

A New Revenue Source for Mass Transit: Legalizing and Taxing Cannabis

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Introduction

New York is a subway city. Despite the growth of bikes, scooters, for hire cars, and ferries, the city's subway system is the principal way in which New Yorkers move. More than 5.5 million people ride the subway each weekday.¹ This number is larger than the total population of the nation's second largest city, Los Angeles, and more than six times the size of San Francisco's population.

Unlike other mass transit systems in the United States, the city's subway system operates 24 hours a day, seven days a week. And in contrast with most mass transit systems in the nation, the cost of a subway ride is the same at any time of day, regardless of distance. The economic health of New York City depends on the capacity of the subway system to safely and reliably carry millions of people. This includes office workers, a quarter million public school students, tourists, and the musicians, writers, actors, dancers, and artists who sustain the cultural vitality of the city.

The centrality of the subways to the life of New York is the very reason why the public is alarmed about the condition of mass transit. The Citizens Budget Commission has systematically analyzed the failure of the Metropolitan Transportation Authority (MTA) to maintain a state of good repair and the need for fundamental reform of the MTA's capital spending processes.^{2, 3} A new plan, "Fast Forward," has been proposed to improve accessibility, deploy new technologies, update signals, and acquire 21st century subway cars.⁴

Clearly, increased fares and congestion pricing are insufficient to deal with the long-term financial needs of the subway system. This report argues that the subways need a dedicated revenue source with the potential for growth in future decades—one that does not divert funds from other public services, and that has yet to be tapped by the state and local government. The legalization of recreational cannabis offers New York State a unique opportunity to generate a new revenue stream dedicated to mass transit.

Trends in State Legalization of Cannabis

Fortunately, New York can learn from the experiences of Washington, Colorado, Oregon, and California in determining how to raise revenues through retail and wholesale marijuana taxation. New York State is not a leader, but it need not be a laggard. Marijuana is one of the least polarizing issues in the United States today. A recent Pew Research Center survey noted that 62% of Americans support marijuana legalization.⁵ A Gallup poll supported this finding, reporting that 66% of Americans support the legalization (see Appendix A).⁶

The Gallup and Pew surveys reveal strong support across party lines—with Democrats at 69%–75%, Independents at 71–75%, and Republicans at 45–53%*—and generational divides, with 74–78% of millennials and 54–59% of baby boomers in favor of legalization.

In 1996, California and Arizona became the first states to pass ballot measures legalizing medical marijuana. In the subsequent year, 30 additional states and Washington, D.C. legalized medical marijuana: 17 through ballot measures and 15 plus Washington, D.C. through state legislature.⁷ To date, 32 states plus Washington, D.C. have legalized medical marijuana use, with Utah and Missouri becoming the most recent to join the ranks as of November 2018.⁸ Nine states that voted for Donald Trump in the 2016 presidential election have since passed bills legalizing medical marijuana (Arkansas, Florida, North Dakota, Ohio, Pennsylvania, West Virginia, Oklahoma, Utah, and Missouri).⁹

Marijuana is now legal for adult recreational use in 10 states plus Washington, D.C. In 2018, Vermont became the first state to legalize recreational use through legislation rather than ballot initiative. Furthermore, 22 states have decriminalized the possession of small amounts of marijuana (see Appendix B). Of the remaining states that still ban cannabis, 17 acknowledge its medical value via laws permitting low-THC, high-CBD products to be sold. In sum, 49 of our 50 states support the use of marijuana to varying degrees.¹⁰

State Revenues Generated by Cannabis Legalization

According to BDS Analytics, a leader in cannabis consumer insights and research, the legal cannabis industry in North America reached \$9.2 billion in 2017 and is projected to generate \$47.3 billion over the next decade. Worldwide, the legal cannabis industry is projected to reach almost \$57 billion by 2027.¹¹

There is immense opportunity for U.S. states to reap benefits from sales and excise taxes placed on legalized marijuana, as well as from licensing fees issued to retailers and producers. A handful of states are reporting higher-than-expected tax revenues from the legalization of marijuana. Top earners so far include Colorado (\$862 million in total revenue since 2014), Washington (\$686 million in excise tax revenue since 2014), and Oregon (\$173 million in total revenue since 2016).^{12, 13, 14} In its first six months of adult-use marijuana sales, California has already generated \$135 million in state tax revenue.¹⁵ These figures do not include additional revenue gained from local sales taxes (see Appendix C).

* By contrast, in 2015 just 39% of Republicans said they would support marijuana legalization.

It should be noted that the New York State Health Department's 7–15% retail tax rate does not reflect the much wider spectrum of marijuana tax rates sets by states; while Alaska opted to spare consumers from a retail tax and only tax growers,¹⁶ Washington chose to levy a 37% tax on retail sales.¹⁷ Several states have promoted their marijuana taxation programs by designating a proportion of the revenues for services falling under one particular policy domain. For example, Washington designates half of its revenue as funds for health care services and insurance.¹⁸ Meanwhile, Colorado and Nevada divert significant shares of their revenues to education,^{19, 20} and Alaska evenly splits its marijuana excise tax revenue between a general fund and one for anti-recidivism programs.¹⁶

Projected Revenues from Cannabis for New York State

The New York State Department of Health recognizes that New York State is one of the largest potential markets for recreational marijuana. The Department's July 2018 report recommends that New York State legalize marijuana for adult recreational use.²¹ Among a variety of other benefits cited (including opportunities for increased public safety, potential reduction in opioid use, and positive effects on criminal justice and equity), the State Health Department claims that regulation could provide substantial tax revenue for the state.

Purchases of illegal marijuana throughout New York State are estimated to be between 6.5 and 10.2 million ounces annually.²¹ At a retail price of \$270 to \$340 per ounce, the state's illegal market for marijuana in New York State is valued by the Health Department to be between \$1.7 and \$3.5 billion per year (see Appendix D for a map of average prices in each U.S. state). According to the Department, an estimated 1.29 million consumers would access the legal cannabis market in New York State within the first year.*

With a marijuana retail tax rate between 7 and 15%, the Health Department predicts that state revenues from that alone could be \$110.3 to \$428.1 million per year.²¹ Compounded with revenue from a combined state and local sales tax (8.5–8.875%), total tax revenues from legal marijuana sales are projected to be between \$248.1 and \$677.7 million in the first year alone (see Appendix E).²¹

* These figures were determined using data from the 2016 National Survey on Drug Use and Health, which determined that the 8.5% of New York State's 19.85 million residents (or 1.27 million people) are marijuana consumers. Applying usage rates of domestic and international tourists and visitors to the state, an additional 20,000 consumers was added to obtain the final approximation of 1.29 million consumers.

As New York's neighboring states legalize recreational use, New York State will face pressure to legalize or risk the potential loss of revenue to neighboring jurisdictions. Canada and all five states that border New York already allow medical marijuana (Pennsylvania, New Jersey, Connecticut, Massachusetts, and Vermont). More importantly, Massachusetts, Vermont, and Canada have legalized marijuana for recreational use.²²

Lessons from Other Jurisdictions

New York should draw upon the experience of other states that are already raising revenue from the legalization of cannabis. California's state revenues have fallen short of projections—perhaps because of a failure to recognize the time it takes for a recreational marijuana market to become established, as well as a lengthy licensing process discouraging retailers from pursuing the legal route.²³ Tax rates should initially be set to encourage consumers to move from the illegal to the legal market. The Tax Foundation recommends that taxation not be so high that it encourages the continuation of the black market.²⁴ This caution may be particularly relevant to New York State, where some medical marijuana patients have alleged that the state-regulated program's inaccessible or inconvenient facilities, limited offerings, and high prices have encouraged them to buy from the black market.^{25,26} At the same time, states risk the potential for significant declines in the price of marijuana if they set very low tax rates or leave other supply variables unchecked. In Oregon, low barriers to entry facilitated an oversupply of marijuana on the state market, in which the price per gram dropped by half between 2015 and 2017.²⁷

Supply must keep pace with demand during this initial time period in order to establish a robust legal market. Colorado struggled to keep up with demand during the first three years after legalizing marijuana; Canada now faces the same struggles just weeks after legalizing.^{28,29} Within the first 24 hours of legalization in Ontario, which outlaws physical retailers and requires its citizens to buy online via a government operated website, the official website received 100,000 orders. However, only a fraction of those orders has been shipped to customers.³⁰ Consumers, frustrated by long wait times, empty shelves, and delayed delivery from legalized sources, may once again retreat to the illicit marijuana market.

Conclusion and Policy Recommendations

The New York State Department of Health has already projected that a combined state and local tax on cannabis, based on a price of marijuana at \$374 per ounce, could generate \$500 to \$750 million a year, depending on the actual tax rate to be imposed.²¹ When combined with fees to be imposed on for hire car services and taxis, proposed congestion pricing plans, and higher fares, the

cannabis tax would provide a way for the MTA to address many of their operating and capital requirements.

Mass transit is the responsibility of the Metropolitan Transportation Authority; it is a service directly provided by a single public entity—not one provided by thousands of non-profits or hundreds of school boards or numerous health care institutions. It is essential to recognize that the ridership on New York City subways has almost doubled since 1975, when annual ridership was less than one billion a year.³¹ In 2017, annual ridership reached 1.7 billion.¹ This growth in ridership on the subway system is now threatened by the failure of the state to raise adequate revenue to meet the long term goals outlined in the Fast Forward plan. However, the large number of riders on bus, subway, and commuter rail systems is so geographically dispersed across numerous jurisdictions and communities that the MTA lacks a strong highly organized structure of political support in the state legislature. Given the New York region's role as the economic engine of New York State, investing in mass transit should supersede the traditional legislative priorities of social services and education in 2019.

The New York City mass transit system is unlike any other in the nation. It serves all age groups, all income groups, all ethnic and racial groups, at all hours of the day and night. It is perhaps the only public service that operates entirely on the trust that riders have in the overall transit system and in each other. Unlike the public schools, we do not have metal detectors at every subway station; unlike public buildings, we do not have security guards at every entrance; and unlike air travelers, subway riders do not have to be body-scanned before they can on a train. Without additional revenues to pay for the repair and modernization of the subways, it will be difficult for riders to sustain their trust in the subway system. Legalizing and taxing cannabis should be considered in designing any policies to improve the mass transit and commuter rail systems under the control of the MTA.

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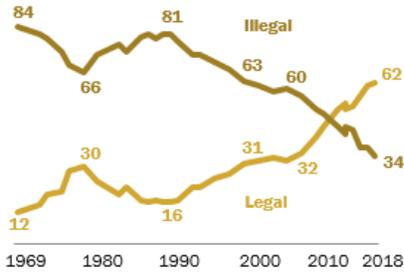
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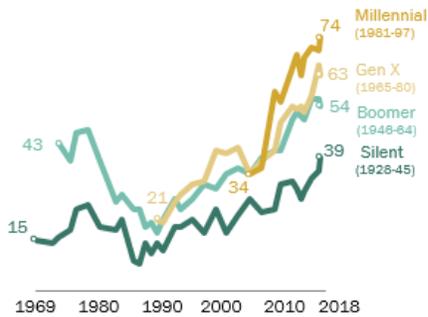
Appendix A

U.S. public opinion on legalizing marijuana, 1969-2018

Do you think the use of marijuana should be made legal, or not? (%)



% who say marijuana should be made legal



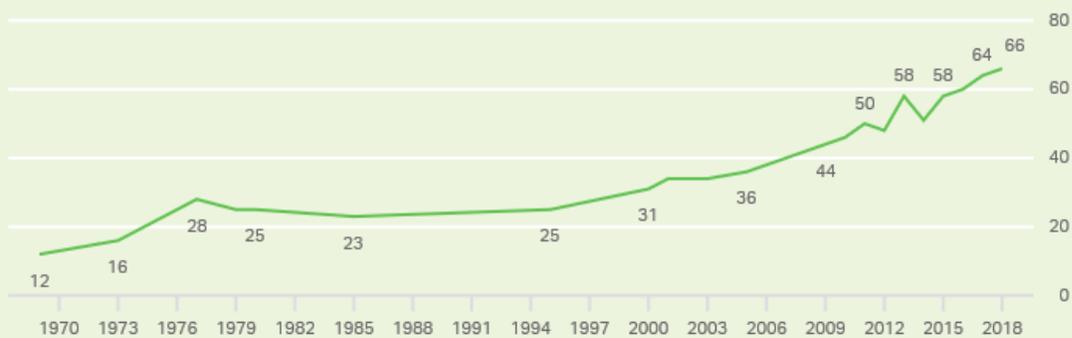
Note: Don't know responses not shown.
Source: Survey of U.S. adults conducted Sept. 18-24, 2018.

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Support for Legalizing Marijuana Continues to Edge Up

Do you think the use of marijuana should be made legal, or not?

■ % Yes, legal



GALLUP

Appendix B

Legal Medical Marijuana Use

State	Year Legalized	Method of Approval
California	1996	Ballot measure
Arizona	1996	Ballot measure
Alaska	1998	Ballot measure
Oregon	1998	Ballot measure
Washington	1998	Ballot measure
Maine	1999	Ballot measure
Colorado	2000	Ballot measure
Hawaii	2000	State legislature
Nevada	2000	Ballot measure
Montana	2004	Ballot measure
Vermont	2004	State legislature
Rhode Island	2006	State legislature
New Mexico	2007	State legislature
Michigan	2008	Ballot measure
Washington, D.C.	2010	State legislature
New Jersey	2010	State legislature
Delaware	2011	State legislature
Connecticut	2012	State legislature
Massachusetts	2012	Ballot measure
Illinois	2013	State legislature
New Hampshire	2013	State legislature
Maryland	2014	State legislature
Minnesota	2014	State legislature

New York	2014	State legislature
Arkansas	2016	Ballot measure
Florida	2016	Ballot measure
North Dakota	2016	Ballot measure
Ohio	2016	State legislature
Pennsylvania	2016	State legislature
West Virginia	2017	State legislature
Oklahoma	2018	Ballot measure
Utah	2018	Ballot measure
Missouri	2018	Ballot measure

Source: Marijuana Policy Project

Legal Recreational Marijuana Use

State	Year Legalized	Method of Approval
Colorado	2012	Ballot measure
Washington	2012	Ballot measure
Alaska	2014	Ballot measure
Oregon	2014	Ballot measure
Washington, D.C.*	2014	Ballot measure
California	2016	Ballot measure
Maine	2016	Ballot measure
Massachusetts	2016	Ballot measure
Nevada	2016	Ballot measure
Vermont*	2018	State legislature
Michigan	2018	Ballot measure

* Washington, D.C. and Vermont do not allow the *sale or purchase* of marijuana for recreational use, but do permit residents to possess limited quantities of marijuana and/or immature plants.

Source: Marijuana Policy Project

Decriminalized Marijuana Use

- Alaska*
- California*
- Colorado*
- Connecticut
- Delaware
- Illinois
- Maine*
- Maryland
- Massachusetts*
- Minnesota
- Mississippi
- Missouri
- Nebraska
- Nevada*
- New Hampshire
- New York
- North Carolina
- Ohio
- Oregon*
- Rhode Island
- Vermont*
- Washington*
- Washington, D.C.*

* Also now with legal recreational adult-use provisions

Source: National Conference of State Legislatures

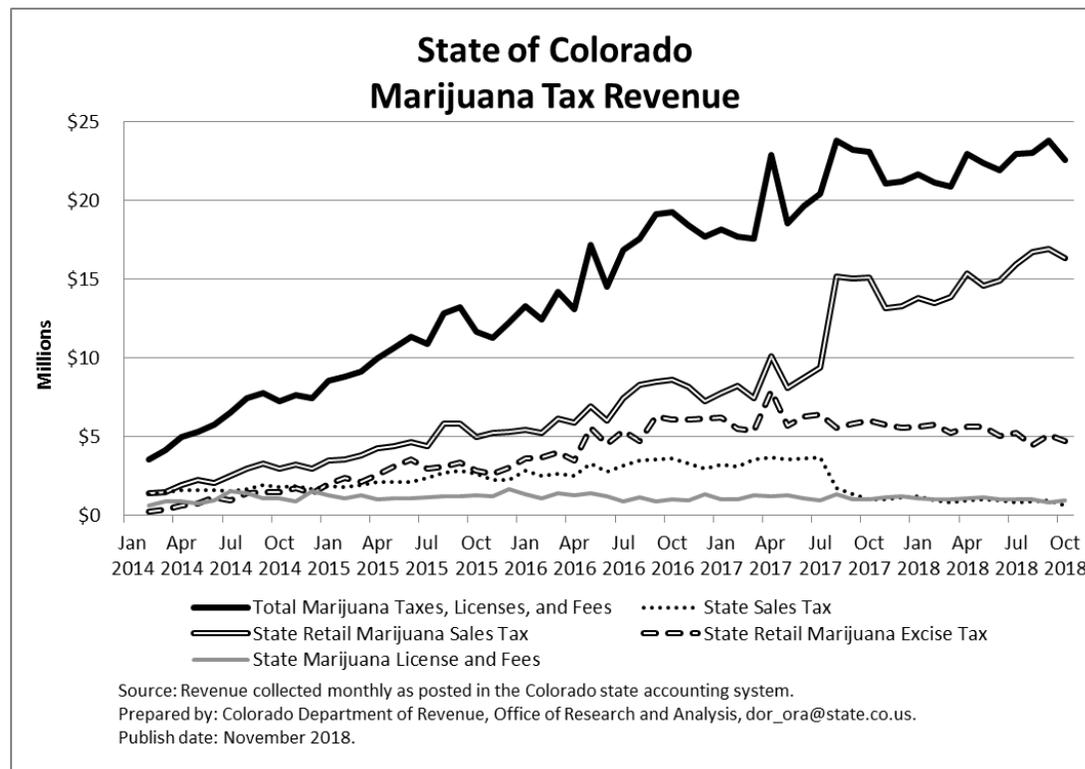
Appendix C

Colorado (population: 5.6 million)

Tax rate: 10% tax on wholesale and retail marijuana increased to 15% as of July 2017; retail marijuana exempted from 2.9% general sales as of July 2017

Calendar Year	Total Revenue from Taxes, Licenses, and Fees
2014	\$67,594,323
2015	\$130,411,173
2016	\$193,604,810
2017	\$247,368,473
2018 (Jan–Oct)	\$223,300,334

Source: Colorado Department of Revenue



Washington (population 7.4 million)

Tax rate: 37% marijuana retail tax since July 2015; 6.5% general sales tax

Fiscal Year (July–June)	Total Revenue
2015	\$64,881,111
2016	\$185,669,140
2017	\$314,839,660

Source: Washington State Liquor and Cannabis Board

Oregon (population 4.1 million)

Tax rate: 17% marijuana retail tax

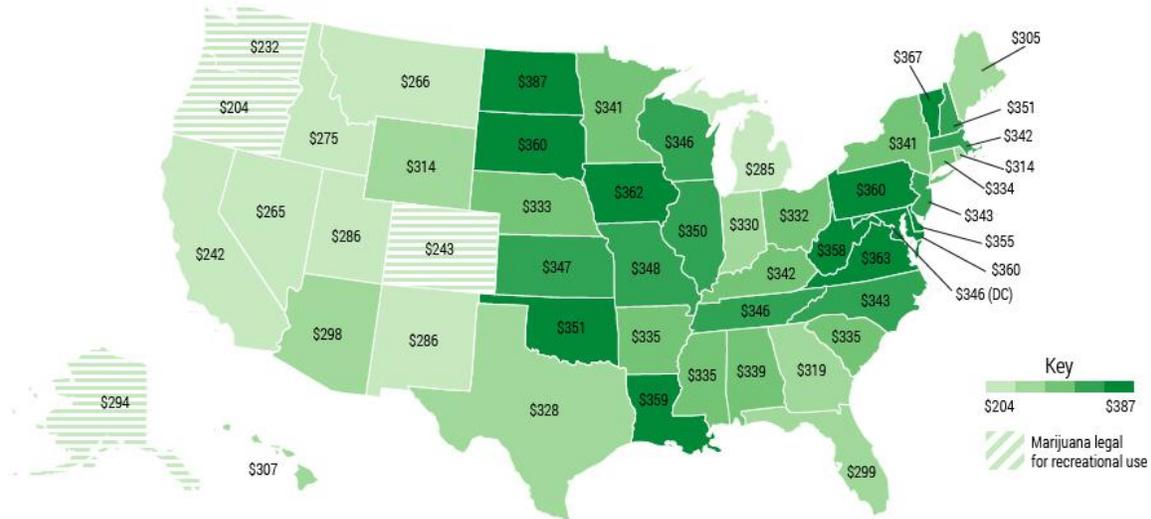
Fiscal Year (July–June)	Total Revenue
2016	\$20,652,983
2017	\$70,263,897
2018	\$82,203,729

Source: Oregon Department of Revenue

Appendix D

THE PRICE OF WEED IN EACH STATE

The states where the price for an ounce of high quality marijuana are the least expensive are also the states where recreational marijuana is legal.



SOURCE: PRICEOFWEED.COM

FORBES MEDIA

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Appendix E

Table 1: Summary of Assumptions & Adjustments for Calculation of First Year Potential Tax Revenues	
Illegal market price (estimated average)	\$270 and \$340 per ounce
Illegal market sales (estimated)	6.5 -10.2 million ounces
Estimated illegal market size	\$1.7 billion - \$3.5 billion
Estimated legal market price (excluding taxes)	\$297 and \$374 per ounce
Price elasticity of demand	-0.8
Non-price effect of legalization	+5 percent
Marijuana retail tax rate	7 percent and 15 percent

Table 2: Retail Price/Retail Tax				
Sales and Tax Revenues	\$297 per ounce		\$374 per ounce	
	7%	15%	7%	15%
Retail Sales	\$1.6 billion	\$1.4 billion	\$3.1 billion	\$2.9 billion
Marijuana Retail Tax	\$110.3 million	\$215.2 million	\$219.5 million	\$428.1 million
State and Local Sales Tax	\$137.8 million	\$125.4 million	\$274.2 million	\$249.6 million
Total Tax revenues	\$248.1 million	\$340.6 million	\$493.7 million	\$677.7 million

From New York State Department of Health. (2018). *Assessment of the potential impact of regulated marijuana in New York State*. Albany, NY: Author. Retrieved from https://www.health.ny.gov/regulations/regulated_marijuana/docs/marijuana_legalization_impact_assessment.pdf