This testimony is based on my own expertise and that of over a dozen top scientists who serve on the Advisory Board of Smart Approaches to Marijuana (SAM). SAM is the leading, non-partisan, non-profit national organization offering a science-based approach to marijuana policy.

I have worked on drug policy issues in the United States and throughout the Western Hemisphere and West Africa for over a decade, including over two years with the U.S. Embassy in Mexico City overseeing approximately $65 million in U.S.-funded drug demand reduction and anti-corruption programs. That work included acting as the day-to-day liaison with the Mexican addictive substances authority on marijuana issues. I am now a Senior Fellow with the University of Florida’s Drug Policy Institute and Executive Vice President of SAM. I received my Bachelor of Arts from Harvard University and my Juris Doctor from the University of California, Berkeley (Boalt Hall). My work has been featured in newspapers of record in the United States and Mexico, and I have appeared on major television and radio outlets such as the BBC, NPR, and Univisión to speak on this subject.

The non-medical marijuana legalization bill before you, Senate Bill 891, is bad policy and should be opposed. It would distill an extremely complex issue down to a binary, yes-or-no decision by voters. Moreover, if the voters passed such an initiative, it would present major public health and safety problems for Maryland and result in enormous costs that will outweigh any revenue received, for six main reasons:

1. SB 891 would reinforce, not diminish, the black market for marijuana, especially given the amounts allowed for personal use and cultivation;
2. SB 891 opens the door to corruption and malfeasance;
3. SB 891 would increase marijuana-related car crashes;
4. SB 891 would be a burden for Maryland’s employers and business community;
5. SB 891 would hurt public health in Maryland; and
6. SB 891 would disproportionally affect lower-income communities of color.

A. SB 891 will likely reinforce, not diminish, the black market for marijuana

Perhaps most importantly—and ironically—if passed by the voters, the initiative that SB 891 creates would roll out the red carpet for a larger black market for pot than currently exists. Although this may initially sound counterintuitive, a closer look at what has happened in Colorado, where non-medical marijuana has been legal since 2012, reveals why this is the case.
In February 2015, years after legalization passed, Colorado Attorney General Cynthia Coffman told reporters: “The criminals are still selling on the black market. ... We have plenty of cartel activity in Colorado (and) plenty of illegal activity that has not decreased at all.”<sup>1</sup> Hard data supports this claim: organized crime filings have skyrocketed in Colorado. The state had one such filing in 2007 and by 2015, it had 40.<sup>2</sup> That surge coincides precisely with the state’s commercialization of medical marijuana in 2008, and legalization of non-medical marijuana in 2012.

Similarly, a federal law enforcement official characterized Colorado as “the black market for the rest of the country,”<sup>3</sup> a statement supported by the sharp increase in seizures of marijuana illegally mailed out of Colorado since legalization. In 2009, the year the state first permitted widespread commercialization of medical marijuana, the U.S. Postal Service intercepted less than a pound of marijuana being shipped from Colorado to other states. In 2012, the year the state legalized non-medical use, 262 pounds were seized, enough for over 250,000 joints. And in 2015, the last year for which data is available, the Postal Service seized 1,246 pounds of Colorado pot, enough for over one million joints.<sup>4</sup> Those figures, of course, only include product that postal officials detected.

The legalization of pot in Colorado appears to have opened the door for Mexican cartel operations in the heart of the United States. A representative of the Colorado Attorney General’s office noted just last year that marijuana legalization “has inadvertently helped fuel the business of Mexican drug cartels...cartels are now trading drugs like heroin for marijuana, and the trade has since opened the door to drug and human trafficking.”<sup>5</sup> Additionally, in late 2015, the Department of Justice announced a wave of prosecutions on federal land in Colorado, resulting in the seizure of 20,000 marijuana plants and over 300 kilograms of dried marijuana. Suspects included Mexican nationals with ties to drug trafficking organizations.<sup>6</sup>

The surge in black marketeering derives from organized criminal groups “hiding in plain sight” in legalized states.<sup>7</sup> Marijuana growing and sales no longer attract the type of attention they did prior to legalization—and the taxes imposed on state-legalized pot necessary to pay for the bureaucratic oversight create a large demand for cheaper product that the black market serves.

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<sup>1</sup> “Special report, ‘Clearing the haze’: Black market is thriving in Colorado.” *Colorado Springs Gazette*, 20 Mar. 2015.
As an officer on the Colorado Springs police vice and narcotics unit stated, “It has done nothing more than enhance the opportunity for the black market. If you can get it tax-free on the corner, you’re going to get it on the corner.”

This is great news for drug cartels—it is, of course, much cheaper and easier for them to grow and distribute marijuana right next to customers in the United States, rather than ship the drug across the U.S-Mexican border.

Finding illegal marijuana in Colorado is also simple—just look on Craigslist. A search of the Denver Craigslist website just yesterday revealed 230 ads, most of which relate to illegal, black market marijuana sales. A subsequent search for “cannabis” returned another 156 hits, most of which again relate to black market sales. These sales are untaxed, unregulated, and entirely illegal, despite the expensive bureaucracy the state has set up to attempt to control this market.

Moreover, conversations with law enforcement professionals indicate that some registered pot businesspeople engage in illegal gray or black market activity on the side. Despite expensive regulatory controls, there is little way to effectively track the amount of marijuana each plant produces, or how many plants die during cultivation (“attrition”). It is very easy—and lucrative—to divert a portion of the marijuana grown into the black market by understating the yield per plant or inflating attrition figures. Other registered operations have illegally exported

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8 “Legal pot hasn’t stopped Colo. Black market.” USA TODAY, 4 Apr. 2014.
huge quantities of marijuana out of state. Indeed, last month, prosecutors charged high-ranking members of a Minnesota marijuana company with illegally sending over 12 pounds of marijuana oil (which it had produced legally under that state’s law), valued at half a million dollars, to New York.9

SB 891 would permit personal possession of twice as much marijuana than in Colorado and would allow cultivation of enough plants to produce pounds of marijuana per year. It would therefore likely expand, not shrink, illegal sales of marijuana.

B. Corruption and malfeasance

Allegations of corruption have plagued this state’s medical marijuana program since its inception, including claims that a Maryland lawmaker championing medical marijuana “continued pushing for bills related to the industry after being hired as a consultant to a medical marijuana business.”10

SB 891 would widen opportunities for this type of alleged wrongdoing by expanding these opportunities to a much larger non-medical marijuana market.

C. Marijuana-impaired driving

Marijuana-impaired driving is increasingly responsible for traffic fatalities in Colorado and Washington since pot legalization was established there. The percentage of traffic deaths related to marijuana doubled in Washington State the year retail marijuana sales were allowed.11 In Colorado, marijuana is now involved in more than one of every five deaths on the road, and that number is rising.12

Moreover, since the average cost of a traffic fatality exceeds $1 million, the rising rate of pot-related traffic deaths necessarily implies societal costs that can quickly exceed any tax revenues earned.13

D. Effect on Employers

Marijuana legalization also involves significant downsides to existing businesses. As marijuana use has increased in states that have legalized its use, so has use by employees, both on and off the job. Large businesses in Colorado now state that after legalization they have had to hire out-of-state residents to find employees that can pass a pre-employment drug screen.14

The CEO of the large Colorado construction company GE Johnson has said that his company “has encountered so many job candidates who have failed pre-employment drug tests because of their THC use that it is actively recruiting construction workers from other states.”15 And the owner of Colorado Springs construction company Avalanche Roofing & Exteriors told The New York Times that in Colorado, “to find a roofer or a painter that can pass a drug test is unheard-of.”16

Data from major drug testing firm Quest Diagnostics, which analyzes the results millions of workplace drug tests each year, recently reported a 47% spike in the rate of positive oral marijuana test results in U.S. workplaces from 2013 to 2015 — and more detailed data shows an incredible 178% rise in that rate from 2011 to 2015. The same study also indicates that after years of declining drug use in the workplace, the percentage of employees in the combined U.S. workforce testing positive for drugs has steadily risen over the last three years to a reach 10-year high.17 Quest Diagnostics also noted surges in positive test rates for marijuana in Colorado and Washington state following legalization. The year following legalization, marijuana positivity rates with urine tests in Colorado and Washington increased 20 and 23 percent, respectively, compared to the five percent average increase among the U.S. general workforce in all fifty states.18

Marijuana users also create significant costs for businesses, as they are involved in accidents, injuries, and workplace discipline more often than non-users:19

15 Id.
18 Quest Diagnostics. Workforce drug test Positivity rate increases for the First time in 10 years, driven by marijuana and amphetamines, finds quest diagnostics drug testing Index™ analysis of employment drug tests. Quest Diagnostics Newsroom, 11 Sept. 2014.
More recently, recently-released National Transportation Safety Board (NTSB) documents show that the train engineer in last year’s Amtrak crash that killed two people in Pennsylvania tested positive for marijuana.20 This is strikingly similar to a 1987 fatal train crash in Maryland where the engineer at fault had used marijuana shortly before the accident. He later told the press, “If the joint hadn't been there, I wouldn't have been so inattentive. I feel it was pretty much exclusively the marijuana—the marijuana and the disease of addiction.”21

In an era where economic competitiveness is a matter of increasing importance, bills like SB 891 simply do not make sense.

E. Public health impact

The addictive nature and negative health effects of marijuana are numerous and addressed by other testimony provided for this bill. Nonetheless, a few points bear mentioning. A 2017 report by National Academy of Sciences (NAS) written by top scientists, entitled The Health Effects of Cannabis and Cannabinoids: Current State of Evidence and Recommendations for Research, concluded after a review of over 10,000 peer-reviewed academic articles, that marijuana use is connected to, among other problems:

- respiratory problems;
- mental health issues (like psychosis, social anxiety, and thoughts of suicide);
- increased risk of car accidents;
- progression to and dependence on tobacco, alcohol, and other drugs;

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• learning, memory, and attention loss (possibly permanent in some cases); and
• low birth weight.22

Notably, the report also stated that, “in states where cannabis use is legal, there is increased risk of unintentional cannabis overdose injuries among children.”23

Other studies indicate strong connections between marijuana use and poor life outcomes, such as drop-out rates and welfare dependency.24 A 2017 study published by the Journal of Psychiatric Research found that marijuana-dependent Iraq/Afghanistan-era veterans have an increased risk of suicidal thoughts and attempted suicide. (See chart below.)25 The study sampled more than 3,000 veterans, and controlled for extraneous factors including PTSD, depression, alcohol dependence, and other drug disorders.26 And marijuana dependence during adolescence has been linked to apparently permanent reductions in IQ.27

![Chart](image-url)

Fig. 1. Bivariate association between lifetime cannabis use disorder and current suicidal ideation and lifetime history of suicide attempts.

23 Id.
26 Id.
Veterans with lifetime cannabis use disorder had much higher rates of suicidal ideation and suicide attempts.28

This connection with children is particularly pertinent given the rise in use by Colorado youth since legalization. The only nationally representative study on marijuana use, the National Survey on Drug Use and Health (NSDUH), indicates that Colorado leads the nation in last-month marijuana use among kids aged 12 to 17 years.29 It also shows that use among that age group has been increasing an average of one percent per year30 since legalization, while use across the nation is falling, as seen in the graphic below.31

30 The state-by-state NSDUH data is produced annually, but is calculated using overlapping two-year periods (e.g., 2011-2012, 2012-2013, 2013-2014, etc.). In this instance, yearly change is between two of those periods: 2011-2012 to 2012-2013, and so forth.
31 In contrast, recent headlines claiming that use has not gone up in Colorado derive from an analysis of results from a state study, the Healthy Kids Colorado Survey (HKCS). State studies like HKCS often feed into the Centers for Disease Control Youth Behavior Risk Survey (YRBS). The HKCS, however, has been excluded from the CDC’s YRBS survey because of its unreliability, for two reasons.

First, it suffers from serious methodological flaws. It is not a representative sample of Colorado schools, and excludes both the second most-populous and third-most populous counties altogether (Jefferson and Douglas Counties, respectively). It also omits schools in El Paso County, home to Colorado Springs, and excludes kids across the state who are not in school (e.g., dropouts). Also, the survey designers decided, without explanation, to set the threshold for statistical significance far higher, meaning that differences that would usually be statistically significant would not appear to be so under the new standard. Thus, the HKCS methodology is so flawed that the CDC does not use it for its YRBS survey.

Second, a deeper dig of the HKCS results reveals distressing news. Youth use has risen statewide since legalization according the survey, at about the same rate tobacco use has fallen in that same timeframe. Moreover, this increase since 2013 halted a four-year trend of declining marijuana use—the turning point occurred exactly when the state legalized pot. Nonetheless, most press coverage has glossed over these points.
F. Communities of Color

Unfortunately, the marijuana industry—comprised almost entirely of white men—has targeted communities of color, despite promises to the contrary. This should, perhaps, not be surprising: the tobacco and alcohol industries have long targeted such communities. One Johns Hopkins study revealed that predominantly African-American neighborhoods in Baltimore were eight times more likely to have carry-out liquor stores than racially mixed or white neighborhoods.\(^\text{32}\) And tobacco companies have historically placed larger amounts of advertising in African American publications, exposing African Americans to more cigarette ads than whites,\(^\text{33}\) and have marketed more harmful and more addictive products to them.\(^\text{34}\)


The marijuana industry is already copying the Big Tobacco playbook in Colorado. In Denver, the epicenter of legalized marijuana, pot businesses are concentrated in lower-income, neighborhoods of color. In fact, one lower-income neighborhood has a pot business for every 47 residents.\textsuperscript{35}

\begin{figure}
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\includegraphics[width=\textwidth]{marijuana_businesses.png}
\caption{MARIJUANA BUSINESSES IN DENVER ARE CONCENTRATED IN NEIGHBORHOODS OF COLOR}
\end{figure}

Data from The Denver Post (income map and locations of businesses, 2016) and Denver Elections Division (map of Denver by race/ethnicity, 2000)

The increased availability of marijuana in these neighborhoods matters, because while some will argue that marijuana is not harmful, the science says otherwise. As noted in a previous section, marijuana use is related to a number of health problems, including mental illness.\textsuperscript{36} Frequent pot use by kids is correlated with higher possibilities of welfare dependency, and in some cases,

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apparently permanent IQ loss. The concentration of marijuana businesses in such neighborhoods only increases the disadvantages that communities of color already face.

Moreover, in the two years after Colorado legalized marijuana, the number of Hispanic and black kids arrested for marijuana-related offenses rose 29 and 58 percent, respectively. In the same period, the number of white kids being arrested for identical crimes dropped eight percent. This is likely related to the rise in marijuana use among minors post-legalization—many activities surrounding marijuana use are still arrestable offenses, such as impaired driving. Seeing legalization as the solution to racial injustice in law enforcement is thus misguided.

Moreover, the alternative to legalization is not mass incarceration. A responsible marijuana policy would prioritize prevention and treatment over prison without creating a massive, for-profit marijuana industry mirroring Big Tobacco that has historically preyed on vulnerable communities. That issue, however, is completely distinct from SB891—which does not even address the needs of prevention or treatment.

G. Conclusion

Regardless of good intentions, SB 891 is bad policy. It would increase marijuana use (including among children), make Maryland roads more dangerous, reduce Maryland businesses’ productivity, and target communities of color. And ironically, it will likely increase, not decrease, reduce black marketeering or criminal activity surrounding the drug. I urge you to join every major medical association in the country by not supporting marijuana legalization and opposing this bill.