrome during cessation of drug taking (dependence)."[112]

(2006) (outlining the chronology of the legalization of medical marijuana in California).

[106] *Id.*

[107] J. Cook et al., *Medical Use of Cannabis: An Addiction Medicine Perspective*, 45 INTERNAL MED. J. 667, 677 (2015).

[108] Giancarlo Arnao, *Italian Referendum Deletes Criminal Sanctions for Drug Users*, 24 J. OF DRUG ISSUES 483, 483-88 (1994).

[109] Craig Reinarman & Peter Cohen, *Law, Culture, and Cannabis: Comparing Use Patterns in Amsterdam and San Francisco*, *in* POT POLITICS, MARIJUANA AND THE COSTS OF PROHIBITION 113, 115 (Mitch Earleywine ed., 2007) ("During the 1990s, the governments of Switzerland, Germany, Spain. Austria, Belgium, Luxembourg, and Italy shifted their cannabis laws toward Dutch-style decriminalization. Since 1996, all jurisdictions in Australia have liberalized their cannabis laws, with half moving to a system of expiation notices or parking ticket-style fines. Portugal decriminalized cannabis in 2001.").

[110] MACCOUN & REUTER, *supra* note 50, at 376 ("In 1976, the Dutch adopted a formal written policy of nonenforcement for violations involving possession or sale of up to thirty grams [about an ounce] of cannabis. . .In late 1995, this threshold was lowered to five grams in response to domestic and international pressures.").

[111] *Id.* at 241 (stating that somewhere between 1,200 and 1,500 coffee shops now sell cannabis products in the Netherlands.).

[112] George F. Koob, Pietro Paolo Sanna & Floyd E. Bloom, *Neuroscience of Addiction*, 21 NEUROSCI. 467, 467 (1998).

> In vulnerable individuals, results from the interaction of the drugs or substances with genetic, environmental, psychosocial, and behavioral factors, resulting in long-term alterations in the biochemical and functional properties of certain groups of neurons in the brain. Neurons, one of the major cell types . . . are able to transmit information to distant locations and to communicate with other neurons through the use of diverse chemical substances known as neurotransmitters. Dopamine is one such neurotransmitter. The transmitting neuron stores the neurotransmitter until the neuron is stimulated, at which time the neurotransmitter is released. The transmitter is then transfused across a divide known as a synapse and subsequently binds to a receptor, which is a special recognition site. These postsynaptic neurons may be excited, inhibited, or subject to more complex biochemical alterations, depending upon the transmitter.[113]

The National Survey on Drug Use and Health in 2005 stated that marijuana abuse and dependence has increased among all age groups in the past decade.[114] This survey also claimed that marijuana use is linked to increased risk of adverse health and psychosocial outcomes: an increased risk in contracting a sexually transmitted disease, pregnancy, decreased educational attainment, delinquency, problems with law enforcement, and adverse career outcomes.[115] Nevertheless, the addictiveness of marijuana appears to be less severe than the addictiveness observed with cocaine, opiates, alcohol, or even caffeine.[116] Marijuana consumers appear to meet fewer criteria of the Diagnostic and Statistical Manual of Mental Disorders (DSM) for dependence; their withdrawal experience is not as dramatic, and the severity of the associated consequences is not as extreme as with other regulated substances.[117] However, researchers dispute this conclusion and some argue that cannabis withdrawal syndrome appears to be similar to those of other substance withdrawal syndromes.[118] Ultimately, as the

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[113] Sana Loue, *The Criminalization of the Addictions: Toward a Unified Approach*, 24 LEGAL MED. 281, 286 (2003) (citations omitted).

[114] Alan J. Budney et al., *Marijuana Dependence and Its Treatment*, 4 ADDICT. SCI. CLIN. PRACT. 4, 5 (2007).

[115] *Id.* at 4.

[116] Robert Gore & Mitch Earleywine, *Marijuana's Perceived Addictiveness: A Survey of Clinicians and Researchers, in* POT POLITICS, MARIJUANA AND THE COSTS OF PROHIBITION 179-80 (Mitch Earleywine ed., 2007).

[117] *See* AMERICAN PSYCHIATRIC ASSOCIATION, *supra* note 101; Gore & Earleywine, *supra* note 117, at 176-85.

[118] Alan Budney, John Hughes, Brent Moore & Ryan Vandrey, *Review of the Validity and Significance of Cannabis Withdrawal Syndrome*, 161 AM. J. PSYCHIATRY 1967, 1967 (2004).

DSM-4 has stated, "[s]ymptoms of cannabis withdrawal . . . have been described . . . but their clinical significance is uncertain."[119]

By the time the DSM-5 was published in 2013, the American Psychiatric Association had recognized that the abrupt stoppage of daily or near-daily cannabis use often results in withdrawal, which includes symptoms such as irritability, anger or aggression, anxiety, depressed mood, restlessness, sleep difficulty, and decreased appetite or weight loss.[120] The DSM-5 further recognized that although cannabis withdrawal was typically not as severe as withdrawal from other substances, cannabis withdrawal can still cause acute distress, difficulty quitting, or relapse.[121]

Most studies and documentation about cannabis use disorders, including demographics and clinical correlations, are based upon the older DSM-4 definitions. The current DSM-5 diagnostic criteria for cannabis use disorders has been revised to combine cannabis "dependence" and "abuse" syndromes into a single disorder, removed the "legal problems" element, added additional symptoms, such as craving and withdrawal, and developed a severity metric.[122] This new criteria creates a need for updated studies which employ the new parameters established in the DSM-5.[123] The new definitional material notwithstanding, the studies clearly suggest that marijuana use may result in addiction disorders, although the severity of the disorder may be different from other substances which result in addiction disorders.

An individual's reliance upon substances such as alcohol, heroin, cocaine, and marijuana was once considered to be a moral lapse or defect in one's character.[124] Today the reliance on these substances is thought to be a disease. However, the penalties for use of such substances is not based upon the current state of knowledge surrounding marijuana, dependence, or recovery from dependence on marijuana.[125]

The establishment of the federal drug schedules has not been dependent upon the result of substance use creating or resulting in addiction disorders.[126] The Schedule I categorization of marijuana has complicated

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[119] *Id.* (quotations omitted).

[120] AMERICAN PSYCHIATRIC ASSOCIATION, *supra* note 101.

[121] *Id.*

[122] *See* Deborah S. Hasin et al., *Prevalence and Correlates of DSM-5 Cannabis Use Disorder, 2012-2013: Findings from the National Epidemiologic Survey on Alcohol and Related Conditions-III*, 173 AM. J. PSYCHIATRY 588, 588-89 (2016).

[123] *Id.*

[124] *See* Loue, *supra* note 113, at 281.

[125] *See id* at 200-09.

[126] *See generally* J. Herbie DiFonzo & Ruth C. Stern, *Divided We Stand: Medical Marijuana and Federalism*, 27 HEALTH L. 17 (2015) (reflecting on the "cognitive dissonance" between medical views of marijuana as "relatively non-addicting" and its

the ability for those in the medical field to conduct further studies. The performance of new studies has depended upon the willingness of the federal government to provide access to the controlled substance, which has attracted critics who suggest that the government has funded or approved studies which embrace conclusions supportive of existing federal drug policies.[127]

VII. DISSEMINATED PROPAGANDA ABOUT MARIJUANA, AND LEGAL ARBITRARINESS

Much of the federal regulatory scheme regarding cannabis appears to be the result of misguided attitudes based upon ignorance or cultural biases carried forward from one generation to another.[128] Prior to the adoption of the Marihuana Tax Act, the William Randolph Hearst-owned newspaper company,[129] along with the Federal Bureau of Narcotics, engaged in the widespread dissemination of propaganda about marijuana.[130] Marijuana legislation came into existence not because of the popular theory that the paper industry feared competition with hemp products,[131] but rather as a result of racism and "the culture wars".[132] In the 1930s, the assumed users

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classification as a Schedule I drug.).

[127] *See* Alexander W. Campbell, *The Medical Marijuana Catch-22: How the Federal Monopoly on Marijuana Research Unfairly Handicaps the Rescheduling Movement,* 41 AM. J. L. & MED. 190, 191-92 (2015); Shauncy Ferro, *Why It's Been So Hard for Scientists to Study Medical Marijuana*, POPULAR SCI. (Apr. 18, 2013), http://popsci.com/science/article/2013-04/why-its-so-hard-scientists-study-pot.

[128] *See* DiFonzo & Stern, *supra* note 126, at 18 (identifying Henry J. Anslinger, as the principal architect of U.S. anti-marijuana policy and culminating in the filling up of federal prisons with many people charged with possession of marijuana).

[129] *See generally* W.A. SWANBERG, CITIZEN HEARST (describing that Hearst was in debt in the 1930s and he feared the competition which hemp production might create for his other business endeavors).

[130] *See* Trevor Burrus, *Jeff Sessions's Reefer Madness*, FORBES (June 16, 2017), https://www.forbes.com/sites/trevorburrus/2017/06/16/jeff-sessionss-reefer-madness/#17ac49e01f95.

[131] *See* Wishnia, *supra* note 3 (claiming that Hearst and the Dupont Company conspired when new mechanical hemp fiber stripping machines were developed to conserve hemp's high cellulose pulp).

[132] *Id.* "The first drug-prohibition laws in the United States were opium bans aimed at Chinese immigrants. San Francisco outlawed opium in 1875, and the state of California followed six years later. In 1886, an Oregon judge ruled that the state's opium prohibition was constitutional even if it proceeded 'more from a desire to vex and annoy the Heathen Chinese, than to protect the people from the evil habit,' notes Doris Marie Provine *in Unequal Under Law: Race in the War on Drugs.* In *How the Other Half Lives*, journalist Jacob Riis wrote of opium-addicted white prostitutes seduced by the 'cruel cunning' of Chinese men." *Id.*

of marijuana included "Mexicans, West Indians, blacks, and underworld whites," all of whom at the time were stereotyped as violent criminals.[133] Edward L.W. Green and Kevin F. Steinmetz have described the impact of racial associations with marijuana:

> It is largely agreed upon that marijuana flowed into the United States from the southern border states. The use of the drug was quickly racialized and demonized and, as Inciardi (2008) described, "not only was marijuana an 'intoxicant of blacks and wetbacks' that might have a corrupting influence on white society, it was considered particularly dangerous because of its alien (Mexican) origins." (citations omitted). In other words, not only had marijuana been largely rejected as a viable commercial product, it had also become increasingly associated with immigrants and racial /ethnic minorities and their supposed dangerousness and/or criminality, thus creating a connotation which upset some of the xenophobic and racist attitudes of the time.[134]

Following World War I, concerns over cannabis control appear to have originated in the South and Southwestern states. For example, the governor of Louisiana, John M. Parker, and the president of Louisiana's Board of Health, Dr. Oscar Dowling, argued for the enactment of cannabis regulations following the arrest of a white 21-year-old musician in New Orleans.[135] The musician forged a physician's signature to obtain "mariguana" imported from Mexico, and indicated that the substance would "make you feel good."[136] Dr. Dowling warned the governor that the drug was "a powerful narcotic, causing exhilaration, intoxication, delirious hallucinations, and its subsequent actions, drowsiness and stupor."[137] He also urgently requested the Surgeon General of the Public Health Service to take action to control marijuana.[138] Additionally, on November 20, 1920, Governor Parker alerted John F. Kramer, the Prohibition Commissioner, that "two people were killed a few days ago by the smoking of this drug, which seems to make them go crazy and wild."[139]

A 1931 medical journal reflected the attitudes of white society leaders

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[133] RICHARD J. BONNIE & CHARLES H. WHITBREAD II, THE MARIJUANA CONVICTION: A HISTORY OF MARIJUANA PROHIBITION IN THE UNITED STATES 52 (1999).

[134] Edward L.W. Green & Kevin F. Steinmetz, *Up In Smoke: Marijuana, Abstract Empiricism, and the Criminological Imagination, in* LEGALIZING MARIJUANA, A SHIFT IN POLICIES ACROSS AMERICA 24 (Nancy E. Marion et al. eds., 2016).

[135] DAVID F. MUSTO, THE AMERICAN DISEASE: ORIGINS OF NARCOTIC CONTROL 218 (3rd ed. 1999).

[136] *Id.*

[137] *Id.*

[138] *Id.*

[139] *Id.* at 218-19.

prior to the adoption of federal legislation in the late 1930s:

> The debasing and baneful influence of hashish and opium is not restricted to individuals but has manifested itself in nations and races as well. The dominant race and most enlightened countries are alcoholic, whilst the races and nations addicted to hemp and opium, some of which attained to heights of culture and civilization have deteriorated both mentally and physically.[140]

Eugene Stanley, the District Attorney of New Orleans in 1931, in describing the importation of marijuana, proposed that federal aid be provided to states to assist in the "effort to suppress a traffic as deadly and as destructive to society as . . . other . . . narcotics."[141] The U.S. Surgeon General at the time also asserted similar assumptions about the effects of marijuana.[142] Thus, connecting the use of marijuana to marginalized groups, attaching a criminal stigma, and eliciting a cause and effect connection helped to establish the foundation of federal regulation of marijuana.

The Commissioner of the Federal Bureau of Narcotics, Harry Anslinger, provided hyperbolic testimony to Congress about a 20-year-old-boy from Tampa, Florida who killed his brothers, sister, and parents with an axe after ingesting marijuana, suggested that a single marijuana cigarette might create a "homicidal mania" in the user.[143] "The emotional appeal and hyperbole offered during the early Congressional hearings made no reference to either scientific findings or medical conclusions of that era."[144]

Anslinger's budget for federal drug control was so limited[145] that

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[140] RICHARD J. BONNIE & CHARLES H. WHITBREAD II, THE MARIJUANA CONVICTION: A HISTORY OF MARIJUANA PROHIBITION IN THE UNITED STATES 152 (1999) (quoting Albert E. Fossier, *The Marihuana Menace*, 84 NEW ORLEANS MED. SURG. J. 247 (1931)).

[141] Loue, *supra* note 113, at 301 n.130.

[142] *Id.*

[143] Laura Smith, *This Axe Murderer Helped Make Weed Illegal*, TIMELINE (Jul. 21, 2017), https://timeline.com/this-axe-murderer-helped-make-weed-illegal-5696b480b16c.

[144] *See* Trevor Burrus, *Jeff Sessions's Reefer Madness*, FORBES (June 16, 2017) https://www.forbes.com/sites/trevorburrus/2017/06/16/jeff-sessionss-reefer-madness/#17ac49e01f95. "At the time of prohibition, scientists knew very little about how cannabis operated on the human body and whether there were any legitimate medical uses. Six months after the Act was passed, Dr. Herbert Wollner, a chemist at the Treasury Department (the act, as a tax, was enforced by treasury) wrote a memo to Anslinger: 'virtually nothing is known concerning the nature of the narcotic principle, its physiological behavior, and the ultimate effect upon the social group'. Burras wrote Wollner later complained that 'ninety percent of the stuff that has been written on the chemical end of Cannabis is absolutely wrong, and, of the other ten percent, at least two-thirds of it is of no consequence.'" *Id.*

[145] *Dr. David Musto Interview*, PBS (1997-98),

"[p]ublicity and warnings became the methods of control" in an attempt to dissuade people from using marijuana and other controlled substances.[146] For example, a 1938 *Reader's Digest* article co-written by Anslinger was entitled *Marijuana: Assassin of Youth* and was described as a "smear campaign" that sought to create public deterrence with language like:

> The sprawled body of a young girl lay crushed on the sidewalk the other day after a plunge from the fifth story of a Chicago apartment house. Everyone called it suicide, but it was murder. The killer was a narcotic known to America as marijuana, and to history as hashish. It is a narcotic used in the form of cigarettes, comparatively new to the United States and as dangerous as a coiled rattlesnake.[147]

Further attempts to develop public support for regulation included the release of the movie *Reefer Madness*,[148] which depicted marijuana users as depraved criminals capable of any act of misconduct.[149] However, some scholars have concluded that, despite the fanfare of federal legislative enactments such as the Marihuana Tax Act of 1937, the Bogs Act of 1951, and the Narcotics Control Act of 1956, "neither federal funding nor programs were substantial . . . [and] the Federal Bureau of Narcotics remained a small agency with no more than three hundred agents."[150]

Though the evolution of federal marijuana legislation can be characterized as a racially motivated control mechanism, it is also possible that economics played a role in the genesis of federal legislation. Dr. David Musto, a physician and historian at Yale, found that contrary to the circulated theories:

> Marijuana started to come into the United States in the 1920s along with Mexican immigrants, who worked in the beet fields, in the gardens, and so on. Some of the first anti-marijuana laws occurred in,

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http://www.pbs.org/wgbh/pages/frontline/shows/dope/interviews/musto.html. "Harry J. Anslinger, really did not want, in his heart, a federal anti-marijuana law. Because he saw it as putting a tremendous burden on the Federal Bureau of Narcotics [FBN]. They got no more money, they got no more agents, and they're supposed to stamp out a weed. He was telling me that once he was driving across a bridge in the upper Potomac, he stopped his car, and he got out, and he says, there it was—marijuana, as far as you could see it on this river. And he said, 'This, they want me to stamp out.'" *Id.*

[146] MUSTO, *supra* note 62, at 214 ("The number of agents began to decline, and the Bureau entered a decade of low budgets, averaging 1.1 to 1.3 million dollars annually.").

[147] Green & Steinmetz, *supra* note 134, at 25.

[148] GRINSPOON & BAKALAR, *supra* note 87, at 8 ("The film *Reefer Madness*, made as part of Anslinger's campaign, may be a joke to the sophisticated today, but it was once regarded as a serious attempt to address a social problem, and the atmosphere and attitudes it exemplified and promoted continue to influence American culture today.").

[149] *See generally* REEFER MADNESS (Motion Picture Ventures 1936).

[150] BOYUM & REUTER, *supra* note 72, at 5.

> somewhat unusual places, such as Arizona, Colorado, Idaho, Michigan. And this is because the Mexican immigrants did grow marijuana and did use marijuana and it caused some concern among the people in the vicinity.
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> Then in the 1930s, when the Great Depression hit, these people became a feared surplus in our country. People tried to get them to go back to Mexico. They were thought to be undercutting Americans for jobs, and they were thought to take marijuana, go into town on weekends, for example, and create mayhem . . . Even researchers, who were most calm, so to speak, about marijuana saw it as a very serious problem with regard to releasing inhibitions.[151]

Removal of the inexpensive plant consumed by Mexican migrant workers for recreational or therapeutic use was thought to reduce the oversupply of labor during the start of the Great Depression. The impact of the federal government's active use of propaganda as a mechanism to achieve control over the consumption of controlled substances, especially cannabis, appears to have been effective for decades. However, during the 1970s, widespread use of cannabis in the U.S.[152] undermined the government's use of exaggerated claims of the dangers of cannabis.[153] President Nixon wanted the National Institute of Mental Health to do further research on marijuana and, with the passage of the Comprehensive Drug Abuse Act of 1970,[154] a commission was established to research marijuana and drug abuse in general.[155] The commissions' conclusion, bound in a green covered document and entitled "Marijuana: Symbol of Misunderstanding," was that marijuana should be decriminalized, and that small amounts of cannabis for personal use should be handled with fines,[156] like a ticket.[157] President Nixon did not support this conclusion and "made

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[151] *Dr. David F. Musto Interview*, *supra* note 82.

[152] MARIJUANA: A SIGNAL OF MISUNDERSTANDING, THE TECHNICAL PAPERS OF THE FIRST REPORT OF THE NATIONAL COMMISSION ON MARIJUANA AND DRUG ABUSE, VOL. II 106 (1972) (The most significant finding from the arrest data available for the states is the rapid increase in marihuana arrests between 1965 and 1970. During these years the number of arrestees increased 1,000%).

[153] ED ROSENTHAL & STEVE KUBBY, WHY MARIJUANA SHOULD BE LEGAL 91 (2003) ("A 1982 NAS study put its finger on the contempt that many young people have for the marijuana laws, noting that because they see 'no rational basis for the legal distinction between alcohol and marijuana [they] may become cynical about America's political institutions and democratic processes.").

[154] Comprehensive Drug Abuse Prevention and Control Act of 1970, Pub. L. No. 91-513, 84 Stat. 1236.

[155] MUSTO, *supra* note 135, at 256.

[156] MARIJUANA: A SIGNAL OF MISUNDERSTANDING, *supra* note 152, at 1165-67.

[157] *Id.*

it clear that marihuana would not be decriminalized while he was in office."[158] However, around the same time, the National Organization for the Reform of Marijuana Laws was formed in response to the long minimum jail sentences for possession of marijuana.[159] Then, "at the end of the [19]70s, . . . the parents movement formed and [also] by this time drug experts were saying that marijuana is just a stage of life."[160]

Decriminalization efforts did not surface again until the Jimmy Carter administration and the culmination of decriminalization appeared to coincide with the decline of support for marijuana.[161] On the other hand, the Reagan administration was strongly anti-drug and anti-marijuana.[162] In 1986, Congress re-imposed mandatory minimum sentences for drug offenses and in 1988 an even more severe drug law was enacted, which introduced the death penalty for so-called "drug kingpins."[163]

It is significant that the Congressional process, which adopted federal controls over cannabis, was devoid of any scientific review specifically concerning cannabis.[164] The Congressional Record reflects that no experts testified in any hearings, no physicians were called to provide any expert concerns over the exposure the public might have had to cannabis, and no studies of any kind were included in the process that gave rise to federal regulation of the substance.[165] Today, under such circumstances, we would easily conclude that the Congressional decision to engage in regulation was completely arbitrary.[166] This is a compelling reason to re-examine the initial legislation that gave rise to subsequent enactments, which labelled cannabis deserving of Schedule I status.

Congress' decision to restrict access to cannabis was the result of the combination of simple anecdotal stories designed to play upon racial

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[158] MUSTO, *supra* note 135, at 256.

[159] *Dr. David F. Musto Interview*, *supra* note 82.

[160] *Id.*

[161] MUSTO, *supra* note 135, at 263.

[162] BOYUM & REUTER, *supra* note 72, at 7 ("Federal interest grew rapidly again after the election of Ronald Reagan, who early in his first term gave major speeches announcing new initiatives against drugs. This time cocaine was the primary target, although marijuana received increased attention as well, thanks in part to the growing influence of nonprofit antidrug organizations.").

[163] MUSTO, *supra* note 135, at 274-78; Eric Sevigny & Jonathan Caulkins, *Kingpins or Mules: An Analysis of Drug Offenders Incarcerated in Federal and State Prisons*, 3 CRIMINOLOGY & PUB. POL'Y 401, 404 (2004).

[164] MUSTO, *supra* note 135, at 219-29.

[165] *Id.*

[166] *See generally* Lisa Schultz Bressman, *Judicial Review of Agency Inaction: An Arbitrariness Approach.* 79 NYU L. REV. 1657 (2004) (discussing the complexities of agency inaction—i.e., the Justice Department's inaction by failing to reclassify cannabis—and the judicial review standards applicable to agency decisions).

prejudice and ignorance of the substance subject to the legislation. This early legislation, including the 1937 Marihuana Tax Act, later played a major role in the decision to include cannabis among Schedule I substances. By controlling access to the substance, the government has been able to pick and choose the studies it wishes to advance and effectively cut off access for researchers who seek to test the substance against previously asserted claims that fare poorly under scientific scrutiny.[167]

The statutory scheme that permits the Attorney General to reclassify a controlled substance is substantially flawed once it permits political objectives to regulate and restrain scientific inquiry. Consequentially, this procedure has served to maintain an arbitrary process that prevents individuals from challenging current assumptions and beliefs and, perhaps more importantly, from gaining access to marijuana to engage in scientific research.

VIII. RESCHEDULING MARIJUANA TO SCHEDULE II

The reclassification of marijuana from Schedule I to Schedule II has previously been considered by the Federal Drug Enforcement Administration ("DEA").[168] Hearings were conducted by the DEA in 1986 following a petition to reclassify cannabis from Schedule I to Schedule II.[169] Subsequently, in 1988, Administrative Law Judge Francis L. Young referred to marijuana in his ruling as "one of the safest, therapeutically active substances known to man."[170] Young granted approval of the proposed schedule change,[171] but the DEA Administrator in 1992 issued a final rule which denied the change and rejected all claims about marijuana's therapeutic benefits.[172] In 2002, Americans for Safe Access ("ASA") filed a petition with the DEA seeking to reschedule cannabis from Schedule I to Schedule III, IV, or V because of the medical uses cannabis provides.[173] ASA attached over 200 peer-reviewed publications to its petition, including a 1999 Institute of Medicine report concluding that marijuana offered therapeutic benefits.[174] The DEA denied the petition in 2011.[175] Thus,

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[167] MUSTO, *supra* note 62.

[168] *See* DiFonzo & Stern, *supra* note 126, at 18.

[169] Controlled Substances Act, 21 U.S.C. § 812(b)(2) (1970) (describing Schedule II classifications as having high potential for abuse and a currently accepted medical use with severe restrictions).

[170] Marijuana Rescheduling Petition, Docket No. 86-22, at 58-59 (U.S. Dep't of Justice Sept. 6, 1988)

[171] *Id.* at 67.

[172] Marijuana Scheduling Petition, 57 Fed. Reg. 10499 (Mar. 26, 1992).

[173] Americans for Safe Access v. Drug Enf't Admin., 706 F.3d 438, 452 (D.C. Cir. 2013).

[174] *See* PETITION TO RESCHEDULE CANNABIS (MARIJUANA) 22-24 (Oct. 9, 2002),

persuading the DEA to reclassify cannabis under the law appears unlikely.

In addition to the direct petitioning process to the DEA requesting reclassification of cannabis from Schedule I to Schedule II, multiple lawsuits have—unsuccessfully—sought to reclassify cannabis to Schedule II.[176] As of this date, both administrative and legal approaches have proven to be unsuccessful in achieving a reclassification of marijuana.

Reclassification is an increasingly important objective because of the ever-widening split between federal and state legal systems. States are moving forward with the removal of criminal sanctions for personal use of cannabis,[177] and providing approval for the medical applications of cannabis. Physicians now seeking to provide patients with access to cannabis run the potential risk of exposure to federal prosecution, which could lead to various collateral consequences including increased insurance rates, loss of civil liberties, and even loss of the ability to practice medicine.[178] Patients also are exposed to possible federal prosecution.

Had the classification of marijuana as a Schedule I controlled substance been the result of scientific studies, longitudinal research, and committee hearings that included research, expert, and physician testimony, then the current federal bureaucratic resolve might appear justified. This did not occur when, in 1937, Congress grouped marijuana with other more harmful controlled substances. These same unsupported perceptions of marijuana continue to prevail despite increased legislation decriminalizing marijuana on the state level.[179] The multi-billion-dollar cannabis industry should be reconsidered by politicians at the federal level for revenue and taxation purposes.[180] However, this is not likely to occur under the current Attorney

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http://www.drugscience.org/PDF/Petition_Final_2002.pdf. *See generally* Campbell, *supra* note 127, at 197-99.

[175] Denial of Petition to Initiate Proceedings to Reschedule Marijuana, 76 FED. REG. 40552 (July 8, 2011) [hereinafter Denial of Petition].

[176] *See generally* Ams. for Safe Access v. Drug Enf't Admin., 706 F.3d 438 (D.C. Cir. 2013); Alliance for Cannabis Therapeutics v. Drug Enf't Admin., 15 F.3d 1131 (D.C. Cir. 1994); Grinspoon v. Drug Enf't Admin., 828 F.2d 881 (1st Cir. 1987); Nat'l Org. for Reform of Marijuana Laws v. Ingersall, 497 F.2d 654 (D.C. Cir. 1974).

[177] Green & Steinmetz, *supra* note 134, at 19, 27 ("Perhaps the most noteworthy of these changes was the legalization/decriminalization of marijuana in two U.S. states. In the November 2012 election, Colorado's Amendment 64 and Washington Initiative 502 passed by democratic vote. In 2014 Alaska and Oregon opted for similar legislation. These bills made personal consumption and possession of up to 1 ounce of marijuana for persons aged 21 and above [legal]").

[178] *See generally* Lester Grinspoon, *Medical Marijuana in a Time of Prohibition*, 10 INTERNAT'L J. OF DRUG POL'Y 145 (1999).

[179] Denial of Petition, *supra* note 175.

[180] *See* JON GETTMAN, LOST TAXES AND OTHER COSTS OF MARIJUANA LAWS 34-37 (2007).

General of the Trump administration.[181]

If Congress were to reschedule cannabis to Schedule II, they "could thereby place regulatory control over the distribution of the drug within its power and in the hands of pharmacists."[182] Regulatory control and oversight for cannabis could follow similar programs that are currently in place for other prescription drugs. For example, states like as Texas and Florida have proactively engaged in developing regulations to control pain management clinics that rely heavily upon opioids for treatment, which has contributed to a twenty percent decrease in the number of opioids dispensed per month.[183] Additionally, almost every state has enacted prescription drug monitoring programs, which establish registries of select controlled substance prescriptions, resulting in a decrease in opioid-related overdose deaths.[184] Similarly, state governments have developed the background and expertise to engage in legislative solutions appropriate to protect their citizens while also increasing legal access to cannabis. This would permit the medicinal use of marijuana in a more controlled environment by establishing monitored and controlled distribution to those who have documented medical needs.[185]

Schedule II drugs require that "(A) the drug or other substance has a high potential for abuse, (B) the drug or other substance has a currently accepted medical use in treatment in the United States or a currently accepted medical use with severe restrictions, and (C) abuse of the drug or other substances may lead to severe psychological or physical dependence."[186]

The CSA authorizes "the Attorney General to add to, transfer between, or remove from schedules any substance deemed to meet, or not to meet, the inclusion criteria of a schedule."[187] The Attorney General may initiate

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[181] *See* Waldman, *supra* note 15.

[182] *See* Andrew Renehan, Note *Clearing the Haze Surrounding State Medical Marijuana Laws: A Preemption Analysis and Proposed Solutions*, 14 HOUS. J. HEALTH L. & POL'Y 299, 318-19 (2014).

[183] *See* Tatyana Lyapustina et al., *Effect of a "Pill Mill" Law on Opioid Prescribing and Utilization: The Case of Texas,* 159 DRUG & ALCOHOL DEPENDENCE 190, 194 (2016); *see also* Lanie Rutkow, et al., *Effect of Florida's Prescription Drug Monitoring Program and Pill Mill Laws on Opioid Prescribing and Use*, 175 JAMA INTERNAL MED. 1642, 1643 (2015).

[184] *See* Stephen W. Patrick et al., *Implementation of Prescription Drug Monitoring Programs Associated with Reductions in Opioid-Related Death Rates*, 35 HEALTH AFF. 1324 (2016); Sarpatwari et al., *supra* note 17, at 474-75.

[185] *See* Deborah Bonello, *Mexican Marijuana Farmers See Profits Tumble as U.S. Loosens Laws*, L.A. TIMES (Dec. 30, 2015), http://www.latimes.com/world/mexico-americas/la-fg-mexico-marijuana-20151230-story.html (showing that the consequences of rescheduling include the dropping of the price of marijuana in the marketplace).

[186] Controlled Substances Act, 21 U.S.C. § 812(b)(2)(A)-(C) (2011).

[187] Alexander W. Campbell, Note, *The Medical Marijuana Catch-22: How the Federal*

formal rulemaking procedures to make changes to drug classification on his or her own motion, by request from the Secretary of Health and Human Services, or based on a petition by an interested party.[188] The likelihood of an interested party prevailing in this process appears to be slim. In *Craker v. DEA*, Dr. Lyle Craker, a professor at the University of Massachusetts, petitioned the DEA for registration as a manufacturer of marijuana for clinical research.[189] The First Circuit upheld the DEA's denial of Dr. Craker's petition, leaving the National Institute on Drug Abuse ("NIDA") with a monopoly over the marijuana supply and the ability to deny marijuana for qualified research studies that aim to demonstrate medical for the purpose of supporting the rescheduling of the substance.[190]

The National Center for Natural Products Research ("NCNPR") at the University of Mississippi is the only marijuana manufacturer registered with the DEA and NIDA.[191] Clinical researchers seeking to obtain cannabis or cannabinoids from NIDA for research purposes find the process daunting; the substantial layers of bureaucracy that result from the substance's Schedule I categorization has reportedly discouraged many researchers from applying for grant funding or pursuing research efforts involving cannabis.[192]

Many states have enacted medical marijuana statutes recognizing the legitimate uses of cannabis for medicinal interventions with patients since the mid-2000s.[193] Studies have shown that marijuana can relieve pain when other painkillers are inadequate. Multiple sclerosis, cancer, chronic pain, seizures, anxiety disorders, nausea, glaucoma, schizophrenia, HIV/AIDS, anorexia, and PTSD are just some of the diseases and disorders where symptoms have improved due to marijuana use.[194] According to the

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Monopoly on Marijuana Research Unfairly Handicaps the Rescheduling Movement, 41 AM. J.L. & MED. 190, 193 (2015) (citing Controlled Substances Act, 21 U.S.C. § 811(a) (2012)).

[188] Controlled Substances Act, 21 U.S.C. § 811(a) (2012).

[189] *See* Craker v. Drug Enf't Admin., 714 F.3d 17, 20 (1st Cir. 2013).

[190] Campbell, *supra* note 127, at 192.

[191] ED ROSENTHAL & STEVE KUBBY, WHY MARIJUANA SHOULD BE LEGAL 36 (2003). "Most government sponsored research on marijuana is based on the 'pathology theory,' which tries to find problems caused by marijuana. This bias skews the results of the research because it forces researchers to start with preconceived notions. The researcher has a nonscientific interest in producing specific results. Researchers whose work has been rejected by scientific peers because it isn't replicable, such as Dr. Gabriel Nahas or the late Hardin Jones, were able to qualify for government grants. This continues today with funding for biased longitudinal studies and defunding of the Drug Abuse Warning Network (DAWN)." *Id.*

[192] NATIONAL ACADEMIES, *supra* note 29, at 381.

[193] DiFonzo & Stern, *supra* note 126, at 17 ("In the United States, 23 states plus the District of Columbia authorize the use of medical marijuana.").

[194] Russell Rendall, Note, *Medical Marijuana and the ADA: Removing Barriers to*

New England Journal of Medicine, seventy-six percent of surveyed doctors support the use of marijuana for medicinal purposes.[195] Furthermore, "[m]any oncologists already recommend that at least some of their patients obtain marijuana to ameliorate the nausea associated with chemotherapy."[196] Nevertheless, some professional medical organizations indicate that more research is needed to determine the efficacy of and correct dosing for marijuana and cannabinoids, and that there is insufficient evidence to make definitive conclusions concerning the effectiveness of marijuana or marijuana-based products for neurological conditions.[197]

Despite the attitudinal shift of the general public and members of the medical profession, some research points to possible dangers of prolonged marijuana use and possible harm of marijuana exposure to young consumers whose brains have fully developed.[198] The American Academy of Pediatrics has opposed legislation allowing cannabis use for medicinal purposes, citing concerns that adolescent brain development, motor control, coordination, and judgment may be impaired.[199]

However, the federal government's regulation and sweeping prohibition of marijuana for years helped to suppress any scientific or medical research on the long term consequences of marijuana exposure.[200] The lack of definitive studies on many potential therapeutic uses of marijuana resulted in some medical organizations adopting positions in support of studies on medicinal marijuana usage.[201] The aspects of potential medical benefits have yet to be thoroughly studied.[202] Since access to marijuana under current federal regulations can be limited by NIDA, some states have enacted their own legislative controls over studies conducted on

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Employment for Disabled Individuals, 22 HEALTH MATRIX: J. L. MED. 315, 318-21 (2012).

[195] Jonathan N. Adler & James A. Colbert, *Medicinal Use of Marijuana—Polling Results*, NEJM.COM (May 30, 2013), https://www.nejm.org/doi/full/10.1056/NEJMcldel305159.

[196] MACCOUN & REUTER, *supra* note 50, at 379.

[197] *See* Marlowe, *supra* note 100, at 11-12 n.16.

[198] *American Academy of Pediatrics Reaffirms Opposition to Legalizing Marijuana for Recreational or Medical Use*, AM. ACADEMY OF PEDIATRICS (2015), https://aap.org/en-us/about-the-aap/aap-press-room/Pages/American-Academy-of-Pediatrics-Reaffirms-Opposition-to-Legalizing-Marijuana-for-recreational-or-Medical-Use.aspx.

[199] *Id.*

[200] Serge F. Kovaleski, *Medical Marijuana Research Hits Wall of U.S. Laws*, N.Y. TIMES (Aug. 9, 2014), http://www.nytimes.com/2014/08/10/us/politics/medical-marijuana-research-hits-the-wall-of-federal-law.html.

[201] *See* AMERICAN COLLEGE OF PHYSICIANS, SUPPORTING RESEARCH INTO THE THERAPEUTIC ROLE OF MARIJUANA 9 (2008).

[202] Roni Jacobson, *Medical Marijuana: How the Evidence Stacks Up*, SCI. AM. (Apr. 22, 2014), www.scientificamerican.com/article/medical-marijuana-how-the-evidence-stacks-up/.

marijuana,[203] especially for medical research purposes.[204] For these reasons, rescheduling marijuana from Schedule I to Schedule II is not an unrealistic approach to providing access to medical marijuana under federal law. This approach allows for researchers to engage in long term studies to determine whether marijuana should be removed completely from the CSA schedules. Nevertheless, it fails to resolve the current dichotomy between federal and state legislation. At least twenty-five state governments and the District of Columbia have authorized the use of raw or botanical marijuana to treat various medical conditions, and an additional fifteen states have authorized the use of low-potency delta-9-tetrahydrocannabinol[205] marijuana to treat medical conditions.[206]

IX. REMOVING MARIJUANA ALTOGETHER FROM FEDERAL REGULATION

Perhaps a more compelling alternative is the complete removal of marijuana from the federal schedules of drug regulation. This would place the control of marijuana use and distribution exclusively in the hands of the individual states.[207] One may even argue that state regulation of marijuana has been underway since the 1970s, when ten states decriminalized possession of small amounts of marijuana.[208] State regulatory schemes

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[203] *See* Maria Inés Taracena, *Sue Sisley's Medical Marijuana for PTSD Research Officially Rejected by 3 State Universities*, TUCSON WKLY. (2015), http://www.tucsonweekly.com/TheRange/archives/2015/02/23/sue-sisleys-medical-marijuana-forptsd-research-official-rejected-by-3-state-universities.

[204] "In some states, researchers conducting clinical research on cannabis or cannabinoid products must also apply for and receive a controlled substance certificate from a state board of medical examiners or a controlled substance registration from a department of the state government in order to conduct clinical trials or any activity involving Schedule I substances. Some state governments require additional approval. For example, California requires that all trials involving Schedule I or II controlled substances be registered with and approved by the Research Advisory Panel of California. The investigator can apply for a DEA registration and site licensure to conduct research on a Schedule I controlled substance, only when the necessary approvals are secured." *See* NATIONAL ACADEMIES, *supra* note 29, at 380.

[205] *See* Marlowe et al., *supra* note 100, at 11 n. 1.

[206] *See 25 Legal Medical Marijuana States and DC: Laws, Fees, and Possession Limits*, PROCON.ORG (2017), http://medicalmarijuana.procon.org/view.resource.php?resourceID=000881; *16 States with Laws Specifically About Legal Cannabidiol (CBD)*, PROCON.ORG (2017), https://medicalmarijuana.procon.org/view.resource.php?resourceID=006473.

[207] *See* Frank Newport, *Americans Want Federal Government Out of State Marijuana Laws*, GALLUP (Dec. 10, 2012), www.gallup.com/poll/159152/americans-federal-gov-state-marijuanalaws.aspx?utm_source=position3&utm_medium=related&utm_campaign=tiles.

[208] OAKLEY RAY & CHARLES KSIR, DRUGS, SOCIETY, AND HUMAN BEHAVIOR 474-75 (9th ed. 2002).

involve business enterprises, distribution restrictions, and regulations that intersect with existing laws, such as state water law restrictions.[209] More recent state medical marijuana legislation demonstrates that intricate levels of regulation can be imposed even if federal regulation were relaxed or eliminated altogether.[210]

Federalism, which seeks to balance the legitimate power of the federal government against the sovereignty of the states, might serve as a valid legal foundation for the Congressional elimination of marijuana from the federal schedules of drug regulation.[211] Under federalism, states yield certain powers to the federal government but retain a residual and inviolable sovereignty.[212] However, in order to properly advance such an argument, the federal government must not have yet exercised authority over the area of regulation, and that simply has not been the case with marijuana. Arguments based upon a federalism paradigm might be advanced in the area of regulation as it relates to the medical use of cannabis,[213] but the language of the federal schedules create exemptions to classifications based upon recognized medical usage. Accordingly, the notion that federalism may successfully open a door for a legal argument to reclassify cannabis because of asserted medical applications seems highly unlikely.[214]

The U.S. Supreme Court's decision in *Gonzales v. Raich* upheld the Controlled Substances Act of 1970, but noted that evidence "regarding the effective medical uses for marijuana if found to credible after trial, would

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[209] *See* Ryan B. Stoa, *Weed and Water Law: Regulating Legal Marijuana*, 67 HASTINGS L. J. 565, 584 (2016).

[210] *See*, e.g., Ryan B. Stoa, *Marijuana Appellations: The Case for Cannabicultural Designations of Origin,* 11 HARV. L. & POL'Y REV. 513, 513 (2017) ("Although [California] had legalized medical marijuana in 1996, there had been little effort to regulate the industry in any way. . .The MMRSA [Medical Marijuana regulation and Safety Act which was signed into law in October of 2015] comprehensively tasked state agencies with creating regulatory frameworks for several key issues facing the marijuana industry, including licensing, product tracking, labeling, pesticide use, and environmental impacts.").

[211] *See generally* A.L. LACROIX, THE IDEOLOGICAL ORIGINS OF AMERICAN FEDERALISM (2011).

[212] *See* U.S. CONST. amend. X ("The powers not delegated to the United States by the Constitution, nor prohibited by it to the states, are reserved to the states respectively, or to the people"); Printz v. United States, 521 U.S. 898, 918 (1997) (quoting Gregory v. Ashcroft, 501 U.S. 452, 457 (1991)); THE FEDERALIST NO. 39, at 245 (James Madison).

[213] *See generally* TODD GARVEY, CONG. RES. SERV., MEDICAL MARIJUANA: THE SUPREMACY CLAUSE, FEDERALISM, AND THE INTERPLAY BETWEEN STATE AND FEDERAL LAWS (2012).

[214] *See generally* David S. Schwartz, *High Federalism: Marijuana Legalization and the Limits of Federal Power to Regulate States,* 35 CARDOZO L. REV. 567 (2013); David S. Schwartz, *Presidential Politics as a Safeguard of Federalism: The Case of Marijuana Legalization,* 62 BUFF. L. REV. 599 (2014) [hereinafter *Presidential Politics*].

cast serious doubt on the accuracy of the findings that require marijuana to be listed in [the CSA's] Schedule I."[215] The *Raich* decision does not compel the federal government to remove cannabis from the list of all controlled substances altogether, but it does provide hope for future changes to the classification of marijuana under the federal schedules of drug regulation.

Additionally, removing marijuana from the ambit of federal regulation does not necessarily result in nationwide deregulation, just federal deregulation. This proposal would provide the states with the sole ability to determine how they wish to exercise authority over cannabis.[216] Many of the states which have legalized marijuana use have already enacted "severe restrictions" on various aspects of marijuana cultivation, production, and consumption, including restricting cultivation areas.[217] Notwithstanding this possible development, the current state and federal laws are in clear conflict, causing some scholars to recognize that "[m]arijuana legalization represents the most pointed federal-state policy conflict since racial desegregation."[218]

Some states may choose to follow in the direction of Colorado and Washington, which provide access to marijuana for both recreational and medical purposes.[219] Colorado and Washington have created restrictions on distribution and turned marijuana into a state tax revenue source.[220] This regulatory scheme is not unlike the current tax system and regulations over the distribution, use, and consumption of alcohol. In addition to Colorado and Washington, Alaska, Oregon, and the District of Columbia have legalized recreational marijuana use.[221] Assuming that more states

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[215] Gonzales v. Raich, 545 U.S. 1, 27 n. 37 (2005).

[216] *See* Jane C. Maxwell & Bruce Mendelson, *What Do We Know About the Impact of the Laws Related to Marijuana?* 10 J. ADDICTION MED. 3, 5 (2016) (showing 11 states with bills pending during the 2015 legislative session to increase patient access to marijuana for medicinal purposes).

[217] *See* Stoa, *supra* note 210, at 515.

[218] *Presidential Politics*, supra note 214, at 601.

[219] *See generally* Leonard I. Frieling, *Overview of Medical Marijuana in Colorado*, 40 COLO. LAW. 37 (2011); Nancy E. Marion, *Marijuana Business in Colorado: Three Hurdles for Success*, *in* LEGALIZING MARIJUANA: A SHIFT IN POLICIES ACROSS MARIJUANA, CAROLINA ACAD. PRESS 213 (2016).

[220] "At the state level, the Colorado Department of Revenue reported that sales and excise taxes on recreational and medical cannabis sales totaled $88,239,323 in fiscal year 2015 (CDOR, 2016a, p.29) and in Washington, state and local sales taxes and state business and occupation taxes on recreational and medical cannabis totaled $53,410,661 in fiscal year 2016." NATIONAL ACADEMIES, *supra* note 29, at 378 (describing revenue from recreational marijuana sells in Colorado and Washington).

[221] *See State Marijuana Laws in 2018 Map*, GOVERNING.COM (Jan. 8, 2018), http://www.governing.com/gov-data/state-marijuana-laws-map-medical-recreational.html.

follow the lead of Colorado, California, and Washington, the complexities of legally operating marijuana-based businesses must be resolved.

California alone already has "approximately fifty thousand marijuana farms accounting for sixty percent of all marijuana grown in the United States."[222] However, marijuana farms seeking to do business with federally insured banks could expose those banks to potential federal money laundering charges since transactions with such businesses are outlawed under federal law.[223] Nevertheless, states have gone forward with creating statutory provisions that inevitably clash with federal regulation.

The amount of money generated by these state businesses, rather than the beneficial medical uses, will in all probability be the compelling factor[224] that ultimately changes federal marijuana regulations.[225] In the meantime, the federal government has followed a path of non-enforcement to circumvent resolving the conflict between federal law and the states' assertion that under the Tenth Amendment they have reserved the power "to regulate areas not specified or enumerated in the Constitution, hence allowing them to effectively nullify federal laws."[226] For now, however, even as more states say "yes" to marijuana, the federal government continues to say "no."[227]

Many individuals are incarcerated for marijuana offenses.[228] "It was estimated that on any given day in 2004, there were over 100,000 people behind bars for marijuana offenses . . . [and] roughly 88% of drug charges

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See generally MACCOUN & REUTER, *supra* note 50, at 311 ("[Alaska] not only substitutes civil for criminal penalties for marijuana possession (low sanction severity) but also applies similarly modest civil penalties to home cultivation for personal consumption, including gifts to others."); David Blake & Jack Finlaw, *Marijuana Legalization in Colorado: Learned Lessons*, 8 HARV. L. & POL'Y REV. 359 (2014); Stoa, *supra* note 210, at 515 n.12 ("Oregon has explicitly tiered cannabis production limitations for batch and canopy size").

[222] Stoa, *supra* note 210, at 514 n.7.

[223] *See* Erwin Chemerinsky et al., *Cooperative Federalism and Marijuana Regulation*, 62 UCLA L. REV. 74, 91-94, (2015).

[224] *See* M. Patton, *Legalization of Marijuana: A Dead-End or the High Road to Fiscal Solvency?*, 15 BERKELEY J. CRIM. L. 163, 202 (2010) (estimating that legalization of marijuana could raise between $135 million and $1.29 billion in revenue for California).

[225] *See* C. Duncan, Note, *The Need for Change: An Economic Analysis of Marijuana Policy*, 41 CONNECTICUT L. REV. 1701, 1732-33 (2009) (estimating the marijuana market to have a value over over $10 billion, which currently goes largely untaxed).

[226] Willard M. Oliver, *Federalism and U.S. Marijuana Laws: A Constitutional Crisis*, *in* LEGALIZING MARIJUANA: A SHIFT IN POLICIES ACROSS AMERICA 3, 15 (Nancy E. Marion et al. eds., 2016).

[227] Chilkoti, *supra* note 13.

[228] *Marijuana Arrests by The Numbers*, ACLU, https://www.aclu.org/gallery/marijuana-arrests-numbers (last visited Sept. 29, 2017).

across the United States were charges of possession only."[229] Given this information, states must address the issue of including retroactivity provisions that alter the status of convictions for possession or distribution of marijuana in their legislation.[230] Retroactive application of statutes is not unheard of in criminal law, and can be found in scenarios where courts declare statutory provisions unconstitutional, opening the door to challenges by individuals convicted under the unconstitutional laws. Although Article 1, §9 of the U.S. Constitution prohibits ex post facto laws, states may enact legislation that expressly designates retroactive application to cases which were decided prior to the enactment of the current law. For example, California adopted a provision in the state's "three strikes and you're out" statutory scheme which only mandated application for more serious offenses and provided for retroactive application.[231] California also adopted Proposition 64, which allowed courts to reduce previous marijuana convictions to misdemeanors, infractions, or dismiss them altogether.[232] A Colorado Court of Appeals has ruled that citizens with convictions for minor marijuana offenses may petition to have their convictions dismissed or reduced to misdemeanors.[233] States adopting legislation for medical or recreational marijuana use[234] should consider the adoption of similar provisions which grant courts the ability to reduce the previous convictions to lower offenses (i.e. from a felony conviction to a misdemeanor conviction), reverse the conviction, or simply expunge the legal record altogether. Otherwise, citizens faced with extended probationary monitoring or prohibitions on voting, gun ownership, and professional licensure will continue their status,[235]often adding to the taxpayer's burden,

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[229] Walker, Posey, & Hemmens, *supra* note 71, at 205-06.

[230] *Id.*

[231] Aaron Sankin, *California Prop 36, Measure Reforming State's Three Strikes Law, Approved by Wide Majority of Voters,* HUFFINGTON POST (Nov. 7, 2012), http://www.huffingtonpost.com/2012/11/07/california-prop-36_n_2089179.html.

[232] *See* Eunisses Hernandez, *California's Marijuana Legalization Law is Retroactively Reducing or Eliminating People's Records and Changing Their Lives,* HUFFINGTON POST (June 21, 2017), www.huffingtonpost.com/entry/californias-marijuana-legalization-law-is-retroactivey-reducing-or-eliminating-peoples-records ("As of March 30, 2017, 2,515 Californians have applied or petitioned the courts to have their marijuana convictions reduced or dismissed.").

[233] *See* Jack Healy, *Colorado Appeals Court Says Marijuana Law Can Be Used to Challenge Convictions,* N.Y. TIMES (March 13, 2014), https: nytimes.com/2014/03/14/us/Colorado-court-says-some-marijuana-convicions-could-be-challenged.html (referring to the case of Brandi Jessica Russell, concerning Colorado Amendment 64).

[234] D.M. Anderson, & D.I. Reese, *The Legalization of Recreational Marijuana: How Likely is the Worst Case Scenario?*, 33 J. OF POL'Y ANALYSIS & MGMT. 221, 222 (2014).

[235] *See* OFFICE OF THE PARDON ATTORNEY, CIVIL DISABILITIES OF CONVICTED FELONS:

for offenses which may be removed after a state adopts medical marijuana legalization.[236]

In 2015, two bills were introduced in the U.S. House of Representatives that would have legalized, regulated, and taxed marijuana at the federal level, bringing an end to the federal government's prohibition of cannabis.[237] These were not, of course, the first failed legislative attempts to deregulate or change the scheduling of marijuana. However, the tide of public opinion, coupled with the evolving attitude of the medical community recognizing some of the unique medical benefits of cannabis, suggest that it is only a matter of time before Congress acts.[238] In fact, the appointment of the new U.S. Attorney General and his support for expanding federal cannabis laws may actually enhance efforts to change the federal regulatory scheme.[239] As one scientist has concluded:

> In formulating our drug policies, we have failed to consider adequately various policy options and to integrate what is currently known about substance abuse and dependence. Too often, our policies have been reactive, rather than being premised on an objective review of the scientific literature and the integration of that knowledge with our values. If we are to address effectively the issue of substance use and abuse within the criminal context, then we must adopt a multifaceted approach that includes the education of those responsible for the formulation and application of policy, such as lawmakers and judges, the examination of alternative approaches within and outside of the criminal context, and the adoption of a consistent approach across substances and populations.[240]

There are many Americans who respond to the use of cannabis and

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A STATE BY STATE SURVEY (1996), https://www.justice.gov/sites/default/files/pardon/pages/attachments/2015/04/24/civil_disabilities_of_convicted_felons.a_state.by_.state_survey.pdf.

[236] Walker, Posey, & Hemmens, *supra* note 70, at 204-05. "A considerable amount of fiscal resources are spent by jurisdictions on community supervision, and released offenders who commit technical violations (such as testing "dirty" on a drug test) are a large portion of the current prison population. It is possible that lessening the supervision requirements with respect to simple marijuana possession could result in a possible decrease in the need for drug testing, hence freeing up possible resources to be allocated to other areas of community supervision. It may also help decrease the number of offenders returned to custody because of technical violations based on marijuana charges." *Id.* (citation omitted).

[237] H.R. 1013, 114th Cong. (1st Sess. 2015); H.R. 1014, 114th Cong. (1st Sess. 2015).

[238] *See* Peter J. Cohen, *Medical Marijuana: The Conflict Between Scientific Evidence and Political Ideology*, 35 UTAH L. REV. 95, 100-01 (2009).

[239] Chilkoti, *supra* note 13 (explaining that the Attorney General has asked Senate leaders to roll back rules that block the DOJ from enforcing a federal ban on marijuana).

[240] Loue, *supra* note 113, at 330.

cannabis-based medical products when other medications are unable to provide relief and far too many Americans are incarcerated for possession or distribution of cannabis[241] at the expense of taxpayers.[242] Congress and other political leaders should either reschedule marijuana from Schedule I to Schedule II, and allow for the medical use of marijuana to go forward, or remove the federal government from involvement in marijuana regulation altogether. This would permit states to determine if citizens required protection under the criminal justice system[243] or if their interests would be better served by engaging in the same sort of regulation that currently applies to tobacco and alcoholic beverages.[244]

The evolution of federal restrictions on cannabis appear to have greater connection with societal fears about foreigners and their use of marijuana as a recreational substance[245] rather than medical or scientific concerns about the harms[246] of narcotics and other controlled substances.[247] Rescheduling

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[241] BOYUM & REUTER, *supra* note 72, at 95. "Given limited prison capacity, it makes sense to give priority to housing the most active and violent offenders. Current sentencing policies fail to do this. . . . Long sentences for minor, nonviolent drug offenders are perhaps the least defensible aspect of current drug policy. Such sentences are wasteful of scarce prison space, have especially disparate racial impacts, and are particularly traumatic for the families of the incarcerated." *Id.*

[242] *See* Peter A. Clark, *The Ethics of Medical Marijuana: Government Restrictions vs. Medical Necessity*, 21 J. PUB. HEALTH POL'Y 40, 42 (2000).

[243] *See* George J. Annas, *Reefer Madness—The Federal Response to California's Medical-Marijuana Law*, 337 NEW ENG. J. MED. 435, 439 (1997).

[244] Such regimes are called "regulatory regimes" where the scope of restriction allows "some nonmedical use as legal but stipulates who may use, sell, or purchase a substance, where or when or in what activities, and so on,", such as in the case of alcohol and tobacco. Thus, sales to minors may be prohibited and punishable by licensure forfeiture, along with common law controls including tort liability for sellers or vendors of the controlled substance. MACCOUN & REUTER, *supra* note 50, at 314-15. *See also* Rosalie Liccardo Pacula et al., *Developing Public Health Regulations for Marijuana: Lessons from Alcohol and Tobacco*, 104 AM. J. PUB. HEALTH 1021, 1022-27 (2014) (describing the scope and restrictions of regulatory regimes).

[245] *See* BOYUM & REUTER, *supra* note 72, at 25-26; MACCOUN & REUTER, *supra* note 51, at 345-51; L. ZIMMER & J. MORGAN, MARIJUANA MYTHS MARIJUANA FACTS: A REVIEW OF THE SCIENTIFIC EVIDENCE 32-37 (1997); Andrew R. Morral et al., *Reassessing the Marijuana Gateway Effect*, 97 ADDICTION 1493, 1493-1503 (2002) (responding to the argument that marijuana is a gateway drug).

[246] BOYUM & REUTER, *supra* note 72, at 98. "[Research] suggested that decriminalization may increase by 2-3 percentage points the probability that an adolescent uses marijuana . . . Marijuana possession is still against the law in all states where it is decriminalized. The arrest of 700,000 users each year should require a careful justification, given the minor harms of most marijuana use. . . . The much higher arrest rates for black as opposed to white users in recent years increases the urgency of the case for decriminalization." *Id.* (citation omitted).

marijuana from Schedule I to Schedule II or removing it completely from federal regulation, coupled with state law decriminalization of marijuana, should decrease criminal justice costs associated with marijuana related offenses,[248] reduce government intrusions on liberty and privacy,[249] and enhance the legitimacy and credibility of the government's efforts to control other substances.[250]

Marijuana was a little known commodity when Congress first initiated control of it through the Marihuana Tax Act.[251] Fueled by misconceptions and anecdotal accounts of marijuana consumers engaging in horrific violent crimes, the federal government monopolized access to the substance, all but assuring that the rescheduling of marijuana will not occur under the current legal structure, especially if approval of the Attorney General's office is necessary to initiate the rescheduling process.[252]

X. CONCLUSION

If the federal government remains intransigent in its position on cannabis, despite the massive public shift in acceptance and the ongoing deregulation occurring across the states, then the complete elimination of federal control over cannabis seems inevitable, if not compelling. Statutory regulations that are unenforced or unenforceable weaken the legal system and undermine public confidence in the government. This is especially true in states that have decided to legalize the cultivation, use, and distribution of marijuana for medical or recreational purposes.

The general public consensus and state legislation suggest that the time has come to reschedule marijuana, eliminating the harmful and restrictive consequences of Schedule I classification, or to permit states to continue determining what regulatory schemes are most effective and appropriate in their jurisdictions by eliminating federal involvement in the classification and regulation of cannabis altogether.

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[247] *See* R.J. BONNIE & C.H. WHITEBREAD, THE MARIJUANA CONVICTION: A HISTORY OF MARIJUANA PROHIBITION IN THE UNITED STATES 50-52 (1974).

[248] *See* Douglas Husak, *Do Marijuana Offenders Deserve Punishment?*, *in* POT POLITICS: MARIJUANA AND THE COST OF PROHIBITION 189, 197-98 (Mitch Earleywine ed., 2006).

[249] *See* ACLU, *supra* note 1, at 110.

[250] MACCOUN & REUTER, *supra* note 50, at 358-59.

[251] *See generally* LARRY SLOMAN, REEFER MADNESS: THE HISTORY OF MARIJUANA IN AMERICA (1979).

[252] *See* Ariana Eunjung Cha, *Marijuana Research Hampered by Access from Government and Politics, Scientists Say,* WASH. POST (Mar. 21, 2014), https://www.washingtonpost.com/national/health-science/marijuana-research-hampered-by-access-from-government-and-politics-scientists-say/2014/03/21/6065eb88-a47d-11e3-84d4-e59b1709222c_story.html?utm_term=.f8d98b3cca64.