Hudson Valley Cannabis Workforce Blueprint: Cultivating Careers 2025

Pilot Study

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In partnership with SUNY Orange & NYSC Connect Corp.
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A letter from New York State Cannabis Connect Co-Founder & CEO

Hudson Valley Cannabis Workforce Blueprint: Cultivating Careers 2025

The Hudson Valley Cannabis Workforce Blueprint: Cultivating Careers marks a historic milestone in New York's journey toward building an equitable, data-driven cannabis industry. This research is more than a report; it is a living blueprint for how education, policy, and industry can work together to shape a sustainable and inclusive workforce.

At **New York State Cannabis Connect (NYSCC)**, our mission has always been to bridge communities, education, and opportunity. Through our deep relationships across the state—with licensees, ancillary businesses, workforce boards, and educational partners, we were able to execute this first-of-its-kind cannabis workforce research initiative. The trust that the industry has placed in us speaks volumes about our shared vision for the future and our ability to transform community collaboration into meaningful statewide impact.

We extend our sincere gratitude to the **Hudson Valley Education and Workforce Consortium (HVEWC**), made up of **SUNY Orange, Westchester, Sullivan, Rockland, Dutchess, and Ulster**. As well as to **Dr. Jean Leandre, Vice President for Workforce, Strategy, and Innovation at SUNY Orange**, for their leadership in championing this initiative. The collective vision for workforce alignment and regional collaboration has been instrumental in bringing this groundbreaking project to life.

We are proud that this is **the first workforce survey ever commissioned by the State University of New York (SUNY),** focusing on **job creation** and the **economic impacts** of the cannabis industry as envisioned by the MRTA. This achievement underscores the state's commitment to using data as a tool for equity, accountability, and growth.

This study examines the **cannabis workforce roles and skills** emerging across license types and highlights how hiring needs align with the state's broader equity goals. This is evidence that New York is making measurable progress toward equitable participation in this new economy. Yet, the data also make clear that to grow an **equitable and competitive workforce, continued resources, investment, and sustained** funding are essential to fully realize the promise of the MRTA.

What makes this study truly unique is its **two-sided approach**. We didn't just hear from **licensees** about the services they use and what they invest in—we also spoke directly with **ancillary businesses** to understand how the cannabis industry is transforming their world, too. By combining these perspectives, we've built the state's first **comprehensive picture** of how cannabis creates opportunity, drives local economies, and connects people across industries.

This research lays the foundation for continued collaboration between **education, government, and industry**. Because we cannot grow the industry without first growing the workforce. We must **plant the seeds now**, and the data shows that they are already beginning to take root.

Thank you to everyone who participated in this survey. We value your insights and expertise.

This is a win for the culture, a win for equity, and a win for the future of New York's cannabis economy.

With gratitude,

Tiffany Walters
Co-Founder & CEO
New York State Cannabis Connect

Part I. Executive Summary

This Pilot Study of the Hudson Valley's Cannabis Sector, Hudson Valley Cannabis Workforce Blueprint: Cultivating Careers 2025, provides a critical assessment of the industry's early economic footprint and its capacity for sustained job creation, directly addressing the mandate of New York State Finance Law § 99-ii (3)(d)(iii)(G) regarding economic impacts and revenues.

The study focuses on six counties in the mid-Hudson region: Westchester, Dutchess, Orange, Ulster, Rockland, and Sullivan. Westchester, Dutchess, Ulster, and Orange Counties account for the majority of the FTE workers captured in this survey.

There were **68 out of the 170** (40%) licensees and **12 ancillary businesses** surveyed between **August 20, 2025, and November 12, 2025**. The data confirms a robust economic foundation anchored by a total workforce of **1,186 employees**, including:

- **800 FTE (67.45%)**
- **214 PTE (18.04%)**
- **96 Contract Workers (8.09%)**
- **76 Seasonal Workers (6.41%)**

Crucially, the sector demonstrates **aggressive future growth intent**, with the **Future Hiring Index (FHI) at 93.75%**—signaling that a majority of cannabis businesses intend to hire over the **next 6–12 months**.

However, this expansion is threatened by a **systemic workforce quality issue**: **53.75%** of all businesses identified "Lack of qualified candidates" as their *Top Training Deficiency*.

This skills gap represents the single greatest obstacle to achieving the state's job creation goals and future tax revenues.

The crisis is especially acute for Social and Economic Equity (SEE) licensees, who represent the majority of respondents. With **49% SEE Workforce Representation**, the success of the MRTA's redress goals is directly tied to solving the talent pipeline issue. Among SEE-owned companies, **54.17%** report difficulty finding qualified candidates.

The sector is primed for economic growth and job creation, but requires **immediate, data-driven intervention** to develop a qualified talent pipeline capable of meeting New York's cannabis workforce needs.

Part II. Introduction

This workforce study was conducted in alignment with **New York State Finance Law § 99-ii**, which establishes the Cannabis Revenue Fund and directs investments in research, data collection, and analysis to measure the broader social, economic, and workforce impacts of New York's cannabis industry. The statute outlines multiple areas of inquiry, ranging from job creation and workforce participation to economic development, tax revenues, and social equity outcomes, that guide the framework of this report.

A **Memorandum of Understanding (MOU)** was established between SUNY Orange and NYSC Connect Corp., through which SUNY Orange contracted with NYSC Connect Corp. to prepare, administer, analyze, and summarize findings from the **Hudson Valley Cannabis Workforce Blueprint: Cultivating Careers 2025** on behalf of the **Hudson Valley Education and Workforce Consortium (HVEWC)**. The goal of the survey was to capture meaningful data on workforce needs, hiring trends, operational challenges, and economic opportunities that influence both license-holding businesses, such as growers, manufacturers, retailers, and the ancillary industries that support them, including logistics, compliance, construction, marketing, and professional services.

The findings presented in this report represent the first regional pilot study of its kind, conducted across **Dutchess, Sullivan, Orange, Ulster, Westchester, and Rockland Counties**, capturing firsthand perspectives from participants throughout the cannabis supply chain and its related ecosystem.

2.1 Study Scope and Limitations

The pilot survey is not intended to evaluate the duties of the Cannabis Control Board, but to collect data from active participants in the cannabis industry. The analysis reflects feedback from licensees and ancillary businesses in **Dutchess, Sullivan, Orange, Ulster, Westchester, and Rockland Counties**.

The survey ran from **August 20, 2025, to November 12, 2025**. This pilot establishes the **initial regional baseline** for year-over-year workforce monitoring envisioned under NYS Finance Law §99-ii. Participation was **voluntary**, and all responses reflect active cannabis licensees and ancillary firms in the region at the time of the survey. Of the 85 total respondents, 73 were licensees and **12 were ancillary businesses**. After removing non-consenting, incomplete, and duplicate entries, **68 valid licensee responses** remained.

Survey Instruments:

Two surveys were administered:

1. **Licensee Workforce Survey**

2. Ancillary Support Services and Workforce Survey

Both surveys captured data on workforce size, staffing structure, hiring challenges, training needs, support services, and expectations for future growth.

Margin of Error

Licensees

- Population (N): 170
- Responses (n): 68
- Margin of Error (95% confidence): **±9.23%**

This means the results are highly reliable and statistically representative of the licensee population.

Ancillary Business Methodological Note

Given the new and rapidly evolving nature of the industry, the total number of cannabis-serving ancillary businesses is not yet known:

- **No statistical margin of error can be calculated.**
- The 12 responses provide **directional insight**, not population-wide estimates.
- Survey invitations were distributed widely to all known ancillary providers.

Limitations of the Survey Data and Results:

- Respondents were licensees and ancillary businesses only in the named counties.
- The survey did not address criminalization or decriminalization among the populations in these counties.
- The survey did not address drug treatment and prevention programs or services.
- The survey does not offer comparisons to licensees in other New York counties outside the surveyed area.

2.2 Focus Questions

Within these parameters, the survey and this white paper focus on answering:

1. **Manpower impact:** What is the number of employees (full-time and part-time) and how is job structure organized?

2. To what extent does the data show that **50% of licenses are SEE-owned**, reflecting the MRTA goal?

3. What key operational issues are licensees experiencing?

4. What training needs and specific recommendations do licensees identify to enhance staff performance?

5. What is the extent and need for ancillary services to support licensees and the cannabis industry as a whole?

2.3 The Legal Requirement of the Survey

In 2021, the **New York State Marihuana Regulation and Taxation Act (MRTA)** was signed into law, making New York the 15th state to legalize adult-use cannabis. MRTA established a new regulatory framework and several core objectives:

- **Job Creation:** According to the Office of Cannabis Management (OCM), approximately **63,000 jobs** were projected to be created in the cannabis industry by 2025.

- **Economic Growth:** New York's cannabis industry was projected to exceed **$4 billion annually**, positioning it as one of the largest cannabis markets in the country.

- **Criminal Justice Reform:** Certain cannabis-related convictions would no longer appear on background checks when individuals apply for jobs, loans, or college admission. Under New York's cannabis reform laws, the records of those previously criminalized for eligible cannabis offenses are being expunged, removing barriers to employment, education, and economic opportunity. A key provision is that the expunged conviction will not be found unless the person applies for a gun license or a job in law enforcement.

- **Cannabis Revenue Fund:** MRTA mandated the creation of **State Finance Law § 99-ii** (Cannabis Revenue Fund) to promote, uplift, and fund statewide research on workforce development, economic impact, public health and safety, and social equity outcomes.

MRTA explicitly recognizes social equity issues and offers guidance on ways to address them:

- Research shows that the rates of cannabis use have not significantly varied by income, race, or ethnicity, yet people of color have historically faced higher rates of arrest and incarceration for cannabis-related offenses.

- MRTA intends to reduce the harm to all communities, particularly Black and Brown communities, and to ensure equitable access to participate and thrive in the legal cannabis industry.

- MRTA establishes **NYS State Finance Law §§ 99-ii, 99-kk, and 99-jj**, which collect cannabis tax revenue and allocate it toward key reinvestment priorities—40% to the Community Grants Reinvestment Fund, 40% to the State Lottery Fund for education, and 20% to the Drug Treatment and Public Education Fund—advancing equity, education, and public health statewide.

- MRTA sets a goal that **at least 50% of the businesses licensed to operate legal cannabis** will go to people from Social and Economic Equity (SEE) groups, including people of color, women, distressed farmers, service-disabled veterans, and individuals from communities most impacted by prior cannabis law enforcement practices.

Part III. Analysis of Survey Data: The Hudson Valley's Economic Footprint

3.1 The Inception of the Economic Engine: Quantifying Initial Impact

The objective of this pilot study was to move beyond projection and establish a verifiable, data-backed assessment of the Hudson Valley's cannabis sector. The findings, drawn from a survey of **80 entities** supporting the cannabis industry—**68 licensees and 12 ancillary businesses**—suggest that the industry has not only been successfully launched, but has already begun to develop a remarkably robust economic foundation, primarily through job creation. The total workforce identified across all surveyed entities stands at **1,186 staff**.

Table 1. FTE Calculation & Training Deficiency

Metric	Result	Calculation Details
Total FTE Count	800	Sum of FTE employees across all Licensee and Ancillary respondents.
Future Hiring Index (FHI)	93.75%	Percentage of all respondents planning to hire in the next 6–12 months.
Top Training Deficiency	53.75%	Percentage of all respondents who cited "Lack of qualified candidates" as a hiring focus.

The cannabis industry has demonstrated an early commitment to job quality and stability, with Full-Time Equivalent (FTE) positions comprising the vast majority of newly created roles. The total FTE count is **800,** representing the core employment base that contributes directly to the regional economic tax base. This figure, summarized in **Table 1 (FTE Calculation & Top Training Deficiency)**, is a tangible measure of the industry's early success in realizing the job-creation goal set forth by NYS Office of Cannabis Management (OCM).

The analysis of this workforce is immediately contextualized by an aggressive posture toward future expansion. The **Future Hiring Index (FHI)**, a critical forward-looking metric, stands at **93.75%**. This figure represents the percentage of all surveyed businesses—both licensees and ancillary firms—that explicitly stated plans to expand their workforces within the next **6 to 12 months**. The industry is poised to quickly expand its current economic footprint in the immediate future. The 93.75% FHI is an unequivocal market signal, confirming that the sector is committed to fulfilling the state's ambitious job-creation goals.

However, the analysis of this initial economic data reveals a profound, immediate paradox: the sector's aggressive growth intent is fundamentally undermined by a severe systemic constraint. Directly counteracting the strong FHI is the **Top Training Deficiency Rate** in Table 1, which registers at a staggering **53.75%**. This metric denotes the percentage of all respondents who identified a *"Lack of qualified candidates"* as the single greatest barrier to their ability to hire, scale, and realize their expansion plans.

This finding—that over half of the cannabis businesses surveyed were prevented from hiring the staff they need to capitalize on market demand—is the most critical structural finding of this survey. The skills gap is the primary obstacle impeding the sector's mandated economic growth and future tax-revenue generation. Without immediate and targeted intervention to bridge this significant talent gap, the high FHI will remain an aspirational, rather than achievable, goal. The **800 FTEs** represent the successful launch; the **53.75% top training deficiency** represents the impending challenge.

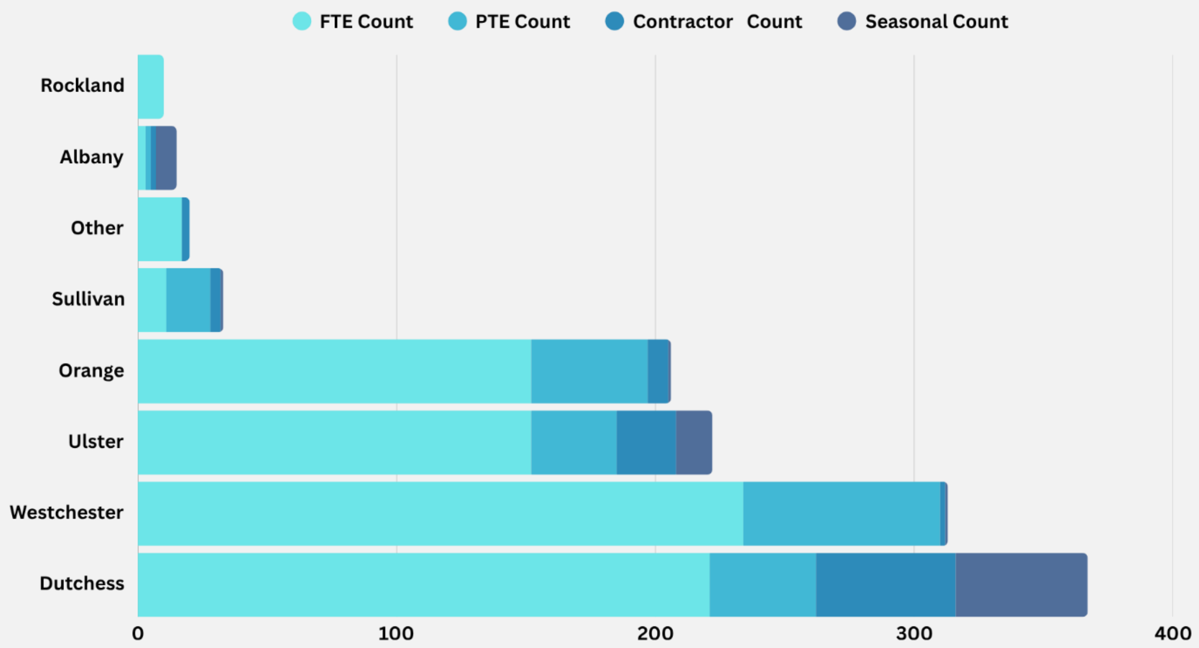
3.2 Geographic Distribution of the Early Workforce

The economic impact of this foundational employment base is not evenly distributed across the Hudson Valley region; rather, it is highly concentrated within a specific corridor of the upper valley counties. A detailed look at the **Employee Count by County (Table 4)** provides a geographical roadmap of the industry's earliest and most vital economic centers. This spatial analysis reveals a four-county dominance that accounts for the vast majority of full-time employment within the surveyed cohort.

Table 4: Employee Count by County (Geographic Impact)

This chart shows the distribution of full-time employment across the Hudson Valley region, highlighting the largest job creation centers.

County	FTE Count	PTE Count	Contractor Count	Seasonal Count	Total Count
Westchester	234	76	2	1	313
Dutchess	221	41	54	51	367
Ulster	152	33	23	14	222
Orange	152	45	8	1	206
Other	17	0	3	0	20
Rockland	10	0	0	0	10
Sullivan	11	17	4	1	33
Albany *	3	2	2	8	15
TOTAL	**800**	**214**	**96**	**76**	**1186**



**Data reflects respondent selections as submitted, including two Hudson Valley licensees who selected Albany County.*

The two clear leaders in job creation are **Westchester County**, reporting **234 FTEs**, and **Dutchess County** with **221 FTEs**. Together, these two counties account for **455 FTEs**, representing well over half of the total FTE workforce. The data show **Ulster County** and **Orange County with 152 FTEs each**. This dominance of four counties—each with 150 or more FTEs—results in a total of **759 FTEs**, indicating that early supply-chain operations—cultivation, manufacturing, and distribution—clustered in this area due to its infrastructure, logistics access, and concentration of licensees.

The pull toward this corridor may also reflect proximity to the larger metropolitan New York City area and existing industrial zones favorable for large-scale operations. The Dutchess County total of 221 FTEs confirms this upper corridor as a dual epicenter of job creation, highlighting the critical role this area plays in establishing the regional supply chain and operational manpower. The high numbers in these counties reflect substantial and stable investment in labor, laying the groundwork for sustained long-term economic activity.

The implications of this geographic data are twofold. First, it affirms where the state's early economic impact revenues are likely to be generated and concentrated. Second, it identifies the precise geographical areas where workforce development and training resources must be initially deployed to support both the existing and future labor pool.

3.3 Geographic Distribution: The Secondary Impact Centers

Following the primary epicenters of Westchester and Dutchess, economic impact flows into two other significant counties, rounding out the core quadrant of the Hudson Valley cannabis economy. **Ulster County** reports **152 FTEs**, and **Orange County** contributes **152 FTEs**. These figures position Ulster and Orange as crucial secondary impact centers, contributing approximately **304 FTEs** combined, and establishing a cohesive four-county block that defines the early economic landscape.

These counties host a mix of cultivation and manufacturing operations, alongside a growing retail presence, reflecting the diverse licensing ecosystem required to support a regional market. The combined workforce of the top four counties—Westchester (234), Dutchess (221), Ulster (152), and Orange (152)—totals **759 FTEs**. When compared against the overall total of **1,186 staff** (FTE and non-FTE), it is evident that this quadrant is the primary hub of the early industry.

In stark contrast to this concentration of full-time employment are the counties that show only minimal early economic impact. The data confirm that **Rockland County** and **Sullivan County** each report only **15 FTEs**. This low reporting suggests that, in the early stages of this pilot study, these areas have not yet seen significant operational scale-up from the surveyed cohort. While this may change as the industry matures, the current data underscore the highly localized nature of initial job creation.

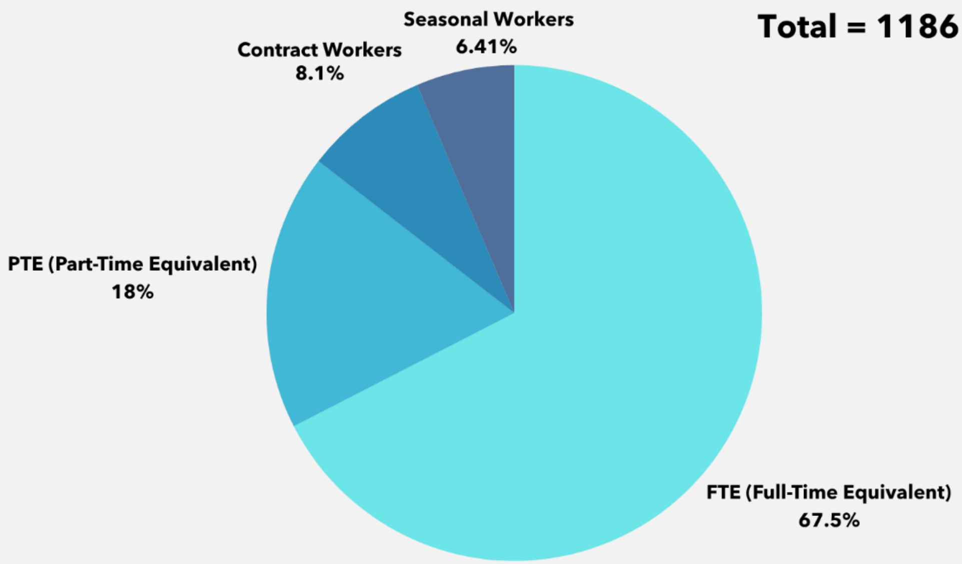
The total workforce figure of **1,186 staff**, as shown in Table 4, encompasses all reported positions (FTE, PTE, contract, and seasonal). This total helps contextualize the FTE concentration by highlighting that the vast majority of permanent, stable jobs are anchored in the primary four-county impact zone, leaving the remaining counties reliant on a smaller, more variable, or less concentrated employment base. This clear geographic disparity must inform policy decisions regarding resource allocation and regional economic development within the cannabis sector.

3.4 Workforce Stability, Structure, and Commitment to Labor Quality

A deeper examination of the **Job Structure data (Table 5)** reveals strong underlying stability within the cannabis sector's operational strategy. This analysis of the total workforce (1,186 staff) by employment type provides critical insights into the quality and nature of the jobs being created, directly addressing concerns about a proliferation of temporary, seasonal, or gig-economy labor models.

Table 5. Job Structure (Workforce Stability)

Job Type	Count	Percentage
FTE (Full-Time)	800	67.45%
PTE (Part-Time)	214	18.04%
Contract Workers	96	8.09%
Seasonal Workers	76	6.41%
Total	**1186**	**100%**



The data unequivocally demonstrate a commitment to stable, full-time employment: **67.45% of the total workforce (800 staff)** are classified as Full-Time Equivalent (FTE). This high percentage signifies that the industry is prioritizing reliable, non-transient labor—essential for maintaining operational consistency, ensuring product quality, and fostering the expertise required in a highly regulated environment. A commitment to FTE roles is a key indicator of an industry planning for long-term growth and investing in its human capital, rather than relying on short-term staffing solutions.

Part-Time Equivalent (PTE) employees make up **18.04%** of the total staff, accounting for **214 individuals**. While part-time labor plays a necessary role—particularly in retail and peak demand periods—its relatively small proportion reinforces the dominant full-time structure.

Most critically, the reliance on contract workers is remarkably low, standing at only **8.09%** (96 staff). Maintaining a contract labor ratio under 10% is a powerful finding. It confirms that core operational functions—from cultivation and manufacturing to sales and compliance—are being staffed by permanent, salaried, or hourly employees rather than outsourced contractors. This low contract reliance suggests a focus on developing internal knowledge and maintaining control over key business processes, further solidifying the industry's commitment to stable labor to ensure long-term operational consistency and regulatory compliance.

This strong preference for FTE labor is a positive sign for the regional economy. Full-time employment typically comes with greater compensation, benefits, and job security, translating into higher overall economic stability and greater tax contributions per employee. The workforce stability data strongly support the view that the cannabis sector is building a genuine, resilient employment base.

3.5 Job Creation Capacity: The Supply Tier vs. The Retail Tier

When analyzing the capacity for job creation across different licensing categories, a dramatic variation emerges, underscoring the vastly different operational manpower requirements between the supply and retail tiers. The **FTE per License Tier data (Table 3)** provide a clear quantitative measure of where the industry's greatest employment demands reside.

Table 3. FTE per License Tier (Licensee Only)

License Tier	Average FTE
Supply Tier	23.29
Retail Tier	5.91

Supply Tier licenses—encompassing cultivation, processing, and manufacturing operations—average a robust **23.29 FTEs per license**. This high figure reflects the significant manual labor, technical expertise, and operational overhead required to grow, harvest, extract, formulate, package, and distribute cannabis products at scale. These operations are typically capital-intensive, large-footprint facilities that necessitate continuous staffing across multiple shifts and specialized departments (e.g., HVAC maintenance, quality control, laboratory testing, logistics).

In stark contrast, Retail Tier licenses—which include dispensaries and related sales operations—average a significantly lower **5.91 FTEs per license**. This disparity, with the Supply Tier averaging more than four times the number of full-time employees as the Retail Tier, highlights the difference in operational complexity. While retail operations require specialized roles (budtenders, security, store managers), the staffing model is leaner and primarily focused on customer-facing sales and inventory management.

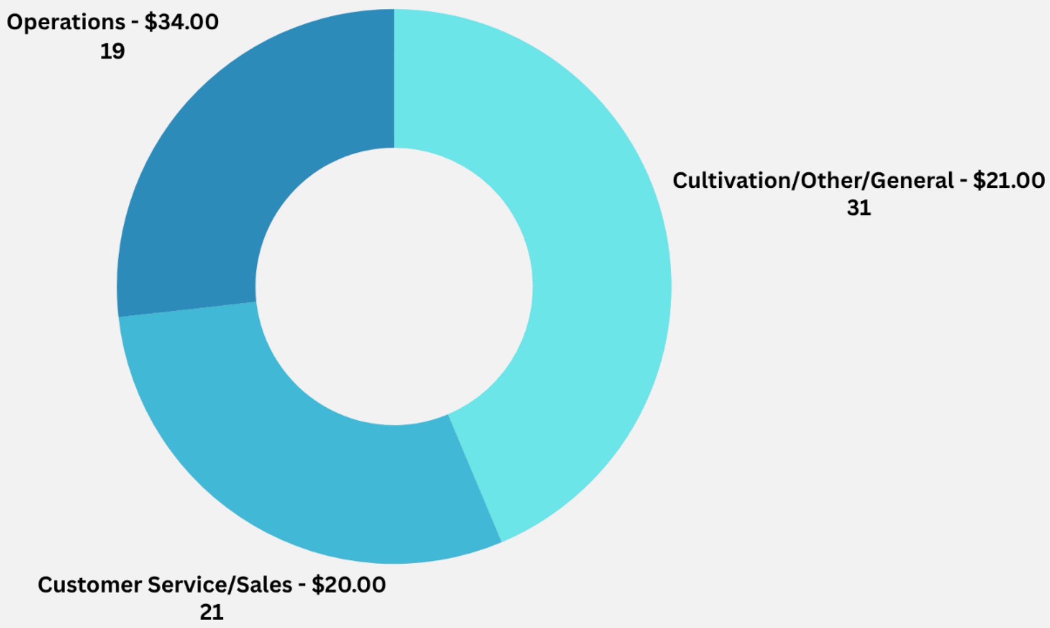
The implications for workforce planning are clear. While the retail sector is highly visible and geographically dispersed, the engine of job volume remains firmly rooted in the supply chain. Policy must therefore prioritize the financial stability and scalability of supply-tier operations to maximize total job creation. Training programs must be tailored to the distinct, high-volume labor needs of the supply side (e.g., packaging, trimming, general cultivation labor), while also addressing specialized, customer-centric roles in the retail environment. The data confirm that the production side functions as the industry's foundational employment multiplier.

3.6 Compensation Analysis: The Entry-Level Labor Market

The analysis of wages and labor demand provides a clear picture of the compensation landscape for the industry's highest-demand roles. By consolidating reported job functions into standard categories, **Table 6** outlines the frequency of demand and corresponding median hourly wages, offering essential intelligence for workforce development partners.

Table 6. Top 3 Roles & Average Wages

Standard Category	Frequency Count	Median Weighted Wage (USD)
Cultivation/Other/General	31	$21.00
Customer Service/Sales	21	$20.00
Operations	19	$34.00



The data confirm that the market is predominantly driven by foundational and customer-facing roles, which command competitive, standardized entry-level compensation:

- The highest frequency of labor demand falls under the **Cultivation/Other/General** category, with **31 mentions**. This category is typically associated with high-volume, entry-level tasks essential for production stability—trimming, packaging, inventory management, and general facility maintenance. The median hourly wage for these roles is **$21.00**.
- **Customer Service/Sales** roles, which form the direct interface with consumers in the retail environment, show a high demand frequency of **21 mentions** and command a median hourly wage of **$20.00**.

The disparity between these two high-demand categories—**$21.00** for foundational production labor and **$20.00** for customer-facing retail—suggests a strong market floor for entry-level employment within the Hudson Valley cannabis sector. These rates significantly exceed the state's standard minimum wage, supporting the attraction of a stable workforce.

However, the dominance of the Cultivation/Other/General category underscores persistent reliance on high-volume, entry-level staff, confirming that basic labor requirements are the largest and most immediate source of demand. While the median wage is competitive, the sheer volume of these roles reinforces the urgency of the training deficiency problem, particularly in upskilling candidates for these foundational yet critical positions. The data indicate that the industry is prepared to pay—**the supply of qualified candidates remains the bottleneck**.

3.7 Compensation Analysis: The Premium for Managerial and Oversight Roles

In sharp contrast to standardized hourly rates in high-volume entry-level categories, the data reveal a significant compensation premium for specialized managerial and oversight functions, particularly within the **Operations** category in Table 6.

Roles classified under Operations—facility management, regulatory compliance oversight, logistical planning, financial officer, and other specialized administrative functions—were mentioned **19 times**, indicating substantial demand. The **Median Weighted Wage for Operations roles registers at $34.00**.

This differential is a powerful indicator of the sector's professionalization and its willingness to heavily compensate the skills needed to navigate a complex regulatory and logistical landscape. The $34.00 median wage for Operations signals that managerial and oversight roles command substantially greater compensation than both foundational production and customer-facing labor.

The existence of this high wage tier is critical for two reasons:

1. It establishes clear vertical career mobility. Entry-level employees earning $20–$21 per hour have a visible pathway into higher-paid Operations management roles.

2. It exacerbates the **Top Training Deficiency Rate (53.75%)**. High compensation for Operations roles is likely a market response to the acute scarcity of qualified candidates. The skills gap is not confined to entry-level labor; it also exists at the highest operational levels, driving compensation for the relatively few candidates who possess the required expertise.

The message from the compensation data is clear: **managerial and oversight talent is the most valuable and scarcest resource in the Hudson Valley cannabis market**.

3.8 Structural Barriers: The Critical Training Deficiency and Market Risk

The confluence of aggressive hiring intent (**93.75% FHI**) and a persistent structural impediment (**53.75% Top Training Deficiency Rate**) creates an immediate, severe risk to the entire economic growth trajectory. The finding that over half of the businesses surveyed cannot find the qualified staff they need represents a systemic market failure in the talent pipeline.

The *"Lack of qualified candidates"* is not a minor constraint; it threatens to decouple the industry's capital investment from its actual job-creation outcomes. Businesses may secure funding, obtain licenses, and build facilities, but without human capital to operate them efficiently and compliantly, projected economic returns—including state tax revenues and job fulfillment—will be fundamentally limited.

This deficiency confirms an urgent skills gap that requires a coordinated public-private educational response. The crisis is pervasive, affecting all tiers and roles—from basic labor in cultivation and packaging to specialized expertise in operations management. The industry is effectively operating at **reduced capacity** in its hiring function due to this lack of qualified talent.

This structural vulnerability extends directly into regulatory compliance and market stability. A workforce lacking requisite skills—especially in regulatory knowledge, quality control, and advanced cultivation techniques—poses direct risks to public health and safety standards. Inefficient, undertrained operations lead to higher costs, lower yields, and a less competitive regional market. The **53.75% top training deficiency rate** is therefore a clear mandate for immediate, data-driven workforce development policy.

Moreover, the data show that the state has **not achieved its goal of creating 63,000 cannabis jobs**, in part because this systemic workforce shortage remains unresolved—not only in the Hudson Valley, but statewide. Until New York shifts from general vocational training to specialized, cannabis-specific curriculum and credential development, this talent bottleneck will continue to limit job creation and stall the industry's growth.

Part IV. Social Equity, Ancillary Market, and Systemic Risk

4.1 Social Equity Success and the Vulnerability of the Cohort

The **Social and Economic Equity (SEE)** mandate of MRTA has successfully driven representation within the Hudson Valley cannabis sector. The analysis shows substantial success in advancing equitable hiring practices and ownership.

- Overall, **SEE Workforce Representation** stands at **49% of the total FTE workforce**, indicating that a majority of stable, full-time jobs are currently held by individuals who fall under the SEE classification.
- **48 out of 68 licensee respondents** are SEE licensees, meaning equity-focused businesses already constitute the majority of surveyed enterprises.

These findings affirm that MRTA's redress goal—to ensure that communities disproportionately impacted by prior cannabis law enforcement benefit from the new industry—is being actively realized in regional employment data.

However, this success is tempered by the cohort's vulnerability to the skills crisis. When the hiring challenge data are filtered specifically by SEE status, the **SEE Focus Rate (hiring challenge rate)** is **54.17%** among SEE-owned companies, nearly mirroring the overall Top Training Deficiency Rate of 53.75%.

This disparity is a critical finding: the lack of qualified talent is **not a neutral barrier**; it disproportionately affects SEE licensees' ability to stabilize and expand. The skills gap is the single greatest structural barrier preventing equity-owned businesses from scaling operations and realizing their full potential for wealth generation and community reinvestment.

The MRTA's success is intrinsically linked to the success of its SEE licensees. If over half of these equity-focused businesses cannot find the talent needed to grow, the redress goal of MRTA will be compromised. Policy must now move beyond representation to guaranteeing **capacity**. While 49% FTE SEE workforce representation is a clear win, the 54.17% hiring challenge rate amongst SEE-Owned licensees threatens the sustainability of that win. Targeted resources such as SEE-focused training credits and tailored workforce programming—are essential to fortify this vulnerable but successful cohort.

4.2 Ancillary Market Maturity and the Critical Service Gaps

The analysis of the **ancillary ecosystem** reveals a support market still in a nascent, underdeveloped stage, characterized by a low degree of specialization and significant service fulfillment gaps that threaten licensee compliance.

The **Cannabis-Focused Ancillary Percentage (Table 8)** is only **41.67%**, meaning that less than two-fifths of surveyed ancillary businesses were created specifically to serve the cannabis sector. The majority are traditional businesses—such as general accounting or HR firms—that happen to serve cannabis clients but lack dedicated expertise in the highly regulated MRTA framework.

Table 8. Cannabis-Focused Ancillary Percentage

Metric	Result	Narrative
Cannabis-Focused Ancillary %	41.67%	Less than two-fifths of ancillary businesses were created specifically for the cannabis sector.

Service Fulfillment Gap data identify where this lack of specialization creates the greatest risk:

- The largest deficit is in **Accounting**, with **41.67% of licensees** reporting a gap in access to qualified accounting services. Given the tax, audit, and financial reporting complexities of cannabis operations, this is a severe threat.
- The second-largest gap is in **HR services**, with **14.71%** of licensees indicating insufficient support. HR is critical for managing labor compliance, maintaining workforce stability, and implementing SEE hiring preferences.

The median revenue reported for cannabis-focused accounting firms (approximately **$375,000**) suggests that the few specialized firms that exist are already well compensated, but overall market supply remains insufficient. This imbalance creates immediate risk for licensee compliance and operational stability, particularly for small and SEE-owned enterprises that rely heavily on external back-office support.

The lack of dedicated, specialized ancillary support heightens the risk of anti-competitive behavior (over-reliance on a small number of providers) and limits regional market efficiency. Without deliberate efforts to grow and diversify the ancillary sector, even well-intentioned licensees may struggle to remain compliant, stable, and scalable.

Part V. SUNY's Strategic Role in Strengthening the Cannabis Workforce System

5.1 Introduction: Why SUNY Must Act Now

While statewide legislation is necessary to address systemic workforce shortages, SUNY colleges can take immediate action to stabilize the regional cannabis labor market and support Social and Economic Equity (SEE) businesses. The data from this pilot study show clear gaps in workforce readiness, back-office support, and industry-specific training. SUNY institutions are uniquely positioned to fill these gaps through targeted programming, applied learning, and regional coordination. The following recommendations outline concrete steps SUNY colleges can implement now to strengthen market stability, advance equity, and establish themselves as anchor institutions in New York's emerging cannabis economy.

5.2 Action Steps SUNY Colleges Can Take to Fortify Equity and Strengthen Market Stability

1. Build a Cannabis Services Support Hub (Accounting, HR, Compliance)

The region's largest service gaps—**Accounting (41.67%)** and **HR (14.71%)**—present immediate risks to licensee stability and compliance.

Action:

- Establish a **Cannabis Business Support Center** offering sliding-scale support for:
    - Accounting and bookkeeping
    - HR compliance and onboarding
    - Payroll setup and workforce administration
- Develop certificate programs in cannabis accounting, payroll, and workforce law.
- Build a vetted **Cannabis Specialist Provider Network** of CPAs and HR firms.
- Integrate cannabis regulatory modules into existing business and HR coursework.

Why this matters:
These gaps pose the highest operational risk for small and SEE-owned licensees. SUNY can directly stabilize the ecosystem while expanding its own educational offerings.

2. Strengthen Social Equity Capacity Through SUNY-Led Upskilling Pathways

SEE-owned businesses face a **54.17% hiring challenge rate**, nearly mirroring the overall skills deficit. SUNY can drive internal capacity-building.

Action:

- Create an annual **SEE Workforce Upskilling Scholarship Fund**.
- Offer accelerated micro-credentials in:
  - Retail & budtending
  - Regulatory compliance
  - Cultivation & manufacturing fundamentals
  - Seed-to-sale systems
  - Quality assurance & facility operations
- Develop a **SUNY Equity Training Passport** enabling SEE employees to take short courses across multiple campuses.
- Host quarterly **SEE Leadership Academies** focused on operational management and business resilience.

Why this matters:
SEE businesses make up the majority of survey respondents (53 of 84). SUNY can convert strong representation into sustainable economic mobility.

3. Create a SUNY Cannabis Industry Data Lab & Annual Survey Initiative

New York lacks continuous, real-time cannabis workforce intelligence. SUNY can lead the state.

Action:

- Institutionalize an **Annual Cannabis Workforce & Business Needs Survey**.
- Establish a **Data & Policy Research Lab** to track:
  - Workforce trends
  - Skills gaps
  - Business needs
  - Ancillary market maturity
- Publish annual labor and economic reports.
- Build a shared **SUNY Data Dashboard** for policymakers and stakeholders.
- Add a **consumer experience module** to future surveys.

Why this matters:
Reliable, ongoing data will keep workforce programs aligned with industry realities and position SUNY as New York's primary thought leader on cannabis labor market analysis.

4. Strengthen SUNY–Industry Partnerships and Create a Unified Training Ecosystem

Training must evolve with the industry; SUNY must collaborate with licensees across the supply chain.

Action:

- Create an **Industry Advisory Council** (87.50% of businesses are willing to partner).
- Build hands-on training spaces:
  - Mock dispensaries
  - Trim/packaging labs
  - Compliance simulation labs
- Establish a **regional internship and OJT matching system** connecting students to licensees.
- Host **biannual roundtables** with growers, manufacturers, and retailers to keep curricula aligned with changing needs.

Why this matters:
Effective workforce development requires deep, ongoing collaboration. These partnerships will produce job-ready graduates and ensure SUNY programs remain relevant.

5. Build SUNY's Internal Capacity to Lead the Cannabis Workforce System

SUNY must invest in its internal infrastructure and faculty to deliver accurate, up-to-date cannabis education.

Action:

- Train faculty in cannabis science, regulatory compliance, and workforce trends.
- Develop **stackable learning pathways** (micro-credential → certificate → degree).
- Establish cross-campus enrollment pathways for specialized cannabis coursework.
- Embed cannabis workforce training into **Continuing Education** programs for adults and career changers.

Why this matters:
SUNY becomes not only a training provider but the statewide **anchor institution** stewarding the long-term workforce capacity of New York's cannabis economy.

Part VI. Final Summary and Outlook

6.1 Final Summary of Data-Driven Imperatives

The findings of this pilot study confirm that MRTA's economic, manpower, and social equity objectives are **simultaneously advancing and at risk**. The system has successfully cultivated a cohort of equity-focused businesses with strong growth plans, but it has not yet equipped the regional workforce or ancillary ecosystem with the skills and services required to sustain that growth.

Summary Table of Key Imperatives

Imperative	Data Point	Conclusion
Growth Risk	FHI: 93.75% vs. Deficiency Rate: 53.75%	Universal intent to hire is constrained by a critical lack of qualified candidates; job-creation targets will be missed without immediate intervention.
Equity Vulnerability	FTE SEE Workforce Rep: 49.63% vs. SEE Challenge: 54.17%	SEE representation is strong, but the skills gap is the largest single barrier affecting equity-owned businesses' capacity to grow and reinvest.
Management Challenges	Accounting Gap: 41.67% | HR Gap: 14.71%	Critical services essential for compliance and operations are under-supplied, risking over-reliance on a small set of providers and destabilizing smaller operators.

These imperatives drive the need for targeted workforce funding, equity-focused upskilling, and deliberate expansion of specialized ancillary services.

6.2 Data-Driven Policy Recommendations Based on the Cannabis Survey

To resolve this systemic imbalance and fulfill the promise of MRTA, the following **five core legislative and budgetary actions** are recommended, directly informed by the survey of licensees and ancillary businesses in the Upper Hudson Valley.

1. Workforce Development Mandate

Action: Dedicate a fixed percentage of cannabis tax revenue to cannabis-specific curriculum, certification, and OJT training across SUNY/CUNY/community colleges.
Justification: Addresses the 53.75% skills deficiency by building a sustained, statewide talent pipeline.

2. Targeted Skills Prioritization

Action: Establish a Technical Advisory Board (TAB) and prioritize curriculum in:

- Other (general manual labor) (53.67%)
- Operations (22.94%)
- Customer Service/Sales (19.72%)

Justification: Ensures investments target the highest-demand skills while providing transferable expertise.

3. Essential Services Grant Program

Action: Support the creation/expansion of accounting and HR firms specializing in cannabis.
Justification: Resolves the 41.67% accounting gap and 14.71% HR gap, reducing compliance risk.

4. Fortifying Social Equity Capacity

Action: Implement a SEE Training Credit to subsidize employee upskilling.
Justification: Strengthens the 49% FTE SEE workforce and supports internal capacity-building.

5. Annual Workforce & Business Survey

Action: Fund an annual licensee + ancillary survey with optional consumer modules.
Justification: Ensures policy decisions and workforce funding remain data-driven.

6.3 Final Thoughts (Gandhi & Vince Lombardi Quotes and Unity Theme)

"Adaptability is not imitation. It means the power of resistance and assimilation."
– *Mahatma Gandhi*

The challenge of an emerging cannabis industry is to carefully adapt best practices from other states and countries while remaining grounded in New York's specific legal, social, and economic realities. With disciplined analysis of the data and experiences collected from licensees, policy and administrative decisions can be implemented based on what is **relevant, useful, and productive** for New York's cannabis industry.

"Build your team a feeling of oneness, of dependence on one another
And strength to be derived by unity."
– *Vince Lombardi*

Unity in diversity fits the MRTA mission and outcomes. Growers, manufacturers, retailers, ancillary providers, SUNY and CUNY institutions, workforce agencies, and community partners are all critical parts of one integrated system. When they are aligned, sharing data, co-designing training, and investing in equity, the cannabis industry can both **serve consumers with safe, regulated products** and **improve the quality of life for the workforce and communities** that sustain it.

This pilot study in the Hudson Valley offers a blueprint: substantial progress on equity and early job creation, paired with clear evidence of a workforce and services gap. The next phase is about turning these findings into sustained, coordinated action, so that the promise of MRTA becomes a lived reality for workers, businesses, and communities across New York State.

END

Tables

Table 1. FTE Calculation & Training Deficiency

Metric	Result	Calculation Details
Total FTE Count	800	Sum of FTE employees across all Licensee and Ancillary respondents.
Future Hiring Index (FHI)	93.75%	Percentage of all respondents planning to hire in the next 6–12 months.
Top Training Deficiency	53.75%	Percentage of all respondents who cited "Lack of qualified candidates" as a hiring focus.

Findings:
The data indicate an early-stage economic impact with 800 **FTEs** currently employed by surveyed cannabis businesses. The **FHI of 93.75%** signals a very strong intent among respondents to expand their workforce in the next 6–12 months, although 5 of 80 respondents did not explicitly state future hiring plans. This growth trajectory is threatened by a significant workforce quality issue: **53.75%** of all businesses (43 out of 80) identify a *"Lack of qualified candidates"* as a top hiring challenge. If unaddressed, this deficiency will impede the sector's job-creation and economic-growth targets.

Table 2. Workforce Capacity & Stability (Summary View)

This section summarizes the current labor structure of the cannabis sector, focusing on job stability and the economic value of in-demand roles.

II. Workforce Capacity & Stability	Direct Job Creation and Labor Structure: Breakdown of roles, wages, and the stability of employment (FTE vs. Contract/Seasonal).	NYS Finance Law § 99-ii (3)(d)(iii)(G): Job creation, Workplace safety.	1. Top 3 Roles & Average Wages. 2. Contract Labor Ratio. 3. FTE per License Tier.	**Cultivation/ Other/General $21.00/hr. | Contract Ratio: 14.50% | Avg FTE (Supply/Retail): 23.29 / 5.91**

Table 3. FTE per License Tier (Licensee Only)

License Tier	Average FTE
Supply Tier	23.29
Retail Tier	5.91

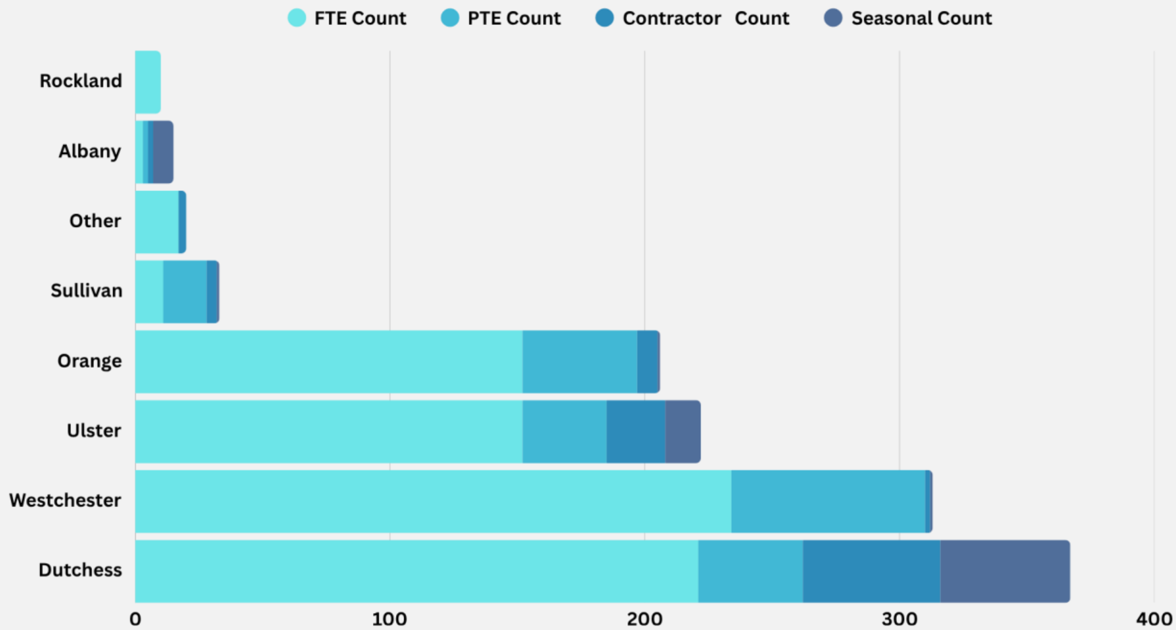
Findings:
The average FTE per license in the supply tier is more than **four times** that of the retail tier, underscoring the role of production operations as the core driver of high-volume job creation.

Supply Tier (23.29) = Total FTE for all Supply Tier Licensees (489) divided by Count of Supply Tier Licensees (21)

Retail Tier (5.91) = Total FTE for all Retail Tier Licensees (278) divided by Count of Retail Tier Licensees (47)

Table 4. Employee Count by County (Geographic Impact)

County	FTE Count	PTE Count	Contractor Count	Seasonal Count	Total Count
Westchester	234	76	2	1	313
Dutchess	221	41	54	51	367
Ulster	152	33	23	14	222
Orange	152	45	8	1	206
Other	17	0	3	0	20
Rockland	10	0	0	0	10
Sullivan	11	17	4	1	33
Albany*	3	2	2	8	15
TOTAL	**800**	**214**	**96**	**76**	**1186**

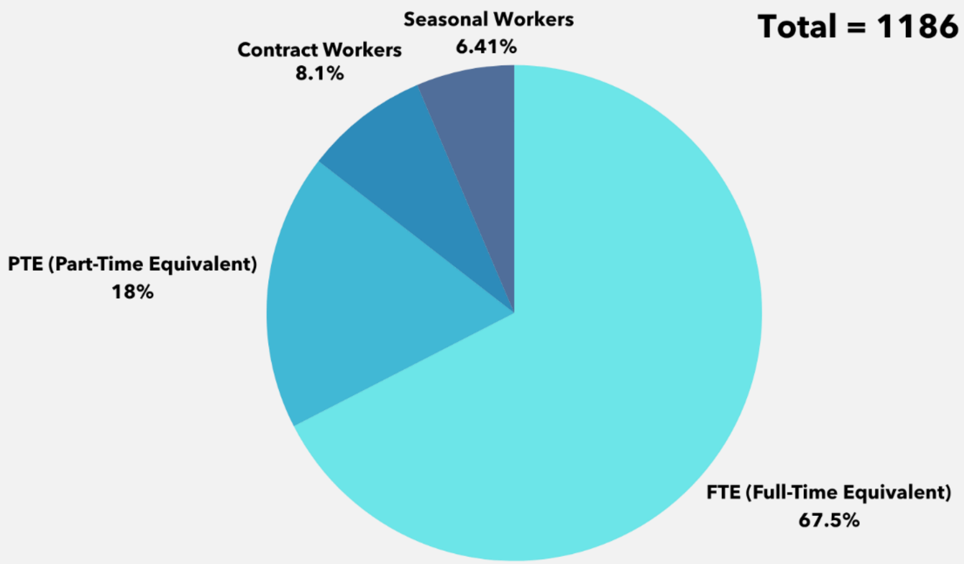


**Data reflects respondent selections as submitted, including two Hudson Valley licensees who selected Albany County.*

Findings:
The total employee count reported across all counties is **1,186**. The four leading counties—Westchester, Dutchess, Ulster, and Orange—each have 150 or more employees, together accounting for **800 FTEs**. Three counties (Rockland, Sullivan, Albany) each report **15 or fewer** employees, highlighting pronounced geographic concentration.

Table 5. Job Structure (Workforce Stability)

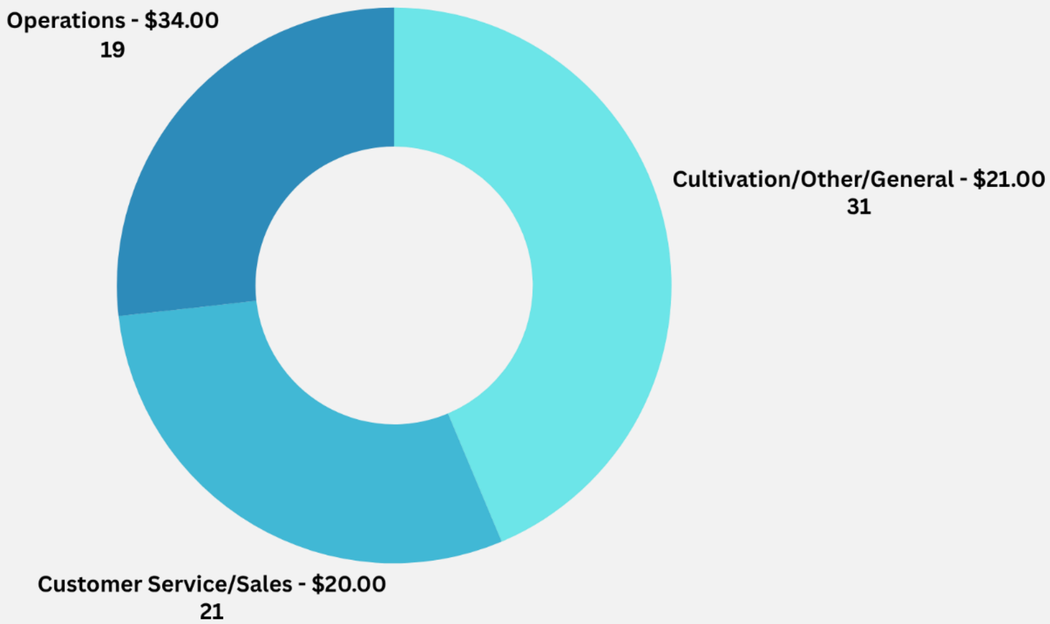
Job Type	Count	Percentage
FTE (Full-Time)	800	67.45%
PTE (Part-Time)	214	18.04%
Contract Workers	96	8.09%
Seasonal Workers	76	6.41%
Total	**1186**	**100%**



Findings:
FTE positions represent nearly **three-quarters** of all roles, while contract workers comprise less than **10%** of the workforce. This mix indicates a strong orientation toward stable employment and internal capacity-building.

Table 6. Top 3 Roles & Average Wages

Standard Category	Frequency Count	Median Weighted Wage (USD)
Cultivation/Other/General	31	$21.00
Customer Service/Sales	21	$20.00
Operations	19	$34.00



Findings:

- Customer Service/Sales and Cultivation/Other/General roles show **consistent entry-level wage floors** around **$20–$21 per hour**.
- The Cultivation/Other/General category dominates in frequency, confirming that foundational labor roles constitute the largest demand pool.
- Operations roles command a significantly higher median wage, reflecting the scarcity and strategic importance of managerial and oversight talent.

Table 7. The Ancillary Ecosystem: Market Structure (Summary)

Indicator	Value
Largest Service Fulfillment Gap	Accounting (41.67%)
Second-Largest Service Fulfillment Gap	HR (14.71%)
Cannabis-Focused Ancillary Percentage	41.67%
Median Revenue (Cannabis Accounting)	$375,000

Findings:
The ancillary market is underdeveloped, with a little over 40% of surveyed ancillary providers created specifically for cannabis. High gaps in accounting and HR services create significant compliance and operational risks, particularly for smaller and equity-owned businesses.

Table 8. Cannabis-Focused Ancillary Percentage

Metric	Result	Narrative
Cannabis-Focused Ancillary %	41.67%	Less than two-fifths of ancillary businesses were created specifically for the cannabis sector.

Findings:
As reflected in qualitative responses, licensees increasingly need specialized ancillary partners, especially in accounting, compliance, HR, and IT, to operate efficiently and remain compliant. Without deliberate development of this ecosystem, licensees may face growing risk and cost burdens.

Glossary of Key Terms

Social and Economic Equity (SEE)
A designation created under the MRTA to prioritize individuals and businesses from communities disproportionately impacted by cannabis criminalization, including people of color, women, service-disabled veterans, distressed farmers, and residents of CDI neighborhoods.

Full-Time Equivalent (FTE)
A standardized measurement of employment used to quantify full-time staffing levels. One FTE typically equals **40 hours per week**, allowing part-time and full-time labor to be combined into a single metric for consistency across businesses.

Part-Time Equivalent (PTE)
A calculation that expresses part-time work in relation to a full-time schedule. Several part-time workers may combine to equal **one FTE**, depending on the total hours worked.

Ancillary Business
Any business that supports the cannabis industry **without directly touching the plant**, such as accounting, insurance, compliance consulting, construction, logistics, IT, marketing, or packaging services.

Service Fulfillment Gap
A metric that measures the **difference between the percentage of licensees who need a service and the percentage of ancillary businesses providing it**.
Formula:
Fulfillment Gap = % Licensee Demand – % Ancillary Supply
A negative gap indicates an **undersupplied or missing market service**, signaling potential anti-competitive risk.

Future Hiring Index (FHI)
The percentage of surveyed businesses that plan to hire additional employees within a defined period (typically 6–12months).
A high FHI signals **strong expected job growth**, but when paired with a high skills deficiency, it also highlights workforce vulnerability.

Training Deficiency Rate
The percentage of surveyed businesses reporting a **"Lack of qualified candidates"** as a top hiring challenge.
This metric reflects the severity of the workforce readiness problem and is a central indicator of whether the sector can meet MRTA job creation targets.

References

- Cannabis Workforce Initiative. "MRTA Impact on the Workplace." https://cannabisworkforce.org/mrta-impact-on-the-workplace/
- New York State Office of Cannabis Management. "Marihuana Regulation and Taxation Act (MRTA)." https://cannabis.ny.gov/marihuana-regulation-and-taxation-act-mrta
- New York State Office of Cannabis Management. "Cannabis Advisory Board – Meetings." https://cannabis.ny.gov/cannabis-advisory-board-meetings
- New York State Office of Cannabis Management. "Cannabis Advisory Board – Members." https://cannabis.ny.gov/cannabis-advisory-board-members
- New York State Office of Cannabis Management (OCM). Public estimate of 63,000 jobs and $4 billion cannabis market. https://x.com/nys_cannabis/status/1661014683992866819
- New York State Senate. "S854A (MRTA) – Marihuana Regulation and Taxation Act." https://legislation.nysenate.gov/pdf/bills/2021/s854

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