

**JOINT PUBLIC HEARING**

**ON**

**Bill 20-466, “Marijuana Legalization and Regulation Act of  
2013”**

**Before the  
Committee on Business, Consumer, and Regulatory Affairs  
and the Committee on Finance and Revenue Council of the District  
of Columbia**

**Hon. Vincent B. Orange, Jr. and Hon. Jack Evans, Chairmen**

**Thursday, October 30, 2014, 11:00 a.m.  
John A. Wilson Building, Room 500**



**Testimony of  
Dr. Yesim Sayin Taylor  
Director of Fiscal and Legislative Analysis, Office of Revenue Analysis  
Office of the Chief Financial Officer**

Good morning, Chairman Orange, Chairman Evans and members of the two committees. My name is Yesim Sayin Taylor, Director of Fiscal and Legislative Analysis at the Office of Revenue Analysis. I am pleased to testify on Bill 20-466.

The bill legalizes the growing, manufacturing, and retail sale of marijuana and marijuana-infused products for recreational use in the District of Columbia. It also offers a framework to regulate and tax this newly created market. Under the bill, the Alcoholic Beverage Regulatory Administration (ABRA) will write and enforce regulations and license producers and retailers. The bill also proposes a 15 percent sales tax on marijuana and marijuana-infused products, and while it mentions an excise tax, the bill does not specify an excise tax rate or structure.

The revenue received from marijuana-related activities will not support the General Fund. Rather, the license fees, taxes, and fines, in excess of ABRA's costs to regulate the market, will support various youth, public safety, and mental and behavioral health services.

In my testimony, I will discuss how we will approach estimating the cost of establishing the regulatory and enforcement system necessary to implement the bill, and discuss the estimation risks. Additionally, I will note some important lessons from the two states that now permit recreational sale and use of marijuana – Washington and Colorado. Given that many tax and programmatic details are yet to be determined, my revenue and cost discussion will be general. I understand that changes are likely to be made to the introduced version of the bill in the next Council period, and we look forward to working with your respective staffs as the process moves forward.

## **EXPECTED COSTS OF THE BILL**

The District must first fund the necessary regulatory and enforcement systems before it can collect any revenues from recreational taxation of marijuana and marijuana-infused products.

**First, the District must establish and maintain a regulatory system.** ABRA will have to write and adopt rules in several technical areas,<sup>1</sup> determine the eligibility criteria for and the number of licensed facilities, and set up a licensing program. Additionally, ABRA may regulate the types of equipment, and methods of processing and producing marijuana and marijuana-infused products, sanitation, and screening requirements for employees of licensees. ABRA will require additional staff to draft and monitor these rules, establish a licensing process, and monitor the activity of licensees. It is worth noting that writing of the rules and establishing a process took nearly a full year in Washington State.

Regular testing of products at all steps of the product life-cycle will also be needed to ensure conformity with regulatory requirements and to protect public health and safety. The Department of Health (DOH), or a qualified contractor, will assist ABRA with product testing and monitoring. This will require additional staff for DOH, contractual services funding for ABRA, or both. Lastly, ABRA may determine a tracking system is required to follow products from the grower to the point of sale. Both Washington state and Colorado have web based tracking systems, and ABRA would require funding to build a similar information technology system.

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<sup>1</sup> These include the amount of product a retailer may have on premises, the required type of packaging and labeling of products, advertising rules, procedures for transporting product from producers to retailers, inspection requirements, and security standards.

**Second, the District must ensure that the rules are enforced.** As with alcohol, enforcement of the regulatory requirements will fall on ABRA. ABRA will require inspectors to ensure its rules are being followed. Violations will require legal proceedings, and additional staff time. The exact number of positions that ABRA will ultimately need is dependent on the number of manufacturers and retail stores that are allowed. The Metropolitan Police Department may be involved, for example, by providing coverage at retail establishments as they do with certain alcohol retail establishments. A reimbursable subsidy fund for alcohol helps retail establishments pay for police support, and it is funded through ABRA. A similar arrangement may ultimately be sought for marijuana establishments.

As many details need to be finalized, it is not possible for us to provide a precise cost estimate at this time. It is reasonable to expect that ABRA would have to hire six to nine new employees, and pay for testing and tracking services. DOH may have to hire one or two additional employees depending on the final decisions on testing, and the Department of Consumer and Regulatory Affairs might need additional resources if it is involved in the regulatory process. The District may have to procure and establish a tracking system and potentially a testing service.

These cost items are similar to what Colorado and Washington State had to fund before their marijuana markets became operational. We learned that Colorado has budgeted 55 positions to regulate both medical and retail marijuana. For recreational marijuana, they have 221 retail stores, 66 manufacturers, 293 cultivators, and 13 testing facilities. Washington State's Liquor Control Board has added 34 full time positions and 9 temporary positions in their first year of operations. Additionally, Colorado spent \$250,000 to set up a tracking system (and

estimates that it would need \$175,000 annually to maintain it). Washington's tracking system cost \$800,000 up front, and they are anticipating \$100,000 in annual maintenance costs. ABRA would likely need non-personal services budget for the system, and additional funding for DOH or a contractor to perform chemical testing on products.

## **ESTIMATING THE MARKETPLACE AND POTENTIAL REVENUES**

Several risk factors make reliable revenue estimates difficult. First, data on usage, prices, and availability is not easily verifiable. Usage data—both the number of users and average usage—is available from national surveys but might not be representative of the average recreational user if the data is biased toward reporting heavy users. Second, the size of the legal recreational market will be affected by many components, not all of which is known at this time. For example, if sales and cultivation are curbed below demand by neighborhood objections to the establishment of cultivation centers or retail stores for marijuana products in their proximity, the size of the market will not reach its full potential.

### **Estimate of the potential market size**

We estimate that the potential market size for the District of Columbia for marijuana and marijuana related products, *including medical marijuana* could be \$130 million per year. This is based on estimates of the number of users, average usage per user, and price of marijuana, which I review next:

**We estimate that the District's legal marijuana markets could have 122,000 users.** The U.S. Substance Abuse and Mental Health Services Administration

estimates that 91,000 District residents over the age of 18 use marijuana.<sup>2</sup> This is approximately 14 percent of District’s population—a much higher share than what we see in the U.S., which is approximately 10 percent. We add to this base commuters (approximately 28,000 users)<sup>3</sup> and tourists (approximately 3,000 daily users)<sup>4</sup> to get to the estimated 122,000 users.

**We assume that an average user consumes 3 ounces of marijuana per year.<sup>5</sup>**

The usage number is difficult to pin down since it varies greatly. National survey data projects that the annual consumption is 6.5 ounces, or 184 grams per user per year, but experience from Colorado and Washington State and our own medical marijuana sales suggest that this is a very large quantity. To put it in context, typical marijuana serving sizes ranges from 0.5 grams (0.018 ounce) from recreational use to 3 grams (0.108 ounces) for medical use. At the recreational level, 6.5 ounces is equivalent to 368 “servings.” This is at odds with survey data, which suggests that the median marijuana user in the U.S. smoke between 25 and 51 times per year.<sup>6</sup> This is also at odds with District’s experience: District’s

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<sup>2</sup> U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, State Estimates of Substance Use and Mental Disorders from the 2010-2012 National Surveys on Drug Use and Health, available at [http://www.samhsa.gov/data/sites/default/files/NSDUHStateEst2010-2011\\_v2/279/StateTabs/NSDUHsaeStateTabs2011.htm](http://www.samhsa.gov/data/sites/default/files/NSDUHStateEst2010-2011_v2/279/StateTabs/NSDUHsaeStateTabs2011.htm), accessed on October 27, 2014.

<sup>3</sup> Assumes that 10 percent of the 400,000 commuters into the city will purchase in the recreational market, adjusted for their presence only 5 days out of a week.

<sup>4</sup> Every year, in the District, approximately 7.6 million hotel rooms are sold (District of Columbia Revenue and Economic Trends, June 2014). Available at [http://cfo.dc.gov/sites/default/files/dc/sites/ocfo/publication/attachments/DC%20Economic%20and%20Revenue%20Trends%20Report\\_July%202014.pdf](http://cfo.dc.gov/sites/default/files/dc/sites/ocfo/publication/attachments/DC%20Economic%20and%20Revenue%20Trends%20Report_July%202014.pdf)). The estimate assumes that each room has 1.5 adults and the usage rate is 10 percent among tourist (similar to national rate).

<sup>5</sup> See the estimate from NYC which goes through the underlying usage and portion size estimates that support this assumption. New York City Comptroller’s Office, Regulating and Taxing Marijuana, The Fiscal Impact on NYC, August 2013. [https://comptroller.nyc.gov/wp-content/uploads/documents/NYC\\_RegulateMarijReport.pdf](https://comptroller.nyc.gov/wp-content/uploads/documents/NYC_RegulateMarijReport.pdf)

<sup>6</sup> Bulletin on Narcotics, Volume LVIII, Nos. 1 and 2, 2006, Review of the World Cannabis Situation, United Nations Office on Drugs and Crime, p. 43.

medical marijuana data shows that average consumption among the 1,500 registered users is 25 grams per year (or 0.9 ounces). Our assumed rate of 3 ounces of marijuana used per user per year represents an average of heavy users and many others who may only consume several times per year.<sup>7</sup>

**We assume the average price of marijuana in the District is approximately \$350 per ounce.** This is based on three sources of data: first, prices of varying grades of marijuana sold in Virginia (various cities) and Baltimore, Maryland, which range from \$200 to \$400.<sup>8</sup> Second, crowd sourced reports on marijuana prices in the District suggests that per ounce price is just under \$350 for high quality marijuana, and \$288 for medium quality marijuana.<sup>9</sup> Data from three dispensaries in the District show that the average per ounce prices in the three dispensaries vary between \$290 and \$444.

Given the 122,000 potential users, 3 ounces of usage per user, and the average price of \$350 per ounce, our estimated market size is approximately \$130 million per year. It is important to note that estimates based on production size (and not demand) tend to produce market size figures that are three to four times the estimates derived from usage and demand. We choose to present the more conservative estimate based on demand because the tax revenue will be levied on the amounts sold, not the amount produced. And the amount sold could also be affected by the number of retailers that are allowed to operate.

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7 Colorado's revenue projections use 3.5 ounces (which the state revised down from the national average of 6.5 ounces).

8 High Times, "Pot Prices September 2014 THMQ," October 7, 2014,

<http://www.hightimes.com/read/pot-prices-september-2014-thmq>, accessed on October 28, 2014.

9 <http://www.priceofweed.com/>. Data extracted on October 27, 2014.

## POTENTIAL ANNUAL TAX REVENUE

**Estimating the tax revenues from the market size is even trickier.** For example, Colorado's actual revenues in the first six months of sales were about half of its original estimate and they consider that a success, given all the uncertainty. Washington State revised its estimate down from \$300 million per year to \$25 million in the first year of implementation. The state put into the statute that revenues cannot be spent until they are realized.

There are three challenges in estimating the sales and excise tax revenue and timing of the collections. First, the legislation does not yet specify the excise tax on marijuana. The only rate provided is the sales tax rate at 15 percent. This is important because the sales volume will depend on the demand, which might be curbed by high tax rates.

The second challenge determining what portion of the buyers will migrate into the recreational market. Higher tax rates or high prices due to regulatory costs could keep some buyers in the illegal markets. In Washington, the combined 44 percent rate on marijuana has resulted in after-tax prices that vary between \$680 and \$1,300 per ounce—three or four times the price for medical marijuana or illegal alternatives. However, even if the high tax rates were not the main deterrent, if retailer numbers are kept very low because of resistance to opening of retail stores across neighborhoods, the illegal market could remain in place. Finally, some users might choose to be registered as medical marijuana users, since the tax rate on



medical use, at 6 percent, is going to be a third (if not less) than the rate on recreational use (15 percent sales tax and an unspecified excise tax).<sup>10</sup>

Finally, timing of the revenue collections is hard to predict. It will depend on the time it takes to write and adopt new regulations, license retailers, establish a tracking and testing system, and placing enforcement requirements in place. As noted, Washington State took a year to write their regulations, and Colorado began collecting revenues two years after the legalization bill passed. If the District's bill is passed and funded in the FY 2016 budget, we don't expect any revenue before Fiscal Year 2017.

It is worth noting that many banks are concerned about processing payments through the federal banking system for a business that is still illegal under federal law, so tax revenue collections for marijuana sales and excise taxes may arrive in the form of cash. The District may have to alter some procedures or add staff to handle a larger volume of cash than we are typically used to receiving. Washington State has found that approximately 20 percent of its collections from marijuana taxes are coming in the form of cash since it began operations this past summer.

This concludes my testimony. I am happy to answer any questions you have at this time.

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<sup>10</sup> In the District, only 1,500 users are registered for medical marijuana and gross receipts at the dispensaries are rather small—the revenue during the first six months of 2014 was \$236,000.