How One 11-Page Bill Could Yield Billions in Annual Benefits:

The Marijuana Justice Act of 2017

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Marijuana legalization has gained traction in recent years in the United States with a variety of bipartisan supporters. Primary benefits often cited include savings in enforcement and incarceration costs, additional tax revenue and jobs, release and expungement for those incarcerated, and lowered racial and economic disproportionality in the U.S. criminal justice system. Critics often bring up health costs, increases in impaired driving, harmful effects on adolescent brain development, and greater attendant crime as possible drawbacks. This article examines the potential costs and benefits of federal marijuana legalization under the Senate version of the Marijuana Justice Act of 2017 (S. 1689) introduced in the 115th Congress, assuming 30 additional states legalize recreational marijuana and set up a regulated commercial retail system. Using an analysis that operates under a net present value over 1,000 years and reflects 2017 dollar amounts, the results are overwhelming: these combined efforts could lead to nationwide lifetime net benefits of over $168 billion, with approximately $50 billion in the first year alone, and $17 billion in tax revenue that federal and state governments could receive annually.

This article also runs best- and worst-case scenario sensitivity analyses in a post-enactment universe—best being one in which all 50 states legalize recreational marijuana and worst being one in which no additional states legalize. Even the worst-case scenario would lead to lifetime net benefits of over $77 billion ($4 billion/year) and, in the best case, over $1.4 trillion ($75 billion/year). For all scenarios, this analysis accounts for the states that have legalized recreational marijuana as of November 5, 2018: Alaska, California, Colorado, Maine, Massachusetts, Nevada, Oregon, Vermont, and Washington.

BACKGROUND

In August 2017, Senator Cory Booker (D-NJ) introduced the Marijuana Justice Act (referred to here as the Act). The Act would revise the Controlled Substances Act of 1970 to remove marijuana from the federal schedule of controlled substances and provide incentives for states to legalize (Marijuana Justice Act of 2017). Senator Booker, along with several other Senate Democrats, reintroduced this Act in the 116th Congress on February 28, 2019 without substantive changes compared to the 2017 bill this paper analyzes (Blake 2019). Most notably for this analysis, the 2017 Act:

1. Removes cannabis and cannabinoids from the federal schedule of controlled substances;

2. Imposes penalties on states that do not legalize, including the elimination of federal funding for construction of prisons and up to a 10-percent reduction in other corrections spending, with some exceptions such as drug treatment and educational programs;

3. Provides for resentencing hearings and possible early release for those currently incarcerated and expunges the records of those previously convicted for use and possession;

4. Allows individuals in states that do not legalize who feel that they have suffered harm from disproportionate arrest or incarceration rates to bring a civil case against the government and potentially receive relief; and

5. Creates a Community Reinvestment Fund (CRF), which would be overseen by the Department of Housing and Urban Development (HUD), to provide grants to communities hurt most by mass incarceration. The fund would be allocated $500,000 per year through 2040 and receive up to 10 percent of the penalties paid by states that do not legalize (Marijuana Justice 2017).

Senator Booker introduced the Act in large part as a reaction to "broken" drug laws that "divert critical resources from fighting violent crimes, tear families apart, unfairly impact low-income communities and communities of color, and waste billions in taxpayer dollars each year" (Lanktree 2017). Available data support Booker's assertion that marijuana laws disproportionately affect racial minorities. While national surveys show similar marijuana consumption patterns across racial groups, minorities are much more likely to come into contact with the justice system for marijuana-related offenses. For example, between 2001 and 2010, a black person was nearly four times more likely than a white person to be arrested for marijuana possession, according to the American Civil Liberties Union (American Civil Liberties Union 2018). A recent study by New Frontier Data examined arrest and conviction

rates from 1997 to 2016 and found that black and Hispanic people were typically arrested and convicted at rates nearly nine times higher than white people for marijuana-related offenses (McCoy 2018). Aside from the impacts on the individuals incarcerated, there is clear evidence of a disproportionate effect on minority and low-income communities. The Act includes the CRF provision as a way of redirecting funds toward these communities.

One aspect of the Act that shortens its reach is the ineligibility for early release and expungement for those who have been incarcerated or convicted for sales or trafficking. This limits the scope of the legislation; very few of those incarcerated for marijuana offenses are imprisoned for possession or use alone. This analysis estimates that there are about 2,400 individuals currently serving time for marijuana possession at the federal, state, and local levels. For comparison, the Bureau of Labor Statistics (BLS) estimates that the total U.S. incarcerated population is just over 2.1 million, as of 2016 (Kaeble & Cowhig 2018). It is worth noting that arrest rates for marijuana possession are much higher, as many as 600,000 per year, but few of these arrests result in incarceration (Kessler 2018). However, the Act's expungement provision casts a wider net because it affects those no longer incarcerated as well as those currently serving time—potentially benefiting upwards of 203,000 individuals, by this paper's estimate.

PRIMARY GROUPS AFFECTED

In this analysis, all members of society have standing, including those incarcerated, meaning that their costs and benefits "count" (Boardman 2018). In general, people with non-zero costs and benefits have standing, but there are some possible exceptions. Economists debate whether criminals give up their right to standing by violating social constraints when they break the law (Trumbull 1990); however, excluding them from the analysis of a bill that designates them as the primary intended beneficiaries would result in a severe undercount of benefits.

The primary groups that stand to benefit from the Act are marijuana offenders, consumers and producers of marijuana, minority and low-income communities that are disproportionately affected by mass incarceration, and society and taxpayers as a whole. The primary bearers of the financial cost of the Act are the states that do not legalize. Besides the potential loss in funding from the federal government, they also open themselves up to lawsuits for discrimination through the Act's disproportionate incarceration provision, as well as missed benefits that legalizing states receive. These outcomes would ultimately hurt a state's taxpayers, since they would end up paying the corrections expenses that the federal government used to provide. At the federal level, taxpayers across the United States would shoulder the cost of the annual contributions to the CRF. There is also a moral cost of continuing to disproportionately incarcerate people of color and low-income people for marijuana-related offenses.

PRIMARY COSTS

NON-QUANTIFIABLE

Most critics of marijuana legalization cite negative health effects (especially for youth), increased emergency room or medical costs, public safety concerns, and increases in impaired driving as the primary potential costs. However, these variables are difficult to quantify in a cost-benefit analysis for marijuana legalization, primarily because there is relatively little empirical evidence that such outcomes would materialize. Generally, states do not start collecting data on marijuana metrics until after legalization, so limited pre-policy data often make it impossible to measure a change. Additionally, a large number of people already use marijuana illegally, so many of these costs are not new unless the consumption patterns sufficiently change for the relevant population. Finally, existing research shows wide variation in results, making conclusions difficult.

Take the case of driving under the influence (DUI) of marijuana. It is undoubtedly true that being under the influence of marijuana impairs one's ability to drive (Rumball 2016). If DUI citations increase after legalization, this could be a substantial cost in terms of undermining public safety. However, there is no portable test for measuring marijuana intoxication as there is for alcohol, so officers typically need to be specially trained to make that determination. Colorado did see a 3 percent increase in citations for driving under the influence of marijuana between 2014—the year retail stores first opened—and 2015, but the state's procedures and resource allocation for detection also changed (Reed 2016). Before legalization, the state did not have many officers trained in detection, which likely resulted in under-identification of cases. Officers also did not record whether a person was cited for driving under the influence of marijuana specifically, versus alcohol or any other drug (Reed 2016; Ingold 2015). It is a possibility that these differences in pre- and post-legalization procedures could exaggerate the increase in marijuana DUIs. It is also worth noting that DUIs overall fell in Colorado in the years after legalization, so it does not appear that this is a significant cost, at the very least.

Continuing to use Colorado as a test case, due to its relatively longer time horizon of available data, the state saw arrest rates associated with drug use, such as property offenses, increase from 2012 to 2014, but then decrease from 2014 to 2016 (Colorado. gov 2018). Interestingly, the state did not see a spike in adolescent use of marijuana after legalization, and there is even evidence of a decrease in teenage use (Ingraham 2017). There is substantial medical evidence that frequent marijuana use in children and adolescents is correlated with negative effects on brain development, intelligence, and productivity (Caulkins, Kilmer, & Kleiman 2016), but if adolescent use does not appear to increase due to Colorado's marijuana legalization policy, it does not count as a cost of the policy.

QUANTIFIABLE

Meanwhile, another general cost is quantifiable: increased emergency room (ER) visits and medical care. Colorado did see a pronounced increase in ER visits and

hospitalizations for marijuana use after legalization, many of which involved children and teenagers. Children admitted to the ER for marijuana-related reasons increased 495 percent from 2005 to 2016, although it is unclear how much of this increase might be attributed to legalization. One theory for this phenomenon is that children may get ahold of their parents' or older siblings' marijuana products. Edible marijuana products in particular, including candies, cookies, and brownies, may tempt children who mistake them for normal sweets (Fox 2017). The average cost per ER visit can range from $50 to $150 for those with insurance and from $150 to $3,000 for those without insurance (Cost Helper 2018). The insurance utilization rate in Colorado in 2016 was 93.5 percent (Colorado Health Institute 2019). Assuming the rate of increase remains stable, and using the average of the costs for the two groups and the 2016 proportion of those insured, the net present value of this cost is approximately $3.7 million per year for all 30 states that would legalize marijuana under the Act.

Additionally, the lawsuits over discrimination detailed in Section 3(e) of the Act represent a time cost, as well as a transfer for any settlement payments, which this article discusses in further detail below. It is difficult to estimate how many offenders would take advantage of this provision, but this analysis assumes that 10 percent of the number of state offenders eligible would sue, about four cases per state when divided evenly. While there are other minor costs, this analysis calculates time costs for judges, government attorneys, and judges' administrative staff. Using the average wages for these positions and estimates for the time required, based on the average number of months for completion of employment discrimination lawsuits, this would amount to a yearly time cost of $1.35 million and a lifetime cost of $26 million.

Table 1. Costs by Line Item ($, rounded)

Costs to Taxpayers	Yearly Cost (NPV)	Lifetime Cost (NPV)
Time Cost of Lawsuits	$1,350,000	$26,000,000
Hospitalizations	$3,700,000	$71,500,000
Total	**$5,060,000**	**$97,600,000**

Sources: Author's calculations based on information from Cost Helper 2018; Glassdoor 2018; NCSC 2016; Shegerian Law 2014; Time 2016; and Colorado Health Institute 2017.

PRIMARY BENEFITS

Because the Act includes the expungement of criminal records, both those with past records for marijuana possession and use and those currently incarcerated receive high yearly benefits from the effect on lifetime earnings. Those with criminal records typically face an approximate $200,000 earnings penalty over those with no record, through age 48 alone (Pew Charitable Trusts 2010). Using this figure will result in

an underestimate, as most workers work past the age of 48, but comprehensive data on this topic are lacking. There are also no national data that could help determine how many individuals with marijuana possession or use records would be affected by the Act. Therefore, this paper devises an estimate by looking at the number of individuals who would be affected by a similar expungement law passed in Delaware (Schmidt 2018), adjusting for population, and scaling to a national level. Using this estimate, the net benefit to offenders who would have their records expunged is a one-time benefit of $24.5 million. However, this estimate does not account for the positive economic benefits accruing to families of marijuana offenders, especially their children and their communities, which are likely to be substantial. As Professor Dorothy Roberts of the Northwestern University School of Law explains, research has shown "that incarceration has become a systemic aspect of community members' family affairs, economic prospects, political engagement, and childhood expectations for the future" (Roberts 2004).

Neglecting to consider the negative emotional and psychological effects of prison would severely understate the benefits of not being incarcerated. Freedom is associated with a higher level of utility that is difficult to quantify. However, one promising measure is an estimate for the "value of freedom" based on an individual's willingness to pay for it. Abrams and Rohlfs (2011) took advantage of data from an experiment that randomly assigned different bail calculation methods to judges in Philadelphia in 1981. They used the bail amounts as measuring a person's willingness to pay for freedom and estimated that 90 days of freedom was worth $1,088.04 (in 2017 dollars). This number multiplied by the number of those currently incarcerated and the average length of a sentence for marijuana possession equates to a yearly benefit of $4.26 million. Because states have radically different sentencing policies, this paper uses the average of the length of a sentence for misdemeanor possession between Alabama, a state with stricter marijuana policies, and New York, a state that has not legalized recreational marijuana, but has relatively lenient marijuana policies. This amounts to an average of 7.5 months (National Organization for the Reform of Marijuana Laws 2018).

In addition, taxpayers stand to reap enormous benefits, as do federal and state governments. Some come from tax and licensing revenue and others from the cost savings of no longer enforcing and incarcerating for marijuana possession. The Cato Institute estimated that the federal government spends approximately $3.81 billion per year on enforcement alone, with states paying approximately $6.2 million (Miron and Waldock 2010). Adjusting this number for 30 states plus the federal expenditure yields about $3.8 billion in yearly benefits under the Act. In addition to enforcement costs, the federal and state governments also pay for incarceration. The average cost of incarcerating a prisoner for marijuana per diem is around $107 (Bradford 2013). After accounting for the average length of stay and the number of prisoners incarcerated, legalization would lead to savings of approximately $1 billion per year from eliminating this cost.

Finally, there are broader economic benefits to legalizing marijuana. Primary among these are the number of jobs that could be added. New Frontier Data estimates that 782,000 new jobs could be created in the first year alone from legalization, with 1.1 million added by 2025 (Zezima 2018). Assuming a stable rate of increase, this comes to an additional 31,800 jobs per year, resulting in an annual benefit of around $23.5 billion under a 30-state model and using the median income. Additionally, legalization adds producer and consumer surplus, although producer surplus will eventually reach zero as the number of producers increases, assuming the government does not create barriers to entry.

Table 2. Benefits by Group and Line Item in Millions ($, rounded)

	Yearly Benefit (NPV)	Lifetime Benefit (NPV)
U.S. Government		
Costs Saved, Enforcement	3,800,000,000	73,500,000,000
Costs Saved, Incarceration	17,600,000	340,000,000
State Governments		
Costs Saved, Enforcement	3,700,000	71,000,000
Costs Saved, Incarceration	996,000,000	19,200,000,000
Society		
Value of Jobs Added	23,500,000,000	51,500,000,000
Drug Offenders		
Value of Freedom	4,260,000	82,000,000
Earnings Effect of Expungement	24,600,000,000	23,400,000,000
Total	**52,900,000,000**	**168,000,000,000**

Sources: Author's calculations and Zezima 2018; Miron and Waldock 2010; NORML 2018; Abrams and Rohlfs 2011; Department of Labor 2018; Schmidt 2018; Pew Charitable Trusts 2010; Bradford 2013; Lopez 2017; The Recovery Center 2019.

TRANSFERS

Transfers occur in a cost-benefit analysis when an apparent cost or benefit is actually simply transferred between groups with standing. Transfers result in a net benefit of $0, because the monetary value represents an equal cost for one group and a benefit for another. There are several aspects of the Act that represent transfer payments. See Table 3 for a summary.

Tax revenue generated through a commercial retail model represents a transfer from taxpayers to the government. Assuming each state adopts a commercial retail

model, which this paper discusses in greater detail later, 30 states could reap about $5.7 billion per year in total sales tax revenue (Miron & Waldock 2010). Additionally, retailers, manufacturers, and producers must pay licensing fees. These licenses are expensive and, when only counting licenses for retailers and cultivators due to data availability, states could reap $76 million per year from these fees (Mitchell 2018; Colorado Department of Revenue 2017). These businesses also pay corporate taxes and, based on the current tax rate of 25.7 percent after federal and the average of state taxes (Pomerleau 2018), this could amount to earnings of $11.6 billion per year based on revenues seen in Colorado (Colorado Department of Revenue 2018).

It is worth noting that while taxes are technically a transfer to the government, taxpayers themselves will benefit from the services that taxes fund. For example, Colorado uses 90 percent or $40 million, whichever is greater, of its marijuana sales excise tax to fund public school construction, with the remainder going into its Public School Fund. Most of the revenue from the sales tax is earmarked for a Marijuana Tax Cash Fund, which by law must be used for "health care, monitoring marijuana health effects, health education, substance abuse prevention and treatment programs, and law enforcement" (Colorado Department of Education 2018).

Costs that the federal government would pass to states under the Act constitute another transfer. States that do not legalize marijuana would lose funding for prison construction and up to 10 percent of any other federal corrections grants they receive. Assuming the states that refuse to legalize face the full penalty under the Act, the yearly net present value cost for both sources of funding is $23.5 million (Wagner 2017; Rodgers 2017). States would also be responsible for their own eradication of marijuana cultivation, since the federal government will no longer be providing this service. The federal government currently spends $18 million per year on eradication, so the cost to states is a little over $4 million per year (Ingraham 2016).

The CRF also represents two methods of transfer: one from the taxpayer in the form of appropriations and the other from state governments that do not legalize marijuana in the form of diverted corrections funds. The recipients of these transfers are the low-income and minority communities that are the intended beneficiaries of the CRF funding. Aside from the community benefits of reducing the number of people sent to prison and having criminal records, they also receive the benefits of the CRF disbursements. This represents a transfer of about $18.7 million dollars over the lifetime of the policy, which comes from both the appropriations and diverted funds.

The monetary settlements for those who win their discrimination lawsuits represent a transfer from the taxpayer to the successful claimants. The figures for such settlements are difficult to estimate, as there is no precedent for this exact situation. Therefore, this paper takes the total settlement amount for federal employees who sue their agencies for discrimination, approximately $29.6 million in 2017 dollars, and divides it by 7,239, the number who started discrimination lawsuits in 2017, to get an average settlement payout of about $4,100 per person (Lunney 2014; Captain

2017). The number of those who filed includes those who did not win, but this is appropriate because presumably some of those who sue under this law will not receive settlements. Using the estimate that 10 percent of those incarcerated in states that do not legalize will sue, this represents a yearly transfer of about $118,000 and a lifetime transfer of $2.3 million.

Table 3. Transfers by Group and Line Item ($, rounded)

	From	To	Yearly Cost (NPV)	Lifetime Cost (NPV)
Appropriation to CRF	Taxpayers	CRF recipients	500,000	2,900,000*
Settlement Monies	Taxpayers	Offender claimants	118,000	2,300,000
Lost Prison Funding	U.S. Government	State governments (that do not legalize)	23,500,000	454,000,000
Cost of Eradication	U.S. Government	State governments (that do not legalize)	4,000,000	77,900,000
Diverted Funds to CRF	State governments (that do not legalize)	CRF recipients	800,000	15,800,000

*Note: Appropriations to the CRF only occur through 2040.

Source: Author's calculations based on data from Lunney 2014; Captain 2017; Ingraham 2016; Wagner 2017; Rodgers 2017; Mitchell 2018; Colorado Department of Revenue 2017; Colorado Department of Revenue 2018; Colorado Department of Education 2018; Pomerleau 2018; Miron and Waldock 2010.

SENSITIVITY ANALYSIS

This analysis assumes that 30 additional states will legalize marijuana following enactment of the Act. However, the number of states that ultimately choose to legalize has a significant impact on the Act's net benefits. An additional sensitivity analysis includes a worst-case scenario, in which zero additional states legalize, and a best-case scenario, in which all remaining states legalize. Even in the worst-case scenario, the net benefits are positive. See Table 4 for a comparison of the yearly and lifetime net benefits for all three scenarios.

In the worst-case scenario, the net benefits decrease dramatically, despite the total costs decreasing due to no additional hospitalizations. The only remaining true cost of $317,067 annually comes from a higher number of lawsuits, since there would be more offenders in states that did not legalize. Here, benefits to offenders now only apply to federal prisoners and those with felony records, which decreases those benefits to

$109 million per year. The value saved from no longer processing marijuana cases also decreases because only federal courts will save money. Neither states nor the federal government would receive tax revenue, as no new producers or retailers would open, and no new jobs would be added. The cost of eradication that the federal government transfers to states would rise to approximately $1.02 million yearly. Overall, the total yearly net benefits come to about $4 billion. However, despite being substantially lower than the benefit of the primary analysis, this is still a positive net benefit.

The best-case scenario, where all states legalize, sees an increase in net benefits over the primary analysis, with much lower costs and substantially higher benefits. Transfers would decrease overall, as no states would be subject to the budgetary penalty for not legalizing, and there would be no lawsuits. Tax transfers would increase, however, resulting in more revenue for governments. Neither the federal nor state governments would have to spend money on enforcement, incarceration, or eradication. All of the benefits would increase as more jobs are added and more offenders see freedom and expungement. The yearly net benefit in the best-case scenario is over $75 billion, with a lifetime net benefit of over $1.4 trillion.

Table 4. Costs, Benefits, and Net Benefits for Each Model ($, rounded)

	No Additional States Legalize	30 Additional States Legalize	All States Legalize
Total Yearly Costs	1,850,000	5,060,000	5,070,000
Total Yearly Benefits	11,700,000,000	52,900,000,000	77,700,000,000
Net Yearly Benefits	11,700,000,000	52,900,000,000	77,700,000,000
Lifetime Net Benefits	81,000,000,000	168,000,000,000	830,800,000,000

Source: Author's calculations and Cost Helper 2018; Glassdoor 2018; NCSC 2016; Shegerian Law 2014; Time 2016; Colorado Health Institute 2017; Zezima 2018; Miron and Waldock 2010; NORML 2018; Abrams and Rohlfs 2011; Department of Labor 2018; Schmidt 2018; Pew Charitable Trusts 2010; Bradford 2013; Lopez 2017; The Recovery Center 2019; Lunney 2014; Captain 2017; Ingraham 2016; Wagner 2017; Rodgers 2017; Mitchell 2018; Colorado Department of Revenue 2017; Colorado Department of Revenue 2018; Colorado Department of Education 2018; Pomerleau 2018; Miron and Waldock 2010.

LIMITATIONS

KEY ASSUMPTIONS

In addition to those noted throughout this paper, this analysis contains some key assumptions. First, the paper assumes that every state that legalizes will adopt a commercial retail model, like those in Colorado, Washington, Oregon, California, and Massachusetts. However, the Act itself contains no mandate for how states should set up legalization systems and there are alternatives. The District of Columbia, for example, has legalized possession and use but does not have any commercial apparatus for legally buying or selling marijuana (Metropolitan Police Department 2018). Thus, the DC government does not receive tax or licensing revenue. It is possible that states

may legalize marijuana but decline to allow a commercial retail model. Besides lacking any market scheme, states could also sell marijuana through a government monopoly. While the United States has not adopted this structure, other governments, such as Uruguay and the Canadian province of Ontario, have implemented such a model (Miroff 2017; Benzie 2018). Having the government as the producer and/or distributor would affect any cost-benefit analysis.

Further, using Colorado as a test case for certain elements of this analysis assumes that other states will see similar patterns post-legalization. Such a conclusion is unrealistic for every state, as existing policies and conditions in each state differ and could affect variables such as adolescent use, visits to the ER, or DUI arrest rates. While it is useful to use a state with a relatively longer time horizon of data as an example, it is important to keep in mind that other states may not see the same effects.

This analysis also assumes that the Act would not result in prison closures or loss of jobs due to the relatively small number of offenders currently incarcerated for possession or use alone. It is not common to close entire prisons, although it may be more realistic that some enforcement officers are let go instead of being repurposed to other tasks. However, such a number would likely be minimal even if that is the case.

INTANGIBLES AND EQUITY CONCERNS

There are several costs and benefits that would have been useful to add to this analysis that are too difficult to monetize or too indirect to be included. One is the utility that consumers gain by consuming marijuana. Since users typically use the substance voluntarily and addiction is possible but rare, according to the National Institute on Drug Abuse (NIDA), it is highly likely that marijuana provides an increase in their utility (NIDA 2018). Consumer utility of marijuana was not included in other cost-benefit analyses reviewed because it is difficult to quantify. Recently, the Global Drug Survey put together a Net Pleasure Index to compare the enjoyment received from several controlled substances, and marijuana received a score of 37–the fourth highest out of 10, beating out alcohol and tobacco (Global Drug Survey 2018). But how does one assign such a variable a dollar value? Further surveys and research could help answer this question.

Other benefits not included were the second- and third-level effects of ending marijuana prohibition on communities. Incarceration damages social networks, distorts social norms, and reduces civic participation, as many states restrict the voting rights of those with criminal records (Roberts 2004). Having a parent who is or has been incarcerated is also associated with negative outcomes for children. Many children with incarcerated parents suffer long-term effects of separation with negative behavioral effects and decreased school attendance and performance (U.S. Department of Health and Human Services 2017). There is also the stigma against those with criminal records that negatively affects the offenders and their families.

While not included in this analysis, it is also worth noting that the populations most likely to benefit from not being arrested and incarcerated are vulnerable populations

that have historically been disadvantaged. Having these groups disproportionately carry the costs of mass incarceration has implications for equity, and thus an argument could be made for weighting their benefits to count more in cost-benefit calculations.

This paper also does not consider the time and money lost from the inconsistency in enforcement of federal and state laws for those states that have legalized. Hudak (2016) postulates that the patchwork status quo of marijuana being illegal at the federal level but legal in some states might be less efficient than either total prohibition or national legalization. It is not clear how to monetize such a cost, however, and the Department of Justice has not offered specific new federal enforcement policies in states that have legalized (Mordock 2018). However, Attorney General William Barr has indicated that he may rely on the Obama-era "Cole Memo" to relax federal enforcement for marijuana businesses that comply with state laws (Kellam 2019).

CONCLUSIONS

The results of this cost-benefit analysis unequivocally indicate that the Marijuana Justice Act would have positive net benefits if enacted—even in the worst-case scenario—based on the provisions analyzed. In the 30-state model, a lifetime net benefit of $1.5 trillion indicates that the Act would be highly advantageous to society. This number does not include the benefits of reducing the ways in which minorities and low-income people are disproportionately affected by mass incarceration.

Public opinion has continued to shift toward marijuana legalization. According to the Pew Research Center, a 61-percent majority of Americans support legalizing recreational marijuana (Geiger 2018). The 2018 midterm election also saw some wins for marijuana legalization. Michigan voted to legalize recreational use, and Utah and Missouri legalized medical use. On the national stage, House Rules Committee Chairman Pete Sessions, a Republican who has historically blocked votes on amendments that would facilitate dispensing medical and recreational marijuana in states where it is legal, lost to Democrat Colin Allred, who has previously favored such amendments (Simon 2018).

There is growing support for legalization at the federal level as well. The Marijuana Justice Act had six sponsors at the end of the 115th Congress, and the companion House bill (H.R. 4815) had 43 sponsors (S. 1689, 2019; H.R. 4815, 2019). Other Members of Congress have also introduced legislation pertaining to the federal legalization of marijuana. Senate Minority Leader Chuck Schumer (D-NY), for example, introduced a bill in June 2018 entitled the Marijuana Freedom and Opportunity Act (S. 3174), which would remove marijuana from the federal list of controlled substances (U.S. Senate Democrats 2018). A bicameral and bipartisan group of senators introduced a more moderate bill, also in June 2018, which would allow states to determine their own laws regulating marijuana (Office of Congressman David Joyce 2018). There is also movement on criminal justice reform more broadly, as indicated by the passage

of the First Step Act, "a bipartisan criminal justice reform bill aimed at reducing recidivism and refining sentencing laws and harsh penalties," in December 2018 (Holliday 2018). Additionally, there are indications that President Trump may be willing to go along with increased legalization. According to former Representative Dana Rohrabacher (R-CA), who had been working with the President on marijuana issues prior to losing his re-election campaign in 2018, the President plans to pursue legalizing medical marijuana while leaving recreational legalization as a matter for the states (Connolly 2018).

While all of these developments point toward an overall shift to the left on the issue of marijuana regulation, the Marijuana Justice Act is a larger step than many lawmakers may be willing to take in the near future. The Act is unique in imposing penalties on states that do not legalize marijuana, requiring states that legalize to provide re-sentencing hearings, allowing those who believe they were affected by disproportionate incarceration to file lawsuits against the government, and setting up a fund that would provide grants to communities hurt most by mass incarceration. The Act was referred to the Senate Judiciary Committee in August 2017 and the Committee took no action on the measure in the 115th Congress. However, Senator Booker's reintroduction of the Act in the 116th Congress, and its support among several Democratic 2020 presidential candidates, could presage significant change on the national stage (Blake 2019). Conversely, if lawmakers take no action, the substantial net benefits described in this paper will go unrealized.

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ACKNOWLEDGEMENTS