

Adult-use Cannabis Taxation: Implementation and Potential Tax Revenue in Maryland

December 1, 2021

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Overview

- **Tax revenue projections and methodology of *Comprehensive Market Analysis of Medical and Adult-Use Cannabis in Maryland (2020)***
- **Case Study: Massachusetts**
- **Implementation of tax functionality**

Report Background

- The 2019 Marijuana Legalization Workgroup included among its recommendations conducting a market analysis to estimate the potential economic impact of adult-use legalization.
- In spring 2020, MMCC issued an RFP for a “market analysis of the economic impact of legalizing adult-use cannabis in Maryland.” RFP included a requirement to estimate the potential state tax revenue of an adult-use market in Maryland.
 - Four focus areas: (1) sales and business tax revenue from adult-use cannabis sales; (2) law enforcement costs related to the illicit market; (3) regulatory costs/revenues and state public health expenditures; and (4) income tax revenue from new jobs and hotel tax revenue
- MMCC received bids from 5 firms; selected Mathematica Policy Research, a leading nonpartisan research organization that had performed a similar market analysis for Massachusetts in 2018.
- Award made in August 2020; report published in December 2020; shared with members of the General Assembly.



Methodology

- Conduct *comprehensive literature review* to identify studies that estimate the causal impact of medical or adult-use legalization on outcomes of interest (e.g., tax revenue)
 - Limited search to peer-reviewed studies in 2018 or later
 - Ranked studies based on strength of methodology and causal evidence
- Use *secondary data sources* to estimate state population and rate of cannabis use among Marylanders → American Community Survey, Behavioral Risk Factor Surveillance System, and National Survey of Drug Use and Health
- Causal estimates from literature review + Maryland-specific population and use data → input in a simulation model that calculated fiscal and economic impacts
 - Conducted 10,000 simulations using the Monte Carlo Method to calculate average impact estimates for each individual measure and plausible ranges
- Report reflects median values and 95 percent confidence intervals based on these simulations

Calculation Inputs and Projections

Calculation Inputs

- 10% wholesale and retail tax rate **OR** 15% wholesale and retail tax rate
- Wholesale price is 45% of retail price
- Medical patients would decrease by 8% to 48%
- Approx. 10% (450,000) of Maryland's adult population would purchase cannabis from legal adult-use market; with consumption amounts varying significantly between “new,” “regular” and “heavy” users
- Cannabis sales will be exempt from the State's 6% sales tax
- Retail price from \$10 to \$15 per gram

Projections

- 3x the number of adult-users compared to current medical market
- 2x the amount of cannabis consumed compared to current medical market

Report Findings

Market Size – Year 2

- Total consumption: 240,000 lbs. (median); high-end estimate was 316,000 lbs.
- Total market (adult and medical): \$1.2 billion in annual retail sales



Retail Tax

- 10 percent wholesale and retail tax rate – Year 2 - \$99 million [95% CI: \$43 million; \$199 million]
- 15 percent wholesale and retail tax rate – Year 2 - \$117 million [95% CI: \$50 million; \$240 million]

Business Income Tax

- Year 2 – \$40 million at 10 percent wholesale and retail tax rate
- Year 2 – \$36 million at 15 percent wholesale and retail tax rate

Note: Revenue increases over time in other jurisdictions

- **Ex.: Oregon (~750 dispensaries; 17% retail tax)** – Year 1 - \$68.6 million; Year 2 – 94.2 million; Year 3 - \$115.9 million; Year 4 - \$158 million
- **Ex.: Nevada (~80 dispensaries; 15% wholesale; 10% retail)** – Fiscal Year 1 - \$57.7 million; Fiscal Year 2 – 99.2 million; Fiscal Year 3 - \$107 million; Fiscal Year 4 - \$157 million



Limitations

- **Findings do not include state sales tax**
- **No two adult-use cannabis programs are alike**
 - Tax rates
 - Number of retail outlets/amount of adult-use product
 - How quickly the program became operational
 - Number of adult-use jurisdictions among neighboring states
 - Whether home grow is prohibited, allowed for medical patients or allowed for all residents
- **Limited data from adult-use states; particularly those similarly situated to Maryland** (e.g., population, region, physical size, proximity to other adult-use and medical cannabis states)
- **National cannabis use surveys likely underestimate cannabis use among adults**
- **Amount of medical cannabis patient population that transitions to adult-use purchases varies among states post-legalization**

Case Study: Massachusetts

Why Massachusetts?

- Population – 6.8 million vs. 6.1 million
- Physical size – 44th vs. 42nd in area
- Several bordering states (including multiple states with adult-use laws)
- Similar sales tax rates – 6.25% vs. 6%
- Recent adopter of adult-use cannabis: passed 2016, implemented November 2018
- Most developed adult-use cannabis market on the east coast
- Similar medical cannabis patient populations prior to legalization



Massachusetts State Tax Revenue

**Tax Rate – 17% total (10.75% excise tax on sales;
6.25% standard sales tax); 165 dispensaries**

2018 - \$5.2 million (sales began in November)

2019 - \$75.6 million

2020 - \$116 million (adult-use stores closed for more than 2 months due to COVID-19 pandemic)

2021 – Through 11/29, sales exceed \$1.17 billion in adult-use market (estimated \$198 million in state tax revenue); medical market \$279 million over same time period



Tax Functionality of Seed-to-Sale Software

- Health-General Article §13-3301—3316 requires use of product-tracking system or seed-to-sale software
- Initial seed-to-sale contract expires in August 2022. MMCC issued RFP for new contract in October 2021, and it contains a “piggyback provision” allowing MMCC or a successor agency to use the software in the case of adult-use legalization
- All major seed-to-sale vendors in the U.S. offer licensing, product tracking, and tax capabilities
- MMCC contacted current vendor re: tax capabilities:
 - Tax functionality built into system and can be “turned-on” almost immediately for excise or sales taxes → allows regulator to run reports to reconcile tax obligations
 - Allowing transfer of products between medical/adult and other Maryland-specific requirements would require additional build-out of 90 days to 6 months



Thank you.

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