
Legalizing Marijuana and Abating Environmental Harm: An Overblown Promise?

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Written in advance of the passage of Proposition 64 (legalizing recreational use of marijuana in California), this article explores why legalization of marijuana is now quite likely. It also identifies arguments made by proponents in support of legalization, including the need to abate environmental harm caused by illegal production of marijuana in pristine areas and elsewhere where marijuana has become a major cash crop. Specifically, the article examines the report produced by The Blue Ribbon Commission organized by Lieutenant Governor Gavin Newsom and Proposition 64's provisions addressing environmental concerns. It questions whether Proposition can deliver on the promise to abate the environmental harm caused by marijuana production. In closing, the article focuses on one source for optimism, an increasing number of young marijuana producers interested in cooperation with state actors to comply with the law, especially with environmental regulations.

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INTRODUCTION

In December 2014, the Library of Congress named *The Big Lebowski*, the Coen brothers' cult film about a pot smoking oddball hero, one of 650 "culturally, historically or aesthetically significant films."¹ The designation means that the Library will preserve the film for future generations.² The popularity of *The Big Lebowski* and other similar movies, portraying marijuana use favorably or humorously helps explain why the legalization of marijuana is on the fast track. Several factors, including changing demographics, make legalization plausible in the near term.³ The generally successful experiments in Colorado and Washington with legalization and taxation similarly move us closer to legalization.⁴ Proponents of legalization have advanced a number of arguments in support of legalization, including abatement of environmental harm.⁵ That includes Lieutenant Governor Gavin Newsom's Blue Ribbon Commission, which listed environmental protection among its goals in regulating the marijuana industry.⁶ California's drought has added to the urgency to address environmental concerns because marijuana production uses significant amounts of water and illegal producers do not work within normal constraints on agriculture.⁷ During the summer of 2015, in

¹ Adam D'Arpino, *21 Things You Might Not Know About "The Big Lebowski,"* MENTAL FLOSS (Feb. 2, 2016, 11:10 AM), <http://mentalfloss.com/article/61708/21-things-you-might-not-know-about-big-lebowski>.

² *Id.*

³ See Nate Cohn, *Marijuana: A Winning GOP Issue?*, NEW REPUBLIC (Dec. 7, 2012), <http://www.newrepublic.com/blog/electionate/110803/marijuana-poised-become-new-social-issue> (discussing how the rise of millennial voters is primarily responsible for the growth in marijuana support nationally).

⁴ Oscar Pascual, *Marijuana Legalization in Colorado, Washington Running Smoothly*, SFGATE (July 7, 2015, 12:49 PM), <http://blog.sfgate.com/smellthetruth/2015/07/07/marijuana-legalization-in-colorado-washington-running-smoothly/>.

⁵ STEERING COMM., BLUE RIBBON COMM'N ON MARIJUANA POLICY, PATHWAYS REPORT: POLICY OPTIONS FOR REGULATING MARIJUANA IN CALIFORNIA 40-41 (2015), <http://www.ltg.ca.gov/BRCpathwaysreport.pdf> [hereinafter BRC REPORT]. As I have written elsewhere, I am a tepid legalizer. See Michael Vitiello, *Legalizing Marijuana: California's Pot of Gold?*, 2009 WIS. L. REV. 1349, 1388 (2009) [hereinafter *Pot of Gold*] ("I am a tepid supporter of legalization."). I am agnostic whether many of the claimed benefits promised by proponents will materialize; at least that is the case unless policy makers are thoughtful in how they implement reforms. See Michael Vitiello, *Why the Initiative Process Is the Wrong Way to Go: Lessons We Should Have Learned from Proposition 215*, 43 MCGEORGE L. REV. 63, 79 (2012) [hereinafter *Lessons from Proposition 215*].

⁶ BRC REPORT, *supra* note 5, at vii.

⁷ See Fish, *Flows and Marijuana Grows: Drought and Illegal Marijuana Impacts to Fisheries: Hearing before the J. Comm. on Fisheries and Aquaculture*, 2015 Sess. (Cal.

response to concerns about marijuana producers' water usage, a joint committee of the California legislature conducted hearings on the issue.⁸ Those hearings led to legislation⁹ and greater involvement by the state Water Resources Control Board in monitoring water use by growers.¹⁰

After months of wrangling, a number of groups interested in placing their own initiatives on the 2016 ballot have agreed to back an initiative proposed by the Lieutenant Governor and his supporters.¹¹ Consistent with recommendations in The Blue Ribbon Commission's report, the Newsom initiative promises that it will address illegal marijuana production on public lands and will abate harm to watersheds and habitat.¹²

This article focuses on two questions: why is legalization of marijuana realistic, and will legalization of marijuana lead to abatement of environmental damage if California adopts the Newsom initiative? Part I addresses why legalization seems realistic in the short

2015), <http://senate.ca.gov/media/joint-committee-fisheries-and-aquaculture?type=video> [hereinafter *Fish Flows*].

⁸ *Id.*

⁹ Assemb. B. 243, 2015–2016 Reg. Sess. (Cal. 2015); Assemb. B. 266, 2015–2016 Reg. Sess. (Cal. 2015); S.B. 643, 2015–2016 Reg. Sess. (Cal. 2015) (known collectively as the Medical Marijuana Regulation and Safety Act).

¹⁰ See, e.g., S.B. 643, 2015–2016 Reg. Sess. (Cal. 2015) (writing the consulting role of the State Water Resources Control Board into legislation).

¹¹ *California Proposition 64, Marijuana Legalization (2016)*, BALLOTPEDIA (2016), https://ballotpedia.org/California_Proposition_64_Marijuana_Legalization (last visited Sept. 3, 2016). Lt. Gov. Gavin Newsom is supporting the Adult Use of Marijuana Act (AUMA), along with the CA branch of NORML, the Drug Policy Alliance, Law Enforcement Against Prohibition, the Emerald Growers Association, the creator of Napster Sean Parker, and Dr. Donald O. Lyman, MD. In addition to AUMA, alternative versions of a marijuana ballot initiative are also in the works, such as the Control Regulate and Tax Cannabis Act of 2016, the California Cannabis Hemp Initiative 2016, and the California Craft Cannabis Initiative. See, e.g., David Downs, *Tech Billionaire Sean Parker Matching All Donations to Pot Legalization*, SFGATE (Dec. 15, 2015, 2:11 PM), <http://blog.sfgate.com/smellthetruth/2015/12/15/tech-billionaire-sean-parker-matching-all-donations-to-pot-legalization/>; Oscar Pascual, *Leading California Marijuana Legalization Initiative Adds Safeguards for Children, Workers*, SFGATE (Dec. 8, 2015, 9:32 AM), <http://blog.sfgate.com/smellthetruth/2015/12/08/leading-california-marijuana-legalization-initiative-adds-safeguards-for-children-workers/> (discussing how the collaborative process in creating AUMA helped get individual activists on board).

¹² Letter from Lance H. Olson, Partner, Olson Hagel & Fishburn LLP, to Ashley Johansson, Initiative Coordinator, Office of the Attorney General (Dec. 7, 2015), [https://www.oag.ca.gov/system/files/initiatives/pdfs/15-0103%20\(Marijuana\)_1.pdf](https://www.oag.ca.gov/system/files/initiatives/pdfs/15-0103%20(Marijuana)_1.pdf) [hereinafter AUMA] (regarding the “Submission of Amendment to Statewide Initiative Measure – Control, Regulate and Tax Adult Use of Marijuana Act, No. 15-0103”).

term.¹³ Part II discusses some of the environmental harm that results from marijuana production.¹⁴ It summarizes briefly the hearings before the California legislature's Joint Committee of Fisheries and Aquaculture during the summer of 2015 and the legislation that resulted from those hearings.¹⁵ Part III focuses on some of the conflicting goals faced by those advocating for legalization of marijuana. It reviews The Blue Ribbon Commission's discussion of addressing environmental harm.¹⁶ It also discusses some of the key provisions in a proposed ballot initiative that has garnered support from leading advocates for legalization of marijuana for personal use.¹⁷ It then focuses on some questions of whether the Newsom initiative will abate environmental harm.¹⁸ While I am generally agnostic whether the initiative will abate the environmental harm from marijuana production, that section addresses one cause for optimism. Since the state legislature acted to address water usage by marijuana producers, the State Water Board has begun working with many marijuana growers to bring them into compliance with state water law restrictions. For many years, marijuana growers were true outlaws. The cooperation between state actors and marijuana producers, although still anecdotal, suggests a changing attitude, as does the willingness of the state to tolerate illegal producers — in effect, the state is willing to tolerate illegality in exchange for cooperation with environmental regulations. If this cooperation is long-standing, California may see significant abatement of environmental damage from marijuana production.

I. THE STEADY MARCH TOWARDS LEGALIZATION

When I have lectured and written about marijuana legalization, I have used public attitudes towards the film *Reefer Madness* as a shorthand way to describe demographic changes favoring legalization of marijuana.¹⁹ A must-see for anyone interested in attitudes towards marijuana for a good part of the last century, the film is a melodrama

¹³ See *infra* Part I.

¹⁴ See *infra* Part II.

¹⁵ See *infra* Part II.

¹⁶ See *infra* Part III.

¹⁷ See *infra* Part III.

¹⁸ See *infra* Part III.

¹⁹ See, e.g., Michael Vitiello, *Joints or the Joint: Colorado and Washington Square Off Against the United States*, 91 OR. L. REV. 1009, 1010 (2013); Vitiello, *Lessons from Proposition 215*, *supra* note 5, at 76-77.

about the evils of marijuana use, including sexual libertinism, corruption of young people, suicide and murder.²⁰ If my older brothers saw *Reefer Madness*, they would have done so at time when viewers probably took it seriously in the 1950s or early 1960s. By the time I saw the movie in the early 1970s, it was on its way to cult status as one of the worst movies in history (and therefore, “camp”).²¹ Fast-forward to my children’s generation (now in their early 30s). They grew up on a steady diet of films that showed marijuana use humorously, like *The Big Lebowski*,²² *Dude, Where’s My Car*,²³ and *Pineapple Express*,²⁴ or even positively, as in the love scene between the stars in *Bull Durham*.²⁵ Indeed, in 2005, *Reefer Madness* was made into a musical spoof of the same name.²⁶ Marijuana use has become acceptable in upper-middle and middle class America.²⁷

Not surprisingly, polls demonstrate that younger voters support legalization of marijuana in much greater numbers than older voters.²⁸ It so happens that Colorado was the healthiest state in the nation prior to the legalization of medical marijuana in Colorado.²⁹ After legalization, the state suddenly had large numbers of ailing young males.³⁰

Of course, public support for legalization is not a guarantee that legislators will listen. For years, large percentages of Americans have supported gun control. Despite those numbers, gun control measures

²⁰ SUSAN C. BOYD, *HOOKED: DRUG WAR FILMS IN BRITAIN, CANADA, AND THE UNITED STATES* 51-52 (2009) (examining how the film portrayed marijuana as leading to depravity and murder).

²¹ John A. Degen, *Camp and Burlesque: A Study in Contrasts*, J. OF DRAMATIC THEORY & CRITICISM, Spring 1987, at 87, 89 (describing *Reefer Madness* as unintentional “camp”).

²² THE BIG LEBOWSKI (Working Title Films 1998).

²³ DUDE, WHERE’S MY CAR? (Twentieth Century Fox 2000).

²⁴ PINEAPPLE EXPRESS (Columbia Pictures 2008).

²⁵ BULL DURHAM (The Mount Company 1988).

²⁶ REEFER MADNESS: THE MOVIE MUSICAL (Showtime Networks 2005).

²⁷ See Christopher Ingraham, *Even Marijuana Opponents Concede that Pot Has Gone Mainstream*, WASH. POST (Aug. 4, 2014), <http://www.washingtonpost.com/news/wonkblog/wp/2014/08/04/even-marijuana-opponents-concede-that-pot-has-gone-mainstream/>.

²⁸ See, e.g., George Gao, *63% of Republican Millennials Favor Marijuana Legalization*, PEW RES. CTR. (Feb. 27, 2015) <http://www.pewresearch.org/fact-tank/2015/02/27/63-of-republican-millennials-favor-marijuana-legalization/> (explaining that Millennials support legalization at much higher rates than elder generations).

²⁹ Gerald Caplan, *Medical Marijuana: A Study of Unintended Consequences*, 43 MCGEORGE L. REV. 127, 130 (2012); Andrew Ferguson, *The United States of Amerijuana*, TIME (Nov. 11, 2010), <http://www.time.com/time/nation/article/0,8599,2030768-2,00.html>.

³⁰ Ferguson, *supra* note 29.

often fail because of the resources and intensity of those opposing it.³¹ However, factors other than demographics also support the conclusion that legalization is possible in the near term.

Money counts in politics. The repeal of the Eighteenth Amendment was made possible in part by the resources of beer barons and winery owners.³² Until recently, similar resources were not likely to be available for marijuana reform efforts.³³ But by mid-2015, almost half of all states in the United States allowed the medical use of marijuana.³⁴ The growing success of medical marijuana has piqued the interest of the business community.³⁵ The popular press, including the *Wall Street Journal*, has focused on business opportunities available in the marijuana industry.³⁶ Investors have taken note of the profits generated by the medical marijuana trade,³⁷ and some high-risk investors have already entered the marijuana trade.³⁸ By some estimates, marijuana sales have risen nationwide to \$104 billion a year.³⁹ Such a large market must excite many potential investors.

³¹ See Brian Palmer, *Why Is the NRA So Powerful?*, SLATE (June 29, 2012, 5:00 PM), http://www.slate.com/articles/news_and_politics/explainer/2012/06/eric_holder_charged_with_contempt_how_did_the_nra_swing_the_votes_of_so_many_democrats_.html (analyzing the influence that the gun lobby has over Congress and the political process).

³² See DANIEL OKRENT, *LAST CALL: THE RISE AND FALL OF PROHIBITION* 30-34 (2010).

³³ See, e.g., Eric Bailey, *6 Wealthy Donors Aid Measure on Marijuana*, L.A. TIMES (Nov. 2, 1996), http://articles.latimes.com/1996-11-02/news/mn-60512_1_medical-marijuana-measure (reporting some prominent donors like George Soros have supported efforts to legalize medical marijuana).

³⁴ Ina Yang, *Medical Marijuana Is Often Less Potent than Advertised*, NPR (June 23, 2015, 12:05 PM), <http://www.npr.org/sections/health-shots/2015/06/23/416791647/medical-marijuana-is-often-less-potent-than-advertised?ft=nprml&f=> (reporting that almost half the states have legalized medical marijuana).

³⁵ See, e.g., Paul Vigna, *Market Hub: Reefer Madness or Investment Opportunity?*, WALL STREET J. (Nov. 13, 2012, 1:10 PM), <http://blogs.wsj.com/marketbeat/2012/11/13/market-hub-reefer-madness-or-investment-opportunity/> (discussing possible opportunities to invest in marijuana businesses).

³⁶ *Id.*

³⁷ See, e.g., Eleazar David Melendez, *Marijuana Venture Capital Fund Launches as Ganjapreneurs Go Mainstream*, HUFFINGTON POST (June 6, 2013, 8:34 AM), http://www.huffingtonpost.com/2013/06/06/marijuana-venture-capital_n_3393061.html (discussing the rise of investment funds in marijuana related ventures).

³⁸ See, e.g., Jennifer Alsever, *Investors Finally Seeing Marijuana's High Market Potential*, FORTUNE (June 7, 2015, 4:00 PM), <http://fortune.com/2015/06/07/legal-marijuana-business-investors/> (reporting that billionaire Peter Thiel's investment firm, along with at least seven other smaller financial firms have invested in the cannabis industry).

³⁹ Joe Vazquez, *Emerald Triangle's 'Murder Mountain' in Marijuana Country Living Up to Its Name*, CBS SF BAY AREA (Sept. 11, 2014, 10:29 PM), <http://sanfrancisco.cbslocal.com/2014/09/11/humboldt-countys-murder-mountain-in-marijuana-country->

Despite federal banking laws that prevent marijuana businesses from opening bank accounts, lawyers are finding ways to work around those restrictive laws.⁴⁰ Successful investors will no doubt use their resources to lobby for legalization to reduce the risk of governmental sanctions.⁴¹

Opinion within the medical marijuana community differs on whether legalizing marijuana for recreational use is a good thing. While some medical marijuana supporters are deeply committed to reserving marijuana use for medical benefit only,⁴² others have supported the medical marijuana movement as a step towards legalization for recreational use.⁴³ At a minimum, the wide scale availability of medical marijuana (and the ease of access for recreational users) has undercut some of the arguments against legalization.⁴⁴

A broad, nationwide consensus urging sentencing reform in general may also hasten the legalization of marijuana. Many traditional

living-up-to-its-name/.

⁴⁰ See, e.g., Jenny B. Davis, *Meet a Lawyer Trying to Guide the All-Cash Cannabis Industry into the Federal Banking System*, A.B.A. J. (July 1, 2015, 6:05 AM), http://www.abajournal.com/magazine/article/lawyer_dad_works_to_guide_all_cash_cannabis_industry_into_the_federal (reporting how one lawyer created a credit union to circumvent federal banking laws); cf. Matt Ferner, *Some Banks Are Working With Marijuana Businesses, But They Remain Wary*, HUFFINGTON POST (Apr. 13, 2015, 7:46 PM), http://www.huffingtonpost.com/2015/04/13/banks-marijuana-businesses_n_7057138.html (reporting incremental progress in banks working with marijuana businesses).

⁴¹ Even in Washington and Colorado, investors cannot be sure that the next President and Attorney General will not reverse the current policy towards those states.

⁴² See, e.g., Brooke Edwards Staggs, *What Happens to Medical Marijuana if Recreational Use Becomes Legal?*, ORANGE COUNTY REG. (July 15, 2016, 4:42 PM), <http://www.ocregister.com/articles/marijuana-722680-medical-patients.html> (discussing the fear that legalization for recreational use will lead to those who genuinely need marijuana for medical purposes being overlooked); Jennifer Welsh & Kevin Loria, *23 Health Benefits of Marijuana*, BUS. INSIDER (Apr. 20, 2014, 3:03 PM), <http://www.businessinsider.com/health-benefits-of-medical-marijuana-2014-4> (discussing the medical benefits of marijuana).

⁴³ See, e.g., Michael Vitiello, *Proposition 215: De Facto Legalization of Pot and the Shortcomings of Direct Democracy*, 31 U. MICH. J.L. REFORM 707, 714 (1998) (detailing the approach taken by Dennis Peron in drafting the legalization ballot initiative); Alexandra Sifferlin, *Minnesota Takes Half Step Toward Legalizing Marijuana*, TIME (June 29, 2015), <http://time.com/3940065/medical-marijuana-minnesota/> (describing how some advocates see the medical marijuana laws as a step towards legalization).

⁴⁴ For example, as a recent Cato report indicates, availability of medical or legal marijuana has not led to significant increases in the use of marijuana in Colorado. Jeffrey Miron, *Marijuana Policy in Colorado* 26 (Cato Institute, Working Paper, 2014), http://object.cato.org/sites/cato.org/files/pubs/pdf/working-paper-24_2.pdf [hereinafter *Policy in Colorado*] (concluding that marijuana use has not significantly changed).

conservatives have begun to argue that the cost of mass incarceration in the United States is excessive and unnecessary.⁴⁵ They join moderate and liberal voices who have long argued for sentencing reform.⁴⁶ Many critics of the criminal justice system see the War on Drugs as part of the problem leading to mass incarceration,⁴⁷ which has had a disparate impact on communities of color, and has led to unequal enforcement of drug laws against black and brown defendants.⁴⁸ Further, they argue that treatment for drug addiction is more humane and less expensive than imprisonment.⁴⁹ Decriminalization of marijuana use would support sentencing reform efforts and would likely help to promote drug treatment programs as an alternative to incarceration.

Some supporters of legalization argue that decriminalization would create significant savings in law enforcement costs, and some also see regulation of the marijuana trade as a significant source of tax revenue.⁵⁰ Estimates of the value of the marijuana trade vary widely but it is a largely untaxed business that could potentially generate billions of dollars in tax revenue.⁵¹ Cash-strapped cities in California

⁴⁵ See generally *Prisons*, RIGHT ON CRIME, <http://rightoncrime.com/category/priority-issues/prisons/> (last visited Sept. 18, 2015) (advocating for prison reform as part of a conservative agenda).

⁴⁶ See, e.g., Carrie Johnson, *With Holder in the Lead, Sentencing Reform Gains Momentum*, NPR (Aug. 7, 2013, 4:22 AM ET), <http://www.npr.org/2013/08/07/209253516/with-holder-in-the-lead-sentencing-reform-gains-momentum> (noting a desire for sentencing reform by both democratic and republican senators).

⁴⁷ See MICHELLE ALEXANDER, *THE NEW JIM CROW: MASS INCARCERATION IN THE AGE OF COLORBLINDNESS* 183 (2010) (explaining that the war on drugs has “given birth to a system of mass incarceration”).

⁴⁸ See, e.g., *id.* (arguing that the criminal justice system is no longer concerned with punishing crimes, but rather managing underprivileged communities); see also DRUG POLICY ALL., *THE DRUG WAR, MASS INCARCERATION AND RACE 2* (2015), http://www.unodc.org/documents/ungass2016//Contributions/Civil/DrugPolicyAlliance/DPA_Fact_Sheet_Drug_War_Mass_Incarceration_and_Race_June2015.pdf.

⁴⁹ See, e.g., DOUG McVAY ET AL., *TREATMENT OR INCARCERATION? NATIONAL AND STATE FINDINGS ON THE EFFICACY AND COST SAVINGS OF DRUG TREATMENT VERSUS IMPRISONMENT 5* (2004), http://www.justicepolicy.org/uploads/justicepolicy/documents/04-01_rep_mdtreatmentorincarceration_ac-dp.pdf (finding that treatment is less expensive than incarceration with regard to offenders who abuse substances).

⁵⁰ That was one of the selling points in both Colorado and Washington when voters approved sale of marijuana for recreational use. See, e.g., Adrienne Lu, *States Weighing Legal Pot Look to Tax Revenues in Colorado, Washington*, HUFFINGTON POST (Sept. 16, 2014, 12:05 PM ET), http://www.huffingtonpost.com/2014/09/16/marijuana-tax-revenue_n_5829922.html (reporting that advocates of legalization in Colorado noted that the State could use marijuana tax revenues to fund schools).

⁵¹ See, e.g., Caroline Fairchild, *Legalizing Marijuana Would Generate Billions in Additional Tax Revenue Annually*, HUFFINGTON POST (Apr. 20, 2013, 9:13 AM ET),

have already benefitted from tax revenue generated by medical marijuana.⁵² Across-the-board regulation presumably would raise even more tax revenue.⁵³ As developed below, the amount of additional tax revenue depends on many variables, including those relating to the methods of implementation of marijuana laws.⁵⁴ But proponents of legalization have certainly advanced increased tax revenue as a reason for legalization.⁵⁵

Some prominent libertarians and libertarian organizations have also urged legalization of marijuana. For them, the issue is one of personal freedom and responsibility.⁵⁶ Indeed, some libertarians would not stop at legalizing marijuana use.⁵⁷ They would legalize all drugs.

All of these forces point towards the coming legalization of marijuana. But the path to legalization runs through Washington, D.C. — and beginning in 1937, the federal government has been at war against marijuana.⁵⁸

http://www.huffingtonpost.com/2013/04/20/legalizing-marijuana-tax-revenue_n_3102003.html (reporting that the marijuana industry could generate \$8.7 billion in state and federal tax revenues annually); *see also* Vazquez, *supra* note 39 (reporting that the marijuana industry has reached sales of \$104 billion dollars annually).

⁵² *See, e.g.*, Philip Ross, *Bankrupt California City of San Bernardino Looks to Medical Marijuana to Generate New Taxes*, INT'L BUS. TIMES (Aug. 1, 2014, 2:19 PM), <http://www.ibtimes.com/bankrupt-california-city-san-bernardino-looks-medical-marijuana-generate-new-taxes-1646296> (reporting that the “small city whose population is just 45,000 nets \$500,000 a year in tax revenue from medical marijuana”).

⁵³ I say “presumably” because so many things about the marijuana industry are unknown. Estimating the size of the industry, of course, is at best rough guesswork. As the 2010 RAND study concluded, conclusions about the effect of legalization of marijuana in California are hard to draw because of too many variables. *See* BEAU KILMER ET AL., RAND DRUG POL'Y RES. CTR., ALTERED STATE? ASSESSING HOW MARIJUANA LEGALIZATION IN CALIFORNIA COULD INFLUENCE MARIJUANA CONSUMPTION AND PUBLIC BUDGETS, at iii (2010), http://www.rand.org/content/dam/rand/pubs/occasional_papers/2010/RAND_OP315.pdf (listing possible variables that will affect tax revenue such as consumption, future prices, and the “aggregation of many nonprice effects”).

⁵⁴ *See infra* notes 179–92 and accompanying text.

⁵⁵ *See, e.g.*, Fairchild, *supra* note 51 (reporting that the marijuana industry could generate \$8.7 billion in state and federal tax revenues annually); *see also* *Washington Marijuana Legalization and Regulation, Initiative 502* (2012), BALLOTEDIA, [http://ballotpedia.org/Washington_Marijuana_Legalization_and_Regulation,_Initiative_502_\(2012\)](http://ballotpedia.org/Washington_Marijuana_Legalization_and_Regulation,_Initiative_502_(2012)) (last visited Sept. 10, 2015).

⁵⁶ *Cf.* JAMES P. GRAY, WHY OUR DRUG LAWS HAVE FAILED AND WHAT WE CAN DO ABOUT IT: A JUDICIAL INDICTMENT OF THE WAR ON DRUGS 123 (2d ed. 2012) (citing the libertarian philosophy that the government has no business monitoring what citizens put in their bodies).

⁵⁷ *Id.* at 224 (explaining the libertarian notion that a free market for drugs is as necessary for a free society as a free market of ideas).

⁵⁸ *See* Lester Grinspoon & James B. Bakalar, *Marihuana as Medicine: A Plea for*

With the end of prohibition, officials who had fought the illegal alcohol industry needed a new enemy.⁵⁹ At least that was the case with Harry J. Anslinger, at one time an Assistant Commissioner of the Bureau of Prohibition, later the first head of the Federal Bureau of Narcotics in the Treasury Department.⁶⁰ Prior to the enactment of the 1937 Marijuana Tax Act, physicians prescribed marijuana for various medical conditions.⁶¹ Anslinger openly appealed to racial stereotypes to drum up support for his war on marijuana.⁶² During hearings on the 1937 act, Anslinger stated that “Marihuana [was] an addictive drug which produce[d] in its users insanity, criminality, and death.”⁶³ Despite its initial view that marijuana had medical advantages, the American Medical Association reversed its position under pressure from Anslinger.⁶⁴

With no recognized medical use, marijuana became an illegal drug and was driven underground.⁶⁵ When marijuana use was largely restricted to minority communities, there was little pressure to legalize marijuana.⁶⁶ That, of course, changed during the 1960s when

Reconsideration, 23 JAMA 1875 (1995) (detailing how the 1937 Marihuana Prevention Act did away with nonmedical uses, eventually resulting in marijuana being classified as a Schedule I drug).

⁵⁹ See, e.g., Gregg A. Bilz, *The Medical Use of Marijuana: The Politics of Medicine*, 13 HAMLIN J. PUB. L. & POL’Y 117, 119-21 (1992) (analyzing marijuana regulation and enforcement post-prohibition).

⁶⁰ See, e.g., RICHARD LAWRENCE MILLER, *THE CASE FOR LEGALIZING DRUGS* 94-96 (1991) (discussing how after the end of prohibition, many former members of the Prohibition Bureau were shifted to the Bureau of Narcotics to combat illicit drug use).

⁶¹ See Bilz, *supra* note 59, at 118.

⁶² See MILLER, *supra* note 60, at 99.

⁶³ Charles Whitebread, *The History of the Non-Medical Use of Drugs in the United States*, SCHAFFER LIBR. DRUG POL’Y, <http://druglibrary.org/schaffer/history/whiteb1.htm> (last visited Sept. 20, 2015).

⁶⁴ See generally Gabriel G. Nahas & Albert Greenwood, *The First Report of the National Commission on Marihuana (1972): Signal of Misunderstanding or Exercise in Ambiguity*, 50 BULL. N.Y. ACAD. MED. 55-56 (1974) (noting the American Medical Association’s belief that medical effects of marijuana did not justify legalization as of 1974).

⁶⁵ Cf. 21 U.S.C. § 812(b)(1)(B) (2012) (stating that schedule I drugs have no medical use).

⁶⁶ See, e.g., Brent Staples, *The Federal Marijuana Ban is Rooted in Myth and Xenophobia*, N.Y. TIMES (July 29, 2014), <http://www.nytimes.com/2014/07/30/opinion/high-time-federal-marijuana-ban-is-rooted-in-myth.html> (noting that efforts to reform strict marijuana laws did not begin until the 1970s, after use of marijuana among white college students became widespread); see also Thomas J. Moran, Note, *Just a Little Bit of History Repeating: The California Model of Marijuana Legalization and How it Might Affect Racial and Ethnic Minorities*, 17 WASH. & LEE J.C.R. & SOC. JUST. 557, 566-69 (2011) (describing “The Whitening of Marijuana” and the efforts to

marijuana use proliferated. Its wide use on college campuses, especially among elite white youth, led President Nixon to appoint a commission to study marijuana.⁶⁷ Nixon eventually disavowed the recommendations of the First Report of the National Commission on Marijuana and Drug Abuse. For example, the First Report recommended that possession of marijuana for personal use be decriminalized.⁶⁸ Despite earlier suggestions that Nixon would follow the commission's recommendations, he repudiated those recommendations.⁶⁹

In 1970, Congress enacted the Comprehensive Drug Prevention and Control Act, which gave the federal government jurisdiction over all drug crimes in the United States.⁷⁰ The act classified marijuana as a Schedule I drug, which, according to the act, lacks any accepted medical use and carries a high potential for abuse.⁷¹ Since 1972, advocates for marijuana have attempted through extensive litigation efforts to get the federal government to reclassify marijuana.⁷²

Virtually without exception, the federal government has resisted any weakening of drug policy relating to marijuana. President Carter called for decriminalization of marijuana for personal use,⁷³ and during his administration, the federal government put into place a compassionate use program for seriously ill patients.⁷⁴ President Reagan, however, reversed field with a renewed War on Drugs.

decriminalize its use).

⁶⁷ See Bilz, *supra* note 59, at 118-19.

⁶⁸ NATIONAL COMMISSION ON MARIJUANA AND DRUG ABUSE, MARIJUANA: A SIGNAL OF MISUNDERSTANDING (THE SHAFER REPORT), ch. V (1972) ("The Commission recommends only the following changes in federal law: Possession of marihuana for personal use would no longer be an offense, but marihuana possessed in public would remain contraband subject to summary seizure and forfeiture [and] [c]asual distribution of small amounts of marihuana for no remuneration, or insignificant remuneration not involving profit would no longer be an offense.")

⁶⁹ LESTER GRINSPOON, MARIHUANA RECONSIDERED 373 (2d ed. 1977).

⁷⁰ See Controlled Substances Act of 1970, 21 U.S.C. §§ 801-971 (2012).

⁷¹ *Id.* at § 812(b)(1)(A)-(B) (2012).

⁷² See e.g., Opinion and Recommended Ruling, Findings of Fact, Conclusions of Law and Decision of Administrative Law Judge, Marijuana Rescheduling Petition, Docket No. 86-22, at 2 (Drug Enf't Admin. Sept. 6, 1988), <http://medicalmarijuana.procon.org/sourcefiles/Young1988.pdf>.

⁷³ *Social History of Marijuana*, MASSCAN/NORML, <http://masscann.org/education/social-history-of-marijuana> (last visited Sept. 15, 2015) (describing the Carter administration's efforts to decriminalize marijuana).

⁷⁴ Cf. Robert A. Mikos, *On the Limits of Supremacy: Medical Marijuana and the States' Overlooked Power to Legalize Federal Crime*, 62 VAND. L. REV. 1421, 1433 (2009).

Penalties for drug offenses were increased, often with mandatory minimum sentences, and those laws were vigorously enforced.⁷⁵ Little changed during George H.W. Bush's or Bill Clinton's presidencies.⁷⁶ Despite strong state's rights rhetoric, George W. Bush oversaw an executive branch that aggressively pursued criminal actions against medical marijuana providers in states where it was authorized.⁷⁷

The situation during the Obama administration has been different, if subject to some noticeable swings in enforcement of federal marijuana laws. During the 2008 Presidential election, candidate Obama promised not to raid 'legitimate' medical marijuana dispensaries.⁷⁸ Shortly after his taking office, Obama's Attorney General's Office issued a memorandum consistent with Obama's 'softer' approach.⁷⁹

However, the government's initial tolerance of medical marijuana dispensaries changed dramatically, particularly in California. After the Attorney General's memorandum, most notably in California, marijuana providers opened hundreds of marijuana dispensaries, often thinly disguised operations having little if anything to do with the medical part of distributing marijuana.⁸⁰ The Obama administration responded forcefully and conducted more raids on dispensaries in California than did the Bush administration.⁸¹ Other laws, including

⁷⁵ See *Timeline: America's War on Drugs*, NPR (Apr. 2, 2007, 5:56 PM ET), <http://www.npr.org/templates/story/story.php?storyId=9252490> (describing the Anti-Drug Abuse Act of 1986, signed into law by Reagan, which designated \$1.7 billion to the war on drugs).

⁷⁶ See Grinspoon & Bakalar, *supra* note 58, at 1875.

⁷⁷ Cf. Tim Dickinson, *Obama's War on Pot*, ROLLING STONE (Feb. 16, 2012), <http://www.rollingstone.com/politics/news/obamas-war-on-pot-20120216> (discussing the Bush administration's high profile raids on state medical marijuana providers).

⁷⁸ See M. Alex Johnson, *DEA to Halt Medical Marijuana Raids*, NBC NEWS (Feb. 27, 2009, 5:42 PM ET), <http://www.msnbc.msn.com/id/29433708/ns/health-health-care/> ("My attitude is if the science and the doctors suggest that the best palliative care and the way to relieve pain and suffering is medical marijuana, then that's something I'm open to," Obama said in November 2007 at a campaign stop in Audubon, Iowa. "There's no difference between that and morphine when it comes to just giving people relief from pain.").

⁷⁹ See Dickinson, *supra* note 77 ("The Ogden memo sent a clear message to the states: The feds will only intervene if you allow pot dispensaries to operate as a front for criminal activity.").

⁸⁰ See *id.* ("In California, which had allowed 'caregivers' to operate dispensaries, medical pot blossomed into a \$1.3 billion enterprise — shielded from federal blowback by the Ogden memo.").

⁸¹ Lucia Graves, *Obama Administration's War on Pot: Oaksterdam Founder Richard Lee's Exclusive Interview After Raid*, HUFFINGTON POST (Apr. 18, 2012, 10:15 AM ET), http://www.huffingtonpost.com/2012/04/18/obama-war-on-weed-richard-lee-oaksterdam-raid_n_1427435.html.

forfeiture laws, were invoked against landlords renting to dispensaries.⁸² The Internal Revenue Service has also relied on Reagan-era legislation designed to cripple illegal drug dealers by disallowing dispensaries from taking ordinary business expenses.⁸³

More recently, however, the Obama administration has taken an important step that may lead to legalization of marijuana nationwide. After Colorado and Washington passed initiatives allowing for the production and sale of small amounts of recreational marijuana,⁸⁴ (and Alaska, Oregon, and Washington, D.C. have since followed suit⁸⁵), the Department of Justice faced an important policy decision: the federal government has clear authority to enforce federal drug laws even if the state where it is used does not make use illegal.⁸⁶ But for many reasons the Obama administration did not want to ignore the will of the voters in Colorado and Washington.⁸⁷ After some delay, then-Attorney General Holder told the governors of those states that the Department of Justice would allow the states to implement the ballot initiatives.⁸⁸

⁸² David Downs, *Feds Threaten Forfeiture of Biggest Dispensary in America-Harborside Health Center*, SF GATE (July 11, 2012, 3:28 PM), <http://blog.sfgate.com/smellthetruth/2012/07/11/feds-threaten-forfeiture-of-biggest-dispensary-in-america-harborside-health-center/>.

⁸³ 26 U.S.C. § 280E (1982); see Steve Hargreaves, *Marijuana Dealers Get Slammed by Taxes*, CNN MONEY (Feb. 25, 2013, 3:17 PM ET), <http://money.cnn.com/2013/02/25/smallbusiness/marijuana-tax/index.html> (“It may have been effective against cocaine dealers and smugglers of other hard drugs, but the law now means purveyors of medical marijuana in the 18 states that have legalized the drug can’t take typical things like rent or payroll as a business expense.”).

⁸⁴ See Dickinson, *supra* note 77 (explaining the position taken by the Obama administration to respect the will of the voters in states that decide to pass marijuana legislation).

⁸⁵ Amar Toor, *New Highs: Marijuana Now Legal in Alaska, Oregon, and Washington, DC*, VERGE (Nov. 5, 2014, 7:48 AM ET), <http://www.theverge.com/2014/11/5/7157993/marijuana-legalization-vote-oregon-washington-dc-alaska-florida>.

⁸⁶ See *Gonzales v. Raich*, 545 U.S. 1, 19 (2005) (“[R]egulation is squarely within Congress’ commerce power because production of the commodity meant for home consumption, be it wheat or marijuana, has a substantial effect on supply and demand in the national market for that commodity.”).

⁸⁷ One can imagine any number of reasons why the Obama administration may have been hesitant to frustrate the voters in Washington and Colorado. Not the least of which, President Obama would not have wanted to alienate young voters in a deep blue state like Washington and a purple state like Colorado. See Brady Dennis, *Obama Administration will not Block State Marijuana Laws if Distribution is Regulated*, WASH. POST (Aug. 29, 2013), https://www.washingtonpost.com/national/health-science/obama-administration-will-not-preempt-state-marijuana-laws—for-now/2013/08/29/b725bfd8-10bd-11e3-8cdd-bcdc09410972_story.html.

⁸⁸ See Dickinson, *supra* note 77 (detailing the government’s position as stated in the “Ogden memo” regarding states that implement marijuana ballot initiatives).

Deputy Attorney General James Cole also published a memo explaining the department's position: the states must "implement strong and effective regulatory and enforcement systems that will address the threats those state laws could pose to public safety, public health and other law enforcement interests."⁸⁹ The system of "robust controls and procedures" must exist in practice, not only on paper.⁹⁰ Further, the memo identified eight priorities for federal prosecutors, explaining when the department will prosecute offenders.⁹¹

The Obama administration's decision to forego aggressive prosecution of marijuana laws in Colorado and Washington is pivotal. It means that those states could implement their laws with some degree of impunity.⁹² Over time those states will also serve as laboratories for Democracy, to borrow a phrase from Justice Louis Brandeis.⁹³ For example, marijuana supporters who are interested in raising tax revenue can learn effective strategies by watching the results in those states.

Not everyone agrees with the Obama administration's decision to tolerate Colorado and Washington law. For example, one might argue that the overwhelming defeat of an initiative to legalize personal use of marijuana in Ohio is a repudiation of that policy.⁹⁴ A number of factors relating specifically to that ballot initiative seem to explain the failure of that initiative. Notably, the Ohio Secretary of State stated

⁸⁹ Memorandum from James M. Cole, Deputy Att'y Gen. of the United States, to United States Attorneys regarding Marijuana Enforcement (Aug. 29, 2013), <http://www.justice.gov/iso/opa/resources/3052013829132756857467.pdf>.

⁹⁰ *Id.*

⁹¹ *Id.* (listing eight priorities for federal prosecutors: preventing the distribution of marijuana to minors; preventing revenue from the sale of marijuana from going to criminal enterprises, gangs, and cartels; preventing the diversion of marijuana from states where it is legal under state law in some form to other states; preventing state-authorized marijuana activity from being used as a cover or pretext for the trafficking of other illegal drugs or other illegal activity; preventing violence and the use of firearms in the cultivation and distribution of marijuana; preventing drugged driving and the exacerbation of other adverse public health consequences associated with marijuana use; preventing the growing of marijuana on public lands and the attendant public safety and environmental dangers posed by marijuana production on public lands; and preventing marijuana possession or use on federal property).

⁹² See Dickinson, *supra* note 77.

⁹³ See *New State Ice Co. v. Liebmann*, 285 U.S. 262, 311 (1932) ("It is one of the happy incidents of the federal system that a single courageous state may, if its citizens choose, serve as a laboratory; and try novel social and economic experiments without risk to the rest of the country.").

⁹⁴ Cf. Matt Pearce, *Ohio Voters Soundly Reject Marijuana Legalization Initiative*, L.A. TIMES (Nov. 3, 2015, 7:51 PM), <http://www.latimes.com/nation/la-na-ohio-marijuana-results-20151103-story.html>.

that one of the ballot provisions would have given a monopoly to the owners of ten parcels of land, coincidentally, owned by the investors who bankrolled the initiative.⁹⁵ Other parties clearly object to the Obama administration's position. Notably, Colorado, Kansas and Nebraska prosecutors and sheriffs sued Colorado on various grounds.⁹⁶ Oklahoma and Nebraska representatives have concerns that their citizens now have ready access to marijuana by crossing the border into Colorado and will bring back marijuana into their jurisdictions.⁹⁷ Those states unsuccessfully challenged Colorado and Washington's rights to follow their own laws and the Obama administration opposed their petition for review by the Supreme Court.⁹⁸ As a result, those states will provide a model to determine the effects of legalization of marijuana.

Early results are mixed. In October, 2014, the Cato Institute published a working paper entitled *Marijuana Policy in Colorado*.⁹⁹ The report recognized its conclusions must necessarily be tentative given the short period of time since implementation of the state's law.¹⁰⁰ It found no significant effect on crime rates.¹⁰¹ Apparently, liberalization of marijuana policy has reduced traffic fatalities.¹⁰² Liberalization does not seem to have led to an increase in marijuana use and other outcomes associated with its use.¹⁰³ Interestingly, the report did conclude that the state has collected less tax revenue than originally projected, about \$84 million as opposed to a projected \$134 million.¹⁰⁴

⁹⁵ Jackie Borchardt, *Ohio Marijuana Legalization Measure Fails*, CLEVELAND.COM (Nov. 3, 2015, 10:11 PM), http://www.cleveland.com/open/index.ssf/2015/11/ohio_marijuana_legalization_me.html.

⁹⁶ Niraj Chokshi, *Colorado Gets Sued by a Third Group over Marijuana Legalization*, WASH. POST (Mar. 5, 2015), <http://www.washingtonpost.com/blogs/govbeat/wp/2015/03/05/colorado-gets-sued-by-a-third-group-over-marijuana-legalization/>.

⁹⁷ Matt Ferner, *Keep Your Legal Weed in Colorado, Say Cops in Neighboring States*, HUFFINGTON POST (May 28, 2014, 6:27 PM ET), http://www.huffingtonpost.com/2014/05/28/colorado-marijuana_n_5405422.html.

⁹⁸ Andrew Blake, *Obama Admin. Tells Supreme Court to Reject Pot Suit Brought Against Colorado by Nebraska, Oklahoma*, WASH. TIMES (Dec. 17, 2015), <http://www.washingtontimes.com/news/2015/dec/17/obama-admin-tells-supreme-court-to-reject-pot-suit/>.

⁹⁹ Miron, *Policy in Colorado*, *supra* note 44, at 2.

¹⁰⁰ *Id.* at 4.

¹⁰¹ *Id.* at 14.

¹⁰² See D. Mark Anderson et al., *Medical Marijuana Laws, Traffic Fatalities, and Alcohol Consumption*, 56 J.L. & ECON. 333, 334-69 (2013).

¹⁰³ Miron, *Policy in Colorado*, *supra* note 44, at 2.

¹⁰⁴ *Id.* at 22.

But the 2015 tax revenue from all marijuana sales appears to have exceeded the tax revenue for 2014.¹⁰⁵

In contrast to Colorado, Washington has already tweaked its marijuana markets to generate the tax revenue that it anticipated. When Washington first legalized recreational use of marijuana, it already had a legal medical marijuana market in place, with its own system of taxation and regulation.¹⁰⁶ The new legal market was much more regulated and more heavily taxed than the medical marijuana market¹⁰⁷ and, of course, the illegal market.¹⁰⁸ However, at least based on rough guesses, the new legal market for recreational users captured only a small portion of the total market in the state, about 3-5%.¹⁰⁹

Washington addressed the disparity in tax revenue between medical and recreational marijuana in April 2015, by enacting a law that, in effect, gets rid of the medical marijuana industry.¹¹⁰ All marijuana markets in Washington are now taxed and regulated in the same way. As observed by Rick Garza, the head of Washington's Liquor Control Board, the medical marijuana market was always in a gray area because customers of medical dispensaries were often recreational users anyway.¹¹¹ With some percentage of medical marijuana users having shifted their purchases to the new legal market, this legislation is one reason why Washington's tax revenue has exceeded earlier projections.¹¹²

On the other hand, according to an anonymous pot dealer, who sells mainly to college students, the illegal market still accounts for 75-80% of the total market in Washington.¹¹³ He contends that, "The street

¹⁰⁵ *Marijuana Tax Data*, COLO. DEPT OF REVENUE (2016), <https://www.colorado.gov/pacific/revenue/colorado-marijuana-tax-data>.

¹⁰⁶ S.B. 5052, 64th Leg., 1st Spec. Sess. (Wash. 2015); cf. Anna Callaghan, *Why Washington State Is Extinguishing Medical Marijuana*, MASHABLE (May 6, 2015), <http://mashable.com/2015/05/06/medical-marijuana-washington/#YwL6b9DXfskd> (illustrating the conflict between an unregulated and untaxed medical cannabis market competing with a regulated market).

¹⁰⁷ See Callaghan, *supra* note 106.

¹⁰⁸ See *id.* ("[D]ue to taxes on the industry, recreational stores can't yet compete with drug dealers on price.").

¹⁰⁹ *Id.*

¹¹⁰ See *id.* ("Washington State Governor Jay Inslee signed a bill in April that will overhaul medical marijuana and reconcile the two legal markets into one.").

¹¹¹ *Id.*

¹¹² See Rachel La Corte, *Legal Pot in Washington Bringing in Even More Tax Revenue than Predicted*, HUFFINGTON POST (Nov. 20, 2014, 9:48 AM), http://web.archive.org/web/20141121021925/http://www.huffingtonpost.com/2014/11/20/legal-pot-washington-market-tax-revenue_n_6191848.html.

¹¹³ Callaghan, *supra* note 106.

can always offer prices that are below that of the stores.”¹¹⁴ Whether Washington, Colorado, and other states considering legalization can develop effective ways to curb the illegal market remains to be seen. As developed below, whether states can shrink the illegal marijuana trade has important implications for efforts to abate environmental harm.¹¹⁵

I cite the Cato study and recent changes in the law in Washington to demonstrate that Colorado and Washington are indeed serving as laboratories for other states. That they are raising tax revenue increases the likelihood that other cash-strapped states will follow suit and legalize recreational marijuana use.¹¹⁶ In addition, at least the data from Colorado do not support critics’ charges of increased crime and increased use among juveniles or the population generally.¹¹⁷ That is, the experience in Colorado and Washington is likely to support reform efforts in other states, as states like California place similar initiatives on their ballots.

Evidence suggests that other states do want to follow this lead. Oregon, Alaska and the District of Columbia have already legalized the personal use of marijuana.¹¹⁸ Other states, including Nevada and California, may follow suit.¹¹⁹ And apart from whether a particular state favors legalization within its borders, many states now argue that the matter should be left to the states. For example, during the summer of 2015, the National Council of State Legislatures passed a resolution urging the federal government to allow states to set their own policies on marijuana use and hemp production without federal interference.¹²⁰ Sentiment seems to be moving in that direction

¹¹⁴ *Id.*

¹¹⁵ See *infra* Part III.B.

¹¹⁶ Matt Ferner, *One Year of Legal Marijuana Generated \$70 Million in Tax Revenue for Washington State*, HUFFINGTON POST (July 6, 2015, 6:50 PM), http://www.huffingtonpost.com/2015/07/06/washington-marijuana-taxes-70-million_n_7737722.html (“These impressive numbers are likely to catch the eyes of policymakers in other states that could use a little help closing their budget gaps,” Tom Angell, chairman of the advocacy group Marijuana Majority, told The Huffington Post.)

¹¹⁷ See Steven Nelson, *Pot Use Among Colorado Teens Appears to Drop After Legalization*, U.S. NEWS (Aug. 7, 2014, 4:29 PM), <http://www.usnews.com/news/articles/2014/08/07/pot-use-among-colorado-teens-appears-to-drop-after-legalization>.

¹¹⁸ Dan Merica, *Oregon, Alaska and Washington, D.C. Legalize Marijuana*, CNN (Nov. 5, 2014, 2:39 PM), <http://www.cnn.com/2014/11/04/politics/marijuana-2014/>.

¹¹⁹ Editorial, *Congress and Obama Are Too Timid on Marijuana Reform*, N.Y. TIMES (Aug. 8, 2015), <http://www.nytimes.com/2015/08/09/opinion/sunday/congress-and-obama-have-been-too-timid-on-marijuana-reform.html> [hereinafter *Too Timid*].

¹²⁰ Douglas A. Berman, *National Council of State Legislatures Resolves That Feds Should Butt out of State Marijuana Policy Reforms*, L. PROFESSOR BLOGS NETWORK: MARIJUANA L.,

elsewhere as well. On August 8, 2015, the New York Times ran an editorial criticizing the Obama administration and Congress for being too timid on reforming marijuana laws.¹²¹ At some point, keeping the federal prohibition against marijuana in force will make little sense.

That may be good news for environmentalists who support legalization because of concerns about the harm caused by illegal marijuana production. Or so it would seem. But the primary focus outside of California has not been on the environment. Instead, as the Cato Institute report demonstrates, the public and policymakers have focused on tax revenues, crime, traffic fatalities, and teen drug use.¹²² Environmental concerns are at best an afterthought or, as in the case of the Cato Institute Report, not a concern at all.¹²³

Before turning to whether legalization of marijuana will abate environmental harm, the next section turns to the California legislature's 2015 hearings on marijuana and water usage. Specifically, it focuses on the environmental harms identified in those hearings and the legislation that resulted from those hearings.¹²⁴

II. THE ENVIRONMENTAL COST

Supporters of legalization of marijuana have argued for some time that the illegal production of marijuana comes with a significant cost to the environment.¹²⁵ They see the legalization of marijuana as a way to abate the environmental harm caused by marijuana producers.¹²⁶ Typical is The Blue Ribbon Commission's inclusion among its goals the protection of public lands, reduction of environmental harm, and

POL'Y & REFORM (Aug. 8, 2015), http://lawprofessors.typepad.com/marijuana_law/2015/08/national-council-of-state-legislatures-resolves-that-feds-should-butt-out-of-state-marijuana-policy-.html.

¹²¹ *Too Timid*, *supra* note 119.

¹²² Miron, *Policy in Colorado*, *supra* note 44 (the Cato Institute report does not address environmental concerns); *see also* Colorado Marijuana Initiative 2012, *YES on 64 TV Ad - "Vote for Colorado"*, YOUTUBE (OCT. 6, 2012), <https://www.youtube.com/watch?v=1KAOq7XX2OY> (Colorado campaign YES on 64 did not address environmental concerns).

¹²³ The report does not mention abatement of environmental harm as a reason to legalize marijuana.

¹²⁴ *See infra* Part II.

¹²⁵ *See Fish Flows*, *supra* note 7 (statement of Hezekiah Allan, Executive Director, Emerald Growers Association on the growers association's investment in conservation efforts).

¹²⁶ Roddy Scheer & Doug Moss, *Half-Baked Idea?: Legalizing Marijuana Will Help the Environment*, SCI. AM. (May 20, 2011), <http://www.scientificamerican.com/article/would-legalizing-pot-be-good-for-environment/>.

restoration of habitat and watersheds related to marijuana production.¹²⁷ There are several harms to the environment, including illegal cultivation on public lands and the clear-cutting by some growers that results in run-off of pesticides and fertilizers.¹²⁸ Of special concern is unregulated water usage during the prolonged drought: as observed by The Blue Ribbon Commission, “illegal grows siphon off millions of gallons of water each year.”¹²⁹

Concern about the drought led to the California legislature’s Joint Committee of Fisheries and Aquaculture to conduct hearings on the environmental harm caused by marijuana producers.¹³⁰ The hearing provides a primer for environmental damage caused by marijuana production.¹³¹ One witness at the joint hearing estimated that there may be as many as 50,000 marijuana growing operations in the state.¹³² According to testimony before the committee, marijuana production requires water and a lot of it: one witness stated that a marijuana plant needs one gallon a day per pound for each growing day. A large plant, yielding as many as five pounds, would require 750 gallons of water.¹³³

The State Water Resources Control Board representative who testified before the joint hearing admitted that the agency has no functioning system in place to regulate water use by marijuana producers in the North Coast region.¹³⁴ Further, the agency has limited enforcement resources: it has done only eighty-seven inspections despite the presence of thousands of growing operations in the region.¹³⁵

¹²⁷ BRC REPORT, *supra* note 5, at ii. See generally S.E. Smith, *How Legalizing Marijuana Could Help California Address Drought*, ROLLING STONE (Sept. 15, 2015), <http://www.rollingstone.com/politics/news/how-legalizing-marijuana-could-help-california-address-drought-20150915> (discussing the environmental benefits of legalization).

¹²⁸ BRC REPORT, *supra* note 5, at 11; Smith, *supra* note 127.

¹²⁹ BRC REPORT, *supra* note 5, at 11.

¹³⁰ *Fish Flows*, *supra* note 7.

¹³¹ See *id.* (statement of Tom Allman, Sheriff of Mendocino County describing damage done to the environment as a result of illegal grows). Some of the participants in the hearings did not support legalization of marijuana for recreational use.

¹³² *Id.* (statement of Lieutenant DeWayne Little, Cal. Dept. of Fish and Wildlife).

¹³³ See *id.* (statement of Hezekiah Allan, Executive Director, Emerald Growers Association explaining that large plants can yield 5 pounds per plant, which is 5 gallons a day for 150 days).

¹³⁴ See *id.* (statement of Thomas Howard, Executive Director, State Water Resources Control Board).

¹³⁵ *Id.*

While no witness offered an estimate of the total amount of water used by growing operations, the total must be significant. For example, a sheriff in the region described an operation that used a four-inch diversion pipe placed in the Eel River, which runs through Humboldt County, a pipe that can extract 400 gallons of water per minute.¹³⁶ In a six-county raid in 2011, agents removed 650,000 marijuana plants from about 950,000 acres of national parks and public lands.¹³⁷ The sheer amount of water being diverted for marijuana production on such a large scale is likely to be substantial.

Water diversion for marijuana production has compounded environmental damage to waterways already compromised by the drought. In August, 2014, another Humboldt County waterway, Sprowl Creek, went dry. Another witness at the joint hearing described similar water loss in other area creeks and rivers.¹³⁸ He argued that growing operations are part of the problem, pointing to the continued water flow in Grizzly Creek that, as far as officials are aware, has no diversion from growing operations and has experienced limited impact from the drought.¹³⁹

Witnesses indicated that environmental damage does not stop with the loss of water. Growers use pesticides that flow into waterways, reducing water quality for humans and fish.¹⁴⁰ Growers often use black “poly pipe,” which heats the water,¹⁴¹ contributing to rising water temperatures and harming fish that need cold water to thrive.¹⁴² According to Senator Mike McGuire, marijuana-growing operations are the largest source of sediment in Northern California rivers, causing ecosystem imbalance and threatening the state’s fishing industry.¹⁴³ Marijuana growers have also cleared public lands illegally, contributing to problems due to run-off.¹⁴⁴

A combination of factors, including marijuana growers’ activities, has caused a disturbing reduction of biodiversity in California. The Director of California’s Department of Fish and Wildlife pointed to a

¹³⁶ *Id.* (statement of Tom Allman, Sheriff, Mendocino County).

¹³⁷ *Id.*

¹³⁸ *Id.* (statement of John Laird, Secretary, Natural Resources Agency).

¹³⁹ *Id.* (statement of Lieutenant DeWayne Little, California Department of Fish and Wildlife).

¹⁴⁰ *Id.* (statement of John Laird, Secretary, Natural Resources Agency).

¹⁴¹ *Id.* (statement of Lieutenant DeWayne Little, California Department of Fish and Wildlife).

¹⁴² *Id.* (statement of John Laird, Secretary, Natural Resources Agency).

¹⁴³ *Id.*

¹⁴⁴ *Id.*

90% loss of Coho salmon in the four major tributaries in the Russian River in a single year as such an example.¹⁴⁵

The Joint Committee's findings are similar to those made by other groups concerned with the environment.¹⁴⁶ The committee did not urge legalization as part of the solution to mitigate environmental harm.¹⁴⁷ But some proponents of legalization argue that legalization is the best way to reduce the ongoing damage to the environment that is caused by illegal production.¹⁴⁸

The Joint Committee hearings led to passage of three bills dealing with marijuana production titled the California Medical Marijuana Regulation and Safety Act (MMRSA).¹⁴⁹ Among numerous provisions intended to bring order to the chaos that has been the California medical marijuana industry¹⁵⁰ are several relevant to this paper. The MMRSA creates seventeen different kinds of licenses regulating participants in the medical marijuana business.¹⁵¹ It limits the amount

¹⁴⁵ *Id.* (statement of Charlton Bonham, Director of California Department of Fish and Wildlife).

¹⁴⁶ See Josh Harkinson, *The Landscape-Scarring, Energy-Sucking, Wildlife-Killing Reality of Pot Farming*, MOTHER JONES (March/April, 2014), <http://www.motherjones.com/environment/2014/03/marijuana-weed-pot-farming-environmental-impacts>; see also Diane Toomey, *The High Environmental Cost of Illicit Marijuana Cultivation*, YALE ENV'T 360 (July 16, 2015), http://e360.yale.edu/feature/the_high_environmental_cost_of_illicit_marijuana_cultivation/2895/ (explaining how legalization of marijuana could help reduce the large ecological footprint of illicit grow operations).

¹⁴⁷ See generally *Senator McGuire's Medical Marijuana Bill Passes Senate with Strong, Bi-Partisan Support*, CAL. SENATOR MIKE MCGUIRE (June 4, 2015), <http://sd02.senate.ca.gov/news/2015-06-04-senator-mcguire%E2%80%99s-medical-marijuana-bill-passes-senate-strong-bi-partisan-support> (explaining that CA SB 643 deals only with medical marijuana regulation and does nothing to further the legalization of marijuana for recreational use).

¹⁴⁸ See, e.g., Aaron Juchau, *Marijuana Could Lead to a Paradigm Shift in Environmental Stewardship*, DRUG POL'Y ALLIANCE (June 20, 2014), <http://www.drugpolicy.org/blog/marijuana-could-lead-paradigm-shift-environmental-stewardship> (arguing that legalization would substantially reduce the environmental problems associated with growing by allowing for increased regulation); *About Marijuana*, NORML, <http://norml.org/marijuana> (last visited Oct. 25, 2016) (advocating for the eventual development of a legally controlled market for marijuana, where consumers could buy marijuana for personal use from a safe legal source).

¹⁴⁹ See Assemb. B. 266, 2015–2016 Sess. (Cal. 2015); Assemb. B. 243, 2015–2016 Sess. (Cal. 2015); S.B. 643, 2015–2016 Sess. (Cal. 2015) (known collectively as the Medical Marijuana Regulation and Safety Act).

¹⁵⁰ Assemb. B. 266, 2015–2016 Sess. (Cal. 2015); Assemb. B. 243, 2015–2016 Sess. (Cal. 2015); S.B. 643, 2015–2016 Sess. (Cal. 2015).

¹⁵¹ Marijuana Policy Project, *The California Medical Marijuana Regulation and Safety Act*, MPP.ORG, <https://www.mpp.org/states/california/the-california-medical-marijuana-regulation-and-safety-act/> (last visited Aug. 27, 2016); see Assemb. B. 243, 2015–2016

of land a grower may have in cultivation to four acres.¹⁵² It allows local governments to impose additional regulations (including a total ban) on the industry.¹⁵³ The law also gives those governments the power to tax and assess fees on industry.¹⁵⁴

Assembly Bill 243 focused on environmental concerns. The law provides that the California Department of Food and Agriculture may create rules necessary to regulate marijuana cultivators.¹⁵⁵ The act gives the California Department of Pesticide Regulation, in consultation with the California Department of Food and Agriculture, authority to develop rules concerning pesticide use for marijuana cultivation.¹⁵⁶

The law also directs the California Department of Food and Agriculture to work with the Department of Fish and Wildlife and the Water Resources Control Board to ensure that “individual and cumulative effects of water diversion and discharge associated with cultivation do not affect the instream flows needed for fish spawning, migration, and rearing, and the flows needed to maintain natural flow variability.”¹⁵⁷ The law does exempt qualifying patients who cultivate for personal use from its provisions.¹⁵⁸

Senate Bill 643, also part of the MMRSA, limits licenses. Importantly, individuals with criminal convictions for offenses “substantially related to the qualifications, functions, or duties of the business or profession for which the application is made” may be denied a license.¹⁵⁹ Specific convictions that may be considered by the state licensing agency include felony convictions for the illegal possession for sale, sale, manufacture, transportation, or cultivation of a controlled substance.¹⁶⁰

The overall impact of the MMRSA will not be clear for several years. That is so because the law gives the various agencies involved in its implementation significant lead time in which to promulgate

Sess. (Cal. 2015); Assemb. B. 266, 2015–2016 Sess. (Cal. 2015).

¹⁵² CAL. BUS. & PROF. CODE § 19328(a)(9) (2016).

¹⁵³ *Id.* § 19316 (2016).

¹⁵⁴ *Id.* § 19320(d) (2016).

¹⁵⁵ *Id.* § 19332(a) (2016).

¹⁵⁶ *Id.* § 19332(b).

¹⁵⁷ CAL. HEALTH & SAFETY CODE § 11362.777(e)(1)(A) (2016).

¹⁵⁸ *Id.* § 11362.777(g) (allowing personal cultivation as long as the area of cultivation does not exceed 100 square feet).

¹⁵⁹ CAL. BUS. & PROF. CODE § 19323(b)(5) (2016).

¹⁶⁰ *Id.*

regulations authorized by the act.¹⁶¹ As developed below, the law may already be helping abatement of some of the identified environmental harm.¹⁶²

When the legislature passed the MMRSA, some commentators wondered why the legislature would bother regulating the medical marijuana trade in light of the upcoming election.¹⁶³ Expectations run high that whatever initiative that would legalize personal use of marijuana qualifies for the ballot will pass.¹⁶⁴ As indicated above, the agreement among various groups to back the Newsom initiative helps to clarify what legalization may look like after the upcoming election.¹⁶⁵ The next section turns to that proposed legislation.¹⁶⁶

III. PROMISING A POT OF GOLD?

Proponents of legalizing marijuana often make extravagant claims about benefits that will result from its legalization. Typical are claims made several years ago when California Assemblyman Tommy Ammiano proposed legislation that would have legalized marijuana in California.¹⁶⁷ Proponents made several claims about the benefits of the proposed legislation: it would raise about \$1 billion in tax revenue;¹⁶⁸ it would reduce prison costs by another billion according to proponents' estimates;¹⁶⁹ it would save money by shifting law enforcement efforts away from pursuing marijuana prosecutions;¹⁷⁰ it

¹⁶¹ See S.B. 643 § 20, 2015–2016 Sess. (Cal. 2015) (“This act shall become operative only if Assembly Bill 266 and Assembly Bill 243 of the 2015–16 Session are enacted and take effect on or before January 1, 2016.”).

¹⁶² *Infra* Part III.B.

¹⁶³ Cf. Victoria Colliver & Rachel Swan, *Gov. Brown Signs Bills Regulating Medical Marijuana Industry*, SF GATE (Oct. 9, 2015), <http://m.sfgate.com/news/article/Gov-Brown-signs-bills-regulating-medical-6562139.php>. (“While some aspects of the legislation have been criticized, most involved in the industry say the benefits of having regulations more than outweigh any of the downsides.”)

¹⁶⁴ David Downs, *Lt. Gov. Newsom: California Will Legalize Cannabis in 2016*, SFGATE (Aug. 11, 2015), <http://blog.sfgate.com/smellthetruth/2015/08/11/Lt-gov-newsom-california-will-legalize-cannabis-in-2016/>.

¹⁶⁵ See *California Proposition 64, Marijuana Legalization (2016)*, *supra* note 11; Downs, *supra* note 11; Pascual, *supra* note 11.

¹⁶⁶ *Infra* Part III.

¹⁶⁷ Assemb. B. 390, 2009–2010 Sess. (Cal. 2009).

¹⁶⁸ See Joe Eskenazi, *Get up, Stand up: Ammiano Introduces Marijuana Legalization Bill to the Press*, SF WKLY. (Feb. 23, 2009, 11:21 AM), <http://www.sfweekly.com/thesnitch/2009/02/23/get-up-stand-up-ammiano-introduces-marijuana-legalization-bill-to-the-press>.

¹⁶⁹ See *id.*

¹⁷⁰ See *id.*

would “end the environmental damage to our public lands from illicit crops”;¹⁷¹ and it would help combat trafficking and gang violence of Mexican drug cartels because gangs would no longer profit from illegal marijuana sales.¹⁷² Others like NORML’s writers contend that legalization would lead to “spinoff industries such as coffee houses, paraphernalia, and industrial hemp.”¹⁷³ On the assumption that the industry was a third the size of the wine industry, NORML estimated that legalization would generate 50,000 jobs and \$1.4 billion in wages.¹⁷⁴ It also projected that the hemp industry could become a business comparable to California’s multi-billion dollar cotton industry.¹⁷⁵ How could anyone oppose such a bonanza for the state?

Trite but all too true is the cliché that the devil is in the details. History is replete with examples of legislation that has resulted from unusual coalitions and has disappointed some of the groups who helped make reform possible.¹⁷⁶ Those who hope that marijuana legalization will abate the environmental harm caused by marijuana production should be agnostic whether those benefits will result from legalization efforts.

The RAND Corporation attempted to study the effects of legalizing marijuana in California several years ago.¹⁷⁷ It came to several conclusions, but most importantly for this paper, it found that “[t]here is considerable uncertainty about the impact of legalizing marijuana in California on public budgets and consumption, with even minor changes in assumptions leading to major differences in outcomes.”¹⁷⁸ As I pointed out in *Legalizing Marijuana: California’s Pot of Gold*, proponents rely on many unproven assumptions and ignore the

¹⁷¹ *California Lawmaker Sees Tax Revenue in \$14 Billion Marijuana Crop*, DRUG POL’Y ALLIANCE (Feb. 23, 2009), <http://www.drugpolicy.org/news/2009/02/california-lawmaker-sees-tax-revenue-14-billion-marijuana-crop>.

¹⁷² *How to Stop the Drug Wars*, ECONOMIST, Mar. 7, 2009, at 15 (arguing that “prohibition has failed” and legalization is the “least bad solution”).

¹⁷³ Dale Gieringer, *California NORML Report: Marijuana Legalization Could Yield California Taxpayers over \$1.2 Billion per Year*, CAL. NORML (Oct. 2009), http://www.canorml.org/background/CA_legalization2.html.

¹⁷⁴ *Id.*

¹⁷⁵ *Id.*

¹⁷⁶ See, e.g., OKRENT, *supra* note 32, at 96-114 (describing the disparate organizations that led to passage of the Eighteenth Amendment); Michael Vitiello, *Reconsidering Rehabilitation*, 65 TUL. L. REV. 1011, 1024-26 (1991) (discussing coalition that led to abandonment of rehabilitative model in favor of retributive model).

¹⁷⁷ KILMER ET AL., *supra* note 53.

¹⁷⁸ *Id.* at 3.

tension between some of their claims.¹⁷⁹ Below, I consider a few of those policies that are in conflict.

When I lecture on legalization of marijuana, I usually start with a confession: my interest in legalization has nothing to do with access to marijuana.¹⁸⁰ I am a tax-and-spend liberal: give me a new industry to tax! But I am also interested in meaningful sentencing reform and reducing prison costs.¹⁸¹ However, I am quick to caution that my goals, if I were to vote for legalization of marijuana,¹⁸² may be at odds with one another. Return to the news story cited above concerning the change in Washington state law, conflating the medical and recreational marijuana regulations.¹⁸³ As reported there, a marijuana dealer estimates that between 75-80% of Washington's marijuana trade is still handled by the illegal market.¹⁸⁴ That may be a temporary phenomenon. For example, buyers may be comfortable with their illegal supplier but may eventually transition to a legal shop to assure a steady and law-abiding supply.

However, at least in the short term, according to the cited story, the illegal market still undercuts the lawful market by a significant amount.¹⁸⁵ Some opponents to the legalization of marijuana claim that the price on the illegal market will always be less than the legal market.¹⁸⁶ That is so because the legal market will always include taxes and licensing fees needed to raise the promised revenue.¹⁸⁷ In

¹⁷⁹ See generally Vitiello, *Pot of Gold*, *supra* note 5 (another issue that I addressed there was that proponents often ignore costs that result from expanded use of drugs, and no one should deny that drugs do have negative effects for some users and their families).

¹⁸⁰ See, e.g., *id.* at 1389.

¹⁸¹ See generally Michael Vitiello & Clark Kelso, *A Proposal for a Wholesale Reform of California's Sentencing Practice and Policy*, 38 LOY. L.A. L. REV. 903 (2004); Michael Vitiello, *Three Strikes: Can We Return to Rationality?*, 87 J. CRIM. L. & CRIMINOLOGY 395 (1996-1997).

¹⁸² Vitiello, *Lessons from Proposition 215*, *supra* note 5, at 63 (when Proposition 19 was on the ballot in 2010, I abstained, unable to vote for a badly drafted initiative that might not result in tax revenues promised by its drafters).

¹⁸³ Callaghan, *supra* note 106.

¹⁸⁴ *Id.*

¹⁸⁵ *Id.*

¹⁸⁶ *Forum with Michael Krasny: Legalizing Marijuana?*, KQED NAT'L PUB. RADIO (Mar. 2, 2009), <http://www.kqed.org/epArchive/R903020900> (comment by Lovell that the street price for illegal marijuana will always be less than the price for legally purchased marijuana).

¹⁸⁷ See Jeffery A. Miron, *The Budgetary Implications of Marijuana Prohibition*, PROHIBITIONCOSTS.ORG (June 2005), <http://www.prohibitioncosts.org/mironreport/> [hereinafter *Budgetary Implications*] (examining the budgetary implications of legalizing marijuana).

addition, the lawful shop owner has costs like rent, security and other overhead that must be factored into the cost of the product.¹⁸⁸

But the price differential between legal and illegal marijuana can be altered by the government's response to the illegal market.¹⁸⁹ Quite simply, vigorous law enforcement efforts aimed at black market sellers and buyers can increase producers' transaction costs through court costs, lawyers' fees and other disruption of illegal businesses like forfeiture.¹⁹⁰ Those law enforcement efforts might drive buyers out of the black market into the legal market to avoid the embarrassment and hassle caused by an arrest, even if the buyer is merely fined.

Clearly though, to achieve significant tax revenues, law enforcement would have to continue to focus on illegal marijuana sales. But that effort would cut into savings projected from lower prison, or, more realistically, jail costs.¹⁹¹ We can't have it both ways. And admitting that vigorous law enforcement efforts must continue no doubt would lose support from libertarians and groups like NORML, who are primarily motivated by personal choice and access to marijuana.¹⁹²

Supporters of legalization, who support reform with the hope of increased revenue, must also recognize a different set of complex policy questions. Who is going to produce legal marijuana?¹⁹³ Many

¹⁸⁸ Cf. Matt Ferner, *The Feds Won't Legitimize Pot, but They'll Still Tax the Hell out of It*, HUFFINGTON POST (Feb. 6, 2014, 12:31 PM ET), http://www.huffingtonpost.com/2014/02/06/marijuana-business-tax_n_4717589.html (explaining that legal marijuana is still subject to "traditional business expenses like advertising costs, employee payroll, rent and health insurance.").

¹⁸⁹ See Vitiello, *Pot of Gold*, *supra* note 5, at 1374 ("[T]he price of illegal marijuana reflects the cost of doing business and that cost includes the risk of being caught . . .").

¹⁹⁰ See, e.g., KATHERINE BECKETT & STEVE HERBERT, *THE CONSEQUENCES AND COSTS OF MARIJUANA PROHIBITION* 27-35 (2008), https://aclu-wa.org/library_files/MarijuanaProhibition.pdf (examining the costs of marijuana enforcement on individuals such as attorney's fees, asset forfeiture, court costs, etc.); cf. Harry Bradford, *Marijuana Law Enforcement Cost States an Estimated \$3.6 Billion in 2010: ACLU*, HUFFINGTON POST (June 4, 2013, 5:05 PM ET), http://www.huffingtonpost.com/2013/06/04/marijuana-arrests-cost-racially-biased_n_3385756.html (detailing the cost of enforcing illegal marijuana).

¹⁹¹ See Vitiello, *Pot of Gold*, *supra* note 5, at 1366 (stating that many marijuana offenders end up in county jails).

¹⁹² See *Platform*, LIBERTARIAN PARTY (May 2016), <https://www.lp.org/platform> (discussing the personal freedoms compromised by drug laws); Keith Stroup, *The Feeling of Freedom in Colorado*, NORML (June 1, 2015), <http://blog.norml.org/2015/06/01/the-feeling-of-freedom-in-colorado/> (describing legal marijuana as an exercise in "hard-won personal freedom").

¹⁹³ See generally Max Daly, *The Stoners' Paradise of Humboldt County Is Dreading Weed Legalization*, VICE (Feb. 25, 2014), <http://www.vice.com/read/the-us-weed-growing-town-dreading-weed-legalisation> (reporting that 30,000 people, or one fifth

marijuana users are concerned about the role that Big Tobacco may have in an era of lawful marijuana.¹⁹⁴ Allowing Big Tobacco to produce marijuana has distinct advantages if the primary goal is collecting tax revenue: Big Tobacco has complied with federal tax laws for years.¹⁹⁵ But will that leave in place the illegal producers who now function in rural areas of the state, growers who are unlikely to want to join Big Tobacco and the corporate world that it represents?¹⁹⁶

Allowing Big Tobacco or other large corporate producers into the market poses other problems as well. Proponents and opponents often debate whether legalization will increase use.¹⁹⁷ Some studies suggest that expanded access does not lead to increased use.¹⁹⁸ Especially on the assumption that significantly expanded use of marijuana is not desirable, policy makers should hesitate to open the market to large corporations, which will push to allow advertising of their product to increase profits.¹⁹⁹

of the rural county's population is involved in growing marijuana); Trevor Hughes, *Will Big Tobacco Become Big Marijuana?*, USA TODAY (Apr. 11, 2015, 10:09 PM ET), <http://www.usatoday.com/story/money/business/2015/04/11/cigarettes-and-marijuana/70746772/> (discussing whether or not the tobacco industry will venture into legal marijuana).

¹⁹⁴ Ed Vulliamy, *Could Marijuana Save California?*, OBSERVER (May 8, 2010, 7:06 PM ET), <https://www.theguardian.com/world/2010/may/09/marijuana-legalise-california-drugs-cartels>.

¹⁹⁵ Cf. Nathan Bomey, *\$1 Billion Annual Boost: Big Tobacco Breathing Easier*, USA TODAY (Sept. 3, 2015, 7:33 AM ET), <http://www.usatoday.com/story/money/2015/09/02/1-billion-annual-boost-big-tobacco-breathing-easier/32113233/> (discussing the regulation and taxation of the tobacco industry).

¹⁹⁶ See, e.g., Joe Garofoli, *Marijuana Fact-Finding Tour the New Political Field Trip*, SF GATE (June 6, 2015, 7:31 PM), <http://www.sfgate.com/bayarea/article/2015-s-new-political-field-trip-the-marijuana-6311673.php> (discussing Lt. Governor Gavin Newsom's address to rural marijuana growers in Garberville, CA ensuring to them that he won't let corporate marijuana wipe them out come legalization).

¹⁹⁷ Not all proponents agree on the effect of legalization, with some proponents downplaying the effect of legalization. See Craig Reinerman et al., *The Limited Relevance of Drug Policy: Cannabis in Amsterdam and in San Francisco*, 94 AM. J. PUB. HEALTH 836, 836 (2004) (noting the view of some proponents that marijuana is already so available that legalization won't increase use). But proponents who favor legalization, like NORML, point to the enormous benefits of legalization, including creation of related industries. See Gieringer, *supra* note 173. Those proponents seem to premise benefits on expanded use.

¹⁹⁸ See Miron, *Budgetary Implications*, *supra* note 187; see also Kevin Hill, *Medical Marijuana Does Not Increase Adolescent Marijuana Use*, 2 LANCET PSYCHIATRY 572, 572 (2015).

¹⁹⁹ See Bill Briggs, *Pot Legalization Push U.S. Closer to Weed Business Boom*, NBC NEWS (Nov. 8, 2014, 5:19 AM ET), <http://www.nbcnews.com/storyline/legal-pot/pot-legalizations-push-u-s-closer-weed-business-boom-n243861> (discussing the potential

For too long, the debate has been about whether to legalize marijuana. Fortunately, the debate has begun to shift from whether to legalize to how to legalize. Further, as reflected in Lieutenant-Governor Gavin Newsom's Blue Ribbon Commission's report, many of these kinds of hard policy choices are being debated.²⁰⁰ The commission produced a thoughtful report raising many of these concerns.²⁰¹ The report is hardly a breathless endorsement of legalization; instead, its drafters recognized the complex and interrelated policy questions involved with legalization.²⁰² For example, it set out nine goals that need to be balanced.²⁰³ Among those goals was the protection of the environment.²⁰⁴ It also raised several public health and safety goals that need to be advanced if California legalizes marijuana.²⁰⁵ Other goals include regulating and limiting access to marijuana, especially among youngsters;²⁰⁶ testing and labeling marijuana to protect consumers;²⁰⁷ providing workplace protections for marijuana workers;²⁰⁸ and ensuring a licensed market for small and mid-size entities.²⁰⁹

The commission did not sweep under the rug some of the conflicting policies at play in the debate about legalization. Most notably, it urged that tax revenues not be the justification for legalization.²¹⁰ That is so because of potential unintended consequences that may flow from reliance on tax revenues; for example, that reliance may come at the cost of regular and heavy users of marijuana.²¹¹ Overreliance on tax revenues might lead to encouraging usage, thereby increasing other costs associated with use.²¹² Similarly, many commission members expressed grave reservations about allowing the large for-profit industry to produce and sell marijuana; they suspect that the industry lobbyists would

implications of big business marijuana, such as downplaying health risks and encouraging increased use).

²⁰⁰ See generally BRC REPORT, *supra* note 5, at i-iii.

²⁰¹ See generally *id.*

²⁰² See generally *id.*

²⁰³ *Id.* at ii-iii.

²⁰⁴ *Id.* at ii.

²⁰⁵ *Id.*

²⁰⁶ *Id.*

²⁰⁷ *Id.* at iii.

²⁰⁸ *Id.*

²⁰⁹ *Id.*

²¹⁰ *Id.* at 9.

²¹¹ *Id.* at 54.

²¹² *Id.* at 48.

have the same influence as the lobbyists for the tobacco and liquor industries.²¹³ The report also analyzed the uncertainties about how to license producers and recognized the risk that imposing fees that are too high would give too much incentive to illegal producers.²¹⁴

As indicated above, recently, a number of groups jockeying to put their initiatives on the 2016 ballot have agreed to back a single proposal.²¹⁵ Lieutenant Governor Newsom has agreed to back the Marijuana Policy Project of California's (MPP) Adult Use of Marijuana Act (AUMA).²¹⁶ MPP is the organization that was involved in the Washington and Colorado initiatives.²¹⁷ AUMA's drafters structured the initiative around the Blue Ribbon Commission's findings.²¹⁸

Notable among AUMA's provisions are the following: the initiative would prevent monopolies and Big Tobacco by disallowing large scale cultivation licenses for five years and requiring public universities to conduct studies on preventing monopolies in the industry;²¹⁹ it would provide revenue for "environmental cleanup and restoration of public lands damaged by illegal marijuana cultivation;"²²⁰ it would have authority to revoke a business's license if that business failed to comply with water usage and other environmental laws;²²¹ and it would have the Department of Food and Agriculture oversee the industry with an emphasis on environmental and water usage compliance.²²² It would also allow local governmental entities to tax

²¹³ *Id.* at 28.

²¹⁴ *Id.* at 30. Similarly, the report discussed different options for taxation, including whether to tax at the point of cultivation or sale. Each option presents some undesirable results; thus, taxing at the point of sale means that the rural areas where marijuana is produced may not benefit even though those communities have born some of the costs. *Id.* at 48-55.

²¹⁵ *California Proposition 64, Marijuana Legalization (2016)*, *supra* note 11.

²¹⁶ *Id.*

²¹⁷ California's last attempt at legalization was the failed Prop. 19, which some speculate failed in part due to the absence of a clear definition of driving under the influence of marijuana. Scott Bridges, *Tweaked Legal Pot Initiative to Reach 2016 Ballot*, L.A. Biz (Sept. 29, 2014, 9:28 AM PDT), <http://www.bizjournals.com/losangeles/news/2014/09/29/tweaked-legal-pot-initiative-to-reach-2016-ballot.html>.

²¹⁸ Compare AUMA, *supra* note 12, at 3-4, with BRC REPORT, *supra* note 5, at ii-iii (AUMA mirrors the priorities listed in the Blue Ribbon Commission Pathways Report).

²¹⁹ AUMA, *supra* note 12, at 25, 46-47.

²²⁰ *Id.* at 1.

²²¹ *Id.* at 2.

²²² *Id.* at 14, 26.

the industry.²²³ AUMA would also remove existing criminal penalties for possession, transportation, and cultivation of marijuana.²²⁴

I have focused on AUMA because of the groups that have lined up behind it.²²⁵ Of eighteen other proposals, two additional proposals appear to have some significant support.²²⁶ A few provisions that differ from AUMA suggest some areas that will need to be addressed if AUMA is adopted. The Control, Regulate and Tax Cannabis Act of 2016 would increase law enforcement resources and seek to prevent gangs and cartels from involvement in the marijuana industry.²²⁷ The initiative would focus on treatment, education and counseling, especially in disadvantaged communities.²²⁸

The proposals leave unresolved many of the details.²²⁹ No doubt, including specific regulations would make the resulting ballot initiative unwieldy. At the same time, predicting whether any initiative can deliver on its promises is difficult at best. But what follows are a few concerns about whether AUMA will abate the environmental harm resulting from marijuana production.

A. *Reducing the Illegal Trade*

The first concern is whether AUMA will cut into large-scale illegal production of marijuana. Large-scale production on public lands, for example, results in significant damage from clear-cutting of timber, resulting in run-off of soil, pesticides and fertilizers into waterways.²³⁰ Absent significant curtailment of the illegal trade, legalization of marijuana will not result in abatement of environmental harm.

Some commentators assume that legalization of marijuana will shrink the illegal trade and cite what happened after the Twenty-first

²²³ *Id.* at 42, 52.

²²⁴ *Id.* at 24.

²²⁵ See *California Proposition 64, Marijuana Legalization (2016)*, *supra* note 11 (listing the numerous supporters of AUMA).

²²⁶ See Anita Chabria, *Marijuana Proposals Fight to Represent California's 2016 Legalization Effort*, *GUARDIAN* (Nov. 11, 2015, 8:47 AM EST), <http://www.theguardian.com/us-news/2015/nov/11/california-marijuana-proposals-best-initiative-cannabis-legal>.

²²⁷ 15-0075, "Control, Regulate and Tax Cannabis Act of 2016" OFFICE OF THE ATTORNEY GENERAL 1 (Nov. 9, 2015), [https://www.oag.ca.gov/system/files/initiatives/pdfs/15-0075%20\(Marijuana\).pdf](https://www.oag.ca.gov/system/files/initiatives/pdfs/15-0075%20(Marijuana).pdf) (declaring the Act's intent to prevent the revenue of licensed businesses from going to gangs and cartels).

²²⁸ See *California Proposition 64, Marijuana Legalization (2016)*, *supra* note 11.

²²⁹ See generally AUMA, *supra* note 12.

²³⁰ Daniel Mintz, *Cannabis Grows Draining Water, Polluting Habitat, Razing Forests, Destroying Watersheds*, *ARCATA EYE* (May 8, 2013), <http://www.arcataeye.com/2013/05/cannabis-grows-draining-water-polluting-habitat-razing-forests-destroying-watersheds/>.

Amendment overruled the Eighteenth Amendment, ending Prohibition.²³¹ That argument ignores a meaningful difference between ending Prohibition and ending marijuana prohibition: sitting on the sidelines during Prohibition or finding ways to maintain production during Prohibition,²³² were beer barons, winery owners, and distillery owners.²³³ They were able to resume production fairly quickly, thereby dominating the alcohol market.²³⁴ In addition, a good bit of bootlegged liquor was of poor quality, inferior to the legal product.²³⁵ Marijuana production has no similar history — no one produced marijuana legally in the past and is waiting on the sidelines until marijuana prohibition ends.²³⁶ Further, illegal producers have shown themselves quite capable in improving their product and even spend time marketing it by brand name with an emphasis on its unique characteristics.²³⁷

The failure of the War on Drugs should make policymakers cautious about predicting the eradication of illegal drug production.²³⁸ Estimates on the value of marijuana production in California are difficult at best. At least according to one estimate, marijuana sales in the United States exceed \$100 billion, with 60% of production in California.²³⁹ War-on-Drug strategies, like helicopter overflights and police raids — even if they could put a dent in the illegal trade — have

²³¹ Michael Montgomery, *Will Legalizing Pot Wipe out the Black Market?*, NPR (Oct. 27, 2010), <http://www.npr.org/templates/story/story.php?storyId=130832710>.

²³² See generally Beaulieu Vineyard, *Napa Valley Renaissance*, <http://www.bvwines.com/bv-legacy/napa-valley-renaissance> (last visited Sept. 2, 2016) (some wineries, notably BV Winery in the Napa Valley, continued to produce wine during Prohibition. Its owners were able to convince Catholic Church officials to buy their wine for sacramental purposes).

²³³ See OKRENT, *supra* note 32, at 30-34.

²³⁴ 2 WILLIAM H. YOUNG & NANCY K. YOUNG, *THE GREAT DEPRESSION IN AMERICA: A CULTURAL ENCYCLOPEDIA* 13 (2007).

²³⁵ Garrett Peck, *For Marijuana Legalization, Lessons from Prohibition*, N.Y. TIMES (May 22, 2013), <http://www.nytimes.com/roomfordebate/2013/05/22/how-can-marijuana-be-sold-safely/for-marijuana-legalization-lessons-from-prohibition>.

²³⁶ Cf. Grinspoon & Bakalar, *supra* note 58.

²³⁷ See, e.g., David Pierson, *Why Chocolope?: To Sell Marijuana, You Need a Clever Name*, L.A. TIMES (July 11, 2014, 5:00 AM), <http://www.latimes.com/business/la-fi-marijuana-names-20140711-story.html>.

²³⁸ See Will Dana, *The War on Drugs: 'A Trillion-Dollar Failure'*, ROLLING STONE (June 25, 2015), <http://www.rollingstone.com/culture/features/the-war-on-drugs-a-trillion-dollar-failure-20150625>.

²³⁹ Jennifer K. Carah et. al., *High Time for Conservation: Adding the Environment to the Debate on Marijuana Liberalization*, BIOSCIENCE (2015), at 1 (estimating that 60-70% of marijuana consumed in the US is grown in California); Vazquez, *supra* note 39.

not been enough to win the war on drugs and certainly have not won the hearts and minds of marijuana growers.²⁴⁰

Despite the failure of the War on Drugs, law enforcement has a role in a post-legalization world and perhaps a significant role. Without disincentives, illegal producers will be able to undercut the price of legally produced marijuana.²⁴¹ Arrest, trial, and forfeiture of property can increase production costs for illegal producers.

As importantly, as the Rand study pointed out, choosing the right level of taxation is a key variable.²⁴² Imposing taxes that are too high gives producers a disincentive to comply with the law.²⁴³ No doubt, overly burdensome regulations, which add cost for compliance, may have the same effect.²⁴⁴ AUMA's provision allowing local governmental entities to tax the marijuana industry may be the wrong approach. Cash-strapped cities may impose tax rates that are too high, inviting continued participation by illegal producers and sellers.²⁴⁵

AUMA does address the status of individuals with criminal records for drug related offenses.²⁴⁶ Many members of the marijuana community have drug convictions.²⁴⁷ The law ought to give them incentives to abandon the illegal trade; failing to do so leaves in place a workforce with the skills and knowhow to produce and sell marijuana illegally.²⁴⁸ I have not found estimates of how many marijuana producers have convictions that would be forgiven under the AUMA provision and how many would not. If amnesty for offenders does not extend to large numbers of those involved in the trade, the law will

²⁴⁰ See Max Cherney, *Paramilitaries Are Eradicating California's Illegal Marijuana Grows*, VICE NEWS (Sept. 30, 2014, 7:50 AM), <https://news.vice.com/article/paramilitaries-are-eradicating-californias-illegal-marijuana-grows> [hereinafter *Paramilitaries*].

²⁴¹ See Keegan Hamilton, *How America's Legal Weed Is Changing the Black Market and Influencing Mexican Cartels*, VICE NEWS (Aug. 25, 2015, 10:10 AM), <https://news.vice.com/article/how-americas-legal-weed-is-changing-the-black-market-and-influencing-mexican-cartels>.

²⁴² See KILMER ET AL., *supra* note 53, at 2.

²⁴³ See *id.* at 21.

²⁴⁴ See *id.* at 38-49.

²⁴⁵ Cf. *id.* 48-49 (discussing how tax rates could influence tax evasion and competition among different local jurisdictions).

²⁴⁶ See AUMA, *supra* note 12, at 52-58.

²⁴⁷ See Kristen Wyatt, *Colorado Medical Marijuana: Over Half of Dispensary Owners Have Criminal Records*, HUFFINGTON POST (Sept. 28, 2010, 6:22 PM), http://www.huffingtonpost.com/2010/07/29/colorado-medical-marijuan_33_n_663492.html.

²⁴⁸ See Daly, *supra* note 193 (arguing by some estimates, one quarter of all residents in Humboldt County have income tied to the marijuana trade, which suggests a large number of individuals currently involved in the illegal production of marijuana).

leave in place a potentially large number of illegal producers and sellers who can undercut the lawful market.

Developing a successful strategy to assure compliance with environmental and other regulations is essential if legalization's goals are to be met. That strategy must provide enough incentives for illegal producers to participate in the legal trade.

B. Regulated Agriculture

The hearings that led to the passage of MMRSA focused on the volume of water used by marijuana production.²⁴⁹ The hearings created the general impression that marijuana is a particularly heavy user of water. That is not entirely true — for example, lettuce uses about the same amount of water per day as does a marijuana plant.²⁵⁰ But such comparisons overstate the amount of water that marijuana uses because a marijuana plant provides many more “servings” than does a head of lettuce.²⁵¹ Almond growers have gotten unwanted publicity for the amount of water used to produce their crop.²⁵² But almost all agricultural products consume significant quantities of water.²⁵³

Similarly, the hearings created the impression that the marijuana industry uses pesticides more heavily than other agricultural producers.²⁵⁴ That too is not necessarily true. Crops like strawberries require large amounts of pesticides.²⁵⁵ The largest users of pesticides include basic staples in the American diet, including corn, and potatoes.²⁵⁶ Other widely grown crops like soybeans and cotton also

²⁴⁹ See generally *Fish Flows*, *supra* note 7.

²⁵⁰ See Kym Kemp, *How Does Your Garden Grow?*, REDHEADED BLACKBELT (May 2, 2015), <http://kymkemp.com/2015/05/02/how-does-your-garden-grow-one-marijuana-farm-fights-the-drought-with-a-pond/>.

²⁵¹ See *id.*

²⁵² See Richard Gonzales, *How Almonds Became a Scapegoat for California's Drought*, NPR (Apr. 18, 2015, 3:51 AM ET), <http://www.npr.org/sections/thesalt/2015/04/16/399958203/how-almonds-became-a-scapegoat-for-californias-drought>.

²⁵³ See Jo Craven McGinty, *The Numbers Behind Agricultural Water Use*, WALL STREET J. (June 21, 2015), <http://www.wsj.com/articles/the-numbers-behind-agricultural-water-use-1434726353>.

²⁵⁴ See *Fish Flows*, *supra* note 7.

²⁵⁵ See Bernice Yeung et al., *California's Strawberry Industry Is Hooked on Dangerous Pesticides*, GUARDIAN (Nov. 10, 2014), <http://www.theguardian.com/us-news/2014/nov/10/sp-california-strawberry-industry-pesticides>.

²⁵⁶ See Danielle Dellorto, *'Dirty Dozen' Produce Carries More Pesticide Residue, Group Says*, CNN (June 1, 2010), <http://www.cnn.com/2010/HEALTH/06/01/dirty.dozen.produce.pesticide/>; Tom Philpott, *90 Percent of Corn Seeds Are Coated with Bayer's Bee-*

account for significant pesticide use in the United States.²⁵⁷ While proponents of organic and sustainable farming oppose widespread pesticide use, eliminating their use in American agriculture is politically infeasible.²⁵⁸

Often missed in discussions about environmental harm caused by marijuana production are two facts: one of the primary concerns about production is that it takes place in pristine areas susceptible to environmental harm;²⁵⁹ another concern is that a regulated industry will still use pesticides and water.²⁶⁰ The tricky question is then what effect will legalization of marijuana have on those issues?

Eliminating marijuana production from public lands, like state and national parks, depends on issues raised in the previous section.²⁶¹ Will the law create disincentives for illegal producers despite the fact that the current law enforcement efforts have done little to deter such production? But it may also depend on demand for marijuana, as developed more fully below.²⁶²

Here, I want to focus on whether legalizing marijuana is likely to reduce the use of pesticides and fertilizers. Even on the assumption that marijuana production does not increase after the passage of AUMA, marijuana producers will be subject to state and federal environmental regulations.²⁶³ Data on quantities of pesticides and fertilizers used by illegal growers are unavailable. As a result, one can only speculate whether legalization will reduce their use. Certain, however, is that, like agriculture generally, marijuana producers will be able to use some fertilizers and pesticides on their crops.²⁶⁴

Decimating Pesticide, MOTHER JONES (May 16, 2012, 8:00 AM), <http://www.motherjones.com/tom-philpott/2012/05/catching-my-reading-ahead-pesticide-industry-confab>.

²⁵⁷ Cf. William Neuman & Andrew Pollack, *Farmers Cope with Roundup-Resistant Weeds*, N.Y. TIMES (May 3, 2010), <http://www.nytimes.com/2010/05/04/business/energy-environment/04weed.html>.

²⁵⁸ See Anne C. Mulkern, *Pesticide Industry Ramps up Lobbying in Bid to Pare EPA Rules*, N.Y. TIMES (Feb. 24, 2011), <http://www.nytimes.com/gwire/2011/02/24/24greenwire-pesticide-industry-ramps-up-lobbying-in-bid-to-42970.html>.

²⁵⁹ See Times Editorial Board, Editorial, *Cleaning up After California's Pot Farmers*, L.A. TIMES (Sept. 23, 2015), <http://www.latimes.com/opinion/editorials/la-ed-marijuana-environment-20150922-story.html>.

²⁶⁰ See Keegan Hamilton & Tess Owen, *Legally Grown Pot Still Has a Toxic Pesticide Problem*, VICE NEWS (July 17, 2015), <https://news.vice.com/article/legally-grown-pot-still-has-a-toxic-pesticide-problem>.

²⁶¹ See *supra* Part III.A.

²⁶² See *infra* Part III.C.

²⁶³ See generally AUMA, *supra* note 12.

²⁶⁴ Cf. Why We Use Pesticides, U.S. ENVTL. PROT. AGENCY (last updated Aug. 12,

The best case scenario after legalization is that illegal production in pristine areas — at least on public lands — will decrease, reducing fertilizer and pesticide use in those areas. But depending on further regulations limiting the use of fertilizers and pesticides, legal marijuana production will continue to produce run-off containing those products.

The same can be said for water usage. Reduction in illegal production, again, especially in pristine areas, should protect streams and waterways in those areas. Further, the State Water Board will gain jurisdiction over legal producers.²⁶⁵ Producers will be under some pressure to comply with water restrictions.²⁶⁶ But, marijuana will continue to be a significant water consumer in the state.²⁶⁷

Here, again, on the assumption that illegal production drops significantly, water usage should diminish on public lands. With regards to legal production, the open question will be whether the State Water Board has enough resources and credibility among legal producers to assure compliance with limitations on water usage.²⁶⁸

C. Expanded Demand

A question that remains hard, if not impossible, to answer is whether legalization of marijuana will increase demand for the product.²⁶⁹ Many variables are at play in making that assessment: for

2016), <http://www.epa.gov/safepestcontrol/why-we-use-pesticides>.

²⁶⁵ See generally AUMA, *supra* note 12.

²⁶⁶ See generally *id.*

²⁶⁷ One point that I have not raised is attempting to force marijuana production indoors. Apparently, indoor production uses less water than does outdoor production. See Nebula Haze, *Growing Marijuana Indoors vs. Outdoors*, GROW WEED EASY <http://www.growweedeasy.com/indoors-vs-outdoors> (last visited Sept. 29, 2016); Chris Roberts, *Better Off Dry: The Drought Improved California's Outdoor Marijuana Harvest*, SF WEEKLY (Jan. 28, 2015), <http://archives.sfweekly.com/sanfrancisco/chem-tales-drought-marijuana-harvest/Content?oid=3363329>. It also could abate some other unpleasant side effects of marijuana production, including unpleasant odors that neighbors often resent. See Taylor Wofford, *Neighbors of Colorado Marijuana Farm Say Its Dank Odor is Unbearable*, NEWSWEEK (June 11, 2015, 12:10 PM), <http://www.newsweek.com/dank-odor-nearby-marijuana-farm-makes-life-unlivable-coloradans-say-342164>. A policymaker would be slow to advocate for indoor production exclusively. Outdoor producers would almost certainly resist the capital improvements needed for interior production and would have a significant incentive to remain in the illegal market.

²⁶⁸ Cf. Peter Hecht, *California Takes New Approach on Water Regulation for Pot Farms*, SACRAMENTO BEE (Aug. 29, 2015, 5:01PM), <http://www.sacbee.com/news/state/california/water-and-drought/article32762289.html>.

²⁶⁹ See Miron, *Policy in Colorado*, *supra* note 44 (concluding that marijuana use has

example, how expensive is the product, which is dependent on the level of taxation?²⁷⁰ Will legalization make the product more or less attractive to potential users? At least for some users, part of the allure of marijuana is its illegality.²⁷¹ How aggressively will those involved in the trade be able to advertise their products?²⁷² Government can regulate commercial speech of sellers of some products, notably tobacco; but there are outer limits.²⁷³ And will the state choose to limit advertising by the newly legalized industry?²⁷⁴ At least at this stage, advocates like the authors of the Blue Commission Report urge limits on advertising.²⁷⁵ That may change: as discussed above, many investors see marijuana as a good investment.²⁷⁶ If capital flows to marijuana production, resources for lobbying to allow advertising may become available in large quantities.²⁷⁷

Consider some of the rosy predictions about the effects of legalization, discussed above. NORML, for example, has projected that legalization would result in 50,000 jobs, \$1.4 billion in wages, and a hemp industry to rival the state's cotton production.²⁷⁸ If a legalized industry does produce such a bonanza, politicians will be hard-pressed to oppose industry efforts to expand demand. Sensibly, the Blue Ribbon Commission recommended that large producers not be allowed into the market, at least in the beginning.²⁷⁹ The commission did so out of concern that large corporations would be able to assert undue influence

not significantly changed).

²⁷⁰ See KILMER ET AL., *supra* note 53, at 15-20.

²⁷¹ Cf. Anup Shah, *Illicit Drugs*, GLOBAL ISSUES (Mar. 30, 2008), <http://www.globalissues.org/article/755/illicit-drugs> (stating legalizing may eliminate allure of doing something illegal).

²⁷² See BRC REPORT, *supra* note 5, at 46-47.

²⁷³ See *Va. State Bd. of Pharmacy v. Va. Citizens Consumer Council*, 425 U.S. 748, 770-71 (1976); *Cent. Hudson Gas & Elec. Corp. v. Pub. Serv. Comm'n*, 447 U.S. 557, 557 (1980) (holding that a state cannot completely ban an electric utility company from advertising as that violates the First and Fourteenth Amendment).

²⁷⁴ See, e.g., BRC REPORT, *supra* note 5, at 25 (summarizing policy recommendations on regulating marijuana marketing, sales and consumption).

²⁷⁵ See *id.*

²⁷⁶ See *supra* Part I.

²⁷⁷ See BRC REPORT, *supra* note 5, at 28. Despite California's overall liberal environmental record, efforts to charge the oil industry a severance tax have gone nowhere. See Michael Hiltzik, *A New Effort to End California's Rip-off by Oil Producers*, L.A. TIMES (Dec. 17, 2013, 10:53 AM), <http://www.latimes.com/business/hiltzik/la-fi-mh-oil-producers-20131217-story.html>. That is almost certainly attributed to generous campaign contributions from industry organizations. See *supra* Part I.

²⁷⁸ Gieringer, *supra* note 173.

²⁷⁹ See BRC REPORT, *supra* note 5, at 3.

on the legislature.²⁸⁰ High returns might get the attention of big corporations and result in their eventual entry into the market.

A successful marijuana industry will create pressure for expansion.²⁸¹ Even policymakers with serious concerns about the environment will be in a bind as pressure increases to expand marijuana production in California. The state's agricultural dominance in most products is beyond dispute.²⁸² That is also the case in marijuana production.²⁸³ Faced with increased demand, legislators could capitulate or, if they limit production of marijuana, they risk inviting back to California illegal producers. In either instance, increased production will further strain environmental resources.

D. *Some Good News?*

Above, I have suggested reasons why one should be agnostic whether legalization of marijuana will abate environmental harm. In many instances, my concern is about the human factor: counties like those in the Emerald Triangle have significant populations of illegal marijuana producers.²⁸⁴ Without incentives to bring those individuals out of the black market, many who favor legalization, for example, to abate environmental harm, will be disappointed.²⁸⁵ So, many variables are at play.

In recent years, significant changes may be afoot in the marijuana trade. Or at least I hope so. California's marijuana producers included many who dropped out of the mainstream and wanted to live off the grid.²⁸⁶ Some were political radicals, others 60s hippies with an antigovernment philosophy.²⁸⁷ In the not-so-distant past, Emerald Triangle growers have resisted legalization efforts.²⁸⁸ But their children

²⁸⁰ See *id.* at 3, 28.

²⁸¹ See *id.* at 23.

²⁸² See *id.* at 12.

²⁸³ See Carah et al., *supra* note 239, at 1 (estimating that 60%-70% of marijuana grown in USA is grown in California).

²⁸⁴ See Max Cherney, *Growers in California's Emerald Triangle Are Changing Their Minds About Legal Weed*, VICE NEWS (Mar. 24, 2015, 3:05 AM), <https://news.vice.com/article/growers-in-californias-emerald-triangle-are-changing-their-minds-about-legal-weed> [hereinafter *Growers Changing Their Minds*].

²⁸⁵ See *supra* Part II.

²⁸⁶ See Cherney, *Growers Changing Their Minds*, *supra* note 284.

²⁸⁷ See Grant Scott-Goforth, *Subdividing Humboldt*, N. COAST J. (July 11, 2013), <http://www.northcoastjournal.com/humboldt/subdividing-humboldt/Content?oid=2305675>.

²⁸⁸ See Cherney, *Growers Changing Their Minds*, *supra* note 286.

and other younger growers have a different view.²⁸⁹ No doubt, they hated the overflights and raids of local farms.²⁹⁰ In part, because of the gray-legal medical marijuana market, some of them have become politically active.²⁹¹ Luke Bruner, co-founder of California Cannabis Voice Humboldt has stated, “We have come off the mountain, we have come out of the closet . . . now we want a voice at the table.”²⁹² The new generation wants to legitimize marijuana production — or at least, that is the best hope for achieving the many goals of marijuana reform.

Not only are there many growers in place ready to comply with regulations. But also, again, at least anecdotally, a young generation of venture capitalists want to join the market.²⁹³ They may be a mixed blessing: unlike the early marijuana producers, they recognize the need to comply with legal requirements.²⁹⁴ But they also will have incentive to push for greater production.²⁹⁵

CONCLUDING THOUGHTS

As is evident in this symposium,²⁹⁶ legalization of marijuana is a legitimate topic of inquiry. Even further, as I have asserted, legalization seems like a reality within a short period of time.²⁹⁷ But will legalization achieve the many promises of legalization advocates? I don’t know.

I have described myself as a “tepid legalizer.”²⁹⁸ Without apology, I admit to wanting to see a huge industry fairly taxed for many reasons.²⁹⁹ The marijuana industry has many external costs for which

²⁸⁹ *See id.*

²⁹⁰ *See* Cherney, *Paramilitaries*, *supra* note 240.

²⁹¹ *See* Cherney, *Growers Changing Their Minds*, *supra* note 284.

²⁹² *Id.*

²⁹³ *See, e.g.*, Melendez, *supra* note 37 (discussing the rise of investment funds in marijuana related ventures).

²⁹⁴ *But see* Scott-Goforth, *supra* note 287 (exemplifying communities that did not adhere to these regulations).

²⁹⁵ *Cf.* Steve Denning, *Big Banks and Derivatives: Why Another Financial Crisis Is Inevitable*, FORBES (Jan. 8, 2013, 06:26 PM), <http://www.forbes.com/sites/stvedenning/2013/01/08/five-years-after-the-financial-meltdown-the-water-is-still-full-of-big-sharks/#360097ef5474> (illustrating the high risk associated with venture capitalism).

²⁹⁶ And others. *E.g.*, Symposium, *The Road to Legitimizing Marijuana: What Benefit at What Cost?*, 43 MCGEORGE L. REV. (2012); Symposium, *A Step Forward: Creating a Just Drug Policy for the United States*, 91 OR. L. REV. (2013).

²⁹⁷ *See supra* Part I.

²⁹⁸ Vitiello, *Pot of Gold*, *supra* note 5, at 1388.

²⁹⁹ *Id.* at 1373.

it does not pay its fair share.³⁰⁰ This paper has focused on whether legalization will lead to regulations that have the effect of making the marijuana trade pay for its environmental costs. On that score, I remain agnostic.

The California legislature and public have focused on the environmental costs of marijuana production.³⁰¹ But many proponents of legalization have other goals in mind, including access to marijuana, maximization of profits, and increased revenue for local governmental entities.³⁰² The real trick will be for environmentalists to have a big enough stake in the process of developing regulations if AUMA passes.³⁰³ Rightly, the drafters of AUMA have left implementation to other political entities;³⁰⁴ but that also leaves uncertain too many questions between legalization and effective enforcement.

One may take hope that the new generation of marijuana producers, like many new farmers, will also be environmentalists, interested in sustainable farming practices.³⁰⁵ In moments of optimism, I can imagine producers proud of organically or sustainably produced marijuana. Will that happen? As with so many other questions posed above, one ought to remain agnostic.

³⁰⁰ Cf. BRC REPORT, *supra* note 5, at 27 (recommending allocating revenue towards treatment programs).

³⁰¹ See, e.g., *Fish Flows*, *supra* note 7 (showing the concerns over the environmental impact of legalized marijuana production); AUMA *supra*, note 12 (stating environmental concerns and provisions throughout proposal).

³⁰² See, e.g., BRC REPORT, *supra* note 5 at 8-13.

³⁰³ See AUMA, *supra* note 12.

³⁰⁴ See generally AUMA, *supra* note 12 (including general provisions providing other agencies with implementation authority).

³⁰⁵ See, e.g., Jan Piotrowski, *Traditional Farming Can Save Threatened Species, Study Finds*, GUARDIAN (Dec. 23, 2011), <http://www.theguardian.com/environment/2011/dec/23/farming-food> (demonstrating that a middle ground between traditional farming practices and industrial practices can help biodiversity); Andrea Thomas, *Why Sustainable Agriculture is Important to Everyone*, HUFFINGTON POST (Dec. 8, 2010, 06:15 PM), http://www.huffingtonpost.com/andrea-thomas/why-sustainable-agricultu_b_794131.html (detailing Walmart's recent interest in sustainable agriculture).