

CULTIVATING EQUITY:

ADVANCING WORKFORCE AND
ECONOMIC OPPORTUNITY IN
NYC'S CANNABIS INDUSTRY



[About the The Mayor's Office for Economic Opportunity \(NYC Opportunity\)](#)

The Mayor's Office for Economic Opportunity (NYC Opportunity) helps the City apply evidence and innovation to reduce poverty and increase equity. Using the tools of data, design, and research, they partner with agencies to improve the systems of government and make the City's social service programs more effective, efficient and responsive. NYC Opportunity supports policy development and budget decisions and works to center equity as a core governing principle across government. They also produce research and analysis of poverty and social conditions, including through our influential annual NYCgov Poverty Measure, which we developed to provide a more accurate picture of poverty in New York City than the federal rate.

[About the Young Men's Initiative \(YMI\)](#)

In August 2011, New York City Young Men's Initiative (YMI) was created as a public-private partnership to address increasing disparities among black and Latino men between the ages of 16 and 24 in education, employment, health and justice. The YMI mission is to develop and champion policies, programs and partnerships that holistically support the success of young men of color throughout NYC. Under the de Blasio Administration, the budget and scope of YMI has expanded to serve all genders. YMI accomplishes its mission through broad policy recommendations, changes and agency reforms and by connecting the city's young men of color to individuals, opportunities and organizations that improve the quality of their lives and lead them to a more successful future.

[About Urbane Development](#)

Urbane is a community development venture and certified MWBE based in New York City. Founded in 2008, Urbane elevates neighborhood assets to build community wealth through an integrated approach that includes research, consulting, and place-based investing.

[About TiYanna L. Smith](#)

TiYanna L. Smith, MPA is the founder of Medisi Ventures, an urban development firm transforming neighborhoods and cities through innovative growth in cannabis and real estate. With over a decade of experience as a seasoned business strategist, operations specialist, and real estate advisor, she is committed to empowering people, businesses, and communities to navigate challenges and seize opportunities.

Acknowledgments

This report would not have been possible without the contributions and support of numerous individuals and organizations. We extend our deepest gratitude to all those who have played a pivotal role in its development. Firstly, we would like to thank the New York City Young Men's Initiative (YMI) and the Mayor's Office for Economic Opportunity (NYC Opportunity) for their visionary leadership and unwavering support in commissioning and guiding this research. Their commitment to advancing equitable economic opportunities in NYC's cannabis industry has been instrumental.

Our heartfelt thanks go to the numerous cannabis advocates, experts, entrepreneurs, and program operators who generously shared their time, knowledge, and experiences through stakeholder interviews. Your insights have provided invaluable context and depth to our findings. We also appreciate the participation of current and aspiring cannabis entrepreneurs and job seekers, your input has been crucial in shaping our understanding of the workforce and entrepreneurial landscape in NYC's cannabis industry.

Lastly, we extend our gratitude to all community members, organizations, and partners who continue to advocate for social equity and economic justice in the cannabis industry. Your ongoing efforts inspire and drive the mission of creating an inclusive and equitable market for all New Yorkers.

Thank you all for your contributions and support.

NYC Young Men's Initiative Response to Urbane Cannabis Equity Study

It is a unique privilege to live through times when one can witness the birth of a new industry. Over the past 30 years, states across the country have been slowly legalizing cannabis. In March 2021, New York State passed the Marijuana Regulation and Taxation Act ("MRTA"), legalizing adult-use recreational marijuana. The legalization of cannabis for adult recreational use in NYC offers the opportunity to address the harms of prohibition and ensure that economic opportunities and investments are developed equitably for low-income and BIPOC communities in NYC.

Criminal enforcement of marijuana possession and distribution has resulted in devastating race and place-based impacts felt most by communities of color. From 2010 to 2017 in NYC, 51% of marijuana-related arrests were of Black, and 35% were Latinx. This rate is eight times the marijuana-related arrest rate for white New Yorkers, despite research showing that marijuana use is roughly equal across demographic groups. Seven out of the ten lowest-income neighborhoods in New York City, based on median household income, rank among the city's top ten as it relates to marijuana-related arrests.

The NYC Young Men's Initiative (YMI) was created to address the disparities young people of color face in education, health, workforce development, and within the justice system, with a particular focus on the Bronx, Brownsville, East New York, East Harlem, Southeast Queens, and the North Shore of Staten Island. Given YMI's mission, this office must be well-informed about the developments within the legalized cannabis industry and the opportunities that will come forth for the communities it serves.

Since the legalization of recreational marijuana use, NYS has set ambitious equity goals for the first set of licensing, including a goal that 50% of licensees be "social and economic equity applicants" ("SEA"). While these goals are commendable and aim to rectify some of the harms caused by cannabis prohibition, achieving them may pose significant challenges. However, the potential benefits are substantial. NYC's adult-use cannabis industry expects to generate nearly \$1.3 billion in sales in its first year and support between 19,000 and 24,000 jobs within three years. This growth can allow NYC to generate public revenue for reinvestment in economic, health, and safety initiatives, offering a promising future for the city. From conducting this study, YMI hopes to inform the city's strategy to support the equitable development of the emerging legal cannabis industry in NYC and support the development of NYC's cannabis equity agenda by analyzing existing policies and programmatic approaches.

However, we understand that New York is not the first state to legalize cannabis and, as such, Urbane researched a wide variety of programs, initiatives, and recommendations, as well as interviewed participating individuals to capture their experience. With all of the research being taken into account, this project aimed to create a comprehensive resource detailing best practices and lessons learned from across the country through this national landscape study and analysis that would help inform and foster an equitable cannabis industry, with the creation of NYC's legal cannabis market. It also sought to recommend NYC's short-, medium-, and long-term strategies to ensure traditionally marginalized individuals can meaningfully access and participate in the wealth-generating opportunities from the legal cannabis industry.

The emergence of this infant market will give fertile ground for communities across NYC to show what we have always known: our communities are brilliant, resilient, and have inherent genius that will make the most of this opportunity. We hope that the snapshot and recommendations provided within this report will provide data the city can use to continue to build on its charge toward equity, inspiring us all with the endless potential our communities hold.

Nathifa Forde

Executive Director of NYC Her Future

Previously Acting Executive Director of NYC Young Men's Initiative

Commissioner's Forward

The legalization of adult-use recreational cannabis in New York City, following the passage of the Marijuana Regulation and Taxation Act (MRTA) in March 2021, has generated a wide array of economic opportunities. From direct roles in cultivation and processing to ancillary roles in administration, security, and compliance, the cannabis industry can be a ladder to economic mobility for a diverse range of New Yorkers. To truly seize this moment, we must clearly define cannabis equity and develop comprehensive strategies that make entrepreneurship and career opportunities tangible for all.

For over a decade, the NYC Young Men's Initiative has focused on improving the lives of young people, especially young Black and Latino men — a population disproportionately impacted by decades of cannabis prohibition and the War on Drugs. Despite the legalization of recreational cannabis in 18 states and the projected \$43 billion revenue by 2025, significant racial and economic disparities remain. Currently, 70% of executive roles in the cannabis industry are held by white men, and Black individuals own less than 2% of cannabis businesses. This underrepresentation extends across the industry, including the cultivation sector, where Black farmers face systemic barriers. Incorporating social equity programs is a critical step toward addressing the historical injustices faced by low-income, Black and Latino communities unequally impacted by the criminalization of marijuana despite its use being relatively uniform across different demographics.

During this transformative era in the cannabis industry, we must confront these challenges head-on to ensure we maximize opportunity for all. While several states have social equity goals incorporated in their cannabis programs, the definition of equity varies greatly, and most efforts are geared towards entrepreneurship. To build a more inclusive and prosperous industry, we must also focus on workforce opportunities—integrating cannabis-specific education and training into traditional and specialized academic programs, ensuring pay equity, benefits, and safety regulations while building customized support for entrepreneurs.

Our city is committed to ensuring fair and equitable access to this promising industry. This report aims to equip our partners across all sectors with the critical resources and information needed to actively participate in this transformative effort. By tackling these issues with focus and collaboration, we can nurture a cannabis industry that benefits all New Yorkers.

In service,

Sideya Sherman

Commissioner of NYC Mayor's Office of Equity and Racial Justice

NYC Opportunity Response to Urbane Cannabis Equity Study

In March 2021, New York State passed the Marijuana Regulation and Taxation Act (MRTA), legalizing adult-use recreational marijuana, and allowing for the growth of a new, legal marijuana industry in New York City. This development provides a unique opportunity to address the harms of cannabis prohibition by supporting New Yorkers from Black, Hispanic and other communities of color, and low-income communities in accessing quality employment opportunities and resources necessary to launch their own businesses.

New York took a first step in this direction by including a sizable social equity license carveout in the MRTA. However, research on the experiences of cannabis legalization in other states and localities has documented tremendous challenges faced by social equity license holders, including a lack of access to capital, regulatory barriers, and market competition.

The New York City Young Men's Initiative (YMI), in partnership with the Mayor's Office for Economic Opportunity (NYC Opportunity), commissioned Urbane to conduct this study to examine the needs of cannabis entrepreneurs and jobseekers from communities disproportionately harmed by the criminalization of cannabis, and uncover best practices for increasing equity and diversity within the cannabis workforce. This report reflects the findings of a landscape analysis and study examining programmatic approaches that support social equity licensees and jobseekers in entering and succeeding in the legal cannabis industry.

This study highlights key barriers faced by entrepreneurs, including:

- Lack of access to initial financing
- Difficulty securing real estate and physical capital
- A rigorous and complex state licensing process
- Trouble attracting and retaining talent

And challenges faced by jobseekers, including:

- Inadequate funding and community involvement in workforce development initiatives that connect to job roles and opportunities in the cannabis industry
- Lack of awareness about diverse career opportunities in cannabis industry
- Misalignment between skills taught in training programs and those required by employers

- Hiring discrimination
- Lack of support and education to build the right skills

Based on these findings, the report presents several key recommendations for ensuring a more equitable cannabis industry in NYC. It proposes supporting entrepreneurs with targeted investments in technical assistance, start-up incubators, and capital resources for social equity license holders. For workers, it recommends workforce development solutions that focus on job quality factors like wages, benefits, safety, and job placement as key outcomes. Additionally, it recommends developing apprenticeship and paid learning opportunities which provide individuals with practical, hands-on experience and formal training that can lead to sustainable career paths in the cannabis industry.

NYC Opportunity is committed to translating the findings from this study into actionable steps to address inequities in the cannabis workforce. Continued collaboration with YMI, the New York City Department of Small Business Services' Cannabis NYC, industry stakeholders, and workforce development providers will be essential in driving programmatic strategy as we move forward. Together, we're committed to supporting social equity licensees and jobseekers in accessing the resources and support needed to thrive in NYC's legal cannabis industry.

Joshua Thomas-Serrano

Senior Advisor

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Executive Summary

ECONOMIC EQUITY IN CANNABIS

The commercialization of legal cannabis and subsequent shortcomings of early markets in including those harmed by cannabis prohibition has created the need for state and local initiatives to achieve equity in the industry. Despite the recent expansion of such programs, a consistent definition of social equity in cannabis remains elusive and often conflated with existing definitions tailored to broader inclusivity to withstand legal challenges. Because those programs rely on traditional market mechanisms, results have been underwhelming, even for states with the most stringent social equity programs. Effective equity definitions and programs require clear metrics, continuous assessment, and community involvement to remain responsive to those they aim to benefit.

Key Takeaways

- The impact of cannabis prohibition has been disproportionately high on Black and Latinx residents of NYC, as well as on residents of several low-income neighborhoods in Manhattan, Brooklyn, and the Bronx. Criminal cannabis convictions lead to the denial of myriad rights and opportunities, creating lifelong impacts for the convicted individual and their family and community.
- Several states have introduced social equity programs along with cannabis legalization to address and remediate the harms of cannabis prohibition. Still, there is no agreed-upon definition of equity in cannabis. This lack of consistency is partly due to the sweeping and intersectional nature of these harms, which are closely connected to other injustices. Interviewees raised a distinction between social equity, which broadly addresses justice and empowerment, and industry equity, which focuses on creating equitable opportunities in cannabis entrepreneurship and careers.
 - a. Cannabis Industry Equity refers to the comprehensive inclusion and support of communities disproportionately affected by cannabis prohibition in the legal cannabis market. This term encompasses targeted programs and policies designed to prioritize individuals and businesses from these communities, ensuring access to resources, licensing opportunities, and financial support. Equity initiatives aim to address historical injustices, promote fair economic opportunities, and provide restitution for the harms inflicted by prohibition.
 - b. Cannabis Social Equity refers to initiatives and programs designed to rectify the historical injustices and systemic inequities caused by cannabis prohibition. These efforts focus on providing support and opportunities to individuals and communities disproportionately impacted by past cannabis enforcement.

Recommendations

Recommendation 1: Co-develop a Community-Led Definition of Cannabis Equity and Impact Metrics.

It is recommended that the City co-develop a community-led definition of cannabis equity and impact metrics by collaborating with diverse stakeholders, including community leaders, activists, and individuals with lived experiences. Develop assessment and feedback mechanisms to ensure initiatives remain responsive, effective, and aligned with community needs.

Recommendation 2: Directly Invest in Social Equity Cannabis Business, Workforce, and Impacted Communities.

It is recommended that the City directly invests in social equity cannabis businesses, workforce, and impacted communities by establishing a dedicated program funded through local cannabis tax revenue and supplemented by matching contributions from the City Tax Levy (CTL). Implement a participatory process that empowers communities to direct these investments based on their priorities.

WORKFORCE DEVELOPMENT NEEDS AND INTERVENTIONS

The rapidly growing cannabis industry in New York City presents significant career opportunities in both plant-touching and ancillary roles, necessitating comprehensive workforce development programs to ensure equitable job quality, accessibility, and career advancement. Plant-touching jobs span cultivation, processing, retail, and distribution, while ancillary positions support these operations through services like administration, security, and compliance. With New York poised to become a significant driver of cannabis job growth, strategic interventions are essential to address racial and gender wage disparities and enhance job quality through improved wages, benefits, and safety regulations. Equitable workforce development requires targeted programming to develop in-demand skills, and leverage educational institutions, apprenticeships, and unions to foster career advancement and social equity. Integrating cannabis-specific education and training in traditional academic settings and proprietary trade schools is crucial for preparing a skilled workforce. Collaborative partnerships, support services, and adaptable programs tailored to industry needs and local regulations are essential to successfully integrating underrepresented groups into the cannabis workforce and ensuring sustainable career pathways in this rapidly evolving sector.

Key Takeaways

- The cannabis industry in NYC offers significant career opportunities, underscoring the need for workforce programs or initiatives that raise awareness and understanding of various careers, including those in ancillary industries. These programs should also promote job quality, accessibility, and career advancement while providing training in in-demand skills.
- Cannabis equity primarily focuses on entrepreneurship. Owning a cannabis business is not for everyone, and paths to entrepreneurship can begin in career settings.
- Ensuring equitable opportunities in cannabis jobs is multifaceted. It demands a focus on job quality factors like wages, benefits, and safety. It also involves providing access to career advancement opportunities and essential wrap-around services to address racial and gender disparities.

Recommendations

Recommendation 3: Expand Awareness of Cannabis Workforce Opportunities.

The City can support expanding awareness of cannabis workforce opportunities by developing an online resource and printed guide, organizing career fairs and workshops, and establishing partnerships with STEM programs to showcase various job roles and opportunities in the cannabis industry.

Recommendation 4: Develop Workforce Training Programs That Align with Industry Needs Through Collaboration and Partnerships.

It is recommended that the City develop workforce training programs that align with industry needs by convening educational institutions, training providers, and cannabis businesses to ensure programs are tailored to current market demands.

Recommendation 5: Expand Access to Quality Jobs and High-Path Careers in the Cannabis Industry.

It is recommended that the City expand access to quality jobs and high-path careers in the cannabis industry by exploring apprenticeship and paid learning pathways with unions and cohorts of participating businesses. Promote employer education on labor laws and organize discussions on improving job quality.

ENTREPRENEURIAL NEEDS AND INTERVENTIONS

The entrepreneurial landscape for cannabis in New York City is expanding rapidly, providing many opportunities, particularly for social equity applicants. However, these entrepreneurs face significant challenges, including navigating complex regulations, securing licenses, and maintaining compliance. Despite some emerging public and private resources, there remains a critical need for better support, especially for underrepresented and legacy business owners.

Effective interventions from both government and the private sector are essential to address these challenges. These include financial aid programs, such as grants and low-interest loans, and incubator programs that provide training, mentorship, and networking opportunities. Comprehensive operational assistance, including legal, accounting, and compliance support, is also crucial. By enhancing access to capital, facilitating the acquisition of compliant real estate, and reducing operational burdens, these interventions aim to foster equitable and sustainable growth within New York City's cannabis market. This multi faceted approach is vital for empowering entrepreneurs and ensuring the success and inclusivity of the burgeoning cannabis industry.

Key Takeaways

- Access to capital is one of the most significant challenges for cannabis entrepreneurs in NYC, particularly for social equity applicants. Federal regulations that restrict traditional funding avenues also make obtaining financing challenging.
- Finding suitable locations for cannabis businesses is challenging due to limited availability, lack of landlord knowledge or predatory pricing, and strict regulatory requirements, including priority-protected location restrictions.
- Entrepreneurs and business owners need substantial operational support, including legal, accounting, and compliance services, which are often hard to find and unaffordable.

- Licensed cannabis social equity businesses face significant competition from both unregulated gray market operators and larger multi-state operators who can offer products at lower costs.
- Existing programs that support equity applicants and entrepreneurs are under-resourced and cannot provide wrap-around services or direct financial support.

Recommendations

Recommendation 6: Expand Access to Funding and Resources for Equity Entrepreneurs.

It is recommended that the City expand access to funding and resources for equity entrepreneurs to help mitigate the high cost of starting a compliant cannabis business. Partner with a crowdfunding platform and provide city-matched dollars to offer affordable lines of credit and zero-interest loans. Support or directly offer financial education and explore additional partnerships to provide essential financial support.

Recommendation 7: Create Programs to Assist in Finding and Securing Compliant Real Estate.

It is recommended that the City create programs to assist in finding and securing compliant real estate by convening the real estate community to bridge knowledge gaps and foster greater landlord and broker engagement in the cannabis industry. Establish a matching program that connects landlords with cannabis operators and create a regularly updated digital map to help entrepreneurs find available compliant spaces.

Recommendation 8: Reduce Operational Burdens for Entrepreneurs Through Shared Resource Networks.

The City is recommended to support the development of shared resource networks to reduce operational burdens for cannabis entrepreneurs. This includes providing access to affordable health insurance, legal counsel, tax compliance support, and essential operational technologies.

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Introduction

In the wake of legislation introducing a legal cannabis industry in the State of New York, New York City has recognized a need to build on social equity programming to ensure equitable entrepreneurship and workforce development opportunities for city residents. The New York City Young Men's Initiative (YMI) and the Mayor's Office for Economic Opportunity (NYC Opportunity) contracted Urbane, a community wealth venture, and Brooklyn-based MWBE, to research existing conditions and emerging ideas related to cannabis business and job opportunities. This research informed recommended strategies to promote equitable economic opportunity in NYC's cannabis industry. By advancing equity efforts and inclusive access to entrepreneurship and job opportunities, these strategies seek to acknowledge and account for past harms of cannabis prohibition. They also promote space in the city's cannabis industry for the wealth of creativity, experience, and skills among all of NYC's residents.

STUDY OBJECTIVES

- **Assess Existing Conditions:** Analyze New York City's cannabis industry, including businesses, workforce demographics, and economic impact. Identify barriers for marginalized communities in accessing opportunities.
- **Explore Emerging Ideas:** Investigate successful equity practices from other regions and assess their adaptability to NYC's cannabis industry.
- **Develop Strategic Recommendations:** Create strategies to promote equity and inclusive access to entrepreneurship and job opportunities, addressing past harms of cannabis prohibition.
- **Promote Inclusivity and Creativity:** Utilize the creativity, experience, and skills of all NYC residents to ensure diverse participation in the cannabis industry.
- **Support Policy and Program Development:** Provide recommendations to develop policies and programs that foster equitable opportunities in the cannabis industry.

Existing Conditions in Cannabis Economic Equity

The commercialization of legal cannabis has highlighted the need for state and local social equity plans to address historical harms from prohibition. Despite the rise of such programs, a consistent definition of social equity in cannabis is lacking, and results are unclear. Effective programs need clear metrics, continuous assessment, and community involvement. Recommendations include developing a community-led equity definition, robust impact metrics, and direct investment in equity cannabis businesses and affected communities using cannabis tax revenues for sustainable economic advancement and social justice.

HISTORY AND CONTEXT

Cannabis has historically been used for medicinal and therapeutic purposes. In 1850, it was mentioned in the U.S. Pharmacopoeia and commercial cannabis products were common in local drug stores.¹ Modern regulation began with the Pure Food and Drug Act of 1906 and the Marijuana Tax Act of 1937. The Controlled Substances Act of 1970 categorized cannabis as a Schedule I drug, leading to harsh enforcement, especially in Black and Latinx communities.²

Impact on Communities of Color

These communities experienced higher rates of stops, searches, arrests, convictions, and harsher sentences. The impacts of prohibition are lifelong and generational, affecting rights and opportunities such as child custody, voting rights, employment, education, and housing. Despite reform efforts, arrest rates remained unchanged, with Black residents more likely to be arrested than white residents.³

Shift in Public Sentiment

Public sentiment has shifted towards recognizing the medical and therapeutic benefits of cannabis. Several states have called for an end to prohibition, with California leading in 1996. Today, 40 states, including New York, have legalized medicinal cannabis, and 24 states have legalized adult-use cannabis (see Appendix A).

Local Impacts of Cannabis Prohibition

Cannabis arrest rates in NYS and NYC have been disproportionately high among Black and Latinx communities and low-income neighborhoods. In 2010, NYS had about 107,000 arrests for cannabis offenses, with 97% for possession. Black individuals

were arrested at significantly higher rates than white individuals across NYC (see Table 1).⁴

In 2010, Black individuals were arrested for cannabis possession at rates three, nine, and 14 times higher than white individuals in Manhattan and Queens, Brooklyn, and the Bronx, respectively.

A 2020 study on marijuana possession arrests found that Black residents were 2.6 times more likely than white residents to be arrested for cannabis possession in 2018.⁵ A 2018 report by former NYC Comptroller Scott M. Stringer identified neighborhoods with the highest rates of cannabis-related arrests, which also correlated with lower income, higher unemployment, and lower home ownership rates.⁶

Black and Latinx people accounted for over 86% of all arrests citywide, and over half of all people arrested were 25 years old or younger.

Almost one-third of all arrests citywide occurred in Brooklyn, particularly the East Brooklyn neighborhoods of Brownsville, Ocean Hill, East New York and Starrett City. Arrests were high across all of the Bronx, but particularly concentrated in the South Bronx. Although Manhattan has a lower average arrest rate than Brooklyn and Bronx, neighborhoods above 96th street faced harsher enforcement. East Harlem's cannabis-related arrest rate was 13 times

¹ Svrakic et al.

² Harris and Martin.

³ "Race and the Drug War."

⁴ "The War on Marijuana in Black and White."

⁵ "A Tale of Two Countries: Racially Targeted Arrests in the Era of Marijuana Reform."

⁶ "Addressing the Harms of Prohibition."

higher than that of neighboring Upper East Side.⁷

Table 1: Number of Arrests for Marijuana Possession (2010)

Borough	Total	Black	White	% Black
Brooklyn	20,413	12,544	1,443	61.5%
Bronx	16,001	6,943	497	43.4%
Manhattan	11,221	4,047	1,596	36.1%
Queens	9,456	3,449	1,135	36.5%
Staten Island	1,690	1,381	309	81.7%
New York City	58,781	28,364	4,980	48.3%

Source: *The War on Marijuana in Black and White*

Communities Disproportionately Impacted (CDI)

NYS defines CDI based on arrest and conviction history, reflecting disparate enforcement of cannabis prohibition. The CDI digital mapping tool highlights identified census tracts across the state, and again reflects the relative concentration of impact within black and brown communities both statewide and within NYC.⁸

EQUITY IN CANNABIS

The Challenge of a Unified Definition

During the mid-2010s, legal jurisdictions recognized the need for social equity plans to address the harm caused by prohibition. In 2017, the City of Oakland launched a Cannabis Equity Program, and Massachusetts enacted the first state-wide social equity plan. As of early 2023, 15 states have launched social equity initiatives. After New York State legalized adult-use cannabis in 2021, they established the Office of Cannabis Management (OCM) to implement a regulatory framework with an emphasis on ensuring participation from communities historically affected by prohibition.

Since 2017, the volume of ideas and reporting on

social equity in cannabis has risen significantly, but a consistent definition has yet to be established.⁹ Although a consistent definition may be allusive, generally social equity policies and programs in cannabis seeks to ensure fair access to resources and opportunities created by the legal industry by accounting for and seeking to repair the disproportionate impacts of the prohibition on individuals and communities.¹⁰

Industry experts added nuance to definitions. One expert distinguished between social equity in cannabis, which broadly addresses justice and empowerment in communities, and industry equity, which focuses on creating equitable opportunities in cannabis entrepreneurship and careers. While social equity is the ultimate umbrella vision of many community members, advocates, and policymakers in the cannabis space, industry equity is a more targeted component of social equity. Largely, this report will focus on industry equity which encompasses access to the economic opportunity created through commercialization on legal cannabis in New York State.

CANNABIS EQUITY EFFORTS AROUND THE U.S.

Social Equity Program: Cannabis Equity Efforts Around the U.S.

Several states and municipalities have created social equity programs to address past harms. These programs identify impacted individuals and communities and seek to balance direct and broader benefits. Metrics for identifying impacted communities are a key component of social equity

7 “Addressing the Harms of Prohibition.”

8 <https://docs-ocm.ny.gov/CDI.html>

9 Miller, “What Does Social Equity in Cannabis Really Mean?”

10 Hoban, “The Critical Importance Of Social Equity In The Cannabis Industry”; “Social Equity Legislation in Cannabis: A National Study of State and Local Approaches”; Bailey, “Seeds of Change: Strategies to Create an Equitable Cannabis Industry.”

programs and can include arrests, race or ethnicity, or other socioeconomic indicators.

With limited resources available, programs must find a balance between focusing on those directly affected by cannabis prohibition (i.e., justice involved persons and families) and making benefits available more broadly to people residing in communities disproportionately impacted by enforcement. Social equity advocates also note that trauma from cannabis criminalization may deter affected individuals from engaging with the legal industry, which can lead to further exclusion and harm. Programs must consider this sensitivity and potential engagement gaps when seeking input and measuring impact.¹¹

In nearly all states with a social equity program, residency in a disparately impacted community is a qualifying factor. Metrics used to identify these communities vary, with many using rates of arrests, race or ethnicity, income, and other socioeconomic indicators (See Appendix A, Exhibit B).¹² Programs also place residency requirements for given jurisdictions.¹³ For individuals seeking social equity licenses, nearly all states also use previous cannabis-related convictions or arrests as a factor, and 10 of 15 states with social equity programs also qualify applicants with an immediate relative who experienced a cannabis-related conviction or arrest. Ten of 15 states look at income; three consider gender; two target disabled veterans, and two target farmers.¹⁴

Only five of 15 states look at race and ethnicity. It is possible that this metric is not more common because of the threat of litigation related to equal protection. Race is a well-documented factor in cannabis criminalization, but remedies incorporating

race are not front and center.¹⁵ An industry expert pointed to this fact as a cause to better quantify disparate impacts of cannabis prohibition by race in order to justify the use of race-based metrics in equity programs.

New York State's social equity criteria includes all the components above. The state specifies communities disproportionately impacted by the enforcement of cannabis prohibition, low-income communities, minority-owned businesses, women-owned businesses, distressed farmers, and service-disabled veterans.¹⁶

Tracking Equity

Evaluating and improving social equity efforts require consistent tracking of key indicators, such as cannabis product revenue, sales distribution, license ownership demographics, and tax revenue disbursements. Industry advocates call for uniform, consistent tracking of equity-related data that continually evaluates policies and practices related to social equity programs.¹⁷ Equity efforts would benefit from indicators tracked and reported regularly. Currently, few jurisdictions keep publicly available data on racial or gender diversity in cannabis business ownership.¹⁸ The lack of follow through in impact tracking further clouds the cannabis equity landscape, and it is difficult to find consistency among tracking efforts when the industry is not yet even working from a common definition of social equity.¹⁹

11 Berman, "Tracking Equity."

12 Swinburne and Schell, "Adult-Use Cannabis Social Equity Tool Kit."

13 "Social Equity Legislation in Cannabis: A National Study of State and Local Approaches."

14 Swinburne and Schell, "Adult-Use Cannabis Social Equity Tool Kit."

15 "Social Equity Legislation in Cannabis: A National Study of State and Local Approaches."

16 "What Is in the Law Social and Economic Equity."

17 Berman, "Tracking Equity."

18 Barcott, Whitney, and Bailey, "The US Cannabis Industry Now Supports 428,059 Jobs."

19 Bailey, "Seeds of Change: Strategies to Create an Equitable Cannabis Industry."

Advocates emphasize the importance of quantifying racial disparities to justify race-based metrics and ensuring comprehensive tracking and evaluation of equity efforts to improve outcomes and public engagement.

The existing performance indicators for measuring equity to date include cannabis product revenue; cannabis product sales distribution; cannabis license ownership, including partial ownership, by key demographic indicators; license ownership categories and corresponding revenue; medical marijuana patient totals, including new registrations; cannabis tax revenue; cannabis tax revenue disbursements; and geographic location of cannabis businesses, including retail stores, manufacturing facilities, and farms.²⁰ However, to fully promote equity, additional metrics are needed to address workforce diversity, wage equity, career advancement, access to financing, and community reinvestment. Tracking the success of equity program participants, reductions in barriers to entry, and the impact of cannabis tax revenue on affected communities can ensure more comprehensive accountability. These expanded metrics will help monitor the industry's efforts to repair historical injustices and build an inclusive and sustainable ecosystem.

20 Bailey, "Seeds of Change: Strategies to Create an Equitable Cannabis Industry."

KEY TAKEAWAYS

- The impact of cannabis prohibition in New York State has been disproportionately high on Black and Latinx communities of NYC, specifically low-income neighborhoods in the Bronx, Brooklyn, Manhattan, Queens and Staten Island.
- Cannabis Social Equity refers to initiatives and programs designed to rectify the historical injustices and systemic inequities and support individuals and communities disproportionately impacted by past cannabis enforcement.
- Cannabis Industry Equity refers to the comprehensive inclusion and support of communities disproportionately affected by cannabis prohibition. It primarily targets programs and policies to prioritize individuals and businesses in these communities' access to resources, licensing opportunities, and financial support.
- Several states, including New York, have introduced social equity programs with cannabis legalization to address the harms of cannabis prohibition. The impact of these programs to date has been inconclusive or underwhelming, and there is no agreed-upon definition of equity in cannabis and the corresponding impact metrics.

Workforce Development Needs and Interventions

New York City's cannabis industry offers significant career opportunities in plant-touching and ancillary roles, requiring comprehensive workforce development programs. Strategic interventions are essential to address racial and gender wage disparities and improve job quality through better wages, benefits, and safety regulations. Equitable workforce development should leverage educational institutions, apprenticeships, unions, and tailored programs to build in-demand skills and foster career advancement, integrating underrepresented groups into the cannabis workforce.

The cannabis industry in NYC has the potential to create numerous career opportunities in cannabis businesses and supporting industries. Workforce programs and policies must ensure these opportunities are equitable in job quality, accessibility, and career advancement while connecting workers to training in in-demand skills and jobs.

THE CANNABIS WORKFORCE LANDSCAPE

Occupational Definitions

Cannabis jobs encompass numerous occupations broadly organized into plant-touching and ancillary roles. Workers in plant-touching jobs directly interact with the cannabis plant. These workers include breeders of cannabis strains (with jobs in lab operations and sample collection), cannabis cultivators (with jobs in cultivation, nursery operations, and trimming), processors (with jobs in extraction, infusion, processing, and packaging), retail (including jobs in management, inventory, and sales), and distribution (with jobs in delivery, logistics, and inventory).²¹

Ancillary jobs support cannabis business operations without directly involving cultivation, manufacturing, or selling cannabis products. These roles provide essential products or services such as administrative assistance, sanitation, security, training, HR, payroll, HVAC, construction, IT, legal/compliance, and accounting.²²

Job Growth Projections

The number of cannabis jobs, both plant-touching and ancillary, is growing rapidly across states with legal markets, particularly in those with legal adult-use markets. As of February 2023, the 21 states with legal adult-use markets supported a total of 321,361 full-time jobs, while the 19 states with medical-only

markets supported 96,132 full-time jobs.²³

*Due to its market size, New York State (NYS) is projected to be a significant driver of cannabis job growth in the United States. A 2023 jobs report estimated that the 300 retail licenses approved at that time could create 6,000 to 8,000 jobs in the legal cannabis market within a year. The scale of future job growth will depend on the speed at which new license holders secure funding, build out their spaces, and begin operating.*²⁴

Cannabis Workforce Equity

While the number of cannabis jobs grows, ensuring that these jobs present equitable and accessible opportunities for people most impacted by prohibition remains complex. Equity considerations for the cannabis workforce include job quality elements like wages, benefits, and safety; access to job opportunities; and opportunities for career advancement.

Job Quality

Racial and Gender Wage Dynamics

Researchers and advocates warn that without intentional action, racial and gender wage disparities in cannabis jobs could mirror those in the broader economy.²⁵ Cannabis jobs are emerging in agriculture, manufacturing, retail, and hospitality—sectors

21 Uzialko, “Cannabis Industry Growth Potential for 2023”; “Cannabis Career Exploration.”

22 “Career Guide.”

23 Barcott et al., “Jobs Report 2023.”

24 Barcott et al., “Jobs Report 2023.”

25 Cooper and Hickey, “Ensuring the High Road in Cannabis.”

with traditionally low or racially disparate wages. Farm labor contracts often lead to underpayment. In manufacturing, as of 2021, women earned lower median hourly wages than men, and white workers earned more than Black and Latinx workers. Retail workers typically lack paid vacations, sick leave, and employer-provided health insurance.

However, the high demand for cannabis workers may introduce different trends. A 2020 staffing firm report indicated that entry-level wages for growers and horticulturists were slightly higher than average nonsupervisory farm worker wages. A 2023 report found that median salaries for full-time cannabis workers in New York range from \$40,000 for budtenders and plant trimmers to \$100,000 for dispensary and delivery managers.²⁶

Health and Safety Risks

Job quality in cannabis includes concerns about health and safety risks, particularly in cultivation and processing. Extraction processes often involve flammable solvents, yet most states with legal markets lacked proper safety guidance as of 2019. In the five states offering guidance, worker safety protections were deemed inadequate by fire safety officials. Unions have called for more certification training for handling machinery and equipment.²⁷ The Center for Disease control (CDC) noted that cultivators face repetitive work, increasing the risk of musculoskeletal disorders, especially during hand-trimming activities.²⁸

Access to Job Opportunities

As cannabis job opportunities grow, raising awareness among job seekers remains a challenge. The Cannabis Workforce Initiative (CWI), a partnership between Cornell ILR and the Workforce Development Institute (WDI), conducted a national industry survey and workforce needs assessment in 2022. Many respondents cited a lack of awareness about

diverse job opportunities as a barrier to social equity in hiring. Respondents also noted inadequate transferable and industry-specific skills among potential workers.²⁹

Workforce development programming is needed to build these skills, but funding remains a barrier. Federal prohibitions prevent established federally funded workforce programs from including cannabis jobs.³⁰ Existing career programs struggle to add cannabis jobs without compromising federal funding.

Unions can help by providing workforce development programming. Some cannabis union contracts commit to racial equity and certified apprenticeship programs. In other industries, unions have provided specialized skills training and apprenticeships, advancing equity in job placements for women and Black, Indigenous, and People of Color (BIPOC) workers. Unions also support previously incarcerated job seekers through partnerships with vocational programs and reentry agencies.³¹ New York law requires new cannabis licensees to enter into a Labor Peace Agreement (LPA), which commits the employer not to interfere with union organizing.³²

Educational Institutions

Cannabis companies increasingly turn to universities for researchers with backgrounds in plant science, microbiology, chemistry, and other sciences. Advocates recommend expanding cannabis vocational programs in state schools and community colleges to reduce barriers to high-paying jobs and offering scholarships to interested students.³³

26 "Cannabis Salary Guide - 2023 Edition."

27 Rainey, "New Problem for Legal Weed."

28 Victory, "Notes from the Field."

29 Cannabis Workforce Initiative, "Summary Report on Industry Workforce Needs Assessment Survey."

30 Henry-Nickie and Hudak, "It Is Time for a Cannabis Opportunity Agenda."

31 Cooper and Hickey, "Ensuring the High Road in Cannabis."

32 "What Is a Labor Peace Agreement Under MRTA?"

33 Bailey, "Seeds of Change: Strategies to Create an Equitable Cannabis Industry."

Career Advancement

Although hourly wages in cannabis are consistent with other industries, workers can advance quickly due to the industry's newness.³⁴ As businesses grow, employers prefer to hire from within, as current workers require fewer onboarding resources. Cultivation and processing roles often require knowledge of chemistry and agricultural practices, positioning workers for rapid advancement.³⁵

States allowing vertical integration—where businesses control multiple production and distribution stages—enable workers to make simultaneous lateral and upward transitions, boosting wages and benefits. However, career advancement opportunities remain largely anecdotal, with workers in most industries facing similar challenges to upward mobility due to experience and credential requirements.³⁶

OPPORTUNITIES IN NYC CANNABIS WORKFORCE DEVELOPMENT

In-Demand Knowledge and Skills

NYS's Social and Economic Equity (SEE) Plan anticipates that NYC will see a concentration of licenses for retail dispensaries, on-site consumption, delivery services, and processors.³⁷ This section details skills and training types that are most in-demand for workers who will staff businesses with these licenses, as well as ancillary occupations that will support them.

Budtenders/Retail Dispensary Sales Staff

Among the most in-demand skills for retail workers are excellent customer service and communication abilities. Dispensary staff play a crucial role in guiding

customers, requiring training in product knowledge and customer service.³⁸ Employees also benefit from skills in all aspects of retail sales, including inventory management, customer tracking, and handling product recalls and returns. Proficiency in using point-of-sale systems is essential for streamlining cash handling, sales, and customer tracking processes. Additionally, dispensary employees must be well-versed in relevant regulations to ensure compliance.³⁹

Inventory Management Specialists

Inventory management specialists ensure effective inventory control and compliance with regulatory guidelines. They oversee tracking, scheduling, monitoring, and recording cannabis products. These roles require knowledge of safe cannabis handling, preventing sales to underage individuals, security and surveillance, emergency procedures, compliance with inventory tracking systems, and waste disposal.⁴⁰ Proficiency in using point-of-sale systems to track inventory, monitor demand patterns, and stay informed about evolving regulations is vital for success in this role.⁴¹

On-Site Consumption Staff/Managers

Workers in on-site consumption operations benefit from experience in hospitality and customer service. They need knowledge of cannabis products to assist customers in learning about and choosing products. Managers in these facilities must be skilled in staffing, scheduling, and record-keeping and knowledgeable about cannabis regulations and labor laws.

Delivery Drivers and Dispatchers

Entry-level positions in delivery and logistics involve assisting with storage, distribution, and delivery. Workers in the delivery portion of the cannabis supply chain typically don't need specialized industry knowledge, but experience in driving or dispatching is generally required.

34 Bhattarai, "Greener Pastures."

35 Vangst, "2022 Cannabis Industry Guide."

36 "Ensuring the High Road in Cannabis."

37 "NYS SEE Plan."

38 Catt, "Skill, Training Gaps Are Obstacles for NYS Cannabis Workforce."

39 Klein, "Training for Marijuana Dispensary Staff."

40 "Cannabis Career Exploration."

41 "Basics of Cannabis Inventory Management"

Processors

Processor jobs include positions in facilities that conduct extraction (converting plant material to concentrated cannabis oil) or infusion (creating products with extracted cannabis oil). Entry-level positions are available in packaging or processing, with some roles directly supporting extraction and infusion work. These positions provide experience toward higher-level roles such as technician positions and quality control management. Many processor roles require specialized degrees in chemistry, biology, or other sciences.

Cultivation

While cultivation is not expected to be a large sector in NYC, it will emerge through urban agriculture and indoor growing. Cultivators play a vital role in growing cannabis plants and harvesting their flowers, which are then sold to dispensaries or supplied to processors for conversion into cannabis oil and various infused products.

Training for cultivation involves a comprehensive range of skills, including:

- Cultivation strategy and planning
- Cloning and transplanting techniques
- Feeding and trimming tasks
- Pest management
- Environmental monitoring
- Harvesting
- Record-keeping

Ancillary Occupations

The cannabis sector relies on diverse ancillary and support services. These positions may be filled by either cannabis business employees or by outsourced to independent contractors hired on a service basis. Entry-level positions include administrative and clerical tasks, brand ambassadors, custodial duties, catering, and facility maintenance.

Experienced individuals are sought for roles such as security, equipment technicians, trainers/educators, HR, marketing, payroll, and construction.⁴² The industry also demands highly skilled professionals in IT, accounting, government affairs, research, legal, and sustainability. The need for diverse skill sets reflects the multifaceted nature of the cannabis sector.

Transferable Skills

Similar to other industries, the cannabis sector requires a workforce with diverse expertise in areas like sales, marketing, retail, HR, finance, accounting, and legal compliance. Consequently, cannabis companies often hire professionals from analogous industries, even without direct cannabis experience.⁴³

The Cannabis Workforce Initiative's (CWI) 2023 career guide outlines transferable skills commonly held by legacy cannabis operators, veterans, and individuals from related industries. For example, legacy cannabis operators bring experience in cash management, procurement and logistics, product knowledge, organizational management, and branding and marketing. Veterans offer a strong sense of discipline and compliance, applicable to operations, machinery, record keeping, security, and regulatory compliance.

The guide also highlights hard and soft skills transferable from customer service, manufacturing and production, research and development, sales and marketing, and compliance and regulation. Startup experience is particularly valuable as the legal cannabis industry evolves, requiring individuals who can think creatively, multitask, and collaborate across disciplines. Additionally, expertise in finance and accounting is in high demand due to ongoing challenges with banking and cash flow management.

⁴² "Cannabis Career Exploration."

⁴³ Romsey, "Transferring Professional Skills to the Cannabis Industry."

With a willingness to adapt and learn in a rapidly changing environment, workers with these skills and experiences are well-suited for roles in the cannabis industry.

Cannabis Education and Training

Industry Education

While most available cannabis jobs are entry-level and do not require degrees or certifications, job seekers with qualifications in cannabis studies and relevant training are more likely to stand out.⁴⁴ For example, cannabis-educated workers in dispensaries, equipped with the latest industry knowledge, provide better customer service, ensure satisfaction, drive sales, and maintain regulatory compliance.⁴⁵ Some positions require specific industry knowledge. To meet the demand for skilled workers, education providers—including accredited schools, education accreditors, industry actors, and proprietary institutions—offer programs both on-line and in various locations. Fundamental courses in cannabis cover the industry’s history, regulatory compliance, career pathways, and health and safety, typically in three areas: cultivation, processing and manufacturing, and retail.

Traditional accredited institutions have been slower to offer cannabis-related courses, focusing instead on credit-based certificates, minors, and undergraduate and graduate degrees. In NYC, institutions such as Medgar Evers College, Lehman College, Borough of Manhattan Community College, Bronx Community College, LIM College, and New York University offer these programs.

More industry-ready training is provided by self-regulated proprietary trade schools, often known as cannabis schools. With state-level legalization, numerous cannabis schools have emerged, branding themselves as colleges, universities, or institutes to establish credibility. These schools offer cannabis-related on-line training and issue unique certificates and micro-credentials.⁴⁶ Micro-credentials are short programs that offer some form of recognition of skills and knowledge gained.

The effectiveness of these programs in securing high-quality jobs has not been independently evaluated. However, their lower cost and shorter duration compared to traditional degree programs make them more accessible. Online cannabis colleges offer flexibility, allowing students to learn at their own pace with 24/7 access to course materials. This flexibility is ideal for those balancing college, work, and family responsibilities.

Credentials and Certifications

Amid the unregulated yet highly demanded landscape of cannabis education, independent schools have taken steps to address the lack of standardized training. Notably, Green Flower and Cannabis Training University have developed credentials approved by multiple cannabis employers.⁴⁷ These emerging credentials that are still unknown have the potential to offer structure to the field.

Credentials demanded by the industry are beginning to emerge as well. NYS put forward a regulation that requires all adult-use cannabis licensees to provide Responsible Vendor Training (8 hours per year of training on a set of topics they have defined in the regulations) to all employees performing activities under their authorization.⁴⁸ In response, several trade

⁴⁴ “Career Guide.”

⁴⁵ “Why Budtender Training Is So Important for Cannabis Dispensaries.”

⁴⁶ Leventhal and Sedhai.

⁴⁷ Summers, “Jushi Holdings Inc. Joins Green Flower’s New GF Institute to Promote and Establish Cannabis Credential Program”; Chambers, “6 Best Training Services for Cannabis Businesses in 2022.”

⁴⁸ “New York Responsible Vendor Training - NY Cannabis Training.”

schools began offering the training.

The Cannabis Employment and Education Development (CEED) initiative of the NYS Department of Labor has curated an extensive catalog of cannabis educational programs for job seekers. This list includes free professional and specialized skill training opportunities accessible through Coursera, as well as academic programs offered by New York educational institutions. These academic offerings include cannabis-related majors, minors, and micro-credentials in areas such as business administration, retail, horticulture, production, manufacturing, biology, health, and law.⁴⁹

[Apprenticeships](#)

Apprenticeship models in the cannabis industry are less common than educational programs. Typically, apprenticeships or on-the-job training become accessible only after individuals are hired by a cannabis employer. However, a few noteworthy apprenticeship initiatives have emerged. One such initiative is the Equity Pathways Industry Apprenticeship Program, launched by Success Centers.⁵⁰ This program equips Black San Franciscans with skills and knowledge through on-the-job training, helping them secure full-time positions within the industry. Components of the program include an expungement clinic, resume clinic, virtual hiring events attended by employers, and bimonthly workshops tailored for cannabis job seekers from disproportionately impacted communities.⁵¹

Two government-run workforce initiatives have also been identified to foster apprenticeship opportunities in the cannabis sector. In New Jersey, the Cannabis Apprenticeship Initiative trains workers for cannabis retail positions.⁵² This pilot program

offers a comprehensive curriculum with 144 hours of classroom training, both in-person and on-line, along with 2,000 hours of practical training working with cannabis employers. San Francisco's CityGrow program, meanwhile, focuses on preparing and placing low-income job seekers into cultivation roles.

Multi-state operator Cookies hosts the Cookies Social Impact Program, an apprenticeship program geared toward individuals disproportionately impacted by cannabis prohibition. The program offers free, practical cannabis training. Although it does not guarantee a job for participants, it remains a rare example of a hands-on program in the industry.⁵³

[Equitable Workforce Development Best Practices](#)

The research identified best practices for providing career pathways in the cannabis industry to members of disproportionately impacted communities. A national scan of the cannabis workforce landscape and an in-depth review of three program case studies— offered by Oaksterdam University, Cookies University, and Cannabis Education Center— revealed the following key takeaways:

[Importance of Partnerships in Program Success](#)

Partnerships are essential for the effective operation and governance of workforce programs, significantly enhancing their overall impact. These collaborations offer various benefits, such as access to resources and funding, increased credibility and legitimacy, broader outreach, and support for creating an inclusive and diverse industry. Engaging with diverse organizations, including companies, educational institutions, nonprofits, and government agencies, provides access to resources beyond the reach of independent programs. Additionally, such partnerships facilitate the exchange of knowledge and expertise, enriching participants' educational experiences.

[Metrics for Program Success](#)

49 "Cannabis Education."

50 Success Centers is a nonprofit organization based in California with the mission to empower marginalized communities through education, employment and art.

51 "Equity Connections – Success Centers."

52 "NJ's Cannabis Apprenticeship Training Initiative Seeks Apprentices."

53 Friedman, NYC Cannabis Equity Study | Interview.

Program completion and job placement are primary metrics for evaluating the effectiveness of workforce programs, with a significant emphasis on the diverse backgrounds of participants and alumni. Post-program job placement is considered the premier indicator of success and reflects a program's commitment to a career-connected curriculum and leveraging industry partnerships. The effective transition of participants into the workforce is further gauged through employer satisfaction and job retention rates.

Long-term Benefits of Exposure to Various Sectors and Occupations

Providing participants with a comprehensive understanding of different facets of the industry helps them make informed career decisions. Participants often enter these programs with limited knowledge of various roles and responsibilities. This approach helps them overcome preconceived notions and assumptions, enabling them to align their skills and passions with suitable roles. Gaining insights into the responsibilities and tasks of different occupations leads to better career alignment and job satisfaction.

Role of Support and Wraparound Services

Support services are crucial in alleviating financial pressures and enhancing participant engagement. Financial support, including scholarships, subsidized courses, and flexible payment plans, reduce education barriers, particularly for marginalized individuals. Comprehensive wraparound services extend beyond financial support to include housing, childcare, groceries, and transportation. These services create an environment where participants can fully focus on their programs and pursue career paths without financial constraints.

Balancing Industry Needs with Participant Capacity

Meeting the demands of a fast-growing industry requires flexible and adaptive programs that balance employer and local market needs with participants' capacities. Most programs are short, ranging from a weekend to a few months, with cohorts typically

consisting of 20 to 30 participants. Many programs offer online options and flexible hours to increase accessibility. Regardless of modality, curricula must be tailored to the local industry landscape and regulations to ensure participants acquire the foundational knowledge necessary for entry-level roles. Responsible Vendor Training, mandated by regulation, is highlighted as a key component for workforce participants and provides an opportunity for meaningful education.

An overview of national and local cannabis workforce programs is presented in Exhibit 3 and 4 of the Appendix A.

Worker Pathways

Cannabis workers have several potential paths within the supply chain. The illustration on page 24 provides examples of career pathways within each sector, highlighting the diversity of roles available and wage ranges. Each sector offers unique opportunities for skill development and career growth, reflecting the dynamic nature of the cannabis industry. Detailed descriptions of transferable skills required for each sector for transitional workers from other industries, legacy cannabis workers, and veteran personnel are included in Appendix B. These career profiles include information about job titles, education, and experience requirements for employers at all levels from early career to highly skilled levels.



The CJEI program provides accessible and culturally relevant learning opportunities, building on the legacy skills of justice-involved participants. This asset-based program focuses on skill and knowledge transferability, demystifying opportunities in the cannabis industry. Combining classroom learning, guest speakers, and site visits, CJEI imparts core knowledge about the legal cannabis market. It also offers soft skill support, such as resume building and mock interviews, alongside wrap-around services like the Justice Lab, which provides free legal assistance. By maintaining strong employer relationships, CJEI ensures career-connected opportunities for participants.

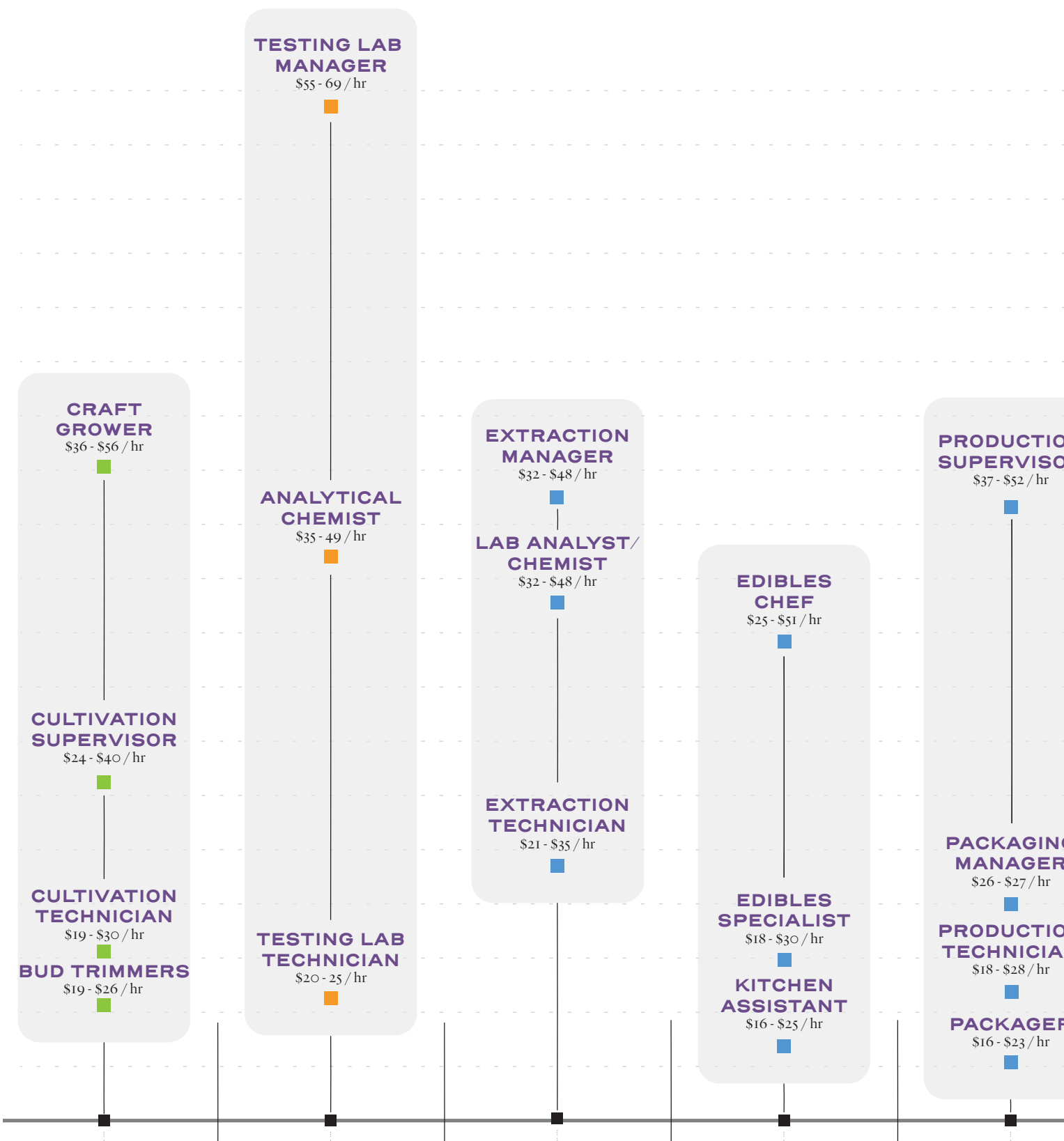


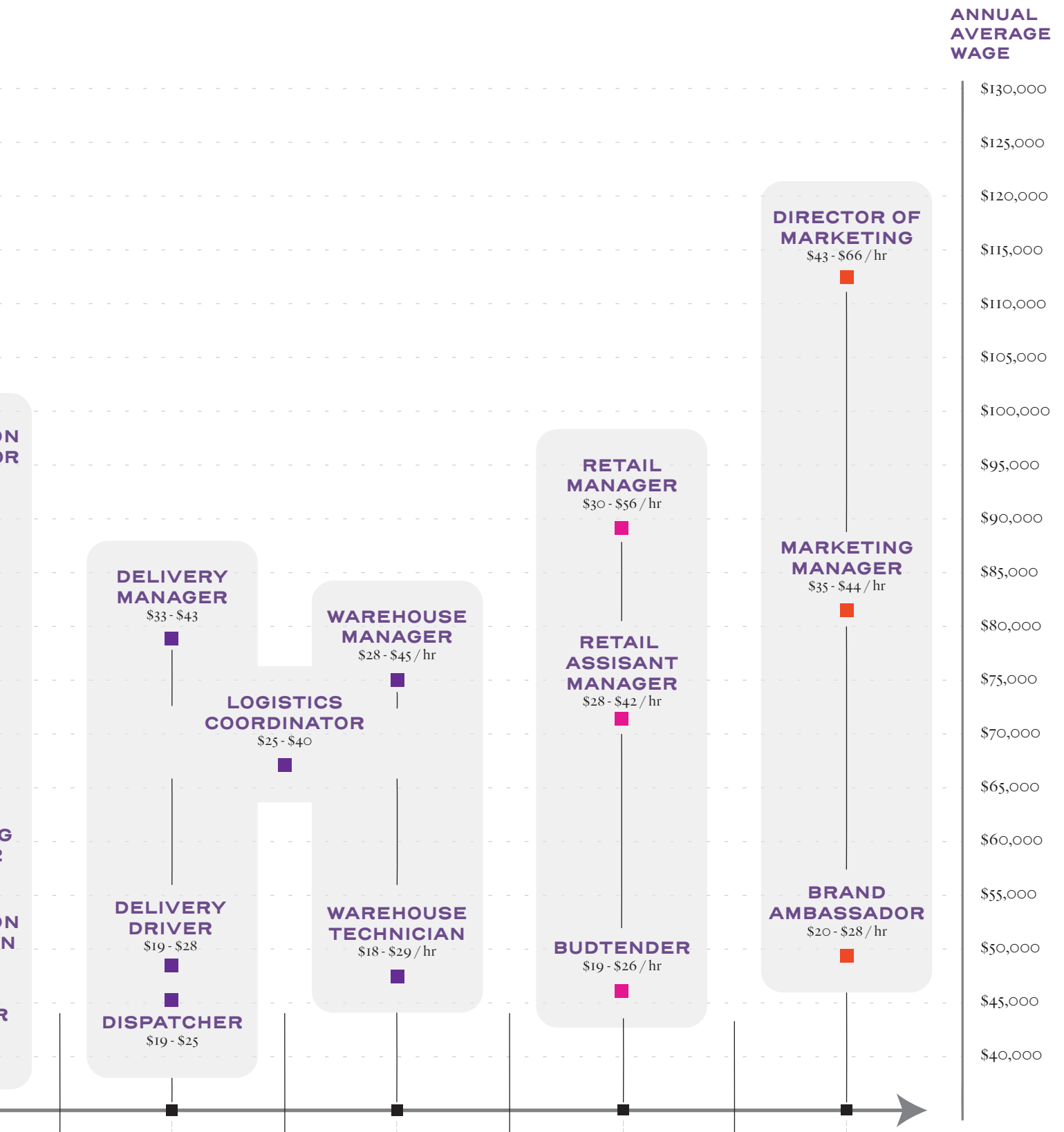
KEY TAKEAWAYS

- The cannabis industry in NYC offers significant career opportunities, necessitating workforce programs that increase the awareness and understanding of careers, promote job quality, accessibility, career advancement, and provide training in in-demand skills.
- Cannabis equity primarily focuses on entrepreneurship; however, owning a cannabis business is not for everyone.
- Ensuring equitable opportunities in cannabis jobs is complex. It requires attention to job quality aspects like wages, benefits, and safety, as well as access to opportunities and career advancement. Wrap-around services and support are also needed to address racial and gender disparities.
- Advancing job quality in cannabis is challenging because employers are resource-constrained due to high capital and operational expenses, taxes, and legislation restricting the operation and financing of cannabis businesses.” While the industry is behind in traditional job quality metrics like benefits or family-sustaining wages, job seekers are ultimately interested in careers with upside potential and growth.
- Access to career-connected tangible work experience or training is difficult. Licensing and regulatory constraints often make the plant-touching experience unattainable for workforce development programs and participants, and employer-connected training opportunities with a guaranteed job at the end of the program are elusive.

CAREER PATHWAYS IN CANNABIS

■ Craft Cannabis ■ Lab Testing ■ Manufacturing & Processing ■ Distribution ■ Retail Dispensary ■ Ancillary





Entrepreneurial Needs and Interventions

New York City's expanding cannabis entrepreneurial landscape offers opportunities, especially for social equity applicants, but faces challenges like complex regulations, securing licenses, and high operational costs. Critical needs include access to capital, compliant real estate, and comprehensive operational support. Effective interventions involve financial aid, incubator programs, and government and private sector support to foster equitable and sustainable growth in the cannabis market.

Many NYC residents actively pursue various opportunities for cannabis entrepreneurship, including those eligible as social equity applicants. These entrepreneurs face challenges in obtaining licenses and maintaining compliant businesses. Public and private resources are emerging to support cannabis entrepreneurs, but there are still need and opportunity to ensure that underrepresented entrepreneurs can own and operate successful cannabis businesses.

THE CANNABIS ENTREPRENEURSHIP LANDSCAPE

Summary of Licensable Opportunities

Adult-Use Cannabis Licenses

NYS's adult-use cannabis licensing opportunities for entrepreneurs are separated into supply-side and retail-side opportunities, with a few exceptions. Licenses are listed in Table 5.

The first licenses issued were Conditional Adult-Use Retail Dispensaries (CAURD), a category reserved for applicants who meet specific criteria,

including justice involvement and qualifying business experience –applications for all other licenses opened in October 2023. Registered organization with dispensing (ROD) & registered organization non-dispensing (ROND) applicants must have at least four medical dispensing sites in NY.

By the end of 2023, the state had issued or provisionally approved nearly 6,200 licenses, permits, and registrations. Among them were 279 adult-use conditional cultivator licenses, 40 adult-use conditional processor licenses, and 463 adult-use retail dispensary licenses. Only 41 adult-use retail dispensaries, including 12 Black-owned dispensaries, had opened for business.⁵⁴

Ancillary Opportunities in Adult Use Cannabis

Ancillary businesses specialize in offering products or services that support plant-touching companies or businesses that interact with the cannabis plant or extracted material. Ancillary opportunities are induced by the emerging adult-use market either by the initial needs of entrepreneurs looking to start a business or by the needs associated with maintaining and operating a profitable, compliant business.

⁵⁴ "Annual-Report-2023-Final.Pdf"

Table 5: NYS Adult-Use Cannabis Licenses

NYS License Type	Opportunity Type	
	Retail Side	Supply Side
Retail Dispensary	✓	✗
Delivery	✓	✗
On-Site Consumption	✓	✗
Cultivator	✗	✓
Processor	✗	✓
Distributor	✗	✓
Nursery	✗	✓
Microbusiness	✓	✓
Cooperative or Collective Ownership	✓	✓
Registered organization with dispensing (ROD) & Registered organization non-dispensing (ROND)	✓	✓

STATE OF THE NYC CANNABIS MARKET

Current State

The total potential size of New York's adult-use market has been estimated at \$1.74 billion to \$3.5 billion annually.⁵⁵ Based on employment data in more mature markets like Colorado, Washington, and Oregon, a conservative \$1.74 billion market in New York has the potential to directly employ 21,000 workers.⁵⁶ If the market in New York reaches \$3.5 billion, it could employ 43,400 people.⁵⁷

Adult-use cannabis sales in the state of New York reached \$137 million in 2023.⁵⁸ The legal industry may never fully capture the full value of the adult-use market, but there is significant potential for market growth. Early license issuance was severely delayed: OCM expects the number of operating adult-use licensed retailers to increase from 41 in 2023 to more than 460 in 2024. Retail growth rates could drive demand for additional supply-side license types in the coming years. Additionally, microbusiness and cooperative license types have yet to be finalized by OCM and could further drive absorption, market activity, and jobs when they are made available.

Industry Segmentation

The adult-use cannabis industry falls into three supply chain categories: retail, cultivation, and manufacturing, which includes processing and extraction of the cannabis plant. Retail is projected to be the largest sector in terms of overall impact, number of licenses, establishments, and number of employees and can potentially account for almost 70% of the adult-use cannabis workforce. In contrast to retail, manufacturing can account for up to 22% of

the workforce and 9% of cultivation.

NYC is a global retail destination and is anticipated to become one of the largest adult-use cannabis markets. In addition to the residents and commuters, tourists will play a significant role in driving cannabis sales. Manhattan accounts for over half of all traditional retail sales in NYC.⁵⁹ The Social and Economic Equity (SEE) Plan states that with its sophisticated consumer base, diverse market potential, and thriving tourism base, NYC will benefit most from retail dispensaries, on-site consumption, delivery, and processor licenses. It is an ideal location for small-batch and craft cannabis businesses.⁶⁰

More mature markets show that innovative product lines developed by brands, processors, and microbusinesses take up increasing market share. As the microbusiness ecosystem in NYC grows, opportunities will be available for smaller-scale, vertically integrated cultivators. The SEE Plan highlights tier 3 processors (raw material suppliers for opportunity in NYC), which allows for branding, packaging, and labeling but not extracting or infusing. Nevertheless, there may be a need for extraction and infusing processing services within the boroughs. Otherwise, microbusinesses may face logistical challenges and increased costs associated with outsourcing these crucial aspects of production.

EQUITY IN CANNABIS ENTREPRENEURSHIP

Equity Considerations

New York's social equity goals encourage early adult-use market entry by SEE applicants, designated as entrepreneurs with prior cannabis-related criminal offenses, minority and women-owned businesses, distressed farmers, and service-disabled veterans.

55 "Assessment of the Potential Impact of Regulated Marijuana in NYS"

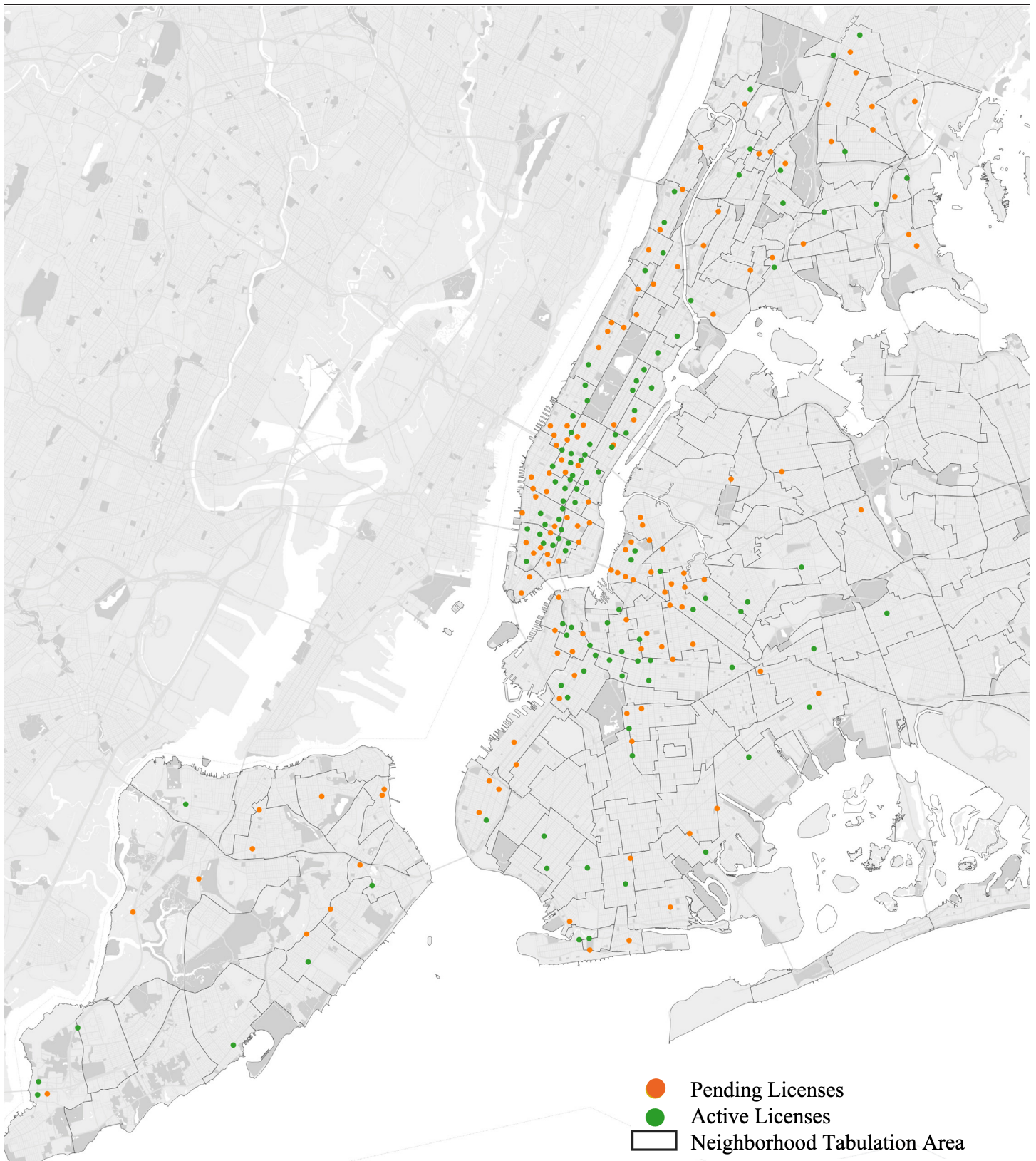
56 Every \$1 million in sales resulted in 12.6 full-time workers in Colorado, 12.4 full-time workers in Washington, and 11.1 full-time workers in Oregon.

57 Schultz, "The Economic Impact of Developing the Adult-Use Cannabis Industry in New York."

58 "Annual-Report-2023-Final.Pdf"

59 "The Retail Sector in New York City."

60 "Nys-See-Plan-English.Pdf"



Proximity Protected Locations for Adult-Use Retail Dispensaries & Registered Organizations Map

Source: <https://data.ny.gov/Economic-Development/Proximity-Protected-Locations-for-Adult-Use-Retail/tuiq-k9f8> (July, 2024)

The need to support social equity in cannabis entrepreneurship is evident in the disparate start-up rates nationally.⁶¹ While Black Americans made up 13% of the U.S. population in 2021, they owned only 1.2% to 1.7% of all cannabis businesses, and these statistics do not tell us whether that means majority ownership.⁶² In some cases, investors create deals disadvantageous to social equity applicants in exchange for funding or attempt to shift equity after licensing to avoid any potential requirements for majority ownership. However, stakeholders have noted that mandates that equity applicants own at least 50% of their business in other markets can also restrict options and, in some cases, create additional barriers.

Supporting equity in cannabis entrepreneurship requires addressing the biggest barriers to starting and maintaining a compliant cannabis business, especially barriers that are more likely to affect Black and Latinx entrepreneurs and others disproportionately impacted by cannabis prohibition.

Challenges for Starting Compliant Businesses

Capital Access

Access to capital to start and operate a cannabis business presents an enormous barrier for entrepreneurs seeking to enter the legal market. Many traditional channels are blocked for cannabis businesses. Because cannabis is still federally illegal, financial institutions are subject to U.S. Code 280e, which regulates dealings with businesses that traffic in controlled substances prohibited by federal law.⁶³ This regulation prohibits cannabis entrepreneurs from

accessing loans that jumpstart businesses in other industries, like federal Small Business Administration microloans, most loans and lines of credit from financial institutions, and even credit cards.

As a result, most cannabis businesses are funded through personal savings, friends and family, venture capital, or angel investors, all sources more likely to be available to white entrepreneurs. One reason is a disparity in personal income: in 2018, the median income was \$70,642 for a white household and only \$41,361 and \$51,450 for Black and Latinx households, respectively.⁶⁴ Another reason is a disparity in access to equity financing: in 2020, only 0.6% of all venture funding invested in U.S. companies went to Black-owned companies, and 1.7% went to Latinx-owned companies.⁶⁵

Even in cases where applicants can procure sufficient funding from personal savings or venture capital, there is a significant amount of risk involved in the investment. A lack of bankruptcy protection means that social equity applicants must put personal credit and finances on the line. Equity operators can experience predatory lending and often need to invest in intensive legal counsel for contract review to ensure that investors are not offering an unfair or unsustainable deal.

Securing a Location

For many CAURD licensees, securing a storefront has been the most difficult part of opening a dispensary. As of mid-year 2023, the state had issued 463 provisional CAURD licenses; all provisional license holders then needed to find suitable premises.⁶⁶ The \$200 million New York Social Equity Cannabis Investment Fund was created to support social equity licensees seeking leases for retail cannabis dispensaries, but only ten of the 15 Fund-supported sites in NYC have been matched with

61 “Social Equity Legislation in Cannabis: A National Study of State and Local Approaches.”

62 Domangue, “32% Cannabis Job Growth In 2020, Despite COVID-19”; Barcott, Whitney, and Bailey, “The US Cannabis Industry Now Supports 428,059 Jobs;” Swinburne and Hoke, “State Efforts to Create an Inclusive Marijuana Industry in the Shadow of the Unjust War on Drugs.”

63 “26 U.S. Code § 280E - Expenditures in Connection with the Illegal Sale of Drugs.”

64 Swinburne and Hoke.

65 Bailey, “Seeds of Change: Strategies to Create an Equitable Cannabis Industry”; Swinburne and Hoke.

66 Lisa, “We’re Confused.”

licensees.⁶⁷ As a result, many social equity licensees have opted to explore unlisted spaces on their own.

Interviews with CAURD license recipients highlight the daunting challenge of finding compliant properties, largely due to limited availability and strict timeframes. It is difficult to identify vacant locations that adhere to proximity rules, and among those appropriately located, landlords have been hesitant or unable to offer leases due to mortgage constraints or to an aversion to cannabis. Licensees are also adversely affected by delays in site plan approval, given the limited 12-month window within which they must secure and obtain approval. Provisional licensees meeting qualifying nonprofit criteria are granted an even more condensed timeline, having up to six months post-selection notification to secure a location and submit it for Office review and approval.⁶⁸

Additionally, a landlord's lack of familiarity with cannabis regulations can complicate the process of submitting a viable site plan proposal. An interviewee reported having to explain permissible activities and regulations to a broker, yet receiving examples that contradicted established guidelines. This situation illustrates the additional burdens licensees encounter during the property search process.

Market Access and Competition

Licensed cannabis businesses across the supply chain face competition from unregulated gray markets or unlicensed retailers. The gray market benefits from its ability to avoid the financial burdens of taxes and regulatory expenses, thus offering cannabis products at more attractive prices. They also often fail to follow laws that prevent marketing practices targeting minors.

New York's early responses focused on cease-and-

desist letters to gray market operators. These measures had limited success. In February 2023, the Manhattan District Attorney's Office began using New York's Real Property Actions and Proceedings Law to notify landlords of their obligation to evict unlicensed cannabis operations.⁶⁹ In May 2023, state legislation increased penalties against unlicensed dispensaries, authorizing fines of \$10,000 per day with potential additional consequences (up to \$20,000 a day), and allowing the OCM to pursue closing orders, court orders, and removal of unlicensed retailer tenants.⁷⁰ Yet high fines may not be enough to fully deter gray market operators, as many own multiple operations across the city. As many as 2,000 unlicensed sellers may have been operating in NYC in November 2023.⁷¹ In May 2024, Mayor Adams launched a program called "Operation Padlock to Protect" that furthered enforcement efforts by fully shutting down unlicensed shops. In its first week, the program led to the sealing of 75 locations and an issuance of almost \$6 million in penalties.⁷²

Recent policy changes have further harmed the promised advantage to CAURD license holders. To expand retail channels, accelerate business, and make the legal market more competitive against the gray market, the OCM reconsidered allowing medical cannabis operators in the state to apply for adult-use retail licenses. By overturning the promised 3-year waiting period of social equity retailers to establish a first-to-market advantage before contending with larger Registered Organizations (Multi-State Operators, or MSOs), the OCM approved six MSOs to commence adult-use retail sales by the end of December 2023. This modification enables vertically integrated MSOs to operate across the supply chain and alters the market's competitive

67 Adams, "Social Equity' Legal Weed Dealers Prepare to Bail on Stagnant Funding Program"; "SESC and the Conditional Adult-Use Retail Cannabis Dispensary Program | DASNY."

68 "CAURD Nonprofit FAQ."

69 Malyshev et al., "Weeding out Gray Market Cannabis Operators Presents Special Challenges for States."

70 Prater, "New York Is Getting Serious About Busting Gray-Market Weed Shops."

71 Casacchia, "Progress Too Slow for Marijuana Social Equity Entrepreneurs."

72 "Mayor Adams Announces 75 Illegal Smoke and Cannabis Shops Ordered Closed, Nearly \$6 Million in Penal."

landscape.

Challenges for Maintaining a Compliant Business

Operating Costs

Entrepreneurs often need additional financing for operations after start-up. Traditionally, a business might open a line of credit to supplement the gap in cash flow between purchasing inventory and profiting from its sale. This option is not readily available to cannabis businesses.

Cannabis businesses face myriad other costs, including security, compliant point-of-sales (POS) systems, track and trace systems, insurance, and taxes. State regulations mandate that adult-use retail dispensaries install alarm systems that include video surveillance in all areas where cannabis products may be stored or displayed. Dispensary businesses spend an average of \$25,000 for a compliant POS system, security system, and inventory management.⁷³ All cannabis licensees are required to use an electronic system that tracks cannabis through the supply chain and can sync with BioTrack, OCM's official traceability system, but this requirement comes at a high cost.⁷⁴ One licensee expressed frustration at paying \$1,000 a month to connect to the track and trace system.⁷⁵

Not enough insurance companies will take on the risk of insuring cannabis businesses. Increasing demand for coverage coupled with a limited supply of carriers, has raised prices for insurance, and these prices are expected to remain high until enough other carriers enter the market.

The intricate nature of the THC potency tax, with its tiered structure based on THC content

and varying rates for different cannabis product categories, requires meticulous record-keeping that is expensive for small businesses. Moreover, cannabis businesses are unable to write off many expenses that are typically deductible for other industries. Despite being able to deduct the cost of goods sold,⁷⁶ cannabis businesses face a notably higher tax liability, excluding overhead expenses like advertising, wages, rent, legal fees, security devices, and travel expenses from tax deductions.⁷⁷

Operational Practices

Many equity operators have very small teams, usually one to three full-time employees along with targeted assistance from friends or family. Small operations are effective when the team is diversely experienced, but often key operational competencies are missing and require new hires.

Key operational needs include accounting, human resources, and marketing. Accounting is critical; slip-ups can result in costly legal fees, back taxes, or closure. Cannabis businesses require specialized skills to keep sound records because cash is overutilized and the cannabis industry has strict tax rules.⁷⁸ Human resources practices are also a challenge: businesses must comply with employment laws in addition to being able to find, train, and support a good team. Cannabis marketing requires capacity and expertise to comply with New York laws, which prohibit advertising that depicts consumption, promotes cannabis for wellness, or appeals to children, among other restrictions. Businesses must also be aware of prohibited places for ads.⁷⁹

73 Cohen, "How Much Does It Cost to Open a Cannabis Dispensary?"

74 "NYS BioTrack THC: Electronic Inventory Tracking System FAQs."

75 "New York State Cannabis Control Board Meeting - Meeting Minutes."

76 Cannabis producers are allowed to deduct direct costs associated with the production or purchase of goods they sell, including the cost of acquiring marijuana from growers and transportation costs.

77 "Providing Resources to Help Cannabis Business Owners Successfully Navigate Unique Tax Responsibilities | Internal Revenue Service."

78 Moore, "The Importance of Proper Accounting for Cannabis Businesses."

79 "Section 86 - Adult-Use Cannabis Advertising and Marketing, N.Y. Cannabis Law § 86 | Casetext Search + Citator."

OPPORTUNITIES IN NYC CANNABIS ENTREPRENEURSHIP

Government, private, and nonprofit actors are working to promote opportunity in cannabis entrepreneurship by creating access to services and supportive infrastructure. These resources may begin to address the challenges of starting and maintaining a compliant business.

In-Demand Resources

Often, solutions to business challenges are filled by other businesses and can be subsidized by nonprofits or government. New and prospective cannabis businesses need the following services:

- Commercial property, construction, and business equipment services, including securing a compliant space and acquiring and installing equipment.
- Industry consultants and professional services, including legal services, accounting and financial services, and services like insurance and industry consulting. These services are cost-prohibitive for many social equity applicants and are often provided by nonprofits.

The top needs of current legally operating adult-use cannabis businesses include:

- Software and technology, including product tracking, POS, electronic security, and CCTV.
- Industry consultants and professional services, including legal services, accounting and financial services, insurance, human resources, and IT experts.

The services listed above constitute opportunities for ancillary businesses to enter the market. Even more accessible opportunities for ancillary businesses include:

- Marketing, media, and event products and services, which are essential to building a loyal customer base. There are also opportunities to host industry events and trade shows.

- Security firms, which can contract with retailers or commercial building operators.

Equity and Incubation Strategies

Cannabis Entrepreneurship Programs and Incubators

OCM collaborates with government and academic partners to connect SEE applicants to services addressing the challenges of starting and maintaining a compliant business, especially those disproportionately affecting individuals eligible for social equity status.

Entrepreneurship programs cater to the unique needs of social equity applicants locally and nationally by providing training and/or mentoring services throughout the application, ideation, development, launch, and initial operating years. These programs seek to equip participants with the knowledge and skills to navigate complex regulatory frameworks, create resilient business models, and establish strong networks within the industry. Incubators lower costs for in-demand services by offering shared resources, including office space, equipment, and services like pro-bono legal and free application processes. Some programs offer direct access to capital through grants, loans, and discounts, along with networking opportunities for additional funding.

The landscape of entrepreneurship programs, while beneficial, has room for improvement. Some incubators fail to deliver the extensive curriculum necessary for managing processing, manufacturing, and retail businesses⁸⁰ Support tailored to specific license types is most effective.

Equitable Fee Reductions and Opportunities

OCM is actively promoting adult-use opportunities for SEE entrepreneurs by facilitating reduced fees, direct support programs, and prioritized license review to support their entry and success in the

⁸⁰ “NYSEE Plan.”

cannabis industry. SEE applicants are eligible for a 50% reduction in application fees, coupled with valuable application assistance provided by the OCM and priority in the review process. Those who qualify as SEE licensees will also benefit from a 50% reduction in licensing fees and direct entrepreneurship support accessible through their Cannabis Hub and Incubator Program.

Private Sector Programs

Private incubator programs have established initiatives to support current or aspiring cannabis entrepreneurs. These programs offer license-specific training, financial support, management education, and networking opportunities. Examples include:

- Momentum, by cannabis delivery company Eaze, whose participants receive a \$50,000 grant to navigate business costs.⁸¹
- NuProject, an Oregon-based organization that helps cannabis entrepreneurs of color in multiple regions with financial coaching, a mentoring network, and \$5,000 grants.⁸²
- TPCO Holding Group, which operates a Social Equity Fund providing mentorship and initial funding of \$10 million to cannabis entrepreneurs of color.⁸³
- Rocky Mountain Cannabis Consulting, a Colorado-based incubator that extends a \$2,000 discount to social equity retail, cultivation, distribution, and manufacturing operators. Their offerings include training and resources for achieving and sustaining compliance.⁸⁴

Several emergent cannabis technology businesses offer discounted product pricing to entrepreneurs who meet certain criteria, generally following the same criteria patterns as social equity licenses in various states. Such programs include:

- Dispense, a Massachusetts-based eCommerce

software provider that offers a 50% discount to qualifying social equity retail owners.⁸⁵

- Flourish, a supply chain management platform collaborating with brands in 20 states to offer a discount of 99% to eligible social equity operators with revenues under \$2 million or those who have been licensed for less than five years.⁸⁶
- Flowhub, a compliance and retail management software that facilitates sales management for medical and adult-use cannabis dispensaries nationwide. The Flowhub Social Equity Program offers eligible businesses a reduced rate with a tiered pricing system that gradually increases prices until the business reaches \$250,000 in sales.⁸⁷

Incubation Programs in NYS

New York is home to numerous cannabis incubators, most led by public entities, but a select few are explicitly designed to serve New York's social equity operators' unique needs. State-funded incubators offer discounted or free curriculum training that provides valuable knowledge- and skill-building, but their scope primarily focuses on educational resources rather than direct financial assistance. The absence of direct capital funding within these initiatives creates a gap for entrepreneurs seeking financial support to kickstart or sustain their ventures.

Typically, state-led incubators offer one or two types of services, such as education, training, mentorship, or application support. Privately funded incubators tend to offer a wider spectrum of resource (See Exhibit 1 in Appendix A).

Some private incubators also serve ancillary businesses. For example, Cresco Labs' Social Equity and Education Development Initiative has supported

81 "Eaze Announces Momentum Accelerator Class of 2021."

82 "About Us - NuProject."

83 TPCO Holding Corp., "TPCO Holding Corp. Management's Discussion and Analysis."

84 "Social Equity Incubator 2023."

85 MacIver, "From Tablelist to Cannabis eCommerce Platform."

86 "Flourish for Social Equity."

87 "Social Equity Program for Cannabis Entrepreneurs."

startups developing cannabis-related technology, software, and apps, along with institutions dedicated to cannabis research and development, restorative justice, curriculum development at educational institutions, and marketing and branding. Such incubators may play a pivotal role in fostering the growth and success of ancillary businesses.

by entrepreneurs to address social equity and community engagement.

For access to their full story, refer to Appendix E.

Entrepreneur Personas

Three entrepreneurial personas—Lucy, Jamar, and Mikael—have been crafted to depict the diverse experiences and aspirations of individuals entering New York’s adult-use cannabis industry. These fictional yet representative personas embody a composite of real-world challenges, motivations, and pathways encountered by entrepreneurs navigating the legal cannabis market. These narratives serve as a valuable tool for fostering understanding of the challenges, and resilience entrepreneurs demonstrate as they navigate the path to legality.

The personas of Jamar, Lucy, and Mikael were developed based on the predominant licensing opportunities outlined in the State’s Social Economic and Equity (SEE) plan for the City of New York. Each persona represents a distinct entrepreneurial archetype:

- **Legacy Operator Transitioning to Legal Market:** Jamar’s narrative reflects the experiences of a legacy operator who successfully transitions from the illicit market to the legal cannabis industry, showcasing resilience and adaptation in the face of evolving regulations.
- **Microbusiness License Seeker:** Lucy embodies the journey of an aspiring entrepreneur seeking to establish a microbusiness within the cannabis industry, navigating the complexities of licensing and regulatory compliance.
- **Nonprofit Dispensary Owner:** Mikael’s story revolves around establishing a dispensary utilizing a nonprofit ownership structure, highlighting innovative approaches adopted

KEY TAKEAWAYS

- Access to capital is one of the most significant challenges for cannabis entrepreneurs in NYC, particularly for social equity applicants, due to federal regulations restricting traditional funding avenues.
- Finding suitable locations for cannabis businesses is challenging due to limited availability, lack of landlord knowledge or predatory pricing, and strict regulatory requirements, including priority-protected location restrictions.
- Entrepreneurs and business owners need substantial operational support, including legal, accounting, and compliance services, which are hard to find and unaffordable.
- Licensed cannabis social equity businesses face significant competition from both unregulated gray market operators and larger multi-state operators who can offer products at lower costs.
- Existing programs that support equity applicants and entrepreneurs are often under-resourced and cannot provide needed wrap-around services or direct financial support.

Recommendations

The recommendations for enhancing cannabis equity in workforce development and entrepreneurship in New York City aim to create a more inclusive, supportive, and prosperous cannabis industry. These actionable steps address key challenges such as high startup costs, regulatory confusion, limited access to compliant real estate, and a lack of workforce training tailored to industry needs. By co-developing community-led definitions of equity, investing in impacted communities, increasing funding access, and expanding awareness of workforce opportunities, these recommendations strive to provide a solid foundation for equitable growth.

The recommendations also seek to capitalize on significant opportunities, including developing comprehensive training programs, partnerships with community-based organizations and educational institutions, and fostering stakeholder collaboration. Through targeted investments, policy changes, and support systems, these measures aim to overcome barriers, ensuring that the cannabis industry becomes a viable and thriving economic sector for all New Yorkers, particularly those historically marginalized. The goal is to create a sustainable, equitable cannabis ecosystem that offers quality jobs, stable career pathways, and opportunities for entrepreneurship.

- Recommendation 1: Co-develop a community-led definition of cannabis equity and impact metrics.
- Recommendation 2: Directly invest in social equity cannabis business, workforce, and impacted communities.
- Recommendation 3: Expand access to funding and resources for equity entrepreneurs.
- Recommendation 4: Create programs to assist in finding and securing compliant real estate.
- Recommendation 5: Reduce operational burdens for entrepreneurs through shared resource networks.
- Recommendation 6: Expand awareness of cannabis workforce opportunities.
- Recommendation 7: Develop workforce training programs that align with industry needs through collaboration and partnerships.
- Recommendation 8: Expand access to quality jobs and high-path careers in the cannabis industry.

RECOMMENDATIONS FOR SOCIAL ECONOMIC EQUITY IN CANNABIS

Recommendation 1: Co-develop a Community-Led Definition of Cannabis Equity and Impact Metrics

Action: It is recommended that the City co-develop a community-led definition of cannabis equity and impact metrics by collaborating with diverse stakeholders, including community leaders, activists, and individuals with lived experiences. Develop assessment and feedback mechanisms to ensure initiatives remain responsive, effective, and aligned with community needs.

Context: Current definitions of cannabis equity and impact metrics may not fully reflect the needs and perspectives of the communities most affected by cannabis prohibition. Without a community-driven definition, policies and programs may miss critical aspects of equity, leading to less effective support and potential unintended consequences.

Benefits: By involving a broad range of stakeholders in creating a community-led definition of cannabis equity, this approach ensures that the framework reflects the diverse experiences and needs of those directly impacted by cannabis-related policies. This inclusive process fosters greater ownership and buy-in from the community, leading to more relevant and effective initiatives. Developing robust assessment and feedback mechanisms allows for continuous evaluation and adjustment of programs to remain aligned with evolving community needs. This dynamic approach promotes a more equitable cannabis industry by addressing disparities and ensuring that initiatives have a meaningful impact.

Next Steps:

- Immediate Steps: Organize and facilitate stakeholder meetings and workshops to co-develop the definition and metrics.
- Middle Steps: Implement assessment and feedback mechanisms and apply the community-led definition to ongoing initiatives.
- Future Steps: Regularly review and refine the definition and metrics based on ongoing feedback and evolving community needs.

Recommendation 2: Directly Invest in Social Equity Cannabis Business, Workforce, and Impacted Communities

Action: It is recommended that the City directly invests in social equity cannabis businesses, workforce, and impacted communities by establishing a dedicated program funded through local cannabis tax revenue and supplemented by matching contributions from the City Tax Levy (CTL). Implement a participatory process that empowers communities to direct these investments based on their priorities.

Context: Social equity in the cannabis industry is crucial for addressing historical injustices and providing fair opportunities for communities disproportionately affected by cannabis prohibition. Existing programs often lack funding and community involvement, leading to ineffective support and limited impact.

Benefits: Investing directly in social equity cannabis businesses, workforce development, and impacted communities ensures that resources are allocated to those most affected by past policies, helping to correct imbalances and foster economic growth within these communities. Establishing a dedicated program with robust funding guarantees long-term support and sustainability. The participatory process allows communities to shape investment strategies according to their needs and priorities, enhancing the relevance and effectiveness of the support provided. This approach promotes local stewardship, increases trust in the program, and ensures that investments align with community needs, leading to more equitable and meaningful outcomes.

Next Steps:

- Immediate Steps: Set up the program and establish funding mechanisms.
- Middle Steps: Implement the participatory process and initial investments in business, workforce development, and impacted communities.
- Future Steps: Develop program management, continuous community engagement, and investment adjustments based on feedback and evolving priorities.

RECOMMENDATIONS FOR EQUITY IN NYC CANNABIS ENTREPRENEURSHIP

Recommendation 3: Expand Access to Funding and Resources for Equity Entrepreneurs

Action: It is recommended that the City expand access to funding and resources for equity entrepreneurs to help mitigate the high cost of starting a compliant cannabis business. Partner with a crowdfunding platform and provide city-matched dollars to offer affordable lines of credit and zero-interest loans. Support or directly offer financial education and explore additional partnerships to provide essential financial support.

Context: Starting a compliant cannabis business can be prohibitively expensive, particularly for social equity entrepreneurs who may face additional barriers such as limited access to capital and financial resources. With adequate financial support, these entrepreneurs can overcome startup costs and regulatory requirements, hindering their ability to enter and thrive in the industry.

Benefits: Partnering with a crowdfunding platform and providing city-matched dollars for affordable credit and zero-interest loans directly addresses equity entrepreneurs' financial barriers. This approach lowers the cost of entry and reduces the financial risk associated with starting a cannabis business. Offering financial education further equips entrepreneurs with the knowledge needed to manage their finances effectively and navigate the industry's complexities. By exploring additional partnerships for financial support, the City can broaden the range of resources available to equity businesses, enhancing their chances of success and fostering a more inclusive and competitive cannabis market.

Next Steps:

- Immediate Steps: Establish partnerships with crowdfunding platforms and design the city-matched funding program.
- Middle Steps: Roll out the funding and loan programs and offer financial education workshops.
- Future Steps: Continuously evaluate and expand financial support options and partnerships to ensure ongoing support for equity entrepreneurs.

Recommendation 4: Create Programs to Assist in Finding and Securing Compliant Real Estate

Action: It is recommended that the City create programs to assist in finding and securing compliant real estate by convening the real estate community to bridge knowledge gaps and foster greater landlord and broker engagement in the cannabis industry. Establish a matching program that connects landlords with cannabis operators and create a regularly updated digital map to help entrepreneurs find available compliant spaces.

Context: Cannabis businesses face significant challenges in securing compliant real estate due to complex zoning regulations and a lack of available properties. Many landlords and brokers may lack an understanding of the cannabis industry, leading to difficulties in finding and securing suitable locations.

Benefits: Convening the real estate community and educating landlords and brokers about the cannabis industry helps address knowledge gaps and encourages greater participation in the market.

A matching program streamlines the process of connecting landlords with cannabis operators, reducing friction and expediting property acquisition. Creating a regularly updated digital map provides entrepreneurs with a practical tool to locate available compliant spaces efficiently, overcoming one of the significant barriers to starting a cannabis business. Together, these initiatives facilitate more accessible access to suitable properties, supporting the growth of the cannabis industry and promoting a more inclusive market environment.

Next Steps:

- Immediate Steps: Organize and facilitate meetings with real estate professionals to increase industry understanding.
- Middle Steps: Develop and launch the landlord-operator matching program and begin the creation of the digital map.
- Future Steps: Maintain and update the digital map regularly and continuously engage with the real estate community to ensure ongoing support and adaptation to industry changes.

Recommendation 5: Reduce Operational Burdens for Entrepreneurs Through Shared Resource Networks

Action: It is recommended that the City support the development of shared resource networks to reduce operational burdens for cannabis entrepreneurs. This includes providing access to affordable health insurance, legal counsel, tax compliance support, and essential operational technologies.

Context: Cannabis entrepreneurs often face high operational costs and complex regulatory requirements, which can be particularly challenging for small and emerging businesses. With adequate support, these entrepreneurs can handle compliance and cost management, but this can hinder their growth and sustainability.

Benefits: By developing shared resource networks, the City can lower operational costs for cannabis businesses through collective access to essential services such as health insurance, legal counsel, and tax compliance support. This approach reduces individual burdens and fosters a more collaborative business environment. Workshops and one-on-one consultations will help businesses navigate regulatory requirements, ensuring they remain compliant and avoid costly mistakes. Establishing a place-based incubator with shared processing, packaging, and labeling equipment gives businesses the tools to scale operations efficiently and cost-effectively. This comprehensive support system enhances the viability and success of cannabis businesses, contributing to a more robust and equitable industry.

Next Steps:

- Short-Term: Set up workshops and consultations for regulatory compliance.
- Middle Steps: Develop and launch shared resource networks, including health insurance and legal support.
- Future Steps: Establish and manage the place-based incubator with shared equipment and continuously update the shared resource offerings based on business needs and feedback.

RECOMMENDATIONS FOR CANNABIS WORKFORCE EQUITY IN NYC

Recommendation 6: Expand Awareness of Cannabis Workforce Opportunities

Action: It is recommended that the City help raise awareness of cannabis workforce opportunities by developing an online resource and printed guide, organizing career fairs and workshops, and establishing partnerships with STEM programs to showcase various job roles and opportunities in the cannabis industry.

Context: Despite the growth of the cannabis industry, there is often a lack of awareness about its diverse career opportunities. This can result in a limited talent pool and underrepresentation of specific communities in the industry.

Benefits: Creating an online resource and printed guide will provide comprehensive information about career opportunities and educational paths in the cannabis industry, making it easier for individuals to explore and understand these roles. Organizing career fairs and workshops will facilitate direct interactions between job seekers and industry professionals, enhancing visibility and accessibility. Partnerships with STEM programs will help integrate cannabis industry careers into broader educational and professional development pathways, encouraging students to consider these opportunities. This multifaceted approach will increase awareness, attract a diverse range of candidates, and support the development of a skilled workforce that can drive the industry forward.

Next Steps:

- Immediate Steps: Develop and launch the online resource and printed guide and plan career fairs and workshops.
- Middle Steps: Execute career fairs and workshops and establish initial partnerships with STEM programs.
- Future Steps: Maintain and update the online resource and guide, expand partnerships, and continuously evaluate the effectiveness of awareness initiatives in attracting and preparing candidates for the cannabis workforce.

Recommendation 7: Develop Workforce Training Programs That Align with Industry Needs Through Collaboration and Partnerships

Action: It is recommended that the City develop workforce training programs that align with industry needs by convening educational institutions, training providers, and cannabis businesses to ensure programs are tailored to current market demands.

Context: The cannabis industry is rapidly evolving, and there is often a disconnect between the skills taught in training programs and those required by employers. This misalignment can lead to skill gaps and reduced job placement rates for graduates. Existing cannabis training programs are primarily focused on entrepreneurship, and there is a need for more workforce-centered opportunities.

Benefits: By bringing together educational institutions, training providers, and cannabis businesses, the City can facilitate the creation of training programs that align with industry needs. This collaboration ensures that the curriculum reflects current job requirements and emerging trends in the cannabis sector. As a result, graduates will acquire in-demand skills that improve their job placement rates and better meet the needs of employers.

This alignment benefits job seekers and businesses by creating a more skilled and capable workforce, fostering industry growth, and enhancing economic opportunities within the cannabis sector.

Next Steps:

- Immediate Steps: Convene initial meetings with stakeholders to discuss industry needs and program alignment.
- Middle Steps: Develop and implement updated training programs based on stakeholder input.
- Future Steps: Continuously assess and adjust training programs to ensure they remain relevant to industry developments and maintain strong job placement rates.

Recommendation 8: Expand Access to Quality Jobs and High-Path Careers in the Cannabis Industry

Action: It is recommended that the City expand access to quality jobs and high-path careers in the cannabis industry by exploring apprenticeship and paid learning pathways with unions and cohorts of participating businesses. Promote employer education on labor laws and organize discussions on improving job quality.

Context: Access to quality jobs and career advancement opportunities in the cannabis industry can be limited, often due to a lack of structured pathways and inadequate employer practices. This can result in job instability and fewer opportunities for career growth.

Benefits: Developing apprenticeship and paid learning pathways provides individuals with practical, hands-on experience and formal training, creating more transparent and sustainable career paths in the cannabis industry. Collaborating with unions and participating businesses ensures that these pathways meet industry standards and offer robust career opportunities. Promoting employer education on labor laws and organizing discussions on job quality will help create better working conditions and fair practices, enhancing overall job stability and satisfaction. These efforts collectively contribute to a more skilled and stable workforce, supporting long-term growth and sustainability within the cannabis industry.

Next Steps:

- Short-Term: Explore and establish apprenticeship and paid learning pathways with unions and businesses.
- Middle Steps: Implement programs and promote labor law education for employers.
- Future Steps: Continuously evaluate and refine pathways to ensure they meet industry needs and enhance job quality while adapting to the sector's changes and developments.

Conclusion

The legal cannabis industry in New York City stands at a pivotal crossroads, presenting a unique opportunity to correct past injustices while fostering an inclusive and dynamic economic future. This report has meticulously detailed the existing conditions, challenges, and promising opportunities within cannabis economic equity, workforce development, and entrepreneurship in NYC. Despite significant strides in legalization, the path to true equity remains fraught with challenges and pitfalls for entrepreneurs and job seekers.

However, as NYC's legal cannabis market matures, it holds the potential to become a beacon of equitable economic development. By addressing the systemic barriers and leveraging the city's diverse talent pool, the cannabis industry can pave the way for a more just and prosperous future. Continuous collaboration, innovation, and commitment to equity will be essential in realizing this vision. The Journey towards equity in the cannabis industry is ongoing. It requires continuous innovation, collaboration, and commitment to addressing systemic barriers. With concerted efforts, the cannabis industry can become a powerful driver of economic opportunity and social equity, benefiting all New Yorkers.

Recommendations based on Level of Effort

Long Term (3+ years)	#2 Invest in Social Equity		
Medium Term (1-3 years)	#1 Community-Led Equity Definition	#3 Increase Funding Access #5 Reduce Operational Burdens	#8 Expand Access to Quality Jobs #7 Align Training Programs w/ Industry
Short Term (0-12 months)		#4 Assist in Securing Real Estate	#6 Expand Workforce Awareness
	Economic Equity	Entrepreneurship	Workforce Development

Appendices

APPENDIX A | DATA TABLES AND CHARTS

Exhibit 1: Timeline of State Marijuana Legalization Laws & Social Equity Programs

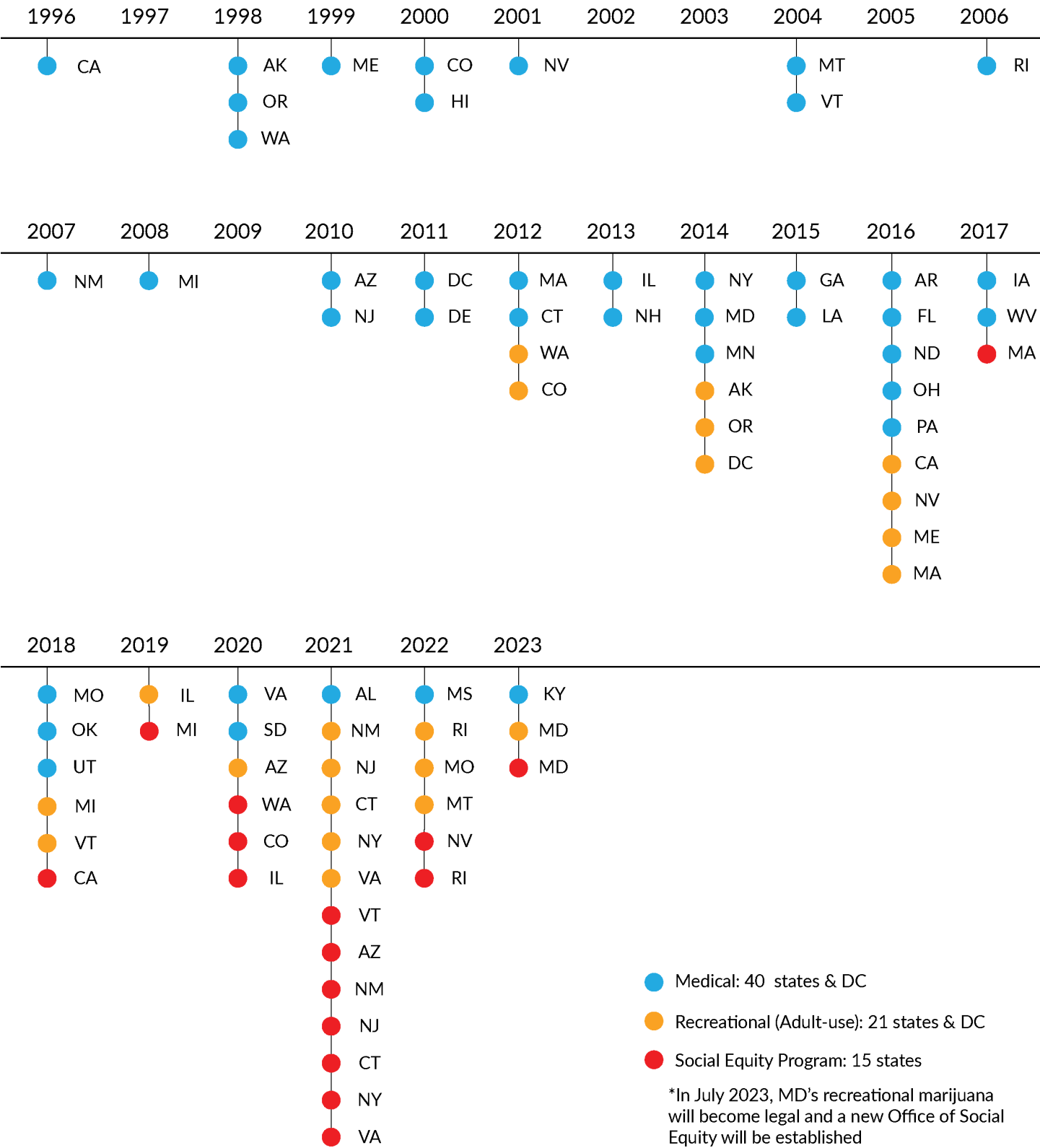


Exhibit 2 : Targeted Populations Defined in Equity Programs (2022)

States	From a DIA	Previous Cannabis Offenses	Racial Minority	Female or Non-Binary	Disabled Veteran	Disadvantaged Farmers	Low Income	Employment Status
1 Arizona	✓	✓	✗	✗	✗	✗	✓	✗
2 California	✓	✓	✗	✗	✗	✗	✓	✗
3 Colorado	✓	✓	✗	✗	✗	✗	✓	✗
4 Connecticut	✓	✗	✗	✗	✗	✗	✓	✗
5 Illinois	✓	✓	✗	✗	✗	✗	✗	✓
6 Massachusetts	✓	✓	✓	✗	✗	✗	✓	✓
7 Michigan	✓	✓	✗	✗	✗	✗	✗	✗
8 Nevada	✓	✓	✗	✗	✗	✗	✗	✗
9 New Jersey	✓	✓	✓	✓	✓	✗	✓	✓
10 New Mexico	✗	✓	✓	✓	✗	✓	✓	✗
11 New York	✓	✓	✓	✓	✓	✓	✓	✗
12 Rhode Island	✓	✓	✗	✗	✗	✗	✓	✓
13 Vermont	✓	✓	✓	✗	✗	✗	✗	✗
14 Virginia	✓	✓	✗	✗	✗	✗	✗	✗
15 Washington	✓	✓	✗	✗	✗	✗	✓	✗

Exhibit 3: Summary of Cannabis Education Programs

	Institution Name	Location	Year	Organization Type	Credential(s) Offered	General or Job Exploration	Business	Retail	Cultivation	M&P	Distribution	Medical	Other
National	Cannabis Education Center (CEC)	Holyoke, MA	2019	Community College Partnership	Certificate and RVT	Y	N	Y	Y	Y	N	N	Y
	Cookies University (Cookies U)	Humboldt, CA	2021	Employer	No formal credentials	Y	Y*	Y*	Y*	Y*	Y*	N	Y*
	Oaksterdam University (Oaksterdam)	Oakland, CA	2007	Private Institution	Certificate	N	Y	Y	Y	Y	N	N	Y
	Borough of Manhattan Community College (BMCC)	Manhattan, NY	2023	Community College	Continuing Education Certificate	N	N	Y	Y	Y	N	N	Y
	Bronx Community College	Bronx, NY	2016	Community College	Associate Degree	N	N	N	Y**	N	N	N	N
New York City	Cannabis Justice & Equity Initiative (CJEI)	Manhattan, NY	2023	Non-profit	Certificate	Y	N	Y	Y	Y	N	N	Y
	Cannabis Workforce Initiative (CWI)	New York State	2021	Non-profit	Certificate	Y	N	Y*	Y*	Y*	Y*	N	Y*
	Lehman College	Bronx, NY	2022	Community College	Continuing Education Certificate	Y	N	N	N	Y	N	N	N
	LIM College	Manhattan, NY	2022	Private Institution	Bachelors and Master Degree	N	Y	N	N	N	N	N	N
	Medgar Evers College	Brooklyn, NY	2021	Community College	Minor Degree	N	Y	N	Y	Y	N	Y	N
	New York University	Manhattan, NY	2022	Private Institution	Certificate	N	Y	N	N	N	N	N	N
	SUNY Empire State College	Manhattan, NY	2018	Community College	Bachelors Degree	N	N	N	N	N	N	Y	N

Y* = Such program incorporates the column's topic into its General course to some extent.

Y** = Such program is tangential to cannabis.

Exhibit 4: Summary of Best Practices & Impact Metrics in Cannabis Education Programs

	Best Practices					Impact Metrics		
Institution Name	In-House Curriculum Dev.	Financial Assistance	Priority to underserved/ impacted communities	Support in Job Prospects	Additional Wraparound Services	Outcome Tracking	Partnerships	
National	Cannabis Education Center (CEC)	Y	Y	Y	Y	NA	Y	Y
	Cookies University (Cookies U)	Y	Y	Y	Y	Y	Y	Y
	Oaksterdam University (Oaksterdam)	Y	Y	N	Y	NA	Y	Y
	Borough of Manhattan Community College (BMCC)	Y	Y	Y	Y	Y	NA	Y
	Bronx Community College	Y	Y	NA	Y	Y	NA	Y
New York City	Cannabis Justice & Equity Initiative (CJEI)	Y	Y	Y	Y	Y	Y	Y
	Cannabis Workforce Initiative (CWI)	Y	Y	Y	Y	NA	Y	Y
	Lehman College	N	N	NA	Y	Y	Y	Y
	LIM College	Y	Y	NA	Y	Y	NA	Y
	Medgar Evers College	Y	Y	Y	Y	Y	Y	Y
	New York University	Y	Y	NA	NA	NA	NA	NA
	SUNY Empire State College	Y	Y	NA	Y	Y	NA	NA

APPENDIX B | WORKFORCE PROFILES

CAREER PATH IN CULTIVATION



CRAFT CANNABIS | TRANSFERABLE SKILLS

- Transitional workers from other industries
- Legacy cannabis workers
- Military Veterans

Cannabis Plant Biology and Growth ●

Cultivation Methods ●●

Pest And Disease Management ●●

Harvesting and Post-Harvesting ●●

Propagation and Transplanting ●

Plant Care and Monitoring ●

Product Preparation and Packaging ●

Standard Operating Procedures ●

Safety Protocols ●

Equipment and Systems ●●



CULTIVATION TECHNICIAN

\$19 – \$30/hr

EARLY CAREER REQUIREMENTS

Education: High school/GED diploma.

Experience: Previous experience in agriculture, horticulture, landscaping, or related field.

Other: Must be at least 18 years old and pass a basic criminal background check as required by OCM.

PREFERRED QUALIFICATIONS

Education: Associate degree or certification in plant science, agriculture, horticulture, biology, or related field.

Experience: Experience in cannabis cultivation.

ALTERNATIVE JOB TITLES

Cultivation Assistant
Growing Assistant
Plant Technician



CULTIVATION SUPERVISOR

\$24 – \$40/hr

SKILLED REQUIREMENTS

Education: High school/GED diploma.

Experience: + 1 -3 years in cannabis-recognized training, agriculture, or related field.

PREFERRED QUALIFICATIONS

Education: Associate or bachelor's degree or certification in plant science, agriculture, horticulture, biology, or related field

Experience: 2 years of leadership or supervisory experience in a regulated cannabis business.

ALTERNATIVE JOB TITLES

Cultivation Associate
Assistant Cultivation Manager
Lead Cultivator



CRAFT CULTIVATOR

\$36 – \$56/hr

HIGHLY SKILLED REQUIREMENTS

Education: + Associate or bachelor's degree or certification in plant science, agriculture, horticulture, biology, or related field.

Experience: 3+ years in cultivation.

PREFERRED QUALIFICATIONS

Education: Bachelor's or master's degree in botany, biology, agriculture, horticulture, or related field.

Experience: 1 year of experience in a management position; 3 years of experience in craft cannabis or commercial cannabis, or 5 years of experience in cultivation may compensate for an advanced degree.

ALTERNATIVE JOB TITLES

Cultivation Manager
Assistant Head Grower
Grow Manager
Horticulture Manager

CAREER PATH IN EXTRACTION



EXTRACTION I TRANSFERABLE SKILLS

- Transitional workers from other industries
- Legacy cannabis workers
- Military Veterans

Cannabis Plant Biology ●

Laboratory Information Management System (data recording and tracking) ●

Good Laboratory Practice (operations, maintenance, safety, etc.) ●

Compliance and Regulations (FDA, CGMP, OSHA, SOP, NFPA, and applicable lab operations) ●

Quality Control and Testing Procedures ●

Calibration and Maintenance of Laboratory Equipment ●

Cannabis Processing and Extraction Techniques (Solventless and solvent-based extraction methods) ●

Current Good Manufacturing Practice (cGMP) ●



EXTRACTION TECHNICIAN

\$21 – \$36/hr

EARLY CAREER REQUIREMENTS

Education: High school/GED diploma.

Experience: Experience in a lab setting.

Other: Must be at least 18 years old, preferably over 21 and pass a basic criminal background check as required by OCM.

PREFERRED QUALIFICATIONS

Education: Associate or bachelor's degree in chemistry, biochemistry, lab technology, or related STEM field.

Experience: 1 year of experience in lab training, scientific methods/processes, and data tracking. Background in manufacturing and packaging is also desired.

ALTERNATIVE JOB TITLES

Extraction Associate
Extraction Production Technician
Processor Extraction Technician



EXTRACTION SUPERVISOR

\$32 – \$48/hr

SKILLED REQUIREMENTS

Education: Bachelor's degree in chemistry, biology, microbiology, molecular biology, or related field.

Experience: 1+ years in a laboratory environment; 1+ years of experience in a compliance-related field.

PREFERRED QUALIFICATIONS

Experience: 1+ years within the cannabis industry; 1+ years in a cannabis extraction labs.

Other: Proficiency with laboratory equipment and data analysis software. Proper and safe handling and disposal of harmful chemicals, substances, and hazardous wastes.

ALTERNATIVE JOB TITLES

Lab Analyst
Laboratory Chemist
Formulation Chemist



EXTRACTION MANAGER

\$36 – \$54/hr

HIGHLY SKILLED REQUIREMENTS

Education: Bachelor's degree in chemical, environmental, physical, or biological sciences, or engineering, with 24+ college semester credit hours.

Experience: 2+ years in analysis (e.g., microbiology, analytical chemistry, organic chemistry, physical analysis). Master's or doctoral degree holders need at least 1 year of experience in analyzing representative metals, inorganic, physical chemistry, and microbiological analytes. cGMP manufacturing experience required.

PREFERRED QUALIFICATIONS

Education: Master's or doctoral degree in chemical, environmental, physical, or biological sciences, or engineering.

Experience: Prior supervisory or management experience with a technical team in a related field. 3 - 5 years in a cannabis extraction lab or manufacturing environment.

ALTERNATIVE JOB TITLES

Extraction Lab Manager
Extraction Lab Team Lead
Extraction Lab Supervisor

CAREER PATH IN LAB TESTING



LAB TESTING | TRANSFERABLE SKILLS

- Transitional workers from other industries
- Legacy cannabis workers
- Military Veterans

Cannabis Plant Biology ●

Laboratory Information Management System (data recording and tracking) ●

Good Laboratory Practice (operations, maintenance, safety, etc.) ●

Compliance and Regulations (FDA, CGMP, OSHA, SOP, NFPA, and applicable lab operations) ●

Quality Control and Testing Procedures ●

Calibration and Maintenance of Laboratory Equipment ●

Microbiology Lab Practices ●

ISO/IEC 17025 standards ●



LAB TESTING TECHNICIAN

\$20 – \$25/hr

EARLY CAREER REQUIREMENTS

Education: Associate degree or two years of college studies in microbiology, analytical chemistry, organic chemistry, metals, inorganic chemistry, or physical chemistry.

Experience: 1+ years in testing representative analyte or group of analytes for which the laboratory is permitted or seeking a permit.

Other: Must be at least 18 years old, preferably over 21 and pass a basic criminal background check as required by OCM.

PREFERRED QUALIFICATIONS

Experience: Experience in cannabis cultivation.

ALTERNATIVE JOB TITLES

Instrumentation Associate
Lab Technician



ANALYTICAL CHEMIST

\$35 – \$49/hr

SKILLED REQUIREMENTS

Education: Bachelor's degree in chemistry, biology, microbiology, molecular biology, or related field.

Experience: 1+ years in a laboratory environment; 1+ years in a compliance-related field.

PREFERRED QUALIFICATIONS

Experience: 1+ years in the cannabis industry; 2+ in cannabis testing methods and industry regulations; experience with ISO 17025 standards.

ALTERNATIVE JOB TITLES

Lab Chemistry Analyst
Lab Testing Analyst
Testing Lab Chemist



TESTING LAB MANAGER

\$55 – \$69/hr

HIGHLY SKILLED REQUIREMENTS

Education: Bachelor's degree in chemical, environmental, physical, or biological sciences, or engineering.

Experience: 2+ years in microbiology, analytical chemistry, organic chemistry, or physical analysis; 1+ year analyzing metals, inorganic, physical chemistry, and microbiological analytes; experience with ISO/IEC 17025 standards.

PREFERRED QUALIFICATIONS

Education: Master's or doctoral degree in chemical, environmental, physical, or biological sciences, or engineering.

Experience: Prior supervisory or management experience with a technical team in a related field; 3 - 5 years in a cannabis testing lab or compliance-related field.

ALTERNATIVE JOB TITLES

Testing Lab Team Lead
Testing Lab Supervisor

CAREER PATH IN RETAIL DISPENSARY



RETAIL DISPENSARY | TRANSFERABLE SKILLS

- Transitional workers from other industries
- Legacy cannabis workers
- Military Veterans

Cannabis Product and Plant Knowledge ●

Inventory Management ●●●

Customer Service and Communication ●●

Sales and Marketing ●●

Point of Sales System ●

Cash/Payment Management ●

Procurement and Logistics ●●

Safety Protocols ●



BUDTENDER

\$19 – \$26/hr

EARLY CAREER REQUIREMENTS

Education: High school/GED diploma.

Other: Must be at least 21 years old and pass a basic criminal background check as required by OCM.

PREFERRED QUALIFICATIONS

Education: Knowledge of cannabis products, plant, and effects.

Experience: Previous work in retail, sales, hospitality, fast-casual dining, or point-of-sales system.

ALTERNATIVE JOB TITLES

Sales Representative

Dispensary Sales Assistant

Retail/Sales Associate

Dispensary Agent

Retail Technician



RETAIL ASSISTANT GM

\$28 – \$42/hr

SKILLED REQUIREMENTS

Education: High school/GED diploma.

Experience: 1-3 years in retail, sales, hospitality, or related customer facing field.

PREFERRED QUALIFICATIONS

Education: Advanced certification in cannabis

Experience: 2 years in cannabis retail and prior supervisory or management experience.

ALTERNATIVE JOB TITLES

Dispensary Assistant Manager

Retail Supervisor

Assistant General Manager



DISPENSARY GM

\$36 – \$56/hr

HIGHLY SKILLED REQUIREMENTS

Education: High school/GED diploma.

Experience: 3 years in business operations, retail, sales, management, or related field.

PREFERRED QUALIFICATIONS

Education: Associate or bachelor's degree in business admin., management, hospitality, or related field.

Experience: 5 years in retail. Employers may consider higher education degrees to be a substitute for some years of experience.

ALTERNATIVE JOB TITLES

Retail General Manager

Store Manager

CAREER PATH IN BRANDING & MARKETING



BRANDING & MARKETING | TRANSFERABLE SKILLS

- Transitional workers from other industries
- Legacy cannabis workers
- Military Veterans

Cannabis products and plant knowledge ●

Company brand representation ●●

Customer service ●●

Communication and media ●●

Market-related software programs ●

Sales and marketing ●

Event planning and execution ●

Customer Relationship Management system ●

Search Engine Optimization (SEO) ●

Data and analytics ●

Safety protocols ●



BRAND AMBASSADOR

\$25 – \$28/hr

EARLY CAREER REQUIREMENTS

Education: High school/GED diploma.

Experience: Experience in sales, marketing, public relations, customer service, or related field.

Other: Must be at least 21 years old and pass a basic criminal background check as required by OCM.

PREFERRED QUALIFICATIONS

Experience: Experience in the cannabis industry.

ALTERNATIVE JOB TITLES

Brand Representative

Brand Advocate



MARKETING MANAGER

\$25 – \$45/hr

SKILLED REQUIREMENTS

Education: Bachelor's degree in marketing, business, advertising, or related field.

Experience: 3 years in marketing, business, advertising, or related field; supervisory or leadership experience.

PREFERRED QUALIFICATIONS

Experience: 5 years in marketing, business, advertising, or related field.

ALTERNATIVE JOB TITLES

Product Marketing Manager



DIRECTOR OF MARKETING

\$43 – \$66/hr

HIGHLY SKILLED REQUIREMENTS

Education: Bachelor's degree in marketing, business, advertising, or related field.

Experience: 5 years of experience in marketing, business administration, advertising, or related field.

PREFERRED QUALIFICATIONS

Education: Master's degree in marketing, business administration, advertising, or related field.

Experience: 7 years of experience in marketing, business administration, advertising, or related field.

ALTERNATIVE JOB TITLES

Senior Marketing Manager

APPENDIX C | ENTREPRENEURSHIP PERSONAS

PERSONA 1

JAMAR BROWN

LEGACY OPERATOR

OVERVIEW

License type: Adult-Use Retail Dispensary

SEE qualifications: Justice involved, member of a community disproportionately impacted, and Minority-owned business.

Note: Jamar Brown, Jamar's wife, and Legacy Roots are fictional people and organizations modeled on a composite of real-life stories. All other organizations and resources mentioned in this persona are real.

KEY INSIGHTS

Transitioning to the legal cannabis market requires careful consideration of financial implications, regulatory compliance, and strategic planning.

Access to advocacy and support organizations and resources is crucial for legacy operators navigating the complexities of the legal market.

Opportunities for collaboration and community support play a significant role in facilitating successful transitions and fostering inclusivity within the industry.

Leveraging specialized licenses and applicant statuses, such as SEE status, can provide advantages in the licensing process and help reduce barriers to entry.

BACKGROUND

Jamar Brown stands out as a success story among legacy operators who have successfully transitioned to the legal market. His cannabis entrepreneur journey began in Prospect Heights. As a teenager in the '90s, he began selling cannabis flower to make a little extra money. What started as part-time street vending later evolved into a sophisticated, professionalized operation involving messaging apps that enabled ordering and delivery across all five boroughs, gradually transforming Jamar's side hustle into a profitable enterprise.

Jamar's decision to move from legacy to legal markets did not come easily. With the enactment of New York State's Marijuana Regulations and Taxation Act (MRTA) in 2021, he faced uncertainty about how the evolving market landscape would impact his current business. The high startup and ongoing costs of opening a retail space were one of his biggest concerns. Based on other cannabis business owners' experiences, he knew the lowest cost to set up a small retail store in New York is around \$1 million. Additionally, the prospect of selling cannabis products at a higher price due to the imposed 13% tax rates would discourage consumers from purchasing his products in the legal market and diminish his profit margins. His estimates suggested that he was making nearly double what he would on the legal market. Finally, the emergence of smoke shops and bodegas offering cannabis products at lower prices intensified competition.

Yet Jamar found himself at a crossroads, contemplating the future and the responsibilities ahead. He was anticipating the arrival of twins with his wife, and the pressure to provide a secure and prosperous future for his family weighed heavily on his mind. After lengthy consideration, Jamar and his wife agreed to embrace the legal market to open a retail dispensary that would ensure the financial safety and stability of their family's future.

BUSINESS PATH

For Jamar, the transition represented a shift towards a safer, more

TIMELINE

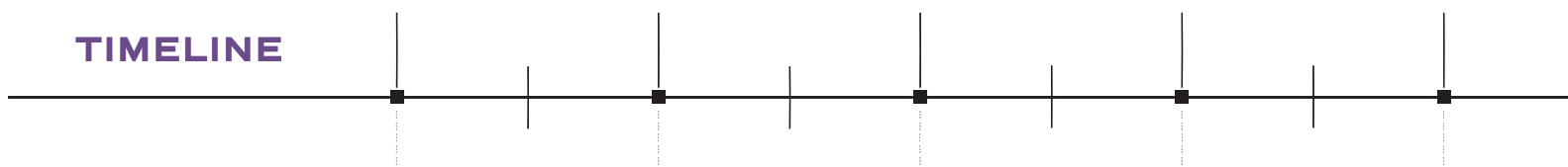
INITIAL ENTRY
INTO
CANNABIS BUSINESS

RECOGNITION OF
LEGAL MARKET
OPPORTUNITY

DECISION TO
TRANSITION TO
LEGAL MARKET

ENCOUNTERING
LICENSING
CHALLENGES

CONNECTING WITH
ADVOCACY
ORGANIZATIONS



sustainable path – one that would offer peace of mind and alleviate the uncertainties of operating in the shadows of the illicit market. Having been previously convicted of felony charges for selling cannabis, he didn't want to risk further legal repercussions by continuing his underground operations. Strategically, establishing a recognized brand would pave the way for success in the legal market. Operating within legal parameters would streamline access to essential tools such as sales and inventory systems, advertising and sponsorships, and securing leases. As a result of these resources, business expansion would be possible beyond its current limitations.

When Jamar and his wife reviewed the application requirements for a Conditional Adult-Use Retail Dispensary (CAURD) license, they were disheartened. New York State prioritized applications from justice-involved individuals or those with connections to cannabis offenders in its initial round of applications, but while Jamar qualified as justice-involved, the licensing process imposed stringent financial reporting requirements. Having operated solely in the illicit cannabis market for over twenty years, Jamar lacked proof of legitimate business acumen and profitability. Without a record of his business dealings with the IRS, he felt frustrated by this barrier. Determined to explore other avenues, Jamar sought assistance to investigate the complex landscape.

KEY CHALLENGES:

High Costs and Uncertainties: Transitioning from the illicit to the legal market posed uncertainties and financial and operational burdens for Jamar, including high startup costs, tax rates, insurance, and reporting and tracking expenses, among others.

Limited Resources and Awareness: Jamar was unfamiliar with licensing and legal market requirements, and had limited access to and awareness of resources that support legacy operators.

Stringent Experience Requirements: Qualified business experience requirements for the CAURD license were a challenge for Jamar, who lacked proof of legitimate business acumen and profitability.

Market Competition: Despite City efforts to shut down illicit dispensaries, Jamar and other legacy operators are deterred from entering the legal market due to lower-priced competition from gray market operators.

OPPORTUNITIES AND RESOURCES

In his quest, Jamar discovered a few organizations advocating for legacy constituents like himself. Among them were the Legacy CORE Foundation, the Unified Legacy Operators Council (UNLOC), the Cannabis Cultural Association (CCA), the New York Cannabis Retail Association, and the JUSTÜS Foundation. These organizations were committed to advocating and facilitating the entry of marginalized individuals, people of color, justice-involved individuals, and legacy operators into the legal cannabis market through education, mentorship, and business networking groups. Initially hesitant to share his story, Jamar found a connection with other legacy operators and gradually grew more comfortable accepting assistance from these organizations.

With the support of the CCA, Jamar explored the various licenses offered by the state, as well as ancillary businesses that service the cannabis industry. An adult-use retail dispensary license resonated most with Jamar out of all available opportunities. His passion for building customer relationships and a history of operating a dispensary-like operation made it a natural fit. Jamar was familiar with handling orders, providing cannabinoid product consultations based on consumer needs, and maintaining organized operations. Guided by the CCA advisor, he navigated compliance regulations and financial considerations associated with owning a dispensary, including

EXPLORING
LICENSE
OPTIONS

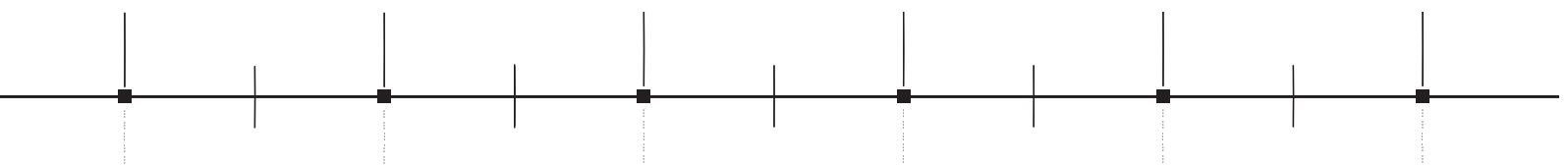
PREPARATION
FOR LEGAL
COMPLIANCE

ENGAGING WITH
HIGH EXPOSURE
CONSULTING

SUCCESSFUL
LICENSE
APPLICATION

PLANNING AND
CONSTRUCTION OF
DISPENSARY

SUPPORTING
BIPOC
BUSINESSES



startup capital, marketing, and operating expenses. While confident in his ability to meet these regulations upon opening his retail store, Jamar still grappled with the challenge of demonstrating a history of legitimate business success. Jamar was unable to apply for a CAURD license and was advised to wait until the general application submission period opened.

As Jamar awaited further announcements from the Office of Cannabis Management (OCM) about the general applications, he took proactive steps to prepare himself for the transition to the legal market. Recognizing the need to discontinue his underground operations, he secured a customer-facing position at an auto body shop, ensuring compliance with regulatory authorities and minimizing any potential risks associated with pursuing a license. Jamar also sought the expertise of High Exposure Consulting to deepen his understanding of the nuances of operating within the legal dispensary framework. He familiarized himself with various software applications essential for maintaining standard operating procedures and ensuring compliance with the cannabis laws.

When the OCM eventually commenced the acceptance of general applications, Jamar felt a profound sense of relief. He discovered that he was not required to demonstrate a qualifying business history and could apply as a minority-owned business and a Social and Economic Equity (SEE) applicant, granting his application additional priority during the rigorous license review process. With the state's commitment to allocating 50% of all adult licenses to SEE applicants, Jamar's chances of securing a license were significantly enhanced. Moreover, as a SEE applicant, he benefited from reduced application and licensing fees, further facilitating his entry into the legal cannabis market.

KEY RESOURCES USED:

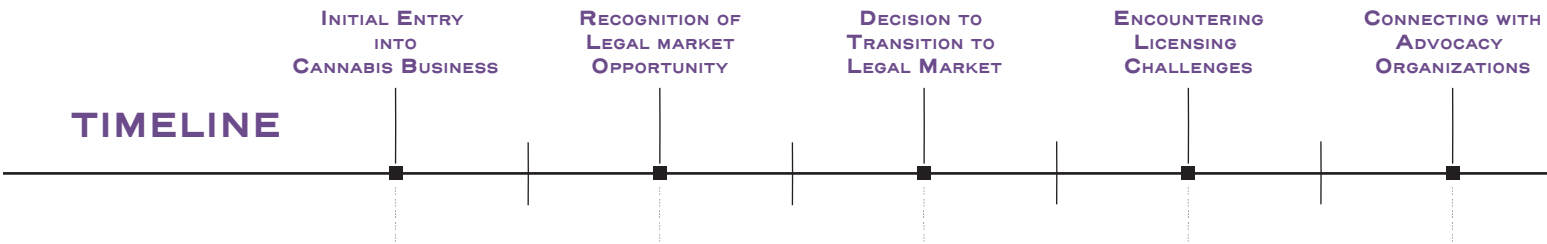
Advocacy and Support Organizations: Jamar leveraged support from organizations like the Legacy CORE Foundation, Unified Legacy Operators Council (UNLOC), and the Cannabis Cultural Association (CCA), which provided guidance, mentorship, and networking opportunities.

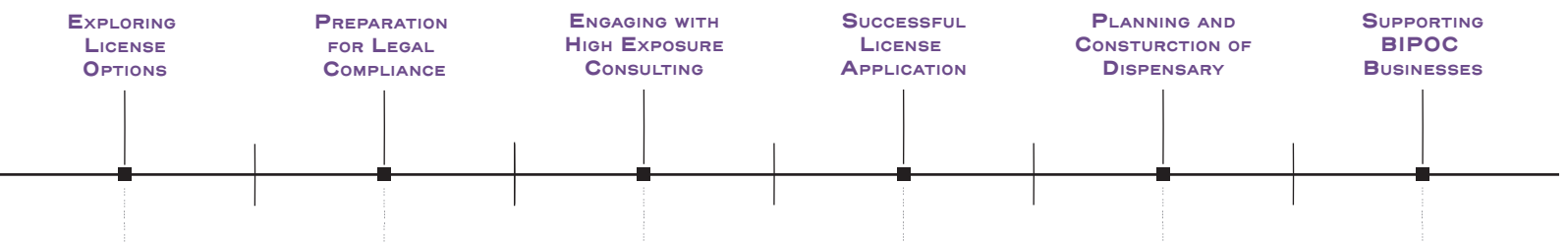
- Consulting Services: Jamar sought assistance from High Exposure Consulting to deepen his understanding of legal dispensary operations, compliance regulations, and software applications essential for maintaining compliance.
- Educational Resources: Through collaboration with the CCA, Jamar explored various licenses offered by the state and received guidance on compliance regulations, financial considerations, and operational best practices.
- Legal Assistance: Jamar engaged legal counsel to navigate complex regulatory requirements and ensure compliance throughout the licensing process and ongoing operations.
- Networking Platforms: Platforms like the New York Cannabis Retail Association and the JUSTÜS Foundation connected Jamar with other legacy operators and industry professionals, facilitating knowledge-sharing and collaboration.

LOOKING FORWARD

A few months later, Jamar got the final license approval. He is planning the grand opening of his dispensary, Legacy Roots, in Prospect Heights, Brooklyn. As he observes his storefront under construction, he feels a sense of accomplishment, finally seeing the light at the end of the transitory tunnel. Jamar is deeply grateful for the opportunity to build generational wealth for his family and contribute positively to his community.

At Legacy Roots, Jamar plans to showcase an array of cannabis products sourced from legacy constituents who have successfully transitioned into legal production, as well as other BIPOC businesses. He believes collaboration is key to driving meaningful change in the industry. Additionally, Jamar eagerly anticipates collaborating with organizations like UNLOC and the JUSTÜS Foundation to support and guide other legacy cannabis operators in their journey toward legal market entry through mentorship, outreach, and policy development.





PERSONA 2

LUCY TERRY MICROBUSINESS

OVERVIEW

License type: Microbusiness

SEE qualifications: Justice-involved, member of a community disproportionately impacted area, and a woman-owned business.

Note: Lucy Terry, Tropical Treats, and Paradise Pastries are fictional people and organizations modeled on a composite of real-life stories. All other organizations and resources mentioned in this persona are real.

KEY INSIGHTS

Strategic Business Adaptation: Lucy's strategic shift from a processor license application to a microbusiness demonstrates the importance of flexibility and adaptability in response to evolving market dynamics and regulatory requirements.

Community Collaboration: Lucy's vision emphasizes the significance of community collaboration and educational outreach in demystifying cannabis legalities, fostering industry growth and employment, providing opportunities for professional development.

Navigating Financial Challenges: Lucy's experience highlights the financial barriers faced by aspiring entrepreneurs in the cannabis industry and underscores the importance of seeking support from reputable industry networks.

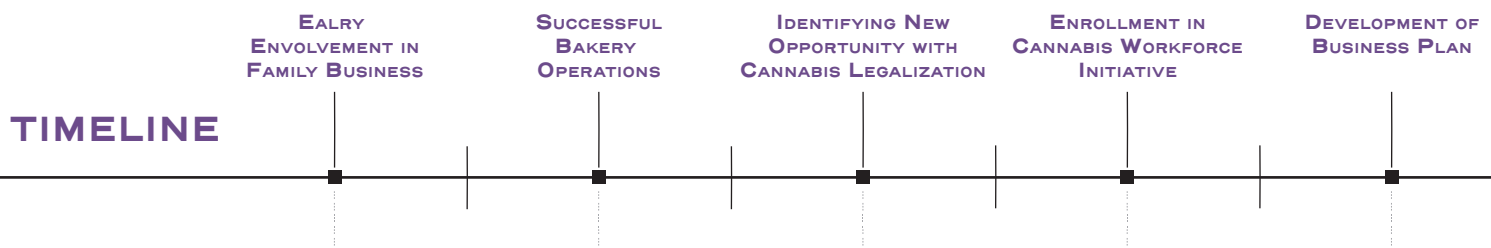
BACKGROUND

Lucy Terry's entrepreneurial journey began in the heart of the Bronx where, at 18, she stepped up to help support her family's bakery business, Tropical Treats. After her father's arrest for cannabis possession, Lucy dedicated herself to growing the family business, delving into both the culinary arts, business operations, and connecting with customers. Lucy's Caribbean-influenced desserts were a hit in the neighborhood and the family bakery. After a few years of honing her skills in the culinary arts, business operations and customer service, she took over the daily operations of the business and became a co-owner. For the past 12 years, Lucy has successfully run the Tropical Treats bakery.

When New York State announced the legalization of adult use cannabis, Lucy saw a new business opportunity. Because she had a parent who was convicted of a cannabis-related offense and was also from a community disproportionately impacted by the enforcement of cannabis prohibition, she was eligible to apply for a priority license as a Social and Economic Equity applicant. Given her desire to create Caribbean-inspired cannabis-infused baked goods, Lucy sought guidance to bring her vision to life.

OPPORTUNITIES AND RESOURCES

Lucy embarked on a journey of education and exploration of the newly legal NYS cannabis industry. As Lucy searched for resources in her area, she ended up at Lehman College—a place close to her home—to see if they had any resources or classes. At Lehman she enrolled in a 10-week program through the Cannabis Workforce Initiative (CWI). Although the program was primarily focused on workforce development and pathways to high road careers, it helped Lucy to understand the regulatory framework and demystify legalities. Lucy was able to network with the 44 other participants, many of whom were also Bronx natives and cannabis enthusiasts and learned a lot about cannabis that she would not have otherwise known. She was also able to engage in discussions with industry experts and get immediate



questions answered. Through a mix of in class and online lessons, Lucy broadened her cannabis knowledge and learned the intricacies of workers' rights, employers' legal responsibilities, an overview of opportunities, and cannabis science, including learning to analyze terpenes by smell.

Upon completion of the CWI program, Lucy was set on pursuing her cannabis processor license and began to assemble a business plan. The slow licensing rollout and delays over litigations made her nervous and, while she knew how to run a successful bakery, Lucy was still unsure of how to run a compliant processing facility. It seemed like a lot of red tape for someone who just wanted to bake and sell cannabis treats. Lucy decided to seek further assistance and ensure she had a fully prepared business plan for when the licensing period opened. She enrolled in a second program at Lehman College, this time through Bronx Business Tech. At the incubator, Lucy had access to an array of amenities, including conference rooms, high-speed wi-fi, lounge space, and office supplies. She used the coworking spaces to prepare her business plan, and the conference rooms were handy for when she needed to workshop her ideas with peers and mentors or pitch to potential investors. Moreover, Lucy actively participated in the educational events and workshops, which provided her added networking opportunities and served as a sounding board for her ideas.

Fortunately, Lucy was able to cultivate a community of people who would help shape her path forward. Having a better understanding of the different license types through many discussions with peers and mentors, she decided that a microbusiness would be better suited to her business goals. As a microbusiness, Lucy would be able to both craft and sell her baked items without the worry of maintaining a full-scale processing facility. Overall, through a microbusiness, Lucy would be empowered to do more of what she loves: creating delicious baked products and connecting with customers.

KEY RESOURCES

Education and Training Programs: Lucy utilized formal educational programs and courses designed to equip entrepreneurs with the necessary knowledge and skills to navigate the cannabis industry, such as the Cannabis Workforce Initiative's Cannabis Career Exploration and Worker Rights Certificate Program.

Incubators and Business Development Centers: Lucy benefited from Lehman's Bronx Business Tech Incubator, a business development center, which provided physical infrastructure, networking opportunities, and educational programs to support the growth of her cannabis business.

Legal Support Services: At the Bronx Cannabis Hub, Lucy accessed legal support services to help her understand and comply with cannabis regulations.

Mentorship and Guidance: Lucy participated in mentorship programs that offered personalized guidance, industry insights, and networking opportunities to navigate the cannabis industry.

Business Development Resources: Lucy leveraged the business development resources at the Tech Center focused on business planning, strategy development, and operational guidance for cannabis entrepreneurs.

Industry Associations and Networks: Lucy engaged with industry associations such as the Cannabis Association of New York (CANY), that provided networking opportunities, advocacy support, and resources for entrepreneurs in the cannabis industry.

BUSINESS PATH

Despite the arduous application process, Lucy received invaluable support from the Tech Center at Lehman and the legal clinic from the Bronx Cannabis Hub. These resources enabled her to gather all the necessary application paperwork and navigate the licensing procedure's complexities. At the Bronx

**PARTICIPATION IN
BRONX BUSINESS
TECH INCUBATOR**

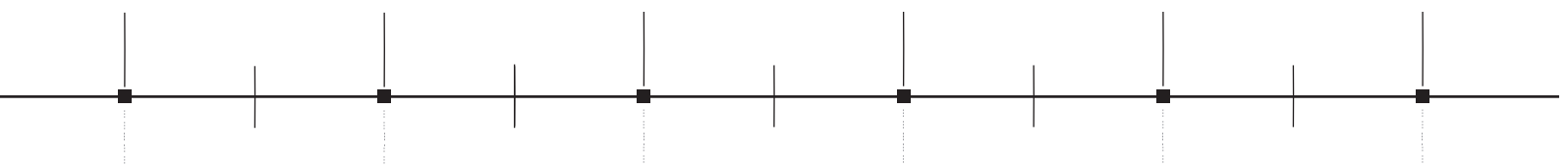
**DECIDING ON A
MICROBUSINESS
LICENSE**

**SUPPORT FROM
BUSINESS DEVELOPMENT
CENTERS**

**CHALLENGES
WITH
FUNDING**

**SUPPORT
FROM INDUSTRY
ASSOCIATIONS**

**COLLABORATION
WITH WORKFORCE
INSTITUTIONS**



Cannabis Hub, Lucy got assistance in obtaining a certificate of disposition for her father’s sealed cannabis-related case. Meanwhile, at the Tech Center, she formalized her business entity, Paradise Pastries. Under the guidance of the program’s business advisor, Lucy developed a comprehensive business plan outlining short, medium, and long-term goals, as well as marketing and branding strategies. Additionally, with the support of her case manager, Lucy mapped out the steps for creating cannabis-infused baked products.

By the time the general adult-use cannabis licensing window opened in early October of 2023, Lucy seized the opportunity to apply as a SEE applicant for the microbusiness license.

While Lucy eagerly awaits approval from the Cannabis Control Board, she finds herself struggling to secure adequate funding for construction and startup costs. Unfortunately, the federal classification of cannabis as a Schedule One controlled substance rendered many traditional sources of funding, such as low-interest loans from the Small Business Administration and conventional bank loans, inaccessible to Lucy. Additionally, Lucy is ineligible for support from the New York Social Equity Cannabis Investment Fund, which is exclusively available to Adult-Use Retail Dispensary license holders and not microbusinesses like hers.

Faced with limited options, Lucy searched relentlessly for alternative financing avenues only to encounter a landscape filled with predatory financial offers. She received calls and messages about unconventional term loans with high-interest rates and dubious loan-to-own schemes. Feeling overwhelmed and disheartened by the predatory nature of these offers, Lucy began to question the integrity of the social equity program designed to support entrepreneurs like herself.

However, amidst the uncertainty, Lucy found comfort and support through her connections with the Cannabis Association of New York (CANY). Lucy was not the only one receiving these exploitative offers. One member was offered a \$1 million investment in exchange for 49% equity in their company. Drawing on the collective experiences and insights from other members of the association, Lucy was able to identify and deflect these predatory practices. CANY also provides access to a vetted network of potential lenders and investors. Currently, she is

exploring the possibility of securing a loan from Canna Business Resources.

KEY CHALLENGES

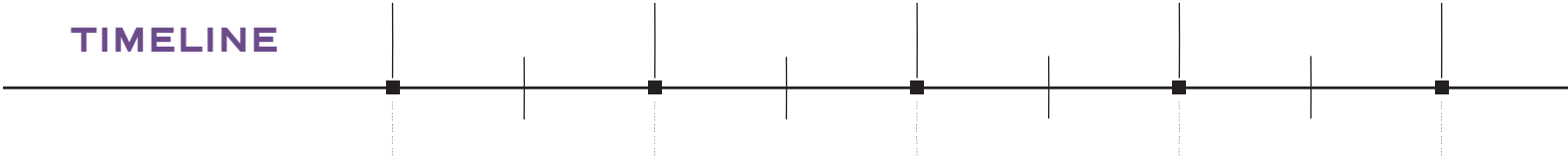
- Demystifying Licensed Opportunities: Lucy had a strong sense of the type of business that they wanted to create but was unsure of the appropriate license to pursue.
- Funding Hurdles: Lucy faced challenges securing funding for construction and startup costs due to federal restrictions on cannabis, rendering traditional funding sources inaccessible.
- Predatory Financial Offers: Lucy encountered predatory loan offers with high-interest rates and dubious terms, which attempted to exploit her limited financing options.
- Ineligibility for Support Programs: Lucy’s microbusiness was ineligible for support from the New York Social Equity Cannabis Investment Fund which only supports retail dispensaries.

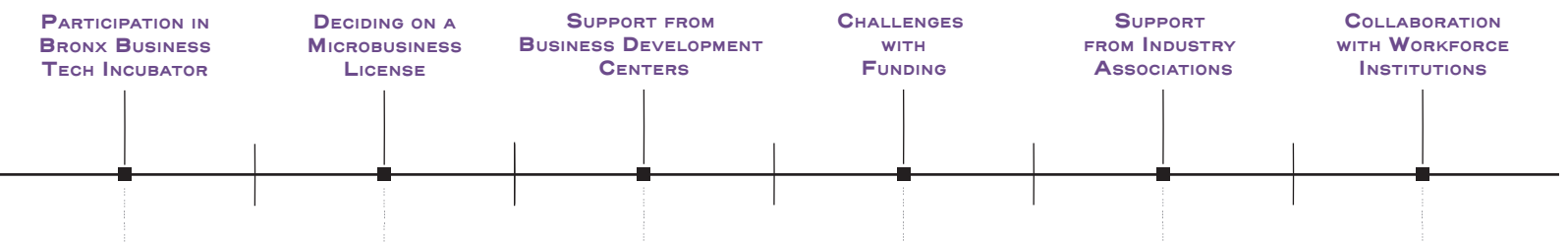
LOOKING FORWARD

As she looks ahead to the future of the industry, Lucy envisions not only creating cannabis-infused Caribbean-inspired delicacies but also innovating consumption methods to destigmatize cannabis. Grateful for the support from Lehman College, Lucy is eager to collaborate with them once her business opens. She plans to offer internships and employment opportunities to individuals trained by Borough of Manhattan Community College. Through these initiatives, Lucy aims to contribute to the growth and professionalization of the cannabis industry while providing education and employment opportunities.

EARLY INVOLVEMENT IN FAMILY BUSINESS SUCCESSFUL BAKERY OPERATIONS IDENTIFYING NEW OPPORTUNITY WITH CANNABIS LEGALIZATION ENROLLMENT IN CANNABIS WORKFORCE INITIATIVE DEVELOPMENT OF BUSINESS PLAN

TIMELINE





PERSONA 3

MIKAEL KOURY Non-Profit

OVERVIEW

License type: Conditional Adult-Use Retail Dispensary (CAURD)

Business structure: Nonprofit with at least one justice-involved board member

SEE qualifications: Qualified Non-Profit

Note: Mikael Koury, New Opportunities, and New Opportunities Cannabis Co. are fictional people and organizations modeled on a composite of real-life stories. All other organizations and resources mentioned in this persona are real.

KEY INSIGHTS

Strategic Planning and Research: Mikael and New Opportunities recognized the importance of strategic planning and thorough research in navigating the cannabis license application process.

Network Utilization: Tapping into their network proved essential for New Opportunities in finding and securing a suitable retail location for their dispensary. This highlights the significance of leveraging connections and partnerships in overcoming business challenges.

BACKGROUND

Mikael Koury, a veteran with a history of arrests for cannabis possession, found support and solace at New Opportunities, a nonprofit whose mission is to empower justice-involved individuals by helping them develop the necessary skills to obtain high-road careers in tech. Because of Mikael's justice-involved background, he found it difficult to secure meaningful work that paid a sustainable wage, despite being a veteran. At New Opportunities, he found community and the resources needed to embark on a transformative career journey in tech. After completing the program, he secured a position within the tech division of a company and eventually ascended to a managerial role.

Mikael remained involved with New Opportunities over the years, where he volunteered his time by mentoring others in similar situations. As a result of this commitment, he met and developed a deep bond with the board of trustees and eventually became a trustee himself. When New York State announced the opening of applications for Conditional Adult-Use Retail Dispensary (CAURD), Mikael saw an opportunity to diversify the funding streams for New Opportunities while helping to demystify cannabis and provide additional opportunities to the justice-impacted community. Inspired by the success of other nonprofits who opened retail dispensaries in Manhattan and fueled by a personal belief in the therapeutic potential of cannabis for veterans like himself, Mikael sought to establish a retail dispensary. Led by Mikael, New Opportunities created a vision for a cannabis dispensary that valued social impact over profits. New Opportunities aimed to not only provide access to high-quality cannabis products with therapeutic benefits, but to also increase their revenue to support programming while creating career and job training opportunities for justice-impacted individuals.

BUSINESS PATH

As Mikael delved into the eligibility requirements and intricacies of the CAURD program, Mikael confirmed that New

MIKAEL
JOINED NEW
OPPORTUNITIES

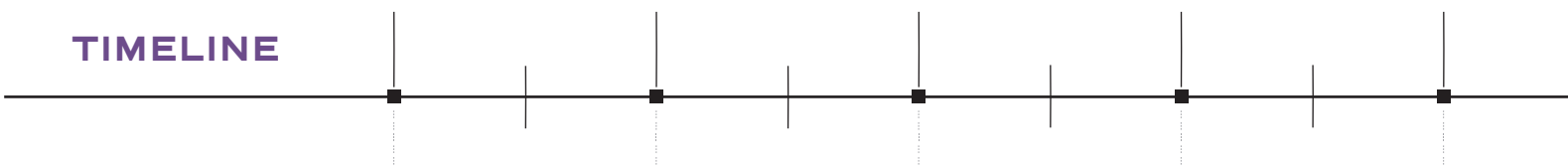
MIKAEL BECAME
A GM AT A TECH
COMPANY

CAURD LICENCE
APPLICATIONS
FOR NONPROFITS OPEN

MIKAEL PARTNERS
WITH NEW OPPORTUNITIES
TO APPLY FOR THE
CAURD LICENSE

NAVIGATED
CAURD
LICENSE
APPLICATION

TIMELINE



Opportunities qualified as a nonprofit organization eligible to submit for a CAURD license because of its established track record of providing vocational opportunities to justice-involved individuals. Mikael would serve as the justice-involved board member, fulfilling one of the criteria outlined in the licensing requirements. The structure also guaranteed New Opportunities could redirect future business profits toward workforce and support services.

KEY CHALLENGES:

Career Transition for Justice-Involved Individuals: Mikael faced challenges in finding meaningful work due to his justice-involved background, despite being a veteran. This highlights the broader issue of reintegration into the workforce for individuals with criminal records and the importance of inclusion in cannabis.

Cannabis License Application Process: Mikael encountered obstacles in navigating the complex eligibility requirements and application process for the Conditional Adult-Use Retail Dispensary (CAURD) license. This included concerns and confusion around regional allocations and the lack of available information on existing applicants.

Securing Suitable Retail Location: New Opportunities faced numerous difficulties in finding a suitable brick-and-mortar location for their dispensary, including issues with proximity rules, community facilities, landlord collaboration, and cost prohibitions.

OPPORTUNITIES AND RESOURCES

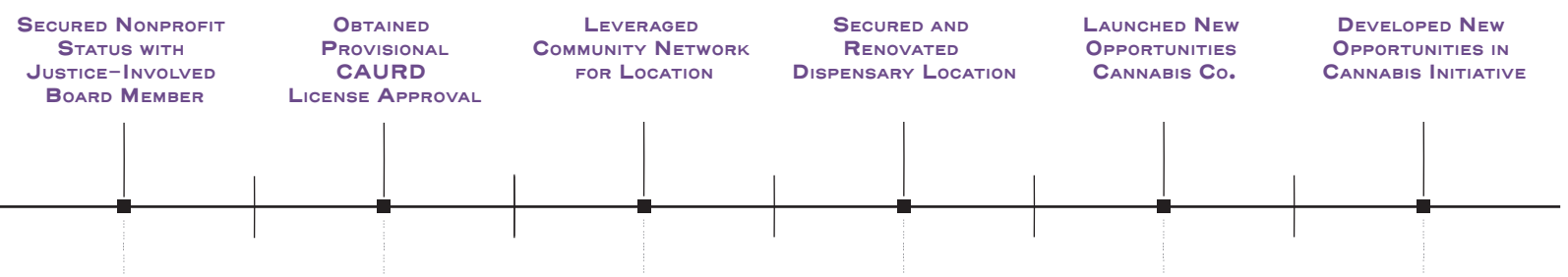
After assessing the eligibility requirements, Mikael began the license application process. Navigating through the preferred regional selection, Mikael grew apprehensive about the potential competition due to perceived licensing cap restrictions imposed by the state at the beginning of the program. He feared that the

high demand for CAURD licenses diminished their chances of securing a license in a highly sought-after region. Specifically, he worried that their preferred region might reach the allocated threshold for licenses, which would put them on a waiting list.

Mikael and New Opportunities understood the importance of strategic planning, and regional and allocation dynamics to business success. This was especially true in cannabis given the potential regional allocation caps and priority-protected locations for existing businesses. Because he could not find any available information on the location of applicants, he took a proactive step by requesting the information from the regulatory agencies and later filing a Freedom of Information Act (FOIA) request. Once they received more information on the locations of existing applicants, they made the strategic decision to prioritize Queens as their first regional preference with the Bronx as their second. New Opportunities applied for a CUARD license and was provisionally approved. In order to finalize the process, they needed to secure a brick-and-mortar location that met proximity requirements.

Mikael quickly realized that securing a store location would be a daunting challenge. Unlike individual license recipients, nonprofits do not have access to many of the resources available to individual CUARD applicants, such as the Social Equity Cannabis Fund (the Fund). The Fund offers support to social equity entrepreneurs in establishing adult-use cannabis retail dispensaries and covers various expenses, including identifying suitable retail locations and designing and outfitting the spaces.

Without any support, New Opportunities had difficulty identifying potential locations that met the regulatory requirements. Many available locations failed to adhere to proximity rules, were too close to community facilities, or had landlords who were hesitant or unable to collaborate due to mortgage limitations or personal aversion to cannabis. Others were cost-prohibitive, with landlords who sought to capitalize on the demand for compliant cannabis space. Eventually, by tapping into their network New Opportunities managed to find and secure a location in Queens and submitted it for approval.



KEY RESOURCES

Strategic Planning and Research: Mikael and New Opportunities engaged in strategic planning and thorough research to navigate the complexities of the CAURD license application process. They assessed eligibility requirements, regional dynamics, and competition, highlighting the importance of informed decision-making.

Community Network: Leveraging their network proved crucial in finding and securing a suitable location for the dispensary. By tapping into their connections, Mikael and New Opportunities were able to overcome challenges such as proximity rules, landlord collaboration, and cost prohibitions.

NOCC team is excited to support more Social Equity licensees in creating a truly equitable cannabis market.

LOOKING FORWARD

Once renovations were complete, New Opportunities was finally able to open its dispensary, New Opportunities Cannabis Co (NOCC), in Astoria. Having learned firsthand the challenges of opening a dispensary in a highly regulated market, NOCC sought to support other social equity entrepreneurs seeking to apply for an adult-use retail dispensary license through the New Opportunities in Cannabis Initiative (NOCI). Participants will have access to a supportive network of like-minded individuals and industry professionals from the New York Cannabis Retail Association, the Cannabis Association of New York, and the Bronx Cannabis Hub, among others.

Mikael and New Opportunities were determined to empower the communities the nonprofit serves, as well as other social equity individuals. Their journey will be made easier when the state later revised the regulations to remove the cap on the number of recreational cannabis business licenses. This change ensures that future applicants, like those supported through NOCI, would have more opportunities to enter the market without facing the previous restrictions.

Additionally, using a portion of the dispensary’s profits, they developed a six-week course to help equip aspiring entrepreneurs with the essential skills and knowledge needed to navigate the complexities and regulatory changes of the cannabis industry, including the application process, compliance, business planning, financial management, and real estate acquisitions. The

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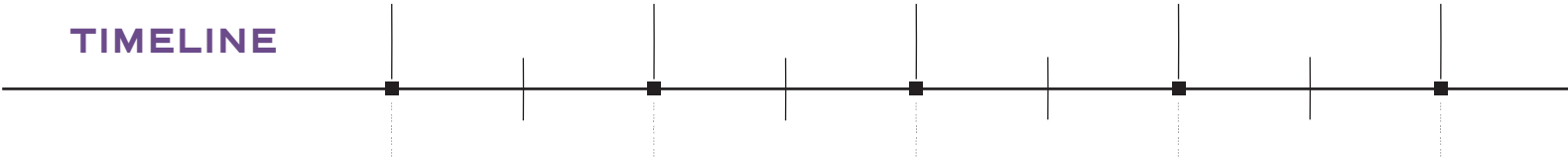
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TIMELINE





APPENDIX D | GLOSSARY OF TERMS

Cannabis Industry Equity: Refers to the comprehensive inclusion and support of communities disproportionately affected by cannabis prohibition in the legal cannabis market. This encompasses targeted programs and policies designed to prioritize individuals and businesses from these communities, ensuring they have access to resources, licensing opportunities, and financial support.

Cannabis Social Equity: Initiatives and programs designed to rectify the historical injustices and systemic inequities caused by cannabis prohibition. These efforts focus on providing support and opportunities to individuals and communities disproportionately impacted by past cannabis enforcement.

Plant-Touching Jobs: Jobs that directly interact with the cannabis plant, including breeders, cultivators, processors, retail workers, and distribution staff.

Ancillary Jobs: Positions that support cannabis business operations without directly interacting with the cannabis plant. Examples include administrative roles, sanitation, security, training, HR, payroll, HVAC, construction, IT, legal/compliance, and policy analysis.

Microbusiness: A type of cannabis business license that allows for small-scale, vertically integrated operations, often combining cultivation, processing, and retail functions.

Social Equity Applicants: Individuals or businesses that qualify for certain cannabis licensing opportunities based on criteria related to historical cannabis-related convictions, residency in impacted communities, or other designated social equity factors.

Federal Prohibition: Refers to the period and policies under which cannabis was classified as a Schedule I drug under the Controlled Substances Act of 1970, making its possession, cultivation, and sale illegal under federal law.

Workforce Development: Programs and initiatives designed to build in-demand skills, enhance job quality, and provide career advancement opportunities in the cannabis industry.

Conditional Adult-Use Retail Dispensaries (CAURD): A category of cannabis retail licenses reserved for applicants who meet specific criteria, including justice involvement and qualifying business experience.

New York Social Equity Cannabis Investment Fund: A fund created to support social equity licensees in securing leases for retail cannabis dispensaries.

Labor Peace Agreement (LPA): An agreement between a cannabis business and a labor organization committing the employer not to interfere with potential union organizing.

Transferable Skills: Skills gained in one industry that are applicable and valuable in another, such as those in customer service, manufacturing, sales, and marketing, relevant to the cannabis industry.

Responsible Vendor Training (RVT): Training required by New York State for all adult-use cannabis licensees

to ensure employees are knowledgeable about regulations and compliant practices.

Legacy Cannabis Operators: Individuals who have been involved in the cannabis market prior to its legalization and are transitioning to the legal market.

Incubators: Programs or facilities that offer resources, mentorship, and support to help new cannabis businesses succeed, often providing shared office space, equipment, and professional services.

Track and Trace Systems: Electronic systems used to track cannabis products through the supply chain, ensuring regulatory compliance and inventory management.

Gray Market: Unlicensed cannabis retailers that operate outside the legal framework, avoiding taxes and regulatory expenses, often competing with licensed businesses by offering lower prices.

THC Potency Tax: A tax structure based on the THC content of cannabis products, with varying rates for different product categories.

Equitable Fee Reductions: Programs that reduce fees for social equity applicants to support their entry and success in the cannabis industry.

Workforce Initiative: Programs and partnerships aimed at developing a skilled workforce for the cannabis industry, often involving educational institutions, unions, and community organizations.

Participatory Funding Processes: Funding mechanisms that involve community members in decision-making to ensure that resources are allocated in ways that promote sustainable economic advancement and social justice.

APPENDIX E | METHODOLOGY

This report combines primary and secondary data, focusing on equity in cannabis, workforce development needs, and entrepreneurial interventions. The research team conducted a literature review on each focus section, scanning industry reports, news articles, and data to document primary needs and existing or emerging solutions. Each section also included stakeholder interviews, which provided relevant, NYC-specific insights from cannabis advocates, experts, entrepreneurs, and program operators. Finally, the research team deployed a survey among current and aspiring cannabis entrepreneurs and job seekers. The study followed systematic steps for thorough exploration, following the phased approach outlined below:

- Phase 1: Defining and Measuring Equity in Cannabis
- Phase 2: Exploring Cannabis Workforce Development Needs
- Phase 3: Addressing Entrepreneurial Needs

First, research questions were defined. Extensive desk research developed initial hypotheses, refined with new information from further research and stakeholder interviews. This mixed-method approach deepened understanding and validated hypotheses. Finally, case studies were designed to highlight best practices and strategies for promoting social equity.

Insights from secondary and primary research were synthesized to create comprehensive career pathway visualizations, entrepreneur personas, and recommendations for equitable entrepreneurship and workforce opportunities. The findings provide a foundation for understanding equity in the cannabis industry, specifically in NYC.

Phase 1: Defining and Measuring Equity in Cannabis

The aim was to understand the equity landscape nationally and locally. Key activities included:

- Conducting over 55 secondary data and literature reviews on existing definitions of equity.
- Examining how these definitions are measured and implemented.
- Identifying obstacles and best practices for supporting social equity and the legacy workforce.

Guiding questions included:

- How can cannabis legalization equitably distribute wealth and power for entrepreneurs and job seekers?
- Which cities have social equity initiatives similar to NYC?
- How do stakeholders define equity?
- What factors contributed to these definitions?
- What policies resulted from these definitions?

Phase 2: Exploring Cannabis Workforce Development Needs

The study examined the cannabis workforce landscape, analyzing occupational growth and national equity programs. Key questions included:

Opportunities:

- Which industries and occupations are growing in cannabis employment?
- What job roles interest targeted populations?
- What barriers exist for job seekers?

Training:

- What knowledge, skills, and abilities do job seekers need?
- What training programs and certifications are sought after?
- What obstacles impede qualification acquisition?

Hiring:

- What infrastructure creates equitable job connections?
- What barriers hinder effective hiring practices?

Job Quality:

- What job quality standards should be implemented?
- What career advancement pathways exist?
- What challenges ensure job quality?

Overall Pipeline:

- What best practices are employed in workforce programs elsewhere?
- How can NYC improve existing workforce programs?

The report outlines potential career advancement pathways and job quality standards.

Phase 3: Addressing Entrepreneurial Needs

The study explored entrepreneurial opportunities in cannabis. Key activities included:

- Reviewing data on cannabis entrepreneurship.
- Summarizing opportunities, skills, resources, and barriers for entrepreneurs.
- Examining effective public-private partnerships and strategies to increase access to resources.
- Developing personas to illustrate practical aspects of entering the cannabis sector.

These activities were synthesized into the report, summarizing opportunities, skills, barriers, and effective practices. The report also includes recommendations for NYC to become an equity-focused leader in the cannabis sector.

Stakeholder Mapping

A preliminary map of stakeholder categories was created, capturing varying definitions of equity in the workforce and entrepreneurship ecosystems. Categories included government, community advocates, national experts, academic experts, major market players, entrepreneurs, workers, and job seekers.

Stakeholder Interviews

Twenty-five foundational interviews validated and expanded the findings. Interviews included:

- Eleven with government and industry leaders.
- Six with workforce providers.
- Eight with legacy operators, entrepreneurs, and license seekers.

Workforce Programs Case Studies

During the second phase of the Cannabis Equity Study, the consulting team selected case studies that showcase key characteristics in training, career opportunities, and credentialing for individuals pursuing cannabis careers. These institutions—Oaksterdam University, the Cannabis Educational Center, and Cookies University—present unique qualities and strategies that stand out in the field. The team developed criteria based on job training success, equity and accessibility metrics, tailored curricula, and high job placement rates to vet and select these programs. The selection process involved a broad review of cannabis workforce programs across the United States, followed by detailed evaluations against these criteria. Interviews with representatives from each program provided direct insights into their structure and outcomes, supplemented by information from program websites and participant testimonials. This research identified best practices to enhance workforce development initiatives in the cannabis industry, contributing to its sustainable growth.

Career paths in Cannabis

The research team chose different career paths within each sector of the cannabis industry. While the pathways may not account for every potential career path, they are intended to represent and help demystify job opportunities within key verticals of the industry's supply chain. The team then collected pay range data from various sources, including industry reports and career interest surveys from the Vangst salary guide, Cannabis Team, Leafly, Indeed, and Glassdoor. They then calculated the median of the lowest and highest hourly pay rates specifically for New York City. Given the high variability in pay ranges, using median values helped to reduce the influence of extreme values. These median figures were further verified against actual job postings to ensure accuracy.

Workforce Profiles

Five selected pathways were chosen to capture potential opportunities in each sector of the cannabis industry. Considerations for job quality were considered, most notable pay ranges. The team reviewed available sources, including industry staffing and salary reports, conceptual staffing profiles, job postings, company architecture, training materials from workforce training providers, and insights from training providers and employers, to inform the analysis.

As a baseline the pathways represent the skills and experience needed from new entrants into the workforce, as well as transitional workers from adjacent industries, legacy cannabis workers, and veterans. These career profiles depict information about job titles, education, and experience requirements for employers at all levels, from early career to highly skilled levels.

Entrepreneurship Personas

The personas developed are based on aggregated and synthesized qualitative data from primary and secondary

sources. Primary research involved gathering personal entrepreneurial anecdotes through in-depth interviews with individuals in the cannabis industry, providing valuable insights into their challenges, strategies, and successes. Secondary research included publicly available interviews and news articles to supplement the primary data, cross-referenced with the Office of Cannabis Management's online informational resources for accuracy. Interview transcripts were analyzed to identify recurring themes in entrepreneurial journeys, such as common pain points, resources, and licensing strategies. Each persona narrative introduces the background, outlines the business path, explores available opportunities and resources, addresses encountered challenges, and concludes with future prospects.

Limitations

Data Availability and Quality

The quality and availability of secondary data sources vary, potentially affecting the reliability of the insights drawn from these sources. Some datasets may be outdated or incomplete, limiting the accuracy of the analysis.

Changing Legal and Regulatory Landscape

The cannabis industry is rapidly evolving, with frequent changes in laws and regulations. This dynamic environment can impact the relevance and timeliness of the study findings. Policies and programs highlighted as best practices may quickly become outdated or less effective as the industry progresses.

Engagement Gaps

Potential engagement gaps with certain populations, especially those most affected by cannabis criminalization, may result in underrepresentation of their perspectives. Efforts to include marginalized voices were made, but some groups may still be underrepresented in the study.

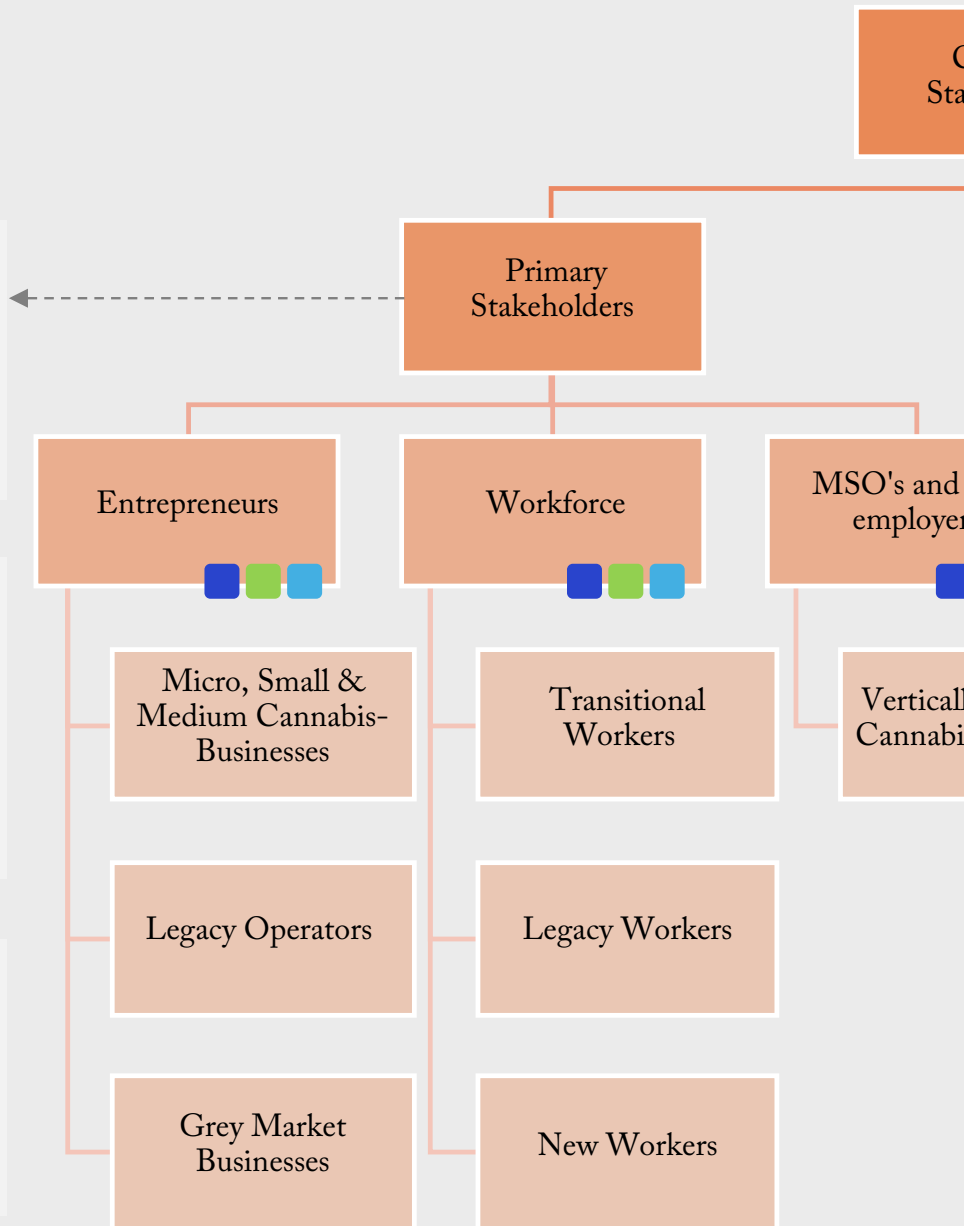
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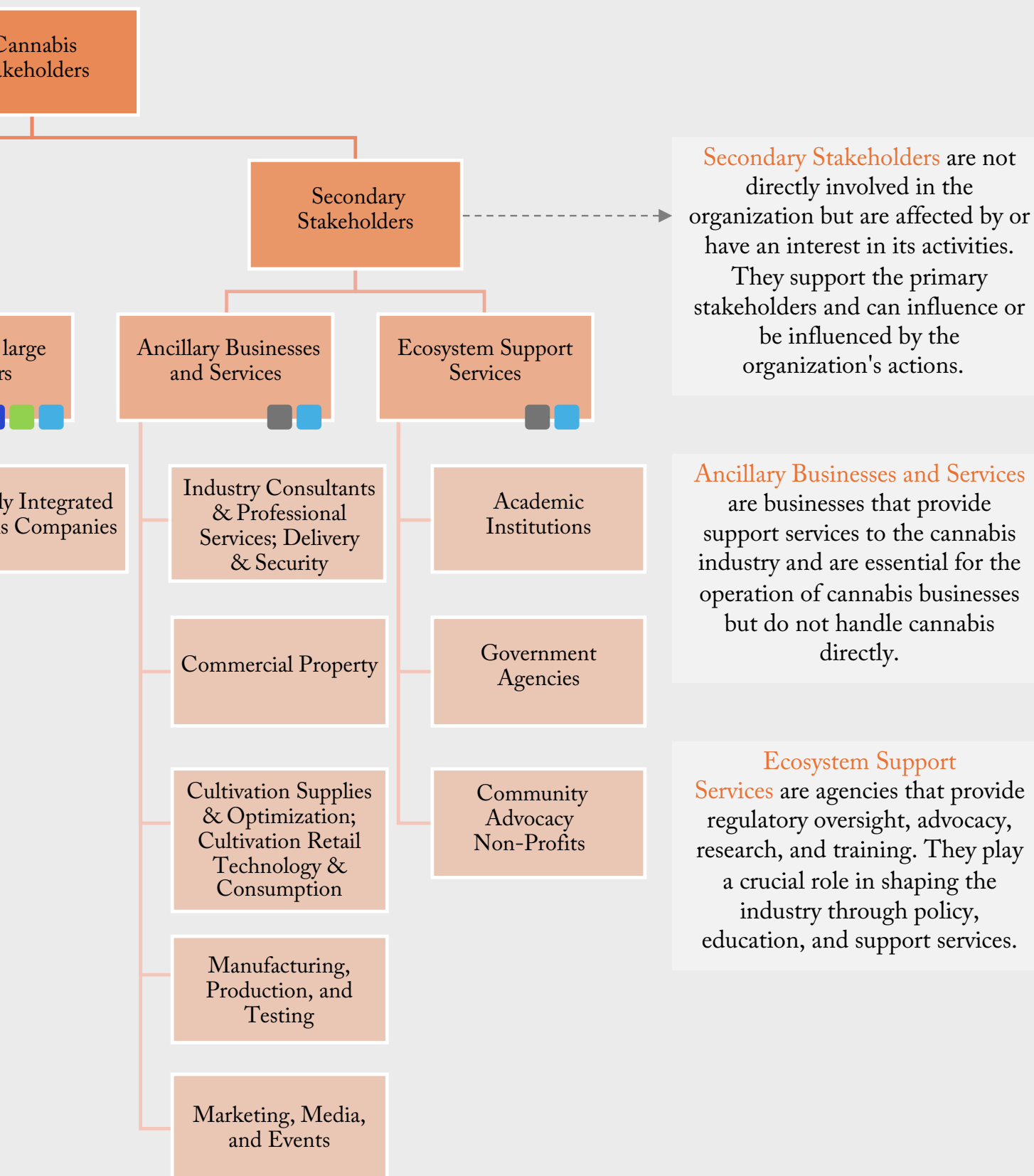
Primary Stakeholders are directly involved with the organization and are essential to its survival. They have significant impact on the organization's operations and outcomes.

Entrepreneurs are business owners and license seekers running or seeking to start cannabis businesses. They participate directly in industry day-to-day operations and decision-making.

Workforce is the employees and job seekers within the cannabis industry or looking to transition into it. They are integral to the production, processing, and sales of cannabis products.

MSO's and large employers are companies that have significant resources and scale to operate across multiple states, often holding licenses to cultivate, process, and dispense cannabis products in each location.





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