

TAX NOTE: Tax Revenues from Legalizing Recreational Marijuana Under Michigan’s Proposal 2018-1

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I. Purpose and Approach

PURPOSE

On November 6, 2018, a proposed state statute to legalize recreational use of marijuana in Michigan will be put before voters on the statewide ballot as Proposal 18-1. If passed, Proposal 18-1 would:

- Legalize sales, use, consumption, and cultivation of marijuana products for recreational use;
- Establish a state-regulated system of licensed marijuana businesses; and
- Provide for taxation of legal sales of recreational marijuana.

We have prepared this *Tax Note* in order to:

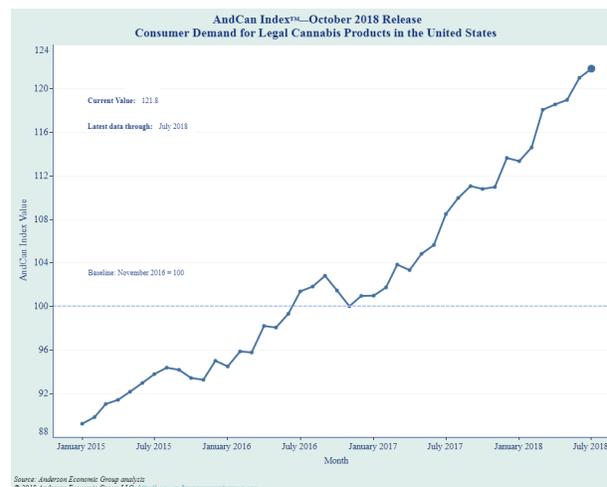
- Summarize the current legal status of marijuana in Michigan and the provisions under Proposal 18-1; and
- Provide estimates of legal sales of recreational marijuana in Michigan and the net effect on state sales and excise tax revenues should Proposal 18-1 pass.

OUR APPROACH

For over three years, Anderson Economic Group has conducted comprehensive assessments of the cannabis market in the U.S. In November 2015, we issued the first edition of *The Market for Legal Cannabis Products in the 50 United States*.

We issued the second edition a year later, following the results from the nine ballot initiatives in the 2016 election. In June 2017, we launched our proprietary monthly *AndCan Index*, which tracks consumer demand for U.S. cannabis products (shown to the right).

In this *Tax Note*, we build on our existing work on evaluating the cannabis industry to estimate annual sales of recreational marijuana if Proposal 18-1 passes. We estimate sales of recreational marijuana in the first four years of legal sales. We then estimate state tax revenues from legal sales of marijuana products under Proposal 18-1, including general sales taxes and excise taxes. Finally, we estimate the net effect of adopting Proposal 18-1 on total state sales and excise tax collections.





Our approach differs from other assessments of Proposal 18-1 in three important ways:

1. We account for the cannibalization of medical marijuana, alcohol sales, and other goods due to the availability of recreational marijuana following adoption of Proposal 18-1;
2. We account for reductions in revenue due to the repeal of the medical marijuana excise tax; and
3. We show how net effects on tax revenues will be allocated to various government entities and functions.

For further discussion of our methodology, see “Methodology and Data” on page 13.

Outside of the scope of this *Tax Note* are other potential impacts on tax collection, such as those stemming from changes in resident incomes due to changes in the marijuana industry in Michigan. We do not estimate the net impact of costs, such as the costs associated with criminal justice, law enforcement, and business regulation.

II. *Current Legal Status of Marijuana in Michigan*

Medical use of marijuana and commercial sales of medical marijuana products are legal under the Michigan Medical Marijuana Act (MMMA) and the Medical Marijuana Facilities Licensing Act (MMFLA), respectively.¹ Registered qualifying patients or registered primary caregivers are allowed to possess up to 2.5 ounces of usable marijuana or usable marijuana equivalents, as well as up to 12 marijuana plants.² Qualifying patients must be diagnosed by a physician for certain debilitating medical conditions.³ Further, qualifying patients must be age 18 years and older unless the patient's parent or legal guardian consents to that patient's medical use of marijuana.

Current law does not allow possession or use of marijuana under many circumstances. For example, neither possession or use of marijuana are allowed on a school bus, on school grounds, or at a correctional facility. Use of marijuana is not allowed on any form of public transportation, in a public place, or while operating a motor vehicle, aircraft, snowmobile, off-road recreational vehicle, or motorboat.

The Michigan Department of Licensing and Regulatory Affairs (LARA) licenses and regulates medical marijuana dispensaries and other businesses.⁴ Municipalities must opt in to permitting medical marijuana businesses to operate within their boundaries. In other words, such businesses are prohibited from operating in a municipality unless that municipality adopts an ordinance authorizing operation of such a business. People or businesses engaged in marijuana-related activities in compliance with either the MMMA or MMFLA are immune to penalties for marijuana-related offenses under other state or local laws.

Retail sales of medical marijuana products at dispensaries are subject to the general state sales tax of 6%, as well as a 3% excise tax. Excise tax revenues are distributed as follows:

- 25% to municipalities in which a marijuana facility is located;
- 30% to counties in which a marijuana facility is located;
- 5% to counties in which a marijuana facility is located to be used exclusively by county sheriffs;
- 30% to the Michigan First Responder Presumed Coverage Fund;
- 5% to the Michigan Commission on Law Enforcement Standards for training local law enforcement officers; and
- 5% to the Michigan State Police.

In addition to these taxes, licensed businesses are subject to regulatory assessments and fees.

1. The MMMA was approved by Michigan voters as Initiated Law 1 of 2008 in November of 2008. Governor Snyder passed the MMFLA as Public Act 281 of 2016 in September of 2016.

2. "Usable marijuana" refers to dried leaves, flowers, plant resin or extract of the marijuana plant. "Usable marijuana equivalent" refers to the amount of marijuana-infused product that has a similar amount of marijuana content as usable marijuana.

3. Examples of qualifying medical conditions include: cancer, glaucoma, positive status for human immunodeficiency virus (HIV), and more.

4. Examples of such businesses include growers, processors, secure transporters, and safety compliance facilities.

III. Overview of Michigan's Proposal 18-1

If passed, Proposal 18-1 would allow recreational use of marijuana in Michigan for people over the age of 21 and would legalize commercial sales of marijuana products. Individuals may use or possess up to 2.5 ounces of marijuana, except that marijuana concentrate must be limited to 15 grams. Within a private residence, individuals may possess or store up to 10 ounces of marijuana and cultivate up to 12 marijuana plants for personal use.

Proposal 18-1 would not permit recreational use of marijuana in many of the same circumstances as medical use of marijuana, such as while operating a motor vehicle, while on school grounds, or in a public place. Further, it would allow a person or business to prohibit or regulate consumption, cultivation, distribution, processing, or sales of marijuana on property it owns, occupies, or manages. The proposal would also allow employers to prohibit marijuana possession or use at the workplace, as well as discipline employees in violation of a workplace drug policy or for working while under the influence of marijuana.

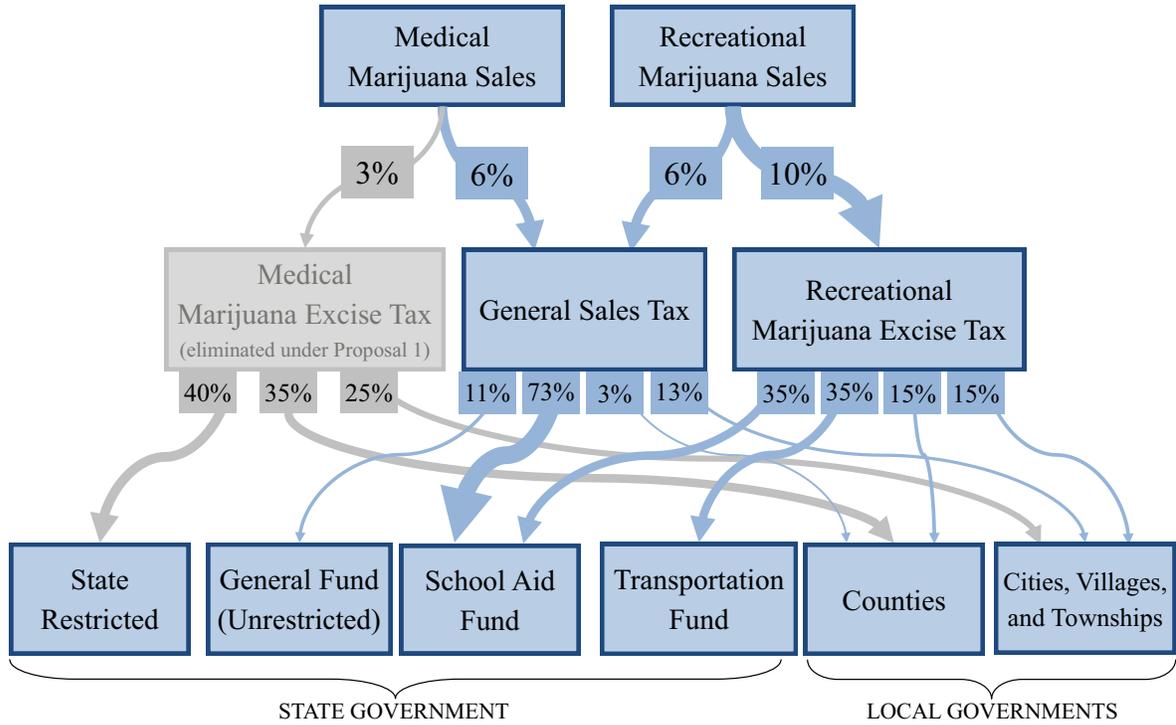
Proposal 18-1 would also allow municipalities to prohibit or restrict cultivation, processing, and sales of marijuana within its boundaries. However, unlike the MMFLA for medical marijuana, Proposal 18-1 would establish an opt-out system. Unless notified by a municipality that it has passed an ordinance prohibiting or restricting operations in its community, the State would issue a license to marijuana business applicants that comply with the provisions of the proposed law. The types of businesses that would be regulated under Proposal 18-1 include growers, processors, safety compliance facilities, microbusinesses, retailers, and secure transporters.

Recreational marijuana would be subject to the state general sales tax, as well as a 10% excise tax. Under a provision of the MMFLA, the 3% excise tax on medical marijuana would be repealed if Proposal 18-1 passes. For at least two years or until 2022, \$20 million from the excise tax revenues would be allocated to clinical trials that research the efficacy of marijuana in treating medical conditions of U.S. armed services veterans. The remaining revenues would be disbursed as follows:

- 15% to municipalities in which a marijuana retail store or microbusiness is located;
- 15% to counties in which a marijuana retail store or microbusiness is located;
- 35% to the Michigan School Aid Fund for K-12 education; and
- 35% to the Michigan Transportation Fund for repair and maintenance of roads and bridges.

Figure 1 shows the distribution of taxes to state and local governments from recreational and medical marijuana sales following passage of Proposal 18-1. The excise tax on medical marijuana—on the left in the figure—would go away, along with the revenues that are allocated from it to state restricted funds (largely for law enforcement) and to local governments. Sales taxes on medical marijuana would remain in place and an excise tax on recreational marijuana would go into effect.

FIGURE 1. Flowchart of Marijuana Tax Distribution



Source: Anderson Economic Group Analysis of Proposal 18-1 and the MMFLA

Note: Not shown are \$20 million in revenues from the excise tax on recreational marijuana that would go to research. General sales tax distributions to local governments reflect the distributions made in Fiscal Year 2018, a portion of which are subject to change.

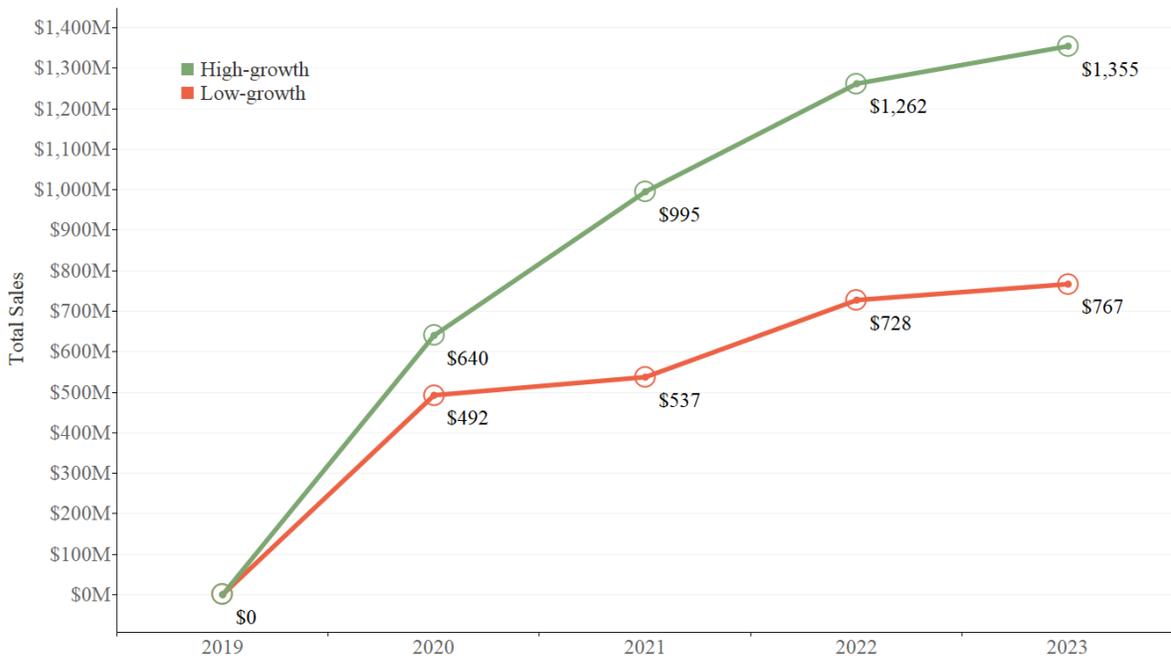
IV. Findings

1. If Proposal 18-1 passes, annual sales of marijuana for recreational use in Michigan would be between \$767 million and \$1.4 billion once the market reaches maturity.

If Michigan voters approve Proposal 18-1, annual legal sales for recreational marijuana would range between \$492 million and \$640 million in the first year, which we assume will be 2020. The market for recreational sales would likely take between three and five years to reach maturity. This growth period and the rate of sales growth depends on a variety of factors, such as the state regulatory process for businesses seeking entry in the industry; and local government restrictions on the cultivation, distribution, and retail sales of cannabis products. Once the market reaches maturity, annual legal sales of cannabis products for recreational use would range between \$767 million and \$1.4 billion.⁵

Figure 2 presents two possible scenarios for legal recreational marijuana sales should Proposal 18-1 pass. We estimate that recreational sales of marijuana would grow by between 12% and 21% annually, on average, over the first four years.

FIGURE 2. Legal Sales of Recreational Marijuana Under Proposal 18-1 (millions)



Source: Anderson Economic Group analysis using base data from AEG AndCan Index and Proposal 18-1

5. Our projections for recreational marijuana sales are consistent with those we have presented in the first and second editions of the *The Market for Legal Cannabis Products in the 50 United States* in 2015 and 2016, respectively, adjusted for the steady growth in demand that is reflected in the *AndCan Index*. For an excerpt of the first edition of the report, which includes our estimate for recreational marijuana demand in Michigan, see:

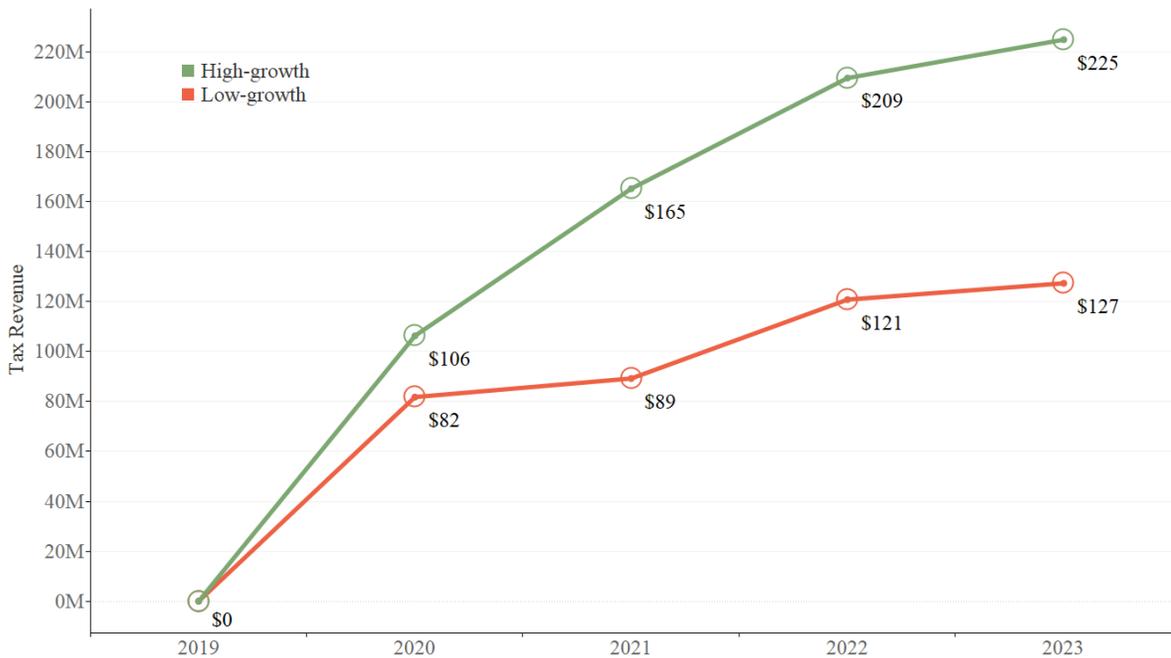
Patrick L. Anderson, "Valuation, Risk, and Damages in an Emerging Legal Marijuana Products Industry: Early Evidence and Sober Projections," Paper presented at the 2016 *Allied Social Sciences Association Annual Meeting*, San Francisco, CA, January 4, 2016, www.aeaweb.org.

2. If Proposal 18-1 passes, the State of Michigan would receive \$127 million to \$225 million in annual tax revenues from recreational marijuana sales once the market reaches maturity.

By 2023, the State of Michigan would receive between \$77 million and \$135 million from excise tax collections on recreational marijuana sales and between \$51 million and \$89 million from general sales tax collections, totalling \$127 million to \$225 million. This is in comparison to \$220.3 million in alcohol tax receipts estimated for FY 2017-18.⁶ In the first year after legalization, marijuana excise and sales tax receipts will reach between \$82 million and \$106 million.

Over the four years following passage of Proposal 18-1, we estimate that total tax revenue collected on recreational sales of marijuana will total between \$419 million and \$706 million. Figure 3 presents the tax revenues generated over the four years after the proposal is anticipated to take effect.

FIGURE 3. State Tax Revenues for Legal Sales of Recreational Marijuana Under Proposal 18-1 (millions)



Source: Anderson Economic Group analysis using base data from AEG AndCan Index and Proposal 18-1

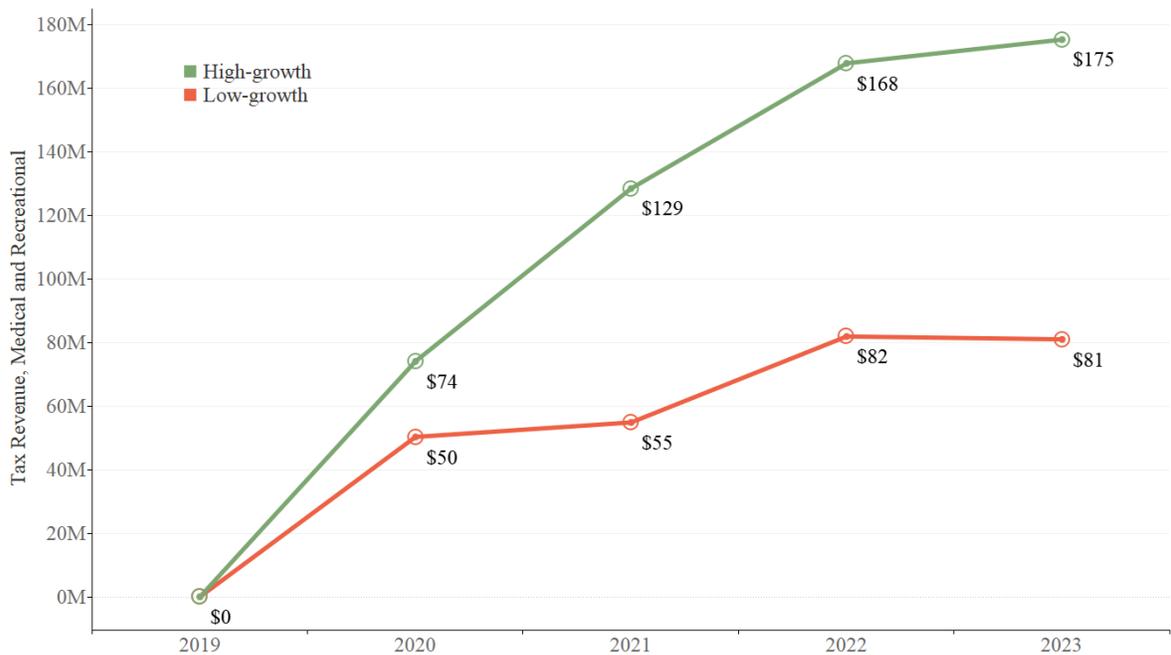
6. Mary Ann Cleary, “State of Michigan Revenue State Source and Distribution,” Michigan House Fiscal Agency, August 2018.

3. Proposal 18-1 would increase State of Michigan sales and excise tax revenues by \$81 million to \$175 million, on net, once the recreational market reaches maturity.

Our analysis indicates that, while there is a ramp-up of recreational sales, there would be a decline in the amount of medical sales associated with the legalization of recreational marijuana. There would also be a modest amount of cannibalization of alcohol sales and sales of other goods. We estimate that combined medical and recreational sales would reach between \$1.6 billion and \$2.2 billion.

As discussed in “Overview of Michigan’s Proposal 18-1” on page 4, Proposal 18-1 would also affect marijuana related taxes in several ways. Proposal 18-1 triggers a provision of the MMFLA that would eliminate the 3% medical marijuana excise tax, while simultaneously introducing a recreational marijuana excise tax. Additionally, sales taxes would be collected from recreational marijuana sales. Figure 4 below provides estimates for the net effects of adopting Proposal 18-1.

FIGURE 4. Net Effect of Proposal 18-1 on State Sales and Excise Tax Revenues (millions)



Source: Anderson Economic Group analysis using base data from AEG AndCan Index and Proposal 18-1

TABLE 1. Components of Net Effect on Sales and Excise Taxes of Proposal 18-1, 2023 (millions)

	Effect on Sales and Excise Taxes, Low-growth, 2023	Effect on Sales and Excise Taxes, High-growth, 2023
Taxes on Recreational Marijuana		
General Sales Tax	\$51	\$89
Excise Tax	\$77	\$135
Loss of Medical Marijuana Excise Tax	-\$31	-\$31
Cannibalization of...		
Medical Marijuana	-\$11	-\$11
Alcohol Beverages	-\$2	-\$4
Other Goods	-\$2	-\$4
TOTAL	\$81	\$175

Note: Rows may not sum to total due to rounding.

Source: Anderson Economic Group analysis using base data from AEG AndCan Index and Proposal 18-1

4. If adopted, Proposal 18-1 would increase tax revenues for Michigan’s schools and roads, while reducing revenues for state special law enforcement funds. In aggregate, local governments would see a marginal increase in revenues.

Table 2 below details how the net effect of Proposal 18-1 on sales and excise taxes would be allocated across state and local governments. Overall, funding for schools and transportation would increase under the low-growth and high-growth scenario. Notable exceptions include state restricted law enforcement funds under either scenario and counties under the low-growth scenario.

The tax revenues generated by Proposal 18-1 for the School Aid Fund are equivalent to between 0.5% and 0.8% of tax revenues to the fund in FY 2017. The revenues generated for the Michigan Transportation Fund are equivalent to between 1.1% and 1.8% of tax revenues to the fund in FY 2017.

TABLE 2. Distribution of Marijuana-related Tax Revenues Under Proposal 18-1 (millions)

	2020	2021	2022	2023
Low-growth Scenario:				
School Aid Fund	\$31	\$34	\$48	\$54
Transportation Fund	\$10	\$12	\$18	\$27
General Fund	\$2	\$3	\$3	\$3
State Restricted Funds ^a	-\$11	-\$11	-\$12	-\$13
<i>Subtotal: State Revenues</i>	<i>\$33</i>	<i>\$37</i>	<i>\$57</i>	<i>\$71</i>
Cities, Villages, and Townships	\$2	\$2	\$6	\$9
Counties	-\$4	-\$4	-\$1	\$2
<i>Subtotal: Local Revenues</i>	<i>-\$3</i>	<i>-\$2</i>	<i>\$5</i>	<i>\$10</i>
Research Fund for Veterans	\$20	\$20	\$20	\$0
Total, Low-growth Scenario	\$50	\$55	\$82	\$81
High-growth Scenario:				
School Aid Fund	\$43	\$71	\$91	\$101
Transportation Fund	\$15	\$28	\$37	\$47
General Fund	\$3	\$5	\$6	\$6
State Restricted Funds ^a	-\$11	-\$12	-\$12	-\$13
<i>Subtotal: State Revenues</i>	<i>\$51</i>	<i>\$92</i>	<i>\$122</i>	<i>\$142</i>
Cities, Villages, and Townships	\$5	\$13	\$18	\$22
Counties	-\$2	\$4	\$8	\$12
<i>Subtotal: Local Revenues</i>	<i>\$3</i>	<i>\$16</i>	<i>\$26</i>	<i>\$34</i>
Research Fund for Veterans	\$20	\$20	\$20	\$0
Total, High-growth Scenario	\$74	\$129	\$168	\$175

Note: Rows may not sum to total due to rounding.

Source: Anderson Economic Group analysis using base data from the AEG AndCan Index and Proposal 18-1

a. These funds currently receive a portion of the medical marijuana excise tax revenues. They include: Michigan First Responder Presumed Coverage Fund, Michigan Commission on Law Enforcement Standards and Michigan State Police. See “Current Legal Status of Marijuana in Michigan” on page 3 for more details.

V. Comparison to Other Estimates

Two organizations, VS Strategies, LLC, and the Michigan Senate Fiscal Agency have released analysis regarding the effect of adopting Proposal 18-1 on state tax revenues. VS Strategies is a government relations, issue advocacy, and strategic communications firm focused on the cannabis industry. The Senate Fiscal Agency is an independent nonpartisan fiscal research organization that periodically releases reports on policy issues. While the VS Strategies analysis examines the ballot proposal at a high level, the Senate Fiscal Agency report delves into estimated distributions of funds if the proposal is adopted. The Senate Fiscal Agency report also discusses the costs associated with the ballot proposal, such as the costs to LARA, the Department of State Police, Department of Treasury, and the Judiciary and Department of Corrections.

Recreational Sales. We estimated that recreational marijuana sales would reach between \$767 million and \$1.4 billion by 2023 if Proposal 18-1 is adopted. VS Strategies estimated that legal sales of recreational cannabis would total \$840.7 million in 2023, which is nearly 10% higher than our low-growth estimate.⁷ They estimated an average growth rate of 25.7%, which was about 4 percentage points higher than our high-end estimate. Our estimates for first year sales exceeded those of VS Strategies by \$156 million. The Senate Fiscal Agency estimated that recreational sales would reach \$1.6 billion in 2023, which is 23% higher than our high-growth estimate.⁸

Tax Revenues. We estimated that state tax revenues from recreational marijuana sales would reach between \$127 million and \$225 million by 2023 under Proposal 18-1. VS Strategies estimated that state tax revenues for legal sales will reach \$134.5 million by 2023, which is 6% higher than our low-growth estimate.⁹ The Senate Fiscal Agency estimated that sales tax revenue would reach \$105.6 million and excise tax revenue would be \$160.0 million, totaling \$265.6 million in 2023.¹⁰

Net Effects. We estimated that Proposal 18-1 would increase sales and excise tax revenues by between \$81 million and \$175 million in 2023. Our estimates account for the loss in revenues from repealing the 3% medical marijuana excise tax and from cannibalization of medical marijuana, alcohol, and other consumer goods. VS Strategies did not account for either of these effects. The Senate Fiscal Agency estimated that Proposal 18-1 would have net gain of \$240 million on sales and excise tax revenues. Their analysis only accounted for the loss of the medical marijuana excise tax revenues. See Table 3 on page 12 for a comparison of our assessment of Proposal 18-1 against those of VS Strategies and the Senate Fiscal Agency.

7. Coalition to Regulate Marijuana Like Alcohol, "Michigan Legal Marijuana Will Net \$520 Million in New Taxes for Roads, Schools, Local Communities Over First Five Years," accessed October 17, 2018 from www.regulatemi.org/

8. Jeffrey Mann, Bruce Baker, Ryan Bergan, et al, "November 2018 Ballot Proposal 18-1: An Overview," Michigan Senate Fiscal Agency, October 16, 2018.

9. As we note above, VS Strategies' estimate for recreational marijuana sales is 10% higher than our low-growth estimate. The reason why this varies from their estimate for tax revenues relative to ours is we used different approaches for estimating tax revenues. It appears that VS Strategies applied a 16% tax rate on sales, while we applied an effective 16.5% tax rate. The effective tax rate we used reflects that the excise taxes on recreational marijuana sales are subject to the general state sales tax.

10. In addition to tax revenues, the Senate Fiscal Agency also provides licensing application fee revenues. We do not attempt to estimate these revenues in this *Tax Note*.

TABLE 3. Summary of Proposal 18-1 Analyses on Marijuana Tax Revenues, 2023 Projections (millions)

	Anderson Economic Group Low-Growth Estimate	Anderson Economic Group High-Growth Estimate	VS Strategies Estimate	Senate Fiscal Agency Estimate
Total Tax Revenues from Recreational Marijuana Sales	\$127	\$225	\$129	\$266
Loss in Medical Marijuana Excise Tax Revenues	-\$31	-\$31	No Estimate	-\$26
Loss in Sales Tax Revenues due to Cannibalization	-\$16	-\$19	No Estimate	No Estimate
Net Effects on Sales and Excise Tax Revenues	\$81	\$175	No Estimate	No Estimate
Memo: Total Recreational Marijuana Sales	\$767	\$1,355	\$841	\$1,600

Note: Rows may not sum to total due to rounding.

Source: Anderson Economic Group analysis using base data from AEG AndCan index, analysis of Proposal 18-1, VS Strategies, LLC, and the Michigan Senate Fiscal Agency

VI. Methodology and Data

Recreational marijuana sales. We derived our estimates for total recreational sales using estimates for latent (unobserved) demand for recreational cannabis. We estimated latent demand from survey data on marijuana usage; alcohol beverage consumption and spending; and demographic data. This data is used in the *AndCan Index*, a monthly index of U.S. demand for cannabis products produced by Anderson Economic Group.¹¹ We estimate that observed demand for recreational marijuana is, on average, 13% higher than latent demand for states that have legalized marijuana.

Tax revenues from recreational marijuana sales. Using our first-year estimate of recreational cannabis sales, we applied two potential growth paths. These were calculated under a low-growth scenario and high-growth scenario. The low-growth scenario was calculated using growth rates observed from Oregon recreational sales, while the high-growth scenario used growth rates observed from Washington's recreational sales. We estimated actual sales in these two states from state tax revenues. We chose Oregon and Washington as a basis for our scenarios because they experienced the lowest and highest cumulative growth, respectively, of states with greater than two years of data that have legalized recreational marijuana.

Evidence from other states demonstrates that there is a ramp-up period in which the market transitions to maturity. This growth path represents the transition period from an emerging to a mature market. We use these modeling techniques to fill in the gaps in states for which the age of the market is shorter than the ramp-up period. Since Oregon and Washington only had actual sales data for 30 and 43 months, respectively, we forecasted sales using standard ARIMA models until we had 48 months of data for which to estimate the growth path under each scenario. We aggregated the monthly sales data by year and multiplied the aggregate by the combined 6% sales and 10% excise tax rate to arrive at our estimates of tax revenue.

Tax revenues from medical marijuana sales. Evidence from other states suggests that the amount of medical cannabis sales tends to rise even after the legalization of recreational marijuana. To estimate the amount of medical marijuana sales that would occur if Proposal 18-1 were adopted, we used a growth path that generally followed the path of medical marijuana sales in Colorado, with a period of growth, stagnation, and decline. We used our knowledge of the medical marijuana market in Michigan and professional judgement to determine the exact rates of growth.

To estimate the counterfactual growth path of medical marijuana sales—or sales which would occur if Proposal 18-1 is not adopted—we relied on our latent demand estimates for medical marijuana from the *AndCan* index. We used these estimates to estimate actual medical marijuana sales and forecasted future sales using an ARIMA model. The counterfactual growth path declines from 6% to about 4.5% between 2020 and 2023. The monthly sales for medical marijuana were aggregated by year and multiplied by the sales tax rate.

Cannibalization of alcohol beverages and other goods. There is substantial evidence that increased consumption of marijuana following legalization will result in a marginal reduction in alcohol sales, as marijuana is more often used as a substitute for alcohol consumption than a complement. We first estimated the potential scale of this effect following legalization in all 50 states in 2015 with our report, *The Market for Legal Cannabis Products in the 50 United States*. For this tax note, we build on that

11. For more details on latent demand and the *AndCan Index*, see “Anderson Economic Group’s Monthly *AndCan Index*” at www.andersoneconomicgroup.com

analysis and incorporate some more recent research findings to estimate that legalization of marijuana in Michigan will result in approximately a 0.3% to a 0.6% reduction in alcohol sales, depending on whether the state will experience the low-growth or high-growth scenario.

Alcohol is subject to a range of taxes in Michigan, including the general sales tax, the liquor markup tax, several other liquor taxes, the wine tax, the mixed spirits tax, and the beer tax. We used data from Michigan Treasury and Michigan statutes to determine the revenues associated with these taxes and their disposition to various funds. We assumed that cannibalization would be distributed equally among types of alcohol and forms of sales (e.g. retail sales or bar and restaurant sales). The scale of alcohol cannibalization is so low that this assumption is immaterial to our headline results.

Legalization of recreational marijuana in Michigan is likely to result in at least a marginal increase in spending by Michigan consumers on recreational marijuana and therefore a marginal decrease in their spending on other goods. Using a very broad range of plausible estimates for (1) the portion of recreational sales made by visitors to the state, and (2) the portion of recreational sales that are substitutes for sales that would have occurred in the illegal market, we estimate that between 7% and 26% of recreational sales would represent an increase in spending on marijuana by Michigan residents. Using data about the impact of changes in disposable income on spending, we estimate that this increase in spending will decrease spending on other goods by \$33 to \$58 million in the low-growth scenario, and \$128 to \$226 million in the high-growth scenario by the year 2023.

Using estimates on the portion of household purchases that are taxable, and excluding the cannibalization of alcohol consumption estimated above, we estimate that a decrease in consumption of other goods following Proposal 1 passage will lower sales tax revenues by \$1 to \$4 million in the low growth scenario and \$1 to \$6 million in the high-growth scenario by the year 2023.¹² The results depicted in the findings in this tax note reflect the midpoint of this estimated range of impacts.

12. Estimates on the portion of household consumption subject to sales tax are derived from an analysis that we perform annually for our *State Business Tax Burden Study*. You can find this report and the associated methodology at www.andersoneconomicgroup.com.

VII. About Anderson Economic Group

ADDITIONAL INFORMATION AND REPORTS

Anderson Economic Group, LLC, is a boutique consulting firm with offices in East Lansing and Chicago. The experts at AEG specialize in public policy, strategy, business valuation, and market analysis.

The consultants at AEG have been comprehensively assessing the U.S. cannabis market for over three years. Publications from the firm include:

- The monthly *AndCan Index*, published since 2017.
- *The Market for Legal Cannabis Products in the 50 United States*, published in 2015 and 2016.

Work by AEG has been utilized in legislative hearings, legal proceedings, and public debates, as well as major planning exercises and executive strategy discussions.

For more information about Anderson Economic Group, please visit our website at www.AndersonEconomicGroup.com.

ABOUT THE AUTHORS

Traci Giroux. Traci Giroux is a Consultant with Anderson Economic Group, working in the Public Policy and Economic Analysis practice area. Her background is in applied economics.

While at AEG, Ms. Giroux has performed research and analysis for a wide range of clients, including universities, trade associations, and businesses. Her recent work includes multi-scenario analysis of pending energy regulation; economic and fiscal impact analyses of major investments; analyses of new tourism activity due to policy changes as well as special events; benchmarking studies; and analyses of tax reform proposals.

Ms. Giroux holds a Master of Science in Agricultural, Food, and Resource Economics and a Bachelor of Science in Chemical Engineering, both from Michigan State University.

Brandon Betz. Brandon Betz is a Senior Analyst with Anderson Economic Group, working in the Public Policy and Economic Analysis practice area. His work focuses on cost-benefit, economic impact, and fiscal impact analysis.

Mr. Betz holds a Master's degree in Economics with a specialization in public economics from Syracuse University and a Bachelor's degree in Economics with a minor in Mathematics from Brigham Young University.