Missouri Cannabis Market Study: Phase 1 Report

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Prepared For:
Missouri Department of Health and Senior Services, Division of Cannabis Regulation
920 Wildwood Drive
Jefferson City, MO 65109

Prepared By:
Principal Investigator: Gideon Cunningham, PhD
Co-Investigator: Mackenzie Slade, MPH
Analysts: Summer Fox, MPP, Mimosa Khatun, PhD

CANNABIS PUBLIC POLICY CONSULTING

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Executive Summary

Overview

Cannabis Public Policy Consulting (CPPC) conducted this study on behalf of the Missouri Department of Health and Senior Services (DHSS), Division of Cannabis Regulation (DCR), as Phase 1 of a two-part Missouri Cannabis Market and Economic Impact Study. This phase, *Missouri Cannabis Market Study: Phase 1 Report*, evaluates consumer demand, market competition, and the overall performance of Missouri's regulated cannabis industry. The study was designed to provide DCR with an evidence-based assessment of how Missouri's cannabis market is functioning under the current regulatory framework and to identify opportunities to support a competitive, efficient, and sustainable marketplace. A subsequent Phase 2 study will build upon these findings through a broader economic impact analysis of Missouri's regulated cannabis industry.

The objectives of the Phase 1 Missouri Cannabis Market Study were to:

1. Examine cannabis consumer behaviors and purchasing patterns across all cannabis sources in Missouri.
2. Identify what factors encourage a competitive marijuana market, and how markets and sources may be competing for consumer purchasing.
3. Identify if local marijuana market areas are overconcentrated and what marijuana market areas could become overconcentrated if license limits are lifted.
4. Determine what factors encourage interest in building marijuana facilities in impoverished or underserved areas using descriptive statistics and inferential statistics.
5. Identify how and where cannabis supply may better align with consumer demand and evaluate policy approaches that may improve market efficiency.

Methodology

This study integrates multiple complementary data sources and analytical approaches to evaluate Missouri's regulated cannabis market. Analyses combined findings from CPPC's Missouri-specific Regulatory Determinants of Cannabis Outcomes Survey (RDCOS) of 1,200 past-month cannabis consumers with 35 months of Missouri track-and-trace data, licensing information, publicly available demographic and geographic datasets, and policy and regulatory review. Together, these data were used to evaluate consumer purchasing behaviors, market demand, competition, market concentration, regional market dynamics, and opportunities to improve market efficiency. Analytical methods included descriptive statistics, inferential statistical modeling, Herfindahl-Hirschman Index (HHI) analyses, regional market assessments, and policy analysis.

Missouri Cannabis Demand Analysis

CPPC conducted a comprehensive evaluation of cannabis consumer demand in Missouri, examining purchasing behaviors, product preferences, monthly expenditures, and participation across regulated, illicit, and informal cannabis markets. The analyses also compared purchasing patterns between medical and non-medical consumers, evaluated regional differences across Missouri's congressional districts, examined factors influencing cannabis purchasing decisions, and assessed emerging trends related to home cultivation, informal cannabis redistribution, and alternative cannabinoid products.

Key Findings:

- Missouri's regulated market captures approximately 93% of reported cannabis expenditures, indicating strong participation in the legal marketplace.
- Flower remains the dominant product category, accounting for approximately one-half of all reported cannabis spending, followed by vape products and edibles.
- Medical cannabis patients contribute disproportionately to regulated sales, reporting higher product utilization and expenditures across nearly every major product category.
- Consumer purchasing decisions are driven primarily by price, THC potency, and convenience, rather than legal status.
- Although regional differences exist in consumer spending and purchasing behaviors, regulated dispensaries account for more than 90% of cannabis expenditures in every congressional district, suggesting that legal access is broadly sufficient statewide.

Competition and Market Concentration Analysis

CPPC evaluated competition across Missouri's dispensary, cultivation, and manufacturing sectors using market concentration analyses of sales and transfers across licenses (HHI), consumer survey data, licensing information, and track-and-trace data. Based on this data, the findings indicate that Missouri's regulated cannabis sales remain competitive, with no evidence that statewide or regional markets are currently overconcentrated. However, it is imperative to note that competition measured using sales data is conceptually distinct from competition measured using license ownership. This analysis evaluates the concentration of retail sales across licensed facilities rather than the concentration of operational decision-making power among firms or individuals. As a result, while the findings provide insight into the competitive distribution of market activity, they should not be interpreted as evidence regarding the concentration or diversity of market ownership. This distinction is important because license limits influence the number of facilities in the market but do not necessarily affect ownership concentration if multiple licenses are held by the same ownership group.

While market conditions vary across congressional districts, differences largely reflect variation in consumer demand rather than excessive concentration or inadequate consumer access. As the market continues to mature, ongoing monitoring of market concentration and supply-demand conditions will help ensure that Missouri maintains a competitive and efficient marketplace.

Key Findings:

- HHI analyses found no evidence of excessive market concentration across Missouri's dispensary, cultivation, or manufacturing sectors.
- Dispensary concentration of sales remains strong across all congressional districts.
- Existing differences in market size and dispensary performance appear to reflect regional consumer demand rather than barriers to competition.
- Missouri's cultivation market shows early signs of increasing competitive pressure as production capacity expands, highlighting the importance of continued monitoring.
- Overall, Missouri's current licensing framework has successfully supported a competitive cannabis marketplace while providing flexibility for future market growth.

Summary of Policy Considerations for the Division of Cannabis Regulation

CPPC's analysis finds that Missouri's regulated cannabis market is effectively meeting demand and has successfully transitioned into a mature, competitive marketplace. Future policy decisions should focus less on expanding consumer participation and more on maintaining competition, improving market efficiency, and ensuring that cannabis supply continues to align with evolving consumer demand. Based on these findings, CPPC identified the following policy considerations for DCR:

Policy Consideration 1: Enhance Market Monitoring Through De-Identified Ownership Data

Future market evaluations would benefit from incorporating de-identified ownership data into HHI analyses. While this report assesses sales and transfer concentration across licensed facilities, ownership-based analyses would provide a more comprehensive assessment of market structure by evaluating concentration across common ownership groups. Together, facility-level and ownership-level analyses would strengthen future licensing decisions and ongoing market monitoring while preserving licensee confidentiality.

Policy Consideration 2: Remove population and congressional district-based dispensary license allocation requirements and allow market-driven geographic distribution

CPPC recommends removing requirements that allocate cannabis licenses according to population and congressional district boundaries and instead allowing future licensing decisions to be guided by consumer demand, regional market conditions, and shared economic markets. This approach may improve market efficiency, strengthen competition, and allow the regulated market to adapt more effectively to changing consumer demand while preserving DCR's ability to monitor market concentration and consumer access.

CPPC recognizes that modifying Missouri's constitutional licensing framework would involve significant legal, procedural, and political considerations and may not be feasible in the near term. Accordingly, the report identifies several alternative policy approaches that could advance similar objectives within the existing constitutional framework.

Alternative Policy Consideration 2.1: Maintain the current Dispensary Licensing Structure

Maintain the existing licensing structure while continuing to monitor key market indicators, including competition, consumer access, regulated market participation, and illicit market activity. This approach recognizes that Missouri's cannabis market is currently functioning effectively and that additional regulatory intervention may not be necessary at this time.

Alternative Policy Consideration 2.2: Increase Dispensary licenses in Congressional Districts with Higher Market Concentration

Issue additional dispensary licenses only in congressional districts with relatively higher market concentration to promote competition where it is most needed. This targeted approach seeks to improve consumer choice while minimizing market disruption and preserving stability in well-functioning markets.

Alternative Policy Consideration 2.3: Expand Dispensary Licenses Statewide to Increase Competition and Reduce Prices

Expand dispensary licensing statewide to increase competition, improve consumer access, and place downward pressure on prices. While this approach may further strengthen competition and reduce illicit market participation, it could also increase competitive pressure on existing businesses and accelerate market consolidation.

Policy Consideration 3: Continue Monitoring Alternative Cannabinoids but Do Not Prioritize Additional Regulatory Action at Current Time

CPPC does not recommend prioritizing additional regulatory or legislative action related to alternative cannabinoids at this time. Current findings indicate that, with the exception of CBD and THCA, consumer use of alternative cannabinoids remains limited, and there is little evidence that these products are meaningfully diverting consumers from Missouri's regulated cannabis market. Continued monitoring is recommended as federal policy and consumer demand evolve.

Policy Consideration 4: Conduct Additional Research on Informal Cannabis Redistribution and Secondary Market Activity

CPPC recommends conducting additional research on informal cannabis redistribution and secondary market activity. While the regulated market captures approximately 93% of consumer expenditures, the findings suggest that cannabis products are frequently shared or redistributed through informal social networks after their initial purchase. Additional research would help DCR better understand these behaviors and determine whether future policy, educational, or enforcement responses are warranted.

Policy Consideration 5: Consider Economic and Regulatory Incentives to Encourage Cannabis Facility Development in Underserved Communities

CPPC recommends that Missouri consider economic and regulatory incentives to encourage cannabis facility development in underserved communities where appropriate. Because private investment decisions are driven primarily by market demand and expected returns, incentives such as grants, tax incentives, low-interest financing, or expedited permitting may improve the economic feasibility of development while supporting broader economic development objectives. Decisions regarding facility expansion should also consider the distinct public health, environmental, and community impacts associated with different license types.

I. Study Overview and Research Design

This research was conducted by Cannabis Public Policy Consulting (CPPC) on behalf of the Missouri Department of Health and Senior Services (DHSS), Division of Cannabis Regulation (DCR) to evaluate cannabis market conditions, consumer purchasing behaviors, competitive market dynamics within Missouri's regulated cannabis industry. The study is designed to provide the DCR with an evidence-based assessment of how Missouri's cannabis market is functioning under the current regulatory framework, while also identifying potential policy considerations related to market competition, license distribution, consumer access, and future industry growth.

The objective of this research is to provide Missouri policymakers and regulators with a comprehensive, data-driven analysis of cannabis demand, market competition, and regional market dynamics across the state. The analysis evaluates cannabis consumer behaviors and purchasing patterns across regulated and unregulated sources, examines regional differences in product demand and access, assesses market concentration and competition across cultivation, manufacturing, and dispensary sectors, and identifies factors that may influence future supply and demand conditions. In addition, the report evaluates how existing and potential policy variables may affect consumer purchasing decisions, market competitiveness, industry participation, and the geographic distribution of cannabis facilities throughout Missouri.

This report integrates multiple data sources and analytical approaches, including CPPC's proprietary Regulatory Determinants of Cannabis Outcomes Survey (RDCOS), Missouri track-and-trace data, descriptive statistical analyses, inferential statistical modeling, and qualitative analysis. The study also incorporates multilevel modeling, competition of sales and transfers analyses using the Herfindahl-Hirschman Index (HHI), regional market assessments, and policy scenario modeling to evaluate how different regulatory structures and market conditions may influence future market outcomes.

This report represents Phase 1 of the Cannabis Market and Economic Impact Study (STATE PURCHASE-FY25-0193-SL) conducted on behalf of the DCR. Phase 1 focuses on cannabis market conditions, consumer demand, market competition, and supply and demand dynamics within Missouri's regulated cannabis industry. A subsequent Phase 2 report, anticipated to be completed by November 2026, will expand upon these findings through a broader economic impact study. Phase 2 will include a survey of licensed cannabis businesses, as well as an economic impact and industry stability analysis evaluating the broader economic contributions and operational conditions and sustainability of Missouri's cannabis market.

Objectives

The objectives of the Phase 1 Missouri Cannabis Market Study include:

1. Examine cannabis consumer behaviors and purchasing patterns across all cannabis sources in Missouri.
2. Identify what factors encourage a competitive marijuana market, and how markets and sources may be competing for consumer purchasing.
3. Identify if local marijuana market areas are overconcentrated and what marijuana market areas

could become overconcentrated if license limits are lifted.

4. Determine what factors encourage interest in building marijuana facilities in impoverished or underserved areas using descriptive statistics and inferential statistics.
5. Identify how and where cannabis supply may better align with consumer demand and evaluate policy approaches that may improve market efficiency.

Methodology Overview

The analyses presented in this report were conducted by Cannabis Public Policy Consulting's (CPPC) multidisciplinary research team using a combination of administrative market data, survey research, policy review, and applied economic analysis. CPPC's research team includes expertise in economics, public policy, regulatory design, behavioral science, and statistical modeling to evaluate how cannabis market structures interact with consumer behavior, market demand, industry operations, competition, and broader economic outcomes.

This report integrates multiple quantitative research methods to evaluate cannabis consumer behaviors, purchasing patterns, supply and demand dynamics, market competition, and regional market conditions throughout Missouri. Analyses were conducted using data from CPPC's proprietary Regulatory Determinants of Cannabis Outcomes Survey (RDCOS), Missouri track-and-trace data, publicly available demographic and geographic datasets, policy and regulatory reviews, and inferential statistical modeling techniques.

1.0 Missouri Past-Month Cannabis Consuming Population Survey

Missouri Specific Cannabis Consumer Survey

As part of the Phase 1 market study, CPPC deployed a Missouri-specific version of the Regulatory Determinants of Cannabis Outcomes Survey (RDCOS), a proprietary cannabis market survey instrument designed to quantify cannabis demand, purchasing behaviors, policy impacts, and market participation across regulated and unregulated sources. The RDCOS has been deployed nationally since 2022 and has been utilized by multiple state agencies to assess cannabis market conditions and consumer demand trends. Consistently, the demand modeling from the RDCOS has mirrored state regulated sales data (up to 97% match), suggesting strong validity of the measurement instrument.

The Missouri-specific RDCOS incorporated survey logic and terminology tailored to Missouri's regulatory environment and statutory framework. CPPC worked closely with DCR staff throughout survey development to ensure that survey questions accurately reflected Missouri's cannabis program and regulatory structure. This included incorporating Missouri-specific license types, regulatory terminology, and industry language commonly used within the state's market to improve respondent comprehension and ensure policy relevance. The survey measured cannabis purchasing behaviors by product type and source, consumer expenditures, perceptions regarding access and competition, product preferences, purchasing motivations, and regional differences in consumption patterns. The survey also included behavioral economic demand measures designed to estimate regulated and unregulated market participation.

Sampling Methodology

The survey was hosted using Qualtrics™ and distributed through Verasight using a hybrid probability-based recruitment methodology. Verasight collected data for this project from March 16th - April 3rd, 2026. The final untreated sample consists of 1,200 Missouri adults who used cannabis in the last 30 days. The sample is distributed proportionally across Missouri's eight congressional districts based on their respective population sizes. The margin of sampling error, which is calculated using the classical random sampling formula, is +/- 2.8%.

The sampling criteria for this survey were:

1. Missouri resident
2. Adult (age 18+)

The selection criteria for the final sample were:

1. Provided active consent to participate
2. In-survey confirmation of age and cannabis use
3. Passed all data quality assurance checks, outlined below

93.7% of respondents were recruited via text message (SMS) from voter file and commercial records. An additional 6.3% of respondents were recruited via email from the Verasight Community, which is composed of individuals recruited via random address-based sampling, random person-to-person text messaging, and dynamic online targeting. All Verasight community members are verified via multi-step authentication, including providing an SMS response from a mobile phone registered with a major U.S. carrier (e.g., no VOIP or internet phones) as well as within-survey technology, including verifying the absence of non-human responses with technologies such as Google reCAPTCHA v3. Those who exhibit low-quality response behaviors over time, such as straight-lining or speeding, are also removed and prohibited from further participation in the community. Verasight Community members receive points for taking surveys that can be redeemed for Venmo or PayPal payments, gift cards, or charitable donations. Respondents are never routed from one survey to another and receive compensation for every invited survey, so there is never an incentive to respond strategically to survey qualification screener questions.

Data Cleaning Procedures

To further ensure data quality, we implement a number of post-data collection quality assurance procedures, including confirming that all responses correspond with U.S. IP addresses, confirming no duplicate respondents, verifying the absence of non-human responses, and removing any respondents who failed in-survey attention and/or straight-lining checks. Respondents that completed the survey in less than 30% of the median completion time were removed.

Final analyses used a cleaned subset of the original sample. The final cleaned sample included 1,033 respondents, of whom 208 reported being registered in Missouri's medical cannabis program. We used all 1,200 respondent records on units obtained and prices paid across nine cannabis product types and eight source types, producing 72 analytic columns. Each column was winsorized at the 99th percentile to limit the influence of univariate outliers; for example, reported prices paid for flower from a licensed dispensary were capped at the 99th-percentile value. We then summed units across sources for each product type and used Mahalanobis distance to identify multivariate outliers after applying a log-plus-constant transformation to support multivariate normality. The resulting matrix was adjusted using a

shrinkage covariance estimator. Multivariate demand outliers were removed using a chi-squared test with a significance threshold of $p < 0.05$. This conservative approach was selected because multivariate outliers can substantially skew estimates of average cannabis consumption.

Survey Weighting Procedures

Survey weighting procedures were applied to improve state-level representativeness of past month cannabis consumers. Using 2024 MO BRFSS data, we were able to derive the marginal distributions of our target population, 18 years and older past month cannabis consumers in Missouri. Marginal distributions are the percentage of a target population that belongs to one group or another based on one variable. For example, in any target population, some percentage (10%, 15%, 20%) will be 18-20, 21-24… and so on. To calculate the marginal distributions of demographic and cannabis consumption variables (age group, education group, race/ethnicity, income group, sex of participant group, and past month cannabis use days group) of our target population (18 years and older past month cannabis consumers in Missouri), missing data, or responses to individual demographic or consumption questions that are "don't know", "not sure", or "refused", must be estimated or excluded from the BRFSS sample. For example, household income groups are frequently missing across states due to the respondent refusing to answer a question or is unsure of how to respond. Another example is, a percentage of BRFSS respondents are not asked the cannabis use model due to the survey ending early, refusal to participate in the whole model, or refusal to answer, or respond "don't know"/"not sure" to individual cannabis questions in the model (days of cannabis use in the past month).

To account for these data issues, we take the initial weights provided by BRFSS of the total 18+ population (4,894,425) and remove sample participants who were not shown or asked about the cannabis use module. This decreased the overall BRFSS sample size from 7,309 to 6,389. To adjust for the sample weights loss, the weights of those remaining in the BRFSS sample are multiplied by a constant to be exact to the initial population number. For all responses to individual demographic or cannabis consumption questions that contain "don't know/not sure" or "refused responses", we use weighted sequential random hot-deck imputation with progressive cell-coarsening to estimate those responses for (education group, income group, and past month cannabis consumption days group, in that order) to gather complete case marginal distributions of the total adult population in Missouri. From here, we use domain analysis to derive the marginal distributions of the target population of research interest (18 years and older past-month cannabis consumers in Missouri). This gave us a final estimated target population size for past month cannabis consumers older than 18 in Missouri. From this target population size, we compare our estimate of past month cannabis consumers to that of 2023-2024 NSDUH state-prevalence estimates.

We found that our estimate was between their lower bound estimate and estimate for population size of consuming cannabis consuming adults, validating our approach to use marginal distributions from BRFSS. To ensure our selection of a target population size results in the most accurate demand estimates, we take all four population sizes (Our BRFSS estimate, NSDUH 2023-2024 lower bound estimate, NSDUH 2023-2024 estimate, NSDUH 2023-2024 upper bound estimate) and multiply them by our weighted survey mean for dispensary spending and compare this number to objective track and trace data from March. We then select the target population where the true market size is most accurately represented. In this case, the NSDUH lower-bound estimate for target population is utilized.

From our calculated marginal distributions for those 18 years and older and have used cannabis within the past month from BRFSS. We take our sample stacked on the BRFSS sample and estimate a

multivariate logistic regression on selection into the BRFSS probability sample or our probability sample in a process known as inverse probability weighting. From these generated inverse probability weights, we rake our sample weights with BRFSS marginal distributions to match our sample distribution proportions to those of BRFSS.

Our standard weighting procedures utilize geographic weights by the county level. However, CPPC was not provided with the county-level information necessary to incorporate geographic distributions of past month cannabis consumers. Moreover, much of the analysis requires examination at the Congressional District level. There is no demographic or geographic data available for cannabis consumers to incorporate congressional district weighting. Therefore, congressional district estimates are based on a probability-based recruitment representative of current congressional districts, organized into 2010 district lines, and weighted to state-level demographic features of Missouri. Congressional district survey estimates are not expected to be wholly representative of the 2010 Congressional Districts. Congressional district demand estimates are provided but should be interpreted with caution as our sampling was representative of current congressional boundaries. Similarly, necessary demographic information about medical cannabis patients is not incorporated into weighting procedures and therefore are anticipated to not be representative of medical patients as a population.

2.0 Cannabis Supply and Demand Analysis

CPPC conducted a comprehensive supply and demand analysis integrating data from the Missouri-specific Regulatory Determinants of Cannabis Outcomes Survey (RDCOS) with Missouri track-and-trace and administrative market data. This integrated methodology was designed to evaluate cannabis consumer behaviors and purchasing patterns across regulated *and* unregulated (i.e., untraceable) sources throughout Missouri.

Demand Data

For demand, RDCOS survey data were used to quantify consumer purchasing behaviors by product type, source, expenditure, and frequency of use. Survey measures captured demand across multiple product categories and purchasing sources, including regulated dispensaries, illicit or unregulated markets, home cultivation, and other acquisition channels. The survey also evaluated behavioral and policy-related variables associated with purchasing decisions, including access, product preferences, and consumer-reported motivations for selecting specific market sources.

Supply Data

Track-and-trace sales data was incorporated to validate regulated market purchasing patterns and evaluate broader market trends over multiple years.[1] These datasets included transaction level dispensary sales information, product category data, pricing metrics, THC concentration data, transfer records, and geographic sales distributions across 35 consecutive months. By integrating self-reported consumer data with objective administrative sales data, CPPC was able to evaluate both regulated and unregulated demand dynamics while improving the reliability of market demand estimates.

[1] Track-and-trace data was de-identified and provided to CPPC through a data sharing agreement. As this data is self-reported from licensees into the traceability system, CPPC cannot certify the provided supply chain data accuracy and makes no claims, promises, or guarantees regarding its accuracy.

3.0 Cannabis Industry Competition and Market Concentration Analysis

CPPC conducted a series of competition and market concentration analyses to evaluate factors that encourage competitive cannabis markets, assess how regulated and unregulated markets compete for consumer purchasing, and identify whether local cannabis markets may become overconcentrated under existing or future licensing structures. These analyses integrated RDCOS survey findings, Missouri track-and-trace data, de-identified licensing information, and geographic market indicators. Analyses focused on evaluating how market structure, dispensary density, licensing distribution, regional access, and consumer purchasing motivations may influence competition across Missouri's cannabis industry.

To evaluate market concentration, CPPC conducted Herfindahl-Hirschman Index (HHI) analyses for cultivation, processing, and dispensary markets statewide, as well as dispensary-specific HHI analyses at the congressional district level. These analyses quantify the concentration of cultivation transfers, manufacturing transfers, and retail sales across licensed facilities. Accordingly, the findings reflect the distribution of market activity rather than ownership concentration or broader measures of market competition. Because usable data on license ownership were not available at the time of this study, the analyses cannot assess the extent to which sales may be concentrated among common ownership groups. Instead, the HHI results were used to identify markets where sales activity appears relatively dispersed or concentrated across licensed facilities, providing insight into the structure of Missouri's regulated cannabis market.

Concentration analyses further evaluated commonly accepted market concentration thresholds within the context of Missouri's regulated cannabis market. The analyses examined regional differences in product utilization and purchasing trends over time, identified geographic areas where retail sales may become more concentrated if license limitations are modified or removed, and assessed whether current levels of sales concentration indicate that additional licenses may yield diminishing returns in further dispersing market activity within specific product markets or geographic regions. These analyses were intended to provide evidence-based insight into how Missouri's market structure may influence competition, consumer access, market efficiency, and long-term industry sustainability under different policy scenarios.

4.0 Policy Analysis

CPPC conducted policy-focused analyses to evaluate factors influencing cannabis facility development, market participation, and opportunities to better align cannabis supply with consumer demand throughout Missouri. These analyses incorporated descriptive methods, policy review, and qualitative assessment of market conditions and regulatory structures, including demographic, geographic, economic, and regulatory factors that may influence facility development in underserved or economically disadvantaged areas of the state.

Policy analyses also examined how existing market structures, licensing frameworks, regional access conditions, and competitive dynamics may affect supply-demand alignment across Missouri's regulated cannabis market. Where appropriate, findings from survey analyses, track-and-trace data, competition analyses were synthesized to identify evidence-based policy considerations related to market efficiency, consumer access, geographic distribution of facilities, and long-term market sustainability.

Limitations

Several limitations should be considered when interpreting these findings. First, although the study utilized a sophisticated probability-based sampling approach, all measures were based on self-reported behaviors, expenditures, and attitudes. As with any survey research, responses may be influenced by recall error, social desirability bias, or misreporting, particularly for behaviors involving use of hemp-derived/alternative cannabinoid products which have limited cognitive testing.[2]

Second, estimates reflect a cross-sectional snapshot of Missouri consumers at a single point in time. As a result, findings describe associations and patterns of behavior but should not be interpreted as evidence of causality. For example, observed differences between patients and consumers may reflect underlying differences in health status, frequency of cannabis use, or consumer preferences rather than the effects of patient status itself.

Third, several product categories and acquisition sources were characterized by relatively low prevalence. Estimates for less common behaviors, such as home cultivation, caregiver utilization, cannabis tinctures, capsules, and topicals, and/or use of certain alternative cannabinoids, should therefore be interpreted with greater caution due to increased statistical uncertainty.

Fourth, the lack of information necessary to apply geographic weights for each of the Congressional Districts lends caution to interpretation of regional analysis for survey data specifically. Track-and-trace analysis accounts for geographic variation where provided.

Fifth, the market concentration analyses were aimed to evaluate the distribution of retail sales, cultivation transfers, and manufacturing transfers across licensed facilities. Competition analyses in a more formal sense commonly assess the concentration of ownership among firms or individuals and utilize profit distribution as opposed to sale distribution. Because usable license ownership data and profit distribution data were not available, the Herfindahl-Hirschman Index (HHI) analyses cannot assess the extent to which market activity may be concentrated among common ownership groups or vertically integrated businesses. Rather, they examine market concentration across sales and transfers. Additionally, HHI provides a widely accepted measure of market concentration but does not capture all dimensions of market competitiveness. Factors such as product differentiation, pricing strategies, service quality, barriers to entry, consumer preferences, and federal and state policy changes also influence competitive market performance but were outside the scope of this analysis. Accordingly, HHI analysis in the current report should be interpreted as one component of a broader assessment of market structure rather than a standalone measure of market competitiveness.

Finally, the cannabis marketplace is dynamic and rapidly changing. Consumer preferences, product availability, prices, and regulatory conditions may shift over time. Consequently, these findings should be interpreted as representative of the market during the study period rather than as fixed indicators of long-term consumer behavior.

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[2] There has been limited evidence to suggest that consumers understand and/or know what hemp-derived cannabinoids they have consumed and how they may differ from traditional cannabis products. Given this, survey questions related to hemp-derived cannabis consumption may be misunderstood, and analysis should be approached with some caution.

II. Overview of Missouri's Regulated Cannabis Industry

Missouri legalized medical cannabis in November 2018 through the passage of Amendment 2, a constitutional amendment approved by Missouri voters. Amendment 2 established a regulated medical cannabis program administered by the Missouri Department of Health and Senior Services (DHSS), permitting qualified patients to access medical cannabis products through licensed cultivation, manufacturing, testing, and dispensary facilities. The amendment also authorized limited home cultivation for registered patients and caregivers and established a statewide licensing framework for commercial cannabis businesses. Missouri began issuing facility licenses in 2019, with licensed dispensaries commencing medical cannabis sales in October 2020.

In November 2022, Missouri voters approved Amendment 3, legalizing the possession and sale of adult-use cannabis. Amendment 3 established a dual medical and adult-use market regulated by the Division of Cannabis Regulation (DCR), which was created within DHSS. The amendment authorized licensed medical cannabis businesses to transition into the adult-use market through a conversion licensing process and established additional licensing categories, including microbusinesses. Adult-use cannabis sales officially began in February 2023. Consumers, defined as adults 21 and older, can legally possess up to 3 ounces of cannabis and may grow up to six mature cannabis plants for personal use if they obtain a DCR-issued consumer personal cultivation card.

Adult-Use Program Summary

License Categories

Under Missouri's adult-use cannabis framework, existing medical cannabis operators were permitted to transition into dual medical and adult-use businesses, referred to in statute as "comprehensive facilities." As a result, licensed operators throughout the supply chain may cultivate, manufacture, distribute, and sell products serving both medical patients and adult-use consumers under a single license structure.

The table on the following page (**Table 1**) provides an overview of Missouri's cannabis license types and the total number of licenses that have been approved to operate as of July 22, 2026.

Table 1. Overview of Approved to Operate Cannabis License Types in Missouri

License Type	Description	Issued Licenses [3] (as of 7/22/26)
Comprehensive Marijuana Cultivation Facility	An operator licensed to cultivate, process, package, store, transport, and sell cannabis, cannabis seeds, and clones to licensed cannabis facilities and testing facilities. Cultivators may produce prerolls, but may not manufacture cannabis-infused products.	63
Comprehensive Marijuana Dispensary Facility	An operator licensed to acquire, store, transport, deliver, and sell cannabis products, seeds, clones, infused products, and related paraphernalia to consumers, patients, and caregivers. Dispensaries may also process cannabis into prerolls and may accept orders in person, online, or by phone.	222
Comprehensive Marijuana-Infused Products Manufacturing Facility	An operator licensed to manufacture, process, package, store, transport, and sell cannabis-infused products, prerolls, and infused prerolls to licensed cannabis facilities and testing facilities.	85
Microbusiness Dispensary Facility	A microbusiness operator licensed to sell, store, transport, deliver, and distribute cannabis products, seeds, clones, infused products, and related paraphernalia to consumers, patients, and caregivers. Microbusiness dispensaries may also produce prerolls and accept orders in person, online, or by phone.	5
Microbusiness Wholesale Facility	A microbusiness operator licensed to cultivate, manufacture, process, package, store, transport, and sell cannabis products, seeds, clones, and infused products to other licensed microbusiness facilities and testing facilities. These operators may cultivate up to 250 flowering cannabis plants at a time and may produce prerolls and infused prerolls.	15
Marijuana Testing Facility	A licensed facility authorized to receive, test, certify, and transport cannabis products for compliance and quality assurance purposes.	8

Microbusinesses

Amendment 3 created Missouri's microbusiness program, a new license category intended to create opportunities for market participation within the regulated cannabis industry for individuals from

[3] It is imperative to note that the number of issued licenses may not reflect *active* licenses, nor does the number of licenses adequately reflect the share of activity from active licenses in the total market. For example, the track-and-trace data revealed that there were only 3 *unique* origin microbusiness wholesaler licenses. Additionally, microdispensary sales reflected less than 1% of total dispensary sales and therefore was not necessary to be independently analyzed within the context of the report.

historically disadvantaged or underrepresented communities. DHSS is required to issue a total of 144 microbusiness licenses, including 48 microbusiness dispensary licenses and 96 microbusiness wholesale licenses. Licenses are distributed evenly across Missouri's eight congressional districts, with each round issuing at least six licenses per district, including four microbusiness wholesale licenses and two microbusiness dispensary licenses.

As of June 2026, Missouri has completed two of the three constitutionally required microbusiness licensing rounds. The first round, conducted in 2023, issued 48 microbusiness licenses statewide. The second round, conducted in 2024, issued 57 licenses, including an additional nine licenses intended to replace licenses revoked following the initial licensing round. Following additional revocations, Missouri plans to issue the final round of at least 77 microbusiness licenses in late 2026.

Microbusiness licenses are subject to ownership and eligibility restrictions intended to support participation among economically disadvantaged individuals, veterans, individuals impacted by prior cannabis-related enforcement, and residents of qualifying underserved communities. Microbusiness wholesale facilities are permitted to cultivate, manufacture, and distribute cannabis products within the microbusiness supply chain, while microbusiness dispensaries may sell cannabis products directly to consumers, patients, and caregivers. Wholesale microbusiness facilities are limited to cultivating up to 250 flowering cannabis plants at one time.

License Caps and Additional Licenses

Missouri's adult-use cannabis market operates under a limited-license structure established through Amendment 3. The legislation required the Division of Cannabis Regulation (DCR) to issue, at a minimum, the same number of comprehensive cultivation, manufacturing, and dispensary licenses that were authorized or issued under the medical cannabis program, in addition to the constitutionally required microbusiness licenses.

Missouri's licensing framework also includes geographic allocation requirements intended to distribute facilities throughout the state. For dispensary licenses, the Constitution provides that the total number may not be limited to fewer than 24 licenses within each of Missouri's 8 congressional districts. For microbusiness licenses, the Constitution separately establishes minimum license allocations per congressional district, as described above.

While Amendment 3 established baseline licensing thresholds, the constitutional language also grants DCR authority to lift or ease licensing limits in order to meet statewide cannabis demand, maintain a competitive market, and prevent overconcentration of cannabis facilities within particular local governments. Additionally, if the number of issued licenses within a category falls below the constitutional minimum, DCR may issue additional licenses to satisfy those requirements.

Ownership Limits

Missouri's cannabis licensing framework permits both vertical and horizontal integration among comprehensive licensees. Under Amendment 3, an individual or entity may own multiple license types across the supply chain, including cultivation, manufacturing, and dispensary facilities. As a result, operators may cultivate cannabis, manufacture products, and sell directly to consumers through commonly owned facilities.

Missouri also permits ownership of multiple licenses within the same license category, such as multiple cultivation facilities, manufacturing facilities, or dispensary licenses. However, this is subject to an ownership concentration cap: under Missouri regulations, no single entity or individual may own more than 10% of the total number of comprehensive and medical licenses within a given facility type statewide. An owner is defined as an individual or entity with 10% or more financial or voting interest of a license.

Microbusiness licenses are subject to different ownership limitations. Under Missouri's Constitution, an entity may own only one microbusiness license at a time. Additionally, microbusiness owners may not simultaneously own another licensed cannabis facility operating under the comprehensive or medical licensing structure. A microbusiness licensee may apply for comprehensive or other marijuana facility licenses. If such a license is granted, the licensee must transition to those operations on a timetable established by DCR and surrender the microbusiness license, which is then made available for issuance to a new applicant.

Taxation

Retail cannabis sales are subject to different excise tax rates for medical and adult-use cannabis products. Medical cannabis sales are subject to a 4% state tax on the dispensary price of products sold to registered patients and caregivers, while adult-use cannabis sales are subject to a 6% state tax on products sold to adult-use consumers. Although most dispensaries now operate as dual medical and adult-use “comprehensive” facilities, the applicable tax rate is determined by the type of transaction being processed rather than the license status of the dispensary itself. As a result, purchases made by registered medical patients and caregivers remain subject to the 4% medical cannabis tax and are exempt from the 6% adult-use cannabis tax. In addition to the statewide adult-use cannabis tax, Amendment 3 allows local governments to impose up to an additional 3% local tax on dispensary adult-use cannabis sales, subject to voter approval.

Local Control

Missouri's Constitution grants local governments limited authority to prohibit adult-use cannabis dispensaries within their boundaries. A ban may only be enacted through a voter referendum held during a presidential election year and must receive at least 60% approval to take effect. This opt-out authority only applies to dispensaries, as local governments may not ban cultivation or manufacturing facilities. In jurisdictions where cannabis businesses operate, local governments retain authority to adopt time, place, and manner regulations, as long as they do not conflict with state law.

Local governments may not adopt ordinances that are "unduly burdensome," defined as imposing costs or requirements so significant that a reasonably prudent businessperson would not operate the facility. This creates a hybrid regulatory structure in which the state, through the Division of Cannabis Regulation, holds primary licensing authority, while local governments retain some control over land use and operational requirements.

III. Missouri Cannabis Demand Analysis

Section Summary: *Missouri's regulated cannabis market appears to be functioning as intended, with licensed dispensaries capturing approximately 93% of all reported cannabis expenditures among past-month consumers. Consumer demand remains highly concentrated among a small number of product categories, with flower accounting for approximately one-half of all monthly cannabis spending, followed by vapes and edibles. Medical cannabis patients contribute disproportionately to regulated sales, reporting consistently higher product utilization and spending across every major product category than adult-use consumers. Although some consumers continue to participate in illicit or informal markets, these channels account for only a small share of overall market activity and are driven primarily by price (62%) and convenience (35%), rather than limited legal access. Regional analyses further demonstrate that these overall patterns are consistent statewide, with the regulated market accounting for more than 90% of cannabis expenditures in every congressional district. However, significant geographic differences were observed in total cannabis spending, purchasing priorities, and reliance on alternative acquisition channels. District 6 reported the highest average monthly cannabis expenditures, while District 7 exhibited the lowest regulated market share and the greatest reliance on illicit and grey market sources. Price sensitivity and the importance of convenience also varied significantly across regions, suggesting that local market conditions continue to influence consumer purchasing behaviors even within an otherwise mature regulated market. More broadly, consumers identified price (66%) and THC potency (58%) as the factors that most influence purchasing decisions, suggesting that Missouri's regulated market is competing successfully on the attributes consumers value most. Collectively, these findings indicate that Missouri's cannabis market has matured into a stable, competitive marketplace where future policy opportunities are likely to center on improving market efficiency and competitiveness rather than expanding consumer participation.*

The following section examines cannabis consumer behaviors, purchasing patterns, spending, and product preferences among past-month cannabis consumers in Missouri. The analysis explores how consumers obtain cannabis products, allocate expenditures across product categories and sources, and interact with Missouri's regulated cannabis market. The section also examines factors that influence purchasing decisions, participation in alternative acquisition channels, and other behaviors that shape consumer demand. These findings provide insight into how consumers navigate Missouri's cannabis marketplace and identify market dynamics that may influence competition, consumer participation, and overall market performance.

RDCOS Self-Reported Past-Month Cannabis Demand

Monthly Cannabis Expenditures by Product Category

As shown in **Table 2** below, among past-month cannabis consumers, average monthly expenditures across all cannabis products totaled $161.81 (95% CI: $142.41-$181.21). Flower accounted for the largest share of consumer spending, with respondents reporting average monthly expenditures of $80.88 (95% CI: $67.74-$94.02), representing approximately one-half of all reported cannabis spending. Vaporized cannabis products were the second-largest expenditure category, with consumers spending an average of $28.40 per month (95% CI: $22.36-$34.44), followed by edibles at $25.69 per month. Consumers also reported modest spending on prerolls ($16.26; 95% CI: $12.51-$20.01) and concentrates ($9.84; 95% CI: $5.22-$14.45).

Expenditures on cannabis beverages were comparatively rare and low, averaging less than one dollar per month ($0.74; 95% CI: $0.42-$1.05). Similarly, no measurable expenditures were reported for tinctures, topicals, or capsules. While these products remain available within Missouri's regulated market, findings suggest that consumer purchasing behavior remains concentrated among inhalable products, particularly flower and vapes, with edibles representing the primary non-inhalable product category.

Table 2. Total Average Past Month Spending by Product Type

Product Category	Mean	Confidence Intervals
All Cannabis Products	$161.81	$142.41, $181.21
Flower	$80.88	$67.74, $94.02
Prerolls	$16.26	$12.51, $20.01
Edibles	$25.69	$18.21, $25.69
Beverages	$0.74	$0.42, $1.05
Concentrates	$9.84	$5.22, $14.45
Vapes	$28.40	$22.36, $34.44
Tinctures	$0	-
Topicals	$0	-
Capsules	$0	-

Flower is the dominant consumer purchasing behavior in Missouri, accounting for the largest share of cannabis expenditures by a substantial margin. The concentration of spending among flower, vapes, and edibles suggests that these product categories represent the primary drivers of consumer demand within the regulated market.

Monthly Cannabis Expenditures by Source

Table 3 on the following page summarizes average monthly cannabis expenditures by source. Among past-month cannabis consumers, average monthly cannabis expenditures across all sources totaled $161.81 (95% CI: $142.41-$181.21). The overwhelming majority of spending occurred within Missouri's regulated market, with consumers reporting average monthly expenditures of $149.95 (95% CI: $130.48-$169.43) at licensed dispensaries and delivery services.

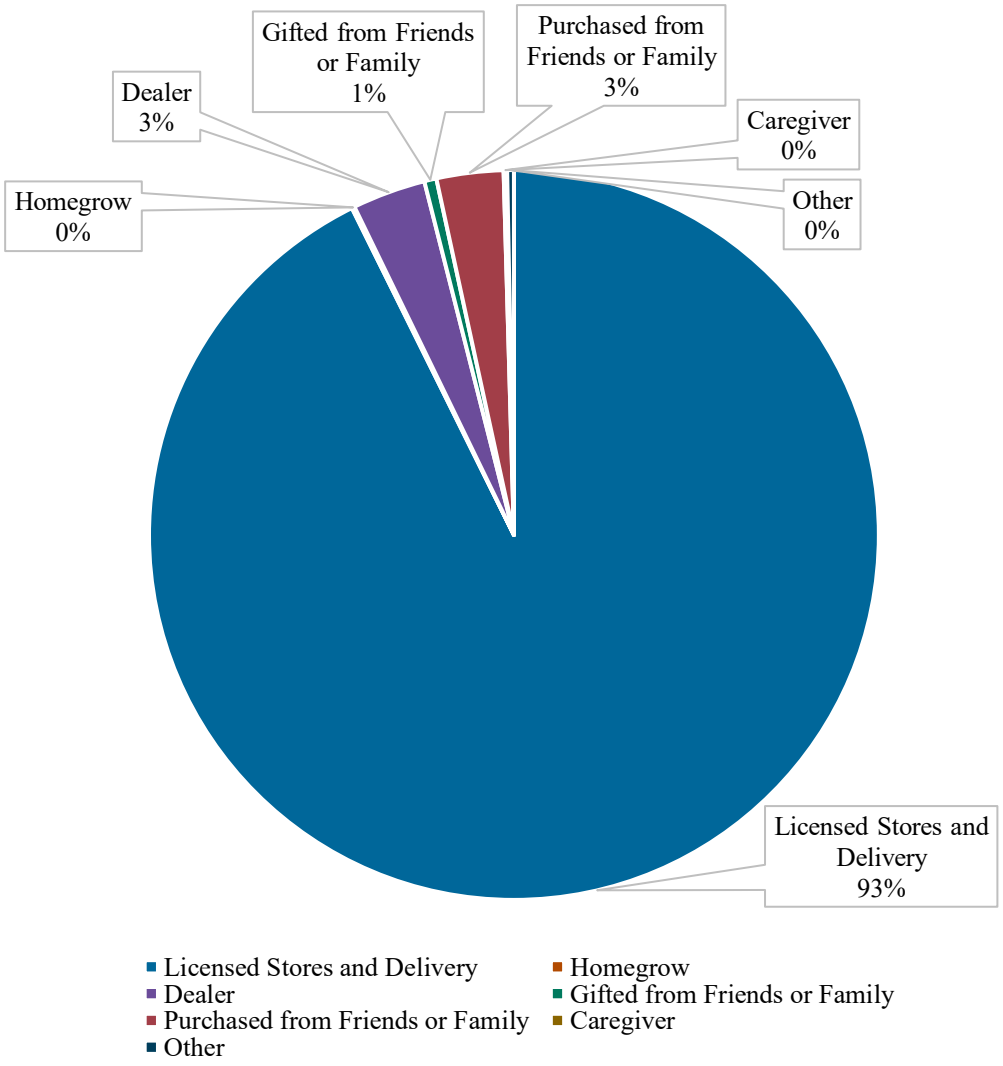
In contrast, expenditures across alternative sources were substantially lower. Consumers reported spending an average of $5.26 per month (95% CI: $2.68-$7.83) on cannabis obtained from dealers and $4.79 per month (95% CI: $3.17-$6.42) on cannabis purchased from friends or family members. Spending on cannabis obtained through homegrow ($0.20; 95% CI: $0.06-$0.35), caregivers ($0.25; 95% CI: $0.07-$0.43), gifts from friends or family ($0.87; 95% CI: $0.51-$1.23), and other sources ($0.48; 95% CI: $0.26-$0.71) was minimal.

Table 3. Total Average Past-Month Cannabis Spending by Source

Cannabis Spending by Source	Mean	Confidence Intervals
Cannabis Spending Across All Sources	$161.81	$142.41, $181.21
Licensed Stores and Delivery	$149.95	$130.48, $169.43
Homegrow	$0.20	$0.06, $0.35
Dealer	$5.26	$2.68, $7.83
Gifted from Friends or Family	$0.87	$0.51, $1.23
Purchased from Friends or Family	$4.79	$3.17, $6.42
Caregiver	$0.25	$0.07, $0.43
Other	$0.48	$0.26, $0.71

Figure 1 on the following page illustrates the distribution of monthly cannabis expenditures by source. **These findings strongly suggest that Missouri's regulated market serves as the primary source of cannabis purchases among consumers, accounting for approximately 93% of all reported monthly cannabis expenditures.** While some consumers continue to obtain cannabis through unregulated channels, expenditures outside of licensed stores represent a relatively small proportion of overall consumer spending.

Figure 1. Percentage of Past-Month Market Share Expenditures by Source



There appears to be robust participation in Missouri's regulated marketplace. Although unregulated sources remain present, the magnitude of spending reported through licensed dispensaries substantially exceeds spending reported across all alternative sources combined, suggesting that regulated operators capture the vast majority of cannabis-related consumer expenditures.

It is, however, worth noting that DCR has reported that unregulated businesses selling hemp-derived and alternative cannabinoids have become commonplace across the state. Given this, it is possible consumers are not aware of whether they are purchasing from a licensed dispensary or an unregulated business that sells cannabinoid products. In the survey, we did not include definitions for each source, only examples of each source.

However, total regulated cannabis sales reported through Missouri's Track-and-Trace system for the sampled month fell within the 95% confidence interval of the RDCOS estimate of past-month regulated cannabis expenditures. This agreement indicates that the survey successfully captured regulated purchasing behavior at the population level, making it unlikely that the estimated 93%

regulated market share is meaningfully biased due to sampling or measurement error. Consequently, greater confidence can also be placed in the survey's estimates of expenditures occurring outside the regulated market.

Table 4 presents the percentage of past-month units obtained through licensed stores and delivery services by product category. Across most product categories, the large majority of reported units were obtained through licensed channels, suggesting that Missouri's regulated cannabis market captures a substantial share of consumer purchasing activity. Licensed market share was highest for pre-rolls, with 93% of past-month units obtained from licensed stores or delivery, followed by vapes (88%), edibles (86%), flower (85%), and concentrates (82%). For each of these product categories, more than four out of every five units reported by consumers originated from licensed sources.

Table 4. Percentage of Past-Month Market Share Units from Licensed Stores and Delivery

Product Category (Units)	Percentage
Flower	85%
Pre-Roll	93%
Edible	86%
Beverages	55%
Concentrates	82%
Vapes	88%

Beverages were a notable exception to this broader pattern. Only 55% of past-month beverage units were obtained through licensed stores or delivery, indicating substantially greater reliance on sources outside the licensed market for this product category. The difference suggests that participation in the regulated market is not uniform across cannabis product types and that product-specific factors may influence where consumers obtain cannabis products. This may also suggest a broader trend of THC beverages being sold outside of dispensaries as hemp-derived THC products.

Overall, these findings indicate strong licensed market participation across Missouri's major cannabis product categories, particularly for pre-rolls and vapes, consistent with the findings related to past-month expenditures.

Product Demand Patterns by Patient Status

Across all major product categories (see Table 5 below), medical patients reported higher average levels of past-month cannabis consumption than adult-use consumers. This pattern was particularly pronounced for flower, where patients reported obtaining an average of 32.22 grams across all sources in the past-month compared to 19.05 among adult-use consumers. Similar differences were observed for prerolls (3.28 vs. 2.13), edibles (1.76 vs. 1.09), concentrates (0.86 vs. 0.49), and vape products (1.52 vs. 1.14).

For both patient and adult-use consumers, licensed dispensaries represented the primary source of cannabis products. Among flower consumers, licensed dispensaries accounted for approximately 85% of all product acquisition in units among adult-use consumers (15.28 of 19.05) and approximately 84% among patients (27.22 of 32.22). Similar patterns were observed across prerolls, edibles, concentrates,

and vape products, where the majority of products originated from licensed sources regardless of patient status.

Although alternative acquisition sources were present, they contributed comparatively little to overall product access. Adult-use consumers were somewhat more likely to obtain flower through gifts, purchases from friends or family, and dealer sources than patients. Conversely, medical patients reported modestly higher utilization of homegrow and caregiver channels, particularly for flower products, reflecting pathways uniquely available within Missouri's medical cannabis framework. However, even among patients, these alternative channels represented a small proportion of total product acquisition relative to licensed dispensaries.

Across both consumer groups, flower remained the dominant product category by a substantial margin, followed by prerolls, edibles, vapes, and concentrates. Beverage consumption was rare, while no measurable use of tinctures, topicals, or capsules was reported. This is consistent with the previous finding; Missouri's regulated market serves as the primary source of cannabis products for both medical patients and adult-use consumers. While medical patients consistently report higher levels of product acquisition overall, both groups appear to rely predominantly on licensed dispensaries rather than alternative or unregulated sources.

Table 5. Total Average Past-Month Units of Each Product Type Across Sources

Product Type	Patient Status	Total Across All Sources	Licensed	Caregiver	Homegrow	Gifted from Friends and Family	Dealer	Purchased from Friends and Family	Retail Store Delivery	Other
Flower	Adult-Use Consumers	19.05	15.28	0.02	0.38	1.07	0.83	1.11	0.37	-
Flower	Patient Consumers	32.22	27.22	0.09	1.04	0.84	0.51	0.46	2.06	-
Preroll	Adult-Use Consumers	2.13	1.74	-	-	0.18	-	0.02	0.2	-
Preroll	Patient Consumers	3.28	3.04	-	-	0.03	-	0.04	0.17	-
Edibles (Units)	Adult-Use Consumers	1.09	0.82	-	-	0.16	0.01	0.01	0.08	0.01
Edibles (Units)	Patient Consumers	1.76	1.51	-	0.01	0.07	0.01	-	0.14	0.03
Beverages (Units)	Adult-Use Consumers	0.1	0.05	-	-	0.01	-	-	0.01	0.04
Beverages (Units)	Patient Consumers	0.14	0.09	-	-	-	-	-	0.01	0.04
Concentrates	Adult-Use Consumers	0.49	0.39	-	-	0.07	-	0.04	-	-
Concentrates	Patient Consumers	0.86	0.78	-	-	0.04	-	0.04	-	-
Vapes	Adult-Use Consumers	1.14	0.91	-	-	0.07	0.07	0.04	0.05	-
Vapes	Patient Consumers	1.52	1.17	-	-	0.05	0.01	0.01	0.29	-
Tinctures	Adult-Use Consumers	-	-	-	-	-	-	-	-	-
Tinctures	Patient Consumers	-	-	-	-	-	-	-	-	-
Topicals	Adult-Use Consumers	-	-	-	-	-	-	-	-	-
Topicals	Patient Consumers	-	-	-	-	-	-	-	-	-
Capsules	Adult-Use Consumers	-	-	-	-	-	-	-	-	-
Capsules	Patient Consumers	-	-	-	-	-	-	-	-	-

Monthly Cannabis Expenditures by Product Type, Source, and Patient Status

Table 6 below summarizes average monthly cannabis expenditures by product type, source, and patient status. Medical patients reported higher monthly cannabis expenditures than adult-use consumers across every major product category examined (see Table 5 below). The largest differences were observed for flower, edibles, and vape products. Patients reported spending an average of $96.00 per month on flower compared to $76.70 among adult-use consumers, while expenditures on edibles were more than twice as high among patients ($45.61 versus $20.19). Similarly, patients reported greater spending on vape products ($35.81 versus $26.35), prerolls ($21.61 versus $14.79), concentrates ($11.25 versus $9.45), and beverages ($1.06 versus $0.65).

Across both patient groups, licensed dispensaries accounted for the overwhelming majority of cannabis expenditures. For flower products, licensed dispensaries captured approximately 83% of expenditures among adult-use consumers ($64.01 of $76.70) and approximately 86% among patients ($82.12 of $96.00). Similar patterns were observed across prerolls, edibles, concentrates, beverages, and vape products, where regulated dispensaries consistently represented the primary destination for consumer spending.

Although expenditures through alternative channels were observed, these expenditures were generally limited in magnitude. Adult-use consumers reported somewhat higher flower expenditures through dealer sources ($5.32 versus $2.89) and purchases from friends or family ($4.68 versus $3.12), while medical patients reported greater expenditures through dispensary delivery channels, particularly for flower ($7.07 versus $1.58), edibles ($5.04 versus $1.42), and vape products ($5.64 versus $0.97). These findings may suggest that patients place a greater value on accessibility and convenience when obtaining cannabis products.

Flower remained the dominant expenditure category for both groups, accounting for the largest share of monthly cannabis spending. However, the substantial differences observed for edibles and vape products suggest that medical patients may maintain more diverse product purchasing patterns than adult-use consumers. Notably, patient expenditures on edibles exceeded those reported for prerolls, concentrates, and beverages combined, highlighting the importance of non-inhalable products within the medical cannabis population.

As such, medical patients spend more on cannabis products relative to adult-use consumers, not just by greater overall spending generally but also through increased expenditures across multiple product categories. The higher expenditures observed among medical patients likely reflect both greater product utilization and a broader diversity of product preferences, particularly for edibles and vaporized products, which may serve distinct therapeutic or symptom-management purposes compared to recreational consumers. Despite these differences in spending intensity, both groups appear to rely overwhelmingly on Missouri's regulated marketplace, with only a small proportion of expenditures occurring through alternative or unregulated sources.

Table 6. Total Average Past-Month Spending of Each Product Type Across Sources

Product Type	Patient Status	Total Across All Sources	Licensed Retail Dispensary	Care giver	Home grow	Gifted from Friends and Family	Dealer	Purchased from Friends and Family	Licensed Retail Dispensary Delivery	Other
Flower	Adult-Use Consumers	$76.70	$64.01	$0.16	$0.21	$ 0.75	$5.32	$4.68	$1.58	$ -
Flower	Patient Consumers	$96.00	$82.12	$0.57	$0.20	$0.03	$2.89	$3.12	$7.07	-
Preroll	Adult-Use Consumers	$14.79	$13.88	-	-	$0.04	-	-	$0.87	-
Preroll	Patient Consumers	$21.61	$19.17	-	-	$0.02	-	-	$2.42	-
Edibles	Adult-Use Consumers	$20.19	$18.36	-	-	$0.24	-	-	$1.42	$0.17
Edibles	Patient Consumers	$45.61	$39.97	-	-	$0.21	-	-	$5.04	$0.39
Beverages	Adult-Use Consumers	$0.65	$0.36	-	-	-	-	-	$0.01	$0.27
Beverages	Patient Consumers	$1.06	$0.76	-	-	-	-	-	$0.05	$0.25
Concentrates	Adult-Use Consumers	$9.45	$9.45	-	-	-	-	-	-	-
Concentrates	Patient Consumers	$11.25	$11.25	-	-	-	-	-	-	-
Vapes	Adult-Use Consumers	$26.35	$24.30	-	-	-	$0.58	$0.50	$0.97	-
Vapes	Patient Consumers	$35.81	$29.84	-	-	-	$0.05	$0.28	$5.64	-
Tinctures	Adult-Use Consumers	-	-	-	-	-	-	-	-	-
Tinctures	Patient Consumers	-	-	-	-	-	-	-	-	-
Topicals	Adult-Use Consumers	-	-	-	-	-	-	-	-	-
Topicals	Patient Consumers	-	-	-	-	-	-	-	-	-
Capsules	Adult-Use Consumers	-	-	-	-	-	-	-	-	-
Capsules	Patient Consumers	-	-	-	-	-	-	-	-	-

Purchase Impact Decisions

Table 7 summarizes the characteristics that consumers reported as influencing their cannabis purchasing decisions. Price emerged as the most influential factor affecting purchasing decisions, with 66% of consumers reporting that it impacts the cannabis products they choose to purchase. THC potency ranked second (58%), followed by convenience (40%) and cannabis strain (36%). Product safety and contaminant concerns were endorsed by approximately one-quarter of consumers (26%), while fewer respondents reported that source of acquisition (18%), legal status (17%), terpenes (14%), or CBD potency (13%) influenced their purchasing decisions.

These findings help contextualize the spending patterns observed throughout this report. Consumers reported obtaining the vast majority of their cannabis from licensed dispensaries despite relatively low endorsement of legal status as a purchasing consideration. Instead, consumer participation in the regulated market appears to be driven primarily by economic and product-related considerations, including price, potency, convenience, and product selection. The prominence of THC potency relative to other product attributes further aligns with the concentration of expenditures observed among flower and vape products, categories that often provide consumers with a wide range of potency options.

Notably, safety considerations were endorsed more frequently than legal status, suggesting that some consumers may place greater value on confidence in product quality and testing standards than on whether a product was obtained through a regulated channel. This distinction may have implications for consumer education efforts, as messaging centered on product safety and quality assurance may resonate more strongly than messaging focused solely on legal compliance.

Table 7. Characteristics That Impact Cannabis Purchasing Decisions (Select All That Apply)

Purchasing Impact Characteristics	% Endorsed
Price	66%
THC Potency	58%
Convenience	40%
Cannabis Strain	36%
Safety / Contaminants	26%
Source (Store vs. Friend)	18%
Obtained Legally	17%
Terpenes	14%
CBD / Non-THC Potency	13%
Drive-through / Pickup Window	13%
Whether It Can Be Delivered	4%
None of the Above	4%

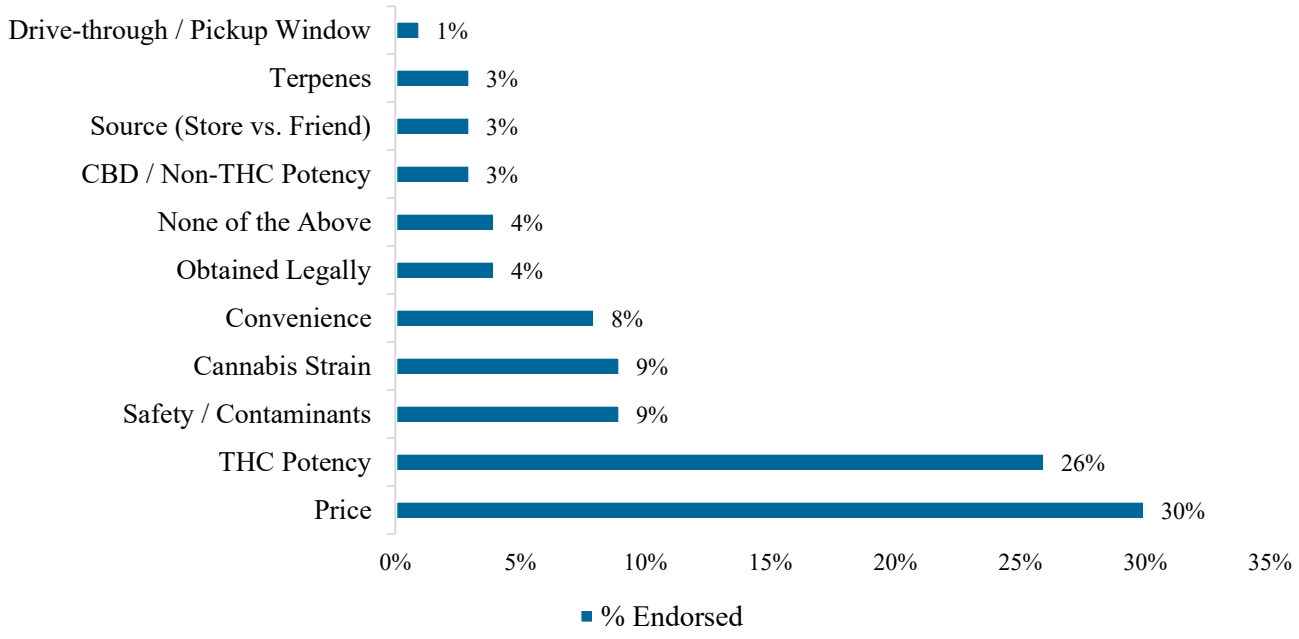
Characteristics of what was selected as impact decisions for each respondent were then carried forward and participants were asked to identify the most important in informing their purchase decision from their previously identified characteristic list (See **Figure 2** below). Consumers most frequently selected price (30%) and THC potency (26%). No other factor approached the influence of these two considerations. Safety and contaminant concerns (9%), cannabis strain (9%), and convenience (8%) formed a secondary tier of purchasing influences, while legal status (4%), source of acquisition (3%),

terpenes (3%), and CBD potency (3%) were selected by relatively few consumers as their primary consideration.

The findings suggest that cannabis purchasing decisions in Missouri are driven principally by value and product psychoactive performance. While consumers consider a variety of factors when selecting cannabis products, the hierarchy becomes much clearer when respondents are asked to identify a single most important consideration. Price and THC potency alone accounted for more than half of all responses, indicating that consumers are primarily evaluating products through the lens of affordability and perceived strength.

This pattern is consistent with the broader market findings presented throughout this report. Flower and vape products accounted for the largest share of consumer expenditures, and regulated dispensaries captured the overwhelming majority of cannabis spending despite legal status ranking relatively low as a primary purchasing driver. Consumers may participate in the regulated market not because products are legal, but because regulated dispensaries are effectively competing on the attributes consumers value most: price and potency.

Figure 2. Most Important Purchasing Impact Characteristic

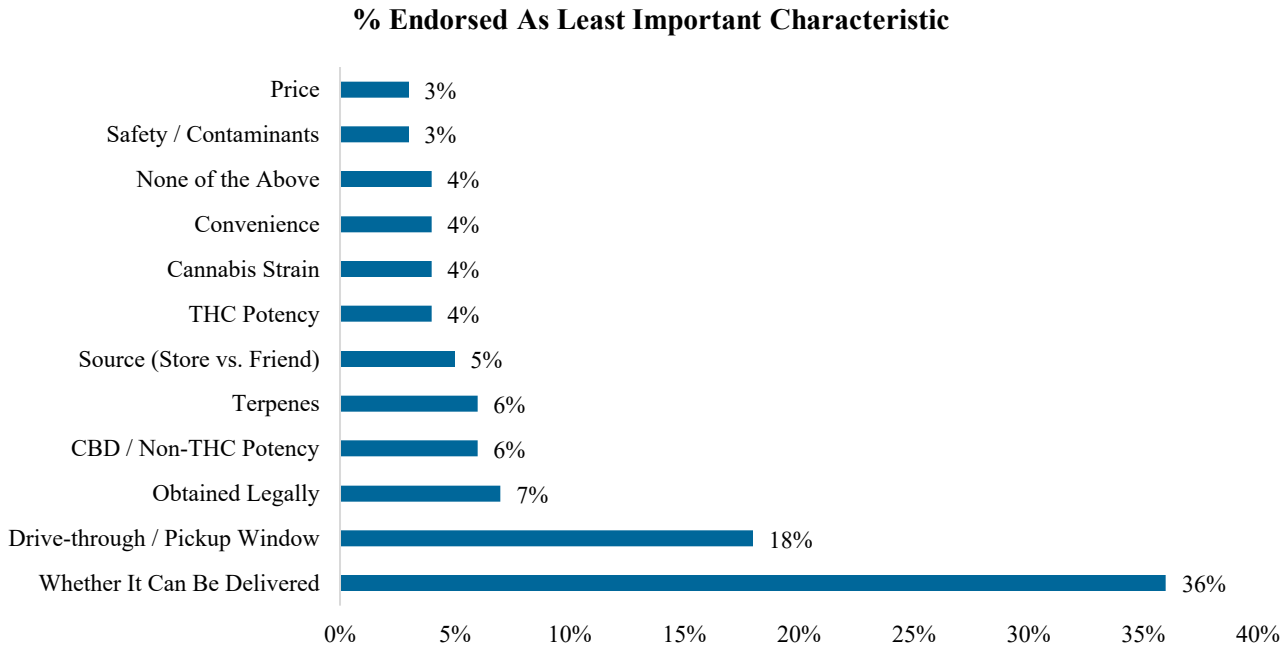


Respondents were asked to identify what characteristic was the least important in their purchasing decisions from the characteristics *not* selected in the original impact decision question, as seen in **Figure 3**. Consumers most frequently selected delivery availability (36%) and drive-through or pickup window access (18%). This may be influenced by the lack of drive-through or pickup options available throughout the state. These findings suggest that while convenience plays a role in purchasing behavior, specific dispensary service features are generally viewed as non-essential by most Missouri consumers.

Other factors commonly identified as least important included whether a product was obtained legally (7%), CBD potency (6%), terpenes (6%), and source of acquisition (5%). In contrast, relatively few consumers identified THC potency (4%), cannabis strain (4%), convenience overall (4%), price (3%), or safety and contaminant considerations (3%) as their least important purchasing factor.

The ranking of least important factors largely mirrors the findings observed elsewhere in this report. The most notable is the finding that legal status was more likely to be identified as a least important factor than as a most important factor. Coupled with the observation that consumers obtain the overwhelming majority of cannabis from licensed dispensaries, this pattern suggests that participation in Missouri's regulated market may be driven less by compliance considerations and more by the market's ability to compete on factors consumers value most (i.e., price and potency).

Figure 3. Least Important Purchasing Impact Characteristic



Reasons for Purchasing from an Illicit Seller

Respondents who had indicated that they had purchased a cannabis product from an illicit seller within the past 30 days were asked to provide additional information on the reasons why (see **Table 8**). Lower prices emerged as the most commonly cited reason, with 62% indicating that illicit products are cheaper than those available through regulated channels. Convenience was the second most frequently endorsed reason (35%), followed by a preference to support community or small businesses (23%) and access to preferred products (19%).

Skepticism toward regulation also played a role for some consumers. Nearly one in five respondents (18%) reported that they do not trust government regulation, while 11% indicated that they trust products obtained from illicit sources more than products available through the regulated market. In contrast, lack of access appeared to be a relatively minor driver of illicit purchasing behavior, with only 6% citing the absence of medical dispensaries or caregivers in their area and no respondents reporting a lack of adult-use dispensaries.

These findings suggest that illicit market participation in Missouri is driven primarily by the same competitive factors that the legal market is competing on rather than geographic barriers to legal access. While regulated dispensaries capture the vast majority of cannabis expenditures statewide, the remaining illicit market appears to persist largely because some consumers perceive illicit sources as offering better economic value, greater convenience, or products that better align with their preferences.

The finding that few consumers attribute illicit purchases to a lack of legal dispensary access may be particularly important for future policy decision making and suggests that dispensary density may be a more important characteristic than access alone. As Missouri's comprehensive market continues to mature, further reductions in illicit market participation may depend less on expanding store availability and more on improving the regulated market's competitiveness on the factors consumers value most, particularly price, convenience, and product selection.

Table 8. Reasons for Purchasing from an Illicit Seller

Reasons for Purchasing from an Illicit Seller	% Endorsed
It's cheaper	62%
It's more convenient	35%
Prefer to support community/small businesses	23%
Get products I like more	19%
Don't trust government regulation	18%
Trust product more than regulated sources	11%
None of the above	10%
No medical dispensaries/caregivers in area	6%
No adult-use stores in area	0%

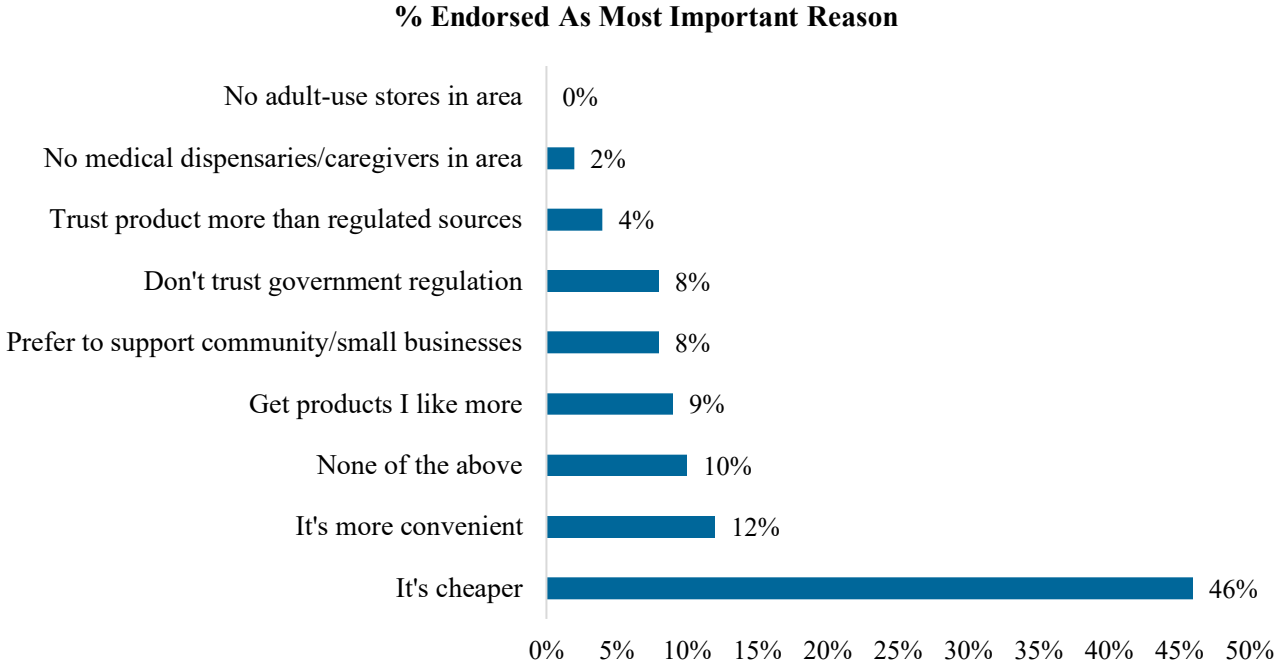
Respondents were then asked to identify the most important reason for purchasing from an illicit seller among the list of previously selected reasons. These findings are found in **Figure 4** below. Nearly half of respondents (46%) indicated that illicit cannabis is cheaper than products available through regulated channels. No other reason exceeded 12%, with convenience ranking a distant second (12%), followed by product preference (9%), support for community or small businesses (8%), and distrust of government regulation (8%).

The concentration of responses around price reinforces a consistent theme observed throughout this report. Consumers overwhelmingly identified price as one of the most important drivers of cannabis purchasing decisions generally, and among those who continue to participate in the illicit market, cost appears to be the primary factor distinguishing illicit and regulated purchases. These findings further suggest that illicit market participation in Missouri is not principally an access issue. Rather, the remaining illicit market appears to be concentrated among consumers who perceive illicit sources as offering a more favorable value proposition than regulated dispensaries.

Consistent with the previous findings, these findings suggest that continued reductions in illicit market participation may depend less on expanding dispensary availability and more on improving the regulated

market's ability to compete on price while maintaining the safety, testing, and consumer protections that distinguish legal cannabis products from illicit alternatives.

Figure 4. Most Important Reason for Purchasing from an Illicit Seller



Gifted or Purchased from Friends or Family

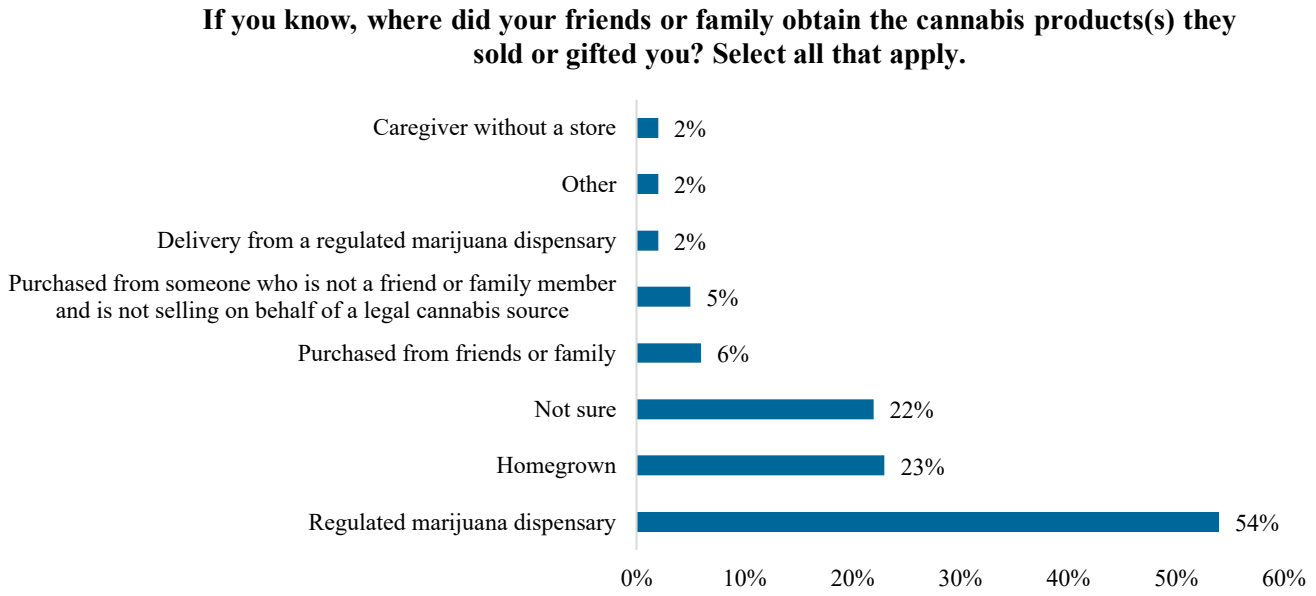
Figure 5 illustrates the reported original sources of cannabis that consumers received as gifts or purchased from friends or family. Among consumers who received or purchased cannabis through friends or family, the most commonly reported source of those products was a regulated marijuana dispensary (approximately 56% when including regulated delivery services). Homegrown cannabis represented the second most common source (approximately 23%), while a similar proportion of respondents indicated that they were unsure where the cannabis originated (approximately 22%). Relatively few respondents reported that cannabis obtained through friends or family originated from another friend or family member (approximately 6%), an illicit seller (approximately 5%). Caregivers and other sources were each reported by roughly 2% of respondents.

These findings suggest that cannabis shared through social networks in Missouri frequently originates within the regulated market rather than outside of it. While transfers between friends and family may occur outside traditional dispensary transactions, the products themselves often appear to have been initially purchased through licensed dispensaries. This pattern is consistent with earlier findings showing that regulated dispensaries account for the overwhelming majority of cannabis expenditures and product acquisition statewide.

The prominence of homegrown cannabis as a secondary source also highlights the role of personal cultivation in informal cannabis sharing. However, the fact that regulated dispensaries were identified more than twice as frequently as homegrow sources suggests that social redistribution of legally purchased cannabis may represent a more common pathway than direct acquisition from unregulated

sources. Importantly, selling cannabis products to friends or family is considered illicit even if the product originated in the legal market.

Figure 5. Original Source Of Gifted or Purchased Cannabis From Friends Or Family



Informal Cannabis Sharing and Exchange Behaviors

To investigate this further, we asked participants to identify their frequency in participation of a variety of informal sharing and exchange behaviors, including selling cannabis (see **Table 9**). The results can be found in Table 8 below. Informal cannabis sharing was common among Missouri consumers, whereas direct cannabis sales between individuals were comparatively rare. Three-quarters of respondents (75%) reported never giving cannabis away for free, though 22% indicated doing so sometimes and 3% reported doing so frequently. In contrast, 4% of respondents reported ever selling cannabis, and no respondents indicated selling cannabis frequently.

Receiving cannabis from others appeared to be substantially more common than providing it. Nearly half of respondents (47%) reported sometimes purchasing cannabis from another individual, while an additional 45% reported doing so frequently. Similarly, 47% of consumers reported receiving cannabis for free at least sometimes, including 8% who reported doing so frequently. Cannabis sharing behaviors also extended beyond direct transfers. More than six in ten respondents reported sharing a cannabis product with another person at least sometimes, including 21% who reported doing so frequently. By comparison, exchanging labor for cannabis was uncommon, with only 6% of respondents reporting ever working in exchange for cannabis.

These findings suggest that cannabis consumption frequently occurs within social networks. Earlier analyses indicated that cannabis obtained through friends and family often originates from regulated dispensaries, suggesting that informal sharing may function less as a substitute for the regulated market and more as a secondary pathway through which regulated products circulate among consumers. The relatively low prevalence of direct cannabis sales between individuals further supports the conclusion that social sharing appears to be more common than informal commercial activity.

Table 9. Informal Cannabis Sharing and Exchange Behavior Frequencies

Behavior	Not At All	Sometimes	Frequently
I gave away cannabis for free	75%	22%	3%
I sold cannabis	96%	4%	0%
I received cannabis for free	53%	39%	8%
I purchased cannabis	9%	47%	45%
I worked in exchange for cannabis	94%	6%	0%
I shared a cannabis product with someone (i.e. split a joint)	37%	43%	21%

Homegrow Market

Home cultivation remains a relatively uncommon source of cannabis in Missouri. **Table 10** summarizes the prevalence of home cultivation among surveyed Missouri cannabis consumers. Most consumers (81%) reported never having grown cannabis plants, while 16% indicated that they had grown cannabis in the past but were not currently cultivating. Only 3% of respondents reported actively growing cannabis plants at the time of the survey.

Among current homegrowers, the average number of plants maintained was 4.77, with a median of 4 plants. The similarity between the mean and median suggests that most homegrow operations are relatively small in scale and that the market is not heavily influenced by a small number of respondents reporting exceptionally large cultivation operations. These findings are consistent with earlier analyses showing that homegrown cannabis represents a small share of both product acquisition and cannabis expenditures statewide. As a result, homegrow currently appears to function as a likely complementary source of cannabis for a small group of consumers rather than a meaningful competitor to the regulated market.

Table 10. Homegrow Prevalence

Behavior	% Endorsed	Standard Error
No, never	81%	2.07
Yes, I have grown cannabis plants in the past, but not currently.	16%	1.99
Yes, I currently grow cannabis plants.	3%	0.76

Alternative Cannabinoid Market

Awareness and use of alternative cannabinoid products varied considerably across compounds. **Table 11** below summarizes the prevalence and awareness of several alternative cannabinoids among respondents. CBD was by far the most widely recognized and utilized cannabinoid, with 22% of respondents reporting use within the past month and an additional 41% reporting prior use. Only 27% of respondents indicated they had never used CBD, substantially lower than any other cannabinoid examined.

Among intoxicating hemp-derived cannabinoids, THCA demonstrated the highest levels of engagement. Approximately 15% of respondents reported past-month THCA use, while an additional 14% reported prior use. Delta-8 THC represented the next most commonly used alternative cannabinoid, with approximately 6% reporting past-month use and 29% reporting prior use. Hemp-derived Delta-9 THC also exhibited relatively high levels of awareness and experimentation, with one in five respondents reporting previous use.

For most other cannabinoids, including THCO, Delta-10 THC, THCP, THCV, CBN, HHC, and CBG, current use remained uncommon, with fewer than 7% of respondents reporting past-month use. A notable proportion of consumers also indicated that they were unfamiliar with these compounds, particularly THCP, THCV, HHC, and CBG, where approximately one-third of respondents reported not knowing what the cannabinoid was or whether they had used it.

Table 11. Prevalence of Alternative Cannabinoids

Alternative Cannabinoid	I've never used this	I used this in the past month	I used this before, but not in the past month	I don't know if I've used this/I don't know what this is
Delta-8	47%	6%	29%	17%
THCO	55%	4%	14%	27%
Delta-10	53%	6%	15%	26%
THCP	51%	4%	10%	35%
THCV	50%	6%	8%	36%
CBN	52%	6%	11%	31%
HHC	53%	3%	8%	36%
CBD	27%	22%	41%	10%
CBG	53%	4%	11%	31%
THCA	42%	15%	14%	29%
Hemp-Derived Delta-9	50%	5%	20%	24%

Frequency of use data further suggests that most alternative cannabinoid consumption is concentrated among a relatively small subset of cannabis consumers (see Table 12 below). Past-month use of CBD was the most prevalent, with approximately 10% of respondents reporting use on five or more days during the previous month and roughly 3% reporting daily use. THCA also demonstrated comparatively high levels of frequent use, with approximately 5% of respondents reporting use on all 30 days of the previous month. In contrast, use of most other alternative cannabinoids was infrequent and episodic, with the overwhelming majority of respondents reporting no use during the previous month.

The elevated levels of awareness and use observed for CBD and THCA distinguish these products from other alternative cannabinoids currently available in the marketplace. While experimentation with compounds such as Delta-8 THC and hemp-derived Delta-9 THC is evident, the findings suggest that sustained consumer engagement remains concentrated among a relatively small number of alternative cannabinoid products rather than being broadly distributed across the category. As such, it is unlikely that there is robust competition between traditional cannabis products and alternative cannabinoid products.

Table 12. Frequency of Alternative Cannabinoids Consumption

Alternative Cannabinoid	0 days	1-4 days	5 to 10 days	11 to 19 days	20 to 29 days	All 30 days
Delta-8 THC	95%	3%	2%	0%	0%	1%
Delta-8 THCO	97%	2%	1%	0%	0%	1%
Delta-10 THC	97%	2%	1%	0%	0%	1%
THCP	97%	2%	0%	0%	0%	0%
THCV	94%	3%	0%	0%	1%	1%
CBN	95%	2%	1%	0%	1%	1%
HHC	97%	1%	0%	1%	0%	0%
Hemp-Derived Delta-9	96%	2%	1%	0%	0%	1%
CBD	80%	8%	5%	2%	2%	3%
CBG	97%	1%	1%	0%	0%	0%
THCA	86%	6%	2%	1%	1%	4%

When compared to Missouri's regulated cannabis market, alternative cannabinoid use remains relatively limited. THCA was the notable exception. Approximately 15% of respondents reported using THCA during the past month, a prevalence that exceeds several traditional cannabis product categories such as concentrates, beverages, and tinctures. CBD also demonstrated substantial consumer engagement, though its use likely reflects a broader wellness-oriented market distinct from traditional THC-containing cannabis products. In contrast, past-month use of Delta-8 THC, hemp-derived Delta-9 THC, THCP, THCV, HHC, CBG, and related cannabinoids remained comparatively low.

These findings suggest that alternative cannabinoids currently function more as a supplemental market than as a direct substitute for Missouri's regulated cannabis industry. However, the relatively high levels of THCA awareness and use indicate that certain hemp-derived products have achieved meaningful consumer adoption and may represent the most significant area of overlap between the regulated cannabis market and the broader cannabinoid marketplace.

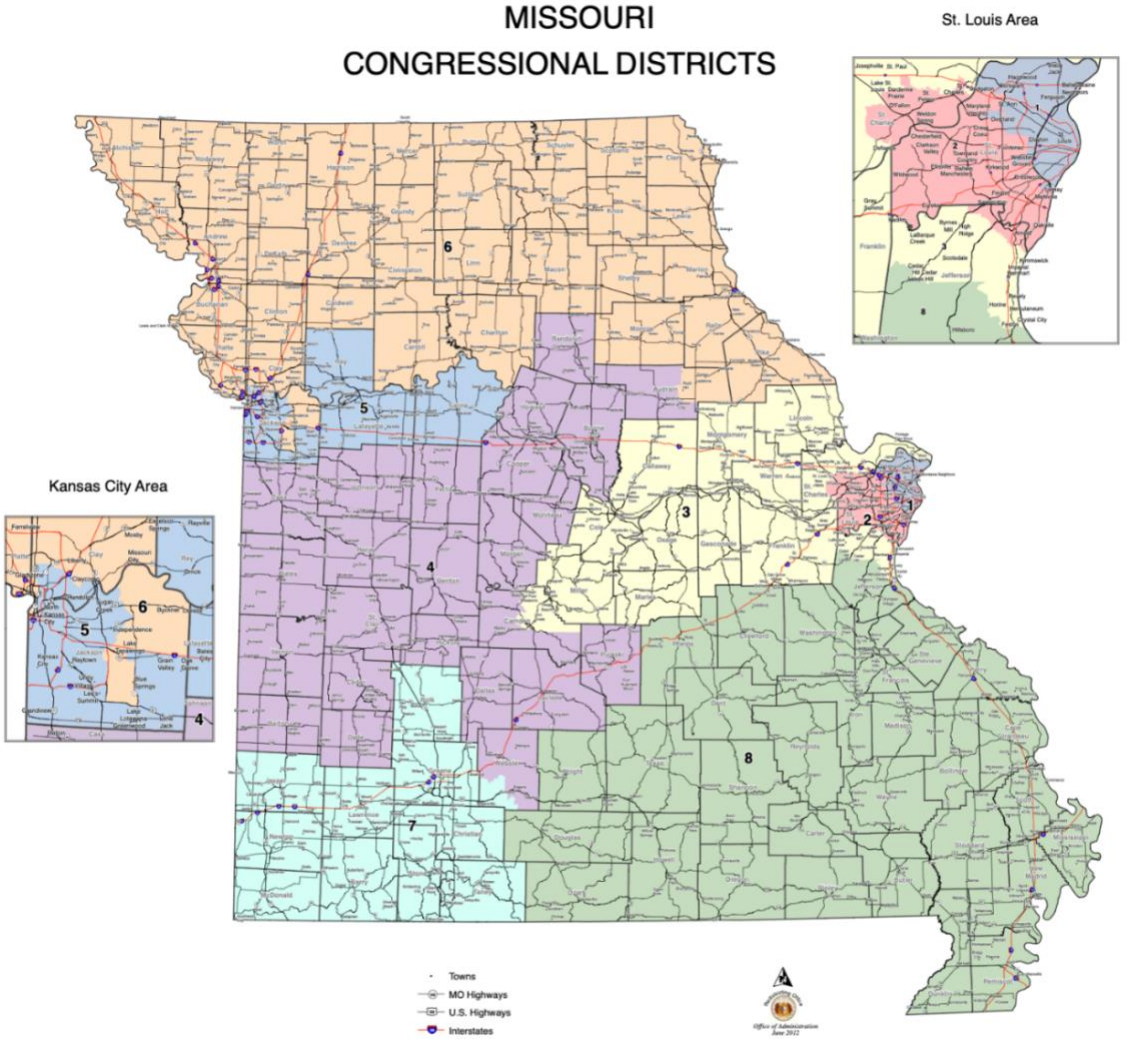
Regional Differences Among Cannabis Consumers in Missouri[4]

Upon entering the survey, respondents were shown a map of Missouri's 2010 Congressional District boundaries (*please see **Figure 6** below, and referenced again in later sections*) and asked to identify the district in which they currently reside based on this map. The 2010 district boundaries were used because cannabis licensing data are reported according to these historical districts. Recognizing that respondents are unlikely to know their congressional district, particularly under the 2010 boundaries, responses were quality assured using respondents' reported county of residence. Based on each reported county, we identified 204 respondents with mismatched current county and 2010 Congressional District boundaries. These 204 were assigned the appropriate 2010 Congressional District.

[4] Regional differences should be approached with some caution as weighting procedures could not account for 2010 congressional district distributions.

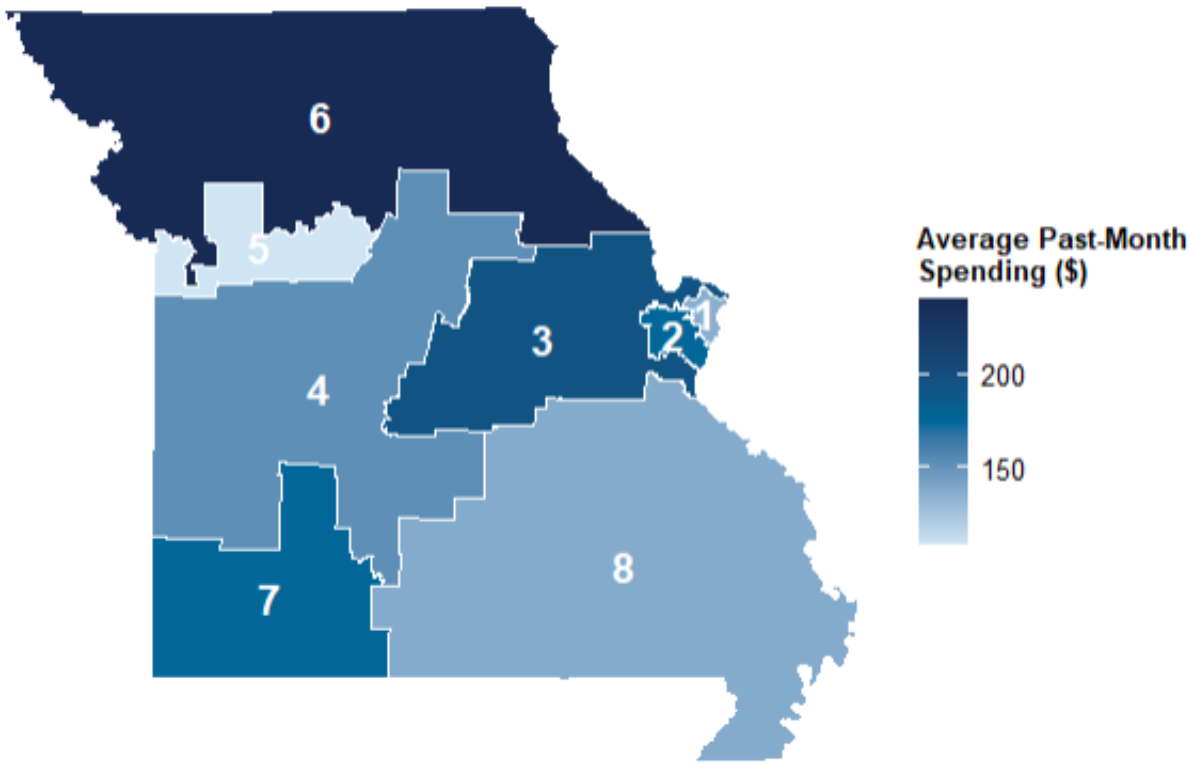
For counties spanning multiple congressional districts, a split-county indicator was retained for further verification. To ensure that the 473 respondents living within split counties were accurate, we provided a separate quality assurance procedure. To accurately assign these respondents to the appropriate 2010 Congressional District while maintaining participant confidentiality, Verasight, our sampling partner, provided address information only for the affected cases, paired with randomly generated crosswalk identifiers rather than survey case IDs. Because the crosswalk identifiers could not be linked to survey responses, no identifiable information was available to the research team. Using each address's latitude and longitude, the corresponding 2010 Congressional District was determined through geospatial mapping. The corrected district assignments were then returned to Verasight, who replaced the original survey values and returned the final dataset using only survey case IDs, with all crosswalk identifiers removed. This process ensured accurate district assignment while maintaining compliance with the study's IRB-approved privacy and confidentiality protocols. This quality assurance process was vital as accuracy in district reporting will impact analysis and resulting considerations.

Figure 6. Missouri Congressional Districts



Total average past-month cannabis spending across all sources varied by Congressional District as shown in **Figure 7**, with District 6 reporting the highest ($240.50) and District 5 reporting the lowest ($108.30). To identify if the differences across districts were statistically significant, we conducted a Wald Test. The test was significant ($p = 0.008$) indicating that total monthly cannabis expenditures differed significantly across Missouri's 2010 Congressional Districts. However it should be noted that, given the unique sampling and weighting procedures needed for this research, regional differences should be approached with some caution.

Figure 7. Heat Map of Average Past-Month Total Cannabis Spending by Missouri Congressional Districts



When examining the total spending by as a percentage by cannabis individual source, homegrow and caregivers make up virtually 0% of past-month cannabis spending for all of the 2010 Congressional Districts. Given that purchasing from friends and family is technically classified as an illicit purchase irrespective of the original source, we added this spending with dealer spending to identify the illicit market share. Spending related to gifting from friends and family was added to "other" to identify the grey market. **Figure 8** below shows the proportion of spending by market for each Congressional District.

Figure 8. Bar Chart of Past-Month Cannabis Spending Market Share by Congressional District

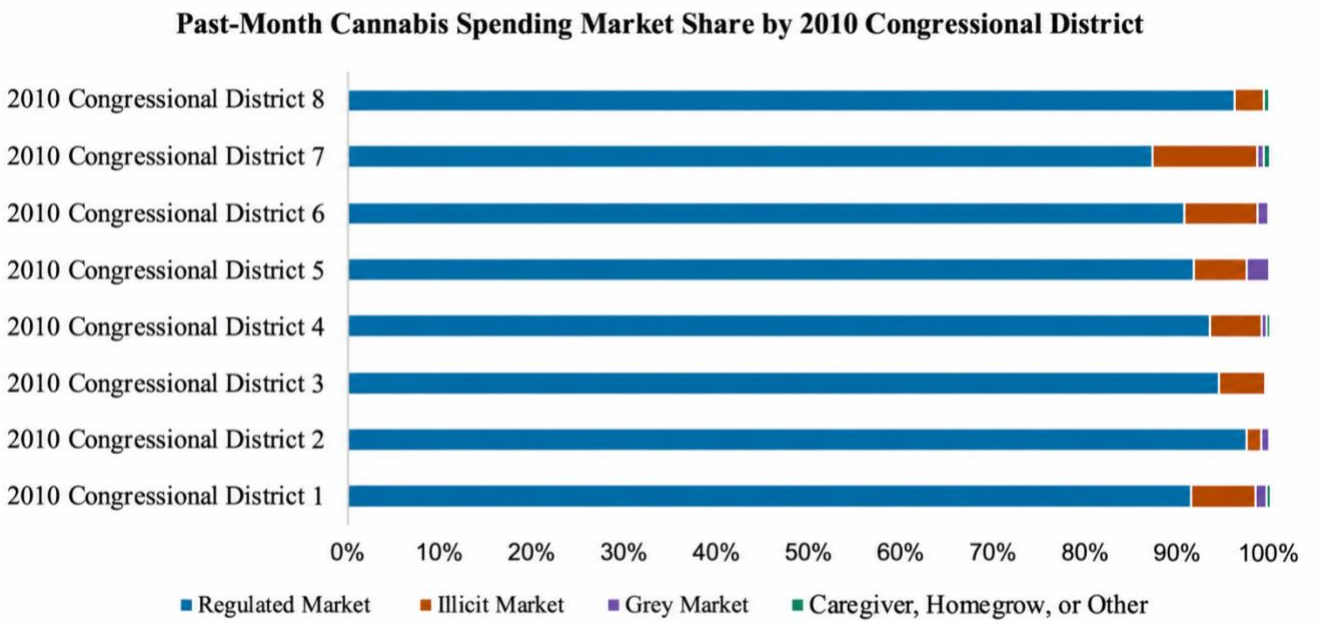


Figure 8 displays the proportion of past-month cannabis expenditures originating from the regulated, illicit, and grey markets across Missouri's 2010 Congressional Districts. **Across all congressional districts, the regulated market accounted for the overwhelming majority of cannabis expenditures, representing more than 90% of total spending in every district**. This finding affirms previous findings; that Missouri's licensed cannabis market has achieved broad penetration statewide, with relatively limited reliance on alternative sources of cannabis.

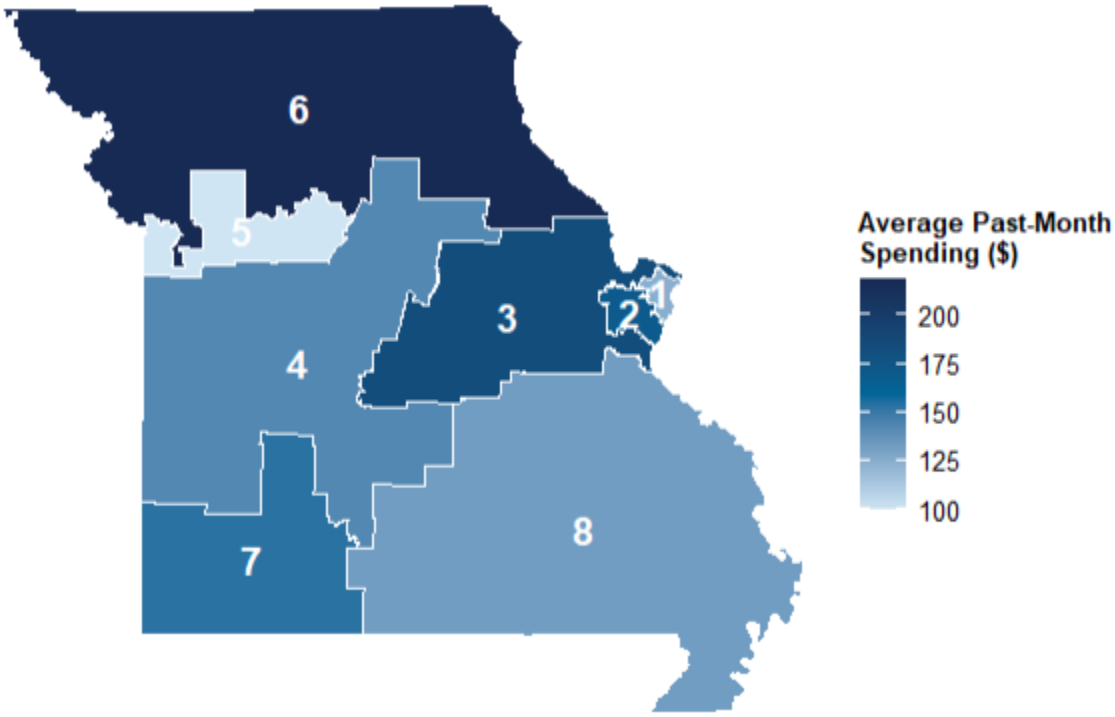
Although the regulated market dominated across all congressional districts, modest geographic variation in market composition was observed. District 2 reported the highest proportion of spending within the regulated market, whereas District 7 exhibited the lowest regulated market share and the greatest combined reliance on illicit and grey market sources. District 6 also demonstrated a comparatively larger illicit market share than many other congressional districts, while the remaining districts exhibited relatively similar market compositions. Overall, these findings suggest that although regulated cannabis purchases predominate throughout Missouri, opportunities remain to further reduce reliance on non-regulated purchasing channels in select regions of the state.

To further examine whether patterns of cannabis sourcing varied geographically, average monthly expenditures by acquisition source were mapped across Missouri's 2010 Congressional Districts (see Figure 9). These heat maps provide a visual representation of regional variation in spending at licensed dispensaries, dealers, purchases from friends or family, caregivers, homegrow, and other sources, allowing for comparisons in the composition of cannabis purchasing behaviors across the state.

Overall, average past-month cannabis spending through licensed dispensaries, inclusive of delivery, varied across Missouri's 2010 Congressional Districts as shown in Figure 9, ranging from approximately $99 to $218. District 6 reported the highest average past-month licensed dispensary spending ($218.30), followed by Districts 3 ($183.77) and 2 ($170.57), whereas District 5 reported the lowest average dispensary spending ($99.43). *Across all congressional districts, licensed dispensaries accounted for the overwhelming majority of cannabis expenditures.*

Figure 9. Heat Map of Average Past-Month Licensed Dispensary Spending by 2010 Congressional District

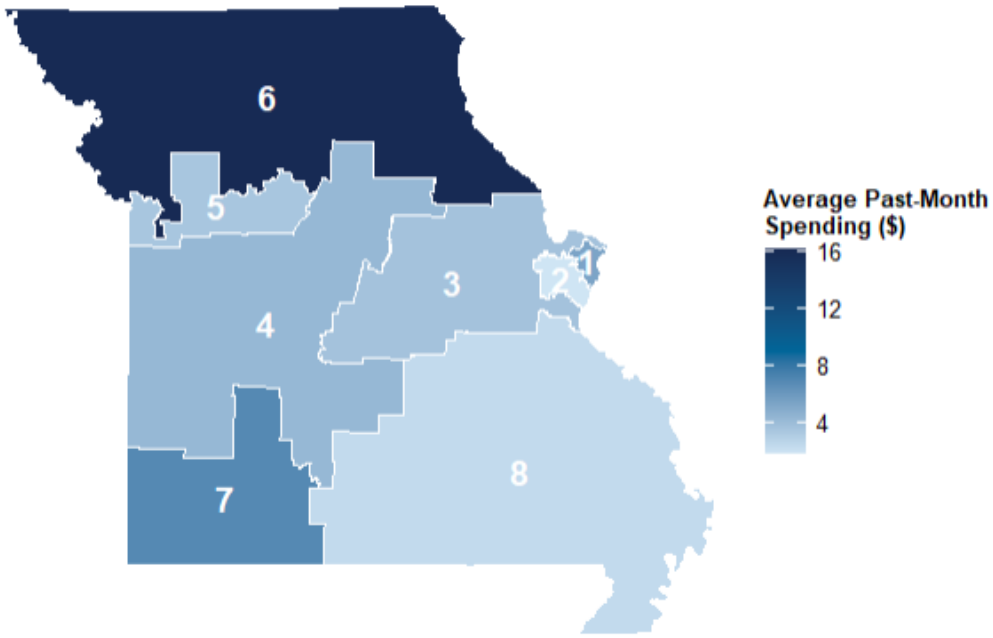
Although expenditures from unregulated sources were substantially lower than licensed dispensary spending, some geographic variation was observed as shown in **Figure 10**. District 6 reported the



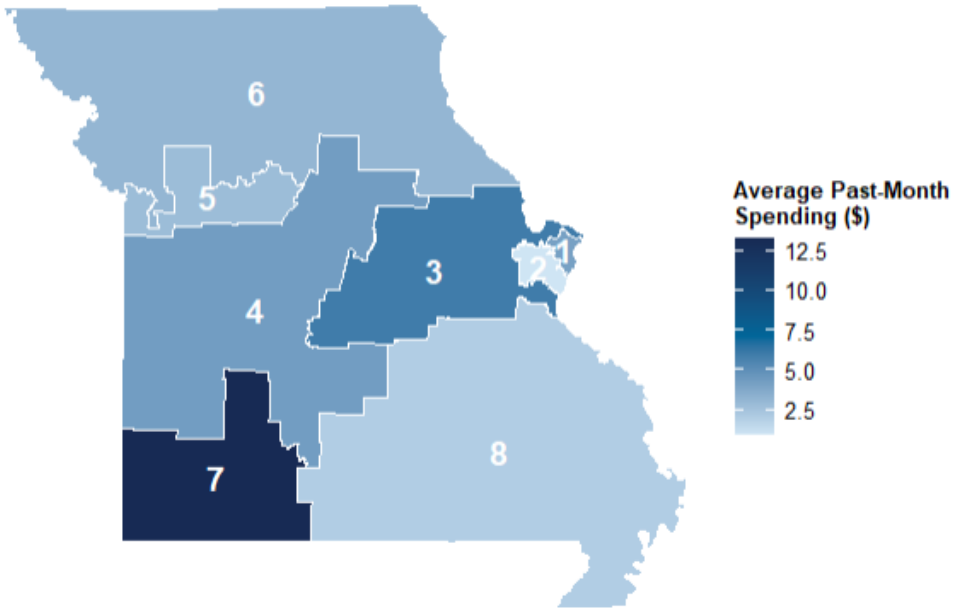
highest average monthly spending through dealers ($16.12), while District 7 reported the highest expenditures purchasing cannabis from friends or family ($13.26). While District 5 encompasses the Kansas City metropolitan area, the highest regulated spending was observed in the more geographically expansive District 6, suggesting that higher dispensary expenditures are not limited to Missouri's largest metropolitan centers.

Figure 10. Heat Map of Average Past-Month Dealer and Purchased from Friends & Family Spending by Congressional District

Past-Month Dealer Spending



Past-Month Friends & Family Spending



District 7 reported substantially higher expenditures purchasing cannabis from friends or family than any other congressional district. This finding may suggest a greater reliance on informal social supply

networks within this region, although the current data cannot distinguish whether these purchases originated from the regulated or unregulated market. Additional research may help determine whether these patterns reflect differences in dispensary access, social purchasing norms, or other regional factors.

Characteristics that impact purchasing decisions, displayed in **Table 13** (page 43), aligned well with the spending heat maps.

Price was the most frequently endorsed consideration in every congressional district, ranging from 52% (District 1) to 81% (District 7). District 7's particularly high emphasis on price aligns well with its lower regulated market share and greater reliance on purchases from friends or family. At the same time, the perceived importance of convenience ranged dramatically from only 18% in District 8 to 50% in Districts 2 and 3. This is one of the larger geographic differences in the data and may reflect regional differences in dispensary access, travel patterns, or purchasing habits.

While price was the most frequently endorsed characteristic, a Wald Test found its endorsement differs significantly by congressional district ($p = 0.01$). Descriptively, price was most frequently endorsed in District 7 and least frequently endorsed in District 1, suggesting that price sensitivity may vary geographically across the state. Similar results were found for endorsements related to convenience. The importance of convenience as a factor influencing cannabis purchasing decisions differed significantly across Missouri's 2010 Congressional Districts ($p < .001$). Respondents residing in Districts 2, 3, 6, and 7 were the most likely to identify convenience as an important purchasing consideration, whereas respondents in District 8 were the least likely to do so. These findings suggest that regional differences in access, travel, or purchasing behaviors may contribute to variation in the role convenience plays in consumer decision-making.

Geographic differences in cannabis purchasing behavior appear to coincide with regional differences in the importance consumers place on price and convenience. Congressional districts where price and convenience were more frequently cited as purchasing considerations also tended to exhibit greater reliance on non-regulated purchasing channels, particularly informal purchases from friends or family. Conversely, districts with higher regulated market participation generally reported less reliance on alternative acquisition sources. Although these findings cannot establish causality, they suggest that consumer priorities related to affordability and access may contribute to observed regional differences in cannabis sourcing.

Table 13. % of Endorsed Characteristics that Impact Purchasing Decisions by Congressional District

Congressional District	Price	THC potency	Source (example: adult use store vs. buying from friend)	Cannabis strain	Safety (example: tested for potential contaminants)	Convenience (time, distance or access)	Whether it can be delivered	Whether the product was obtained legally	Terpenes	CBD or other non-THC cannabinoid potency	Whether it can be picked up via drive-through or pickup window	None of the above
Congressional District 1	52%	45%	13%	39%	29%	32%	6%	17%	14%	11%	15%	6%
Congressional District 2	72%	59%	18%	40%	30%	50%	6%	19%	18%	14%	20%	2%
Congressional District 3	61%	67%	23%	31%	17%	50%	2%	15%	11%	14%	5%	11%
Congressional District 4	62%	51%	16%	36%	27%	36%	0%	14%	8%	7%	8%	1%
Congressional District 5	72%	64%	20%	42%	24%	41%	10%	20%	13%	19%	12%	1%
Congressional District 6	69%	66%	26%	27%	26%	47%	6%	22%	14%	28%	11%	3%
Congressional District 7	81%	62%	21%	40%	29%	49%	2%	15%	10%	9%	20%	1%
Congressional District 8	70%	55%	9%	27%	27%	18%	3%	13%	24%	10%	8%	1%

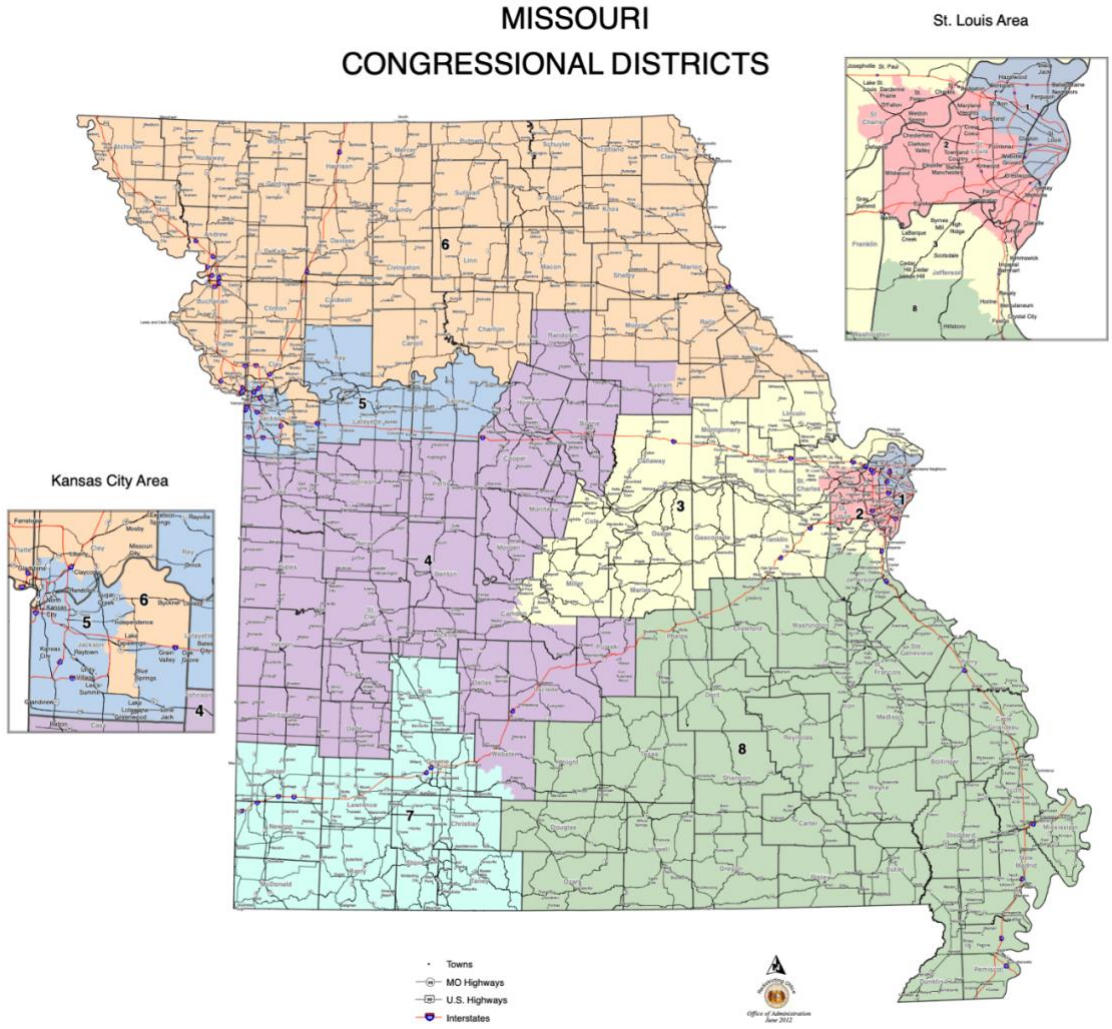
IV. Competition and Market Concentration Analysis

Section Summary: *Missouri's regulated cannabis market has continued to expand while maintaining low levels of sales or transfer concentration across licensed facilities. Between 2023 and 2025, annual dispensary sales increased by approximately 16% (from $1.30 billion to $1.51 billion), while the number of active dispensary licenses increased from 201 to 220. Despite continued market expansion, average sales per dispensary remained remarkably stable at approximately $6.5-$6.9 million annually, indicating that market growth largely kept pace with increases in dispensary capacity rather than diluting dispensary performance. Beyond dispensary, Missouri's cultivation and manufacturing sectors also continued to mature. Cultivation licenses increased from 44 in 2022 to 61 in 2025 while manufacturing licenses remained relatively stable at approximately 70 operators, and* ***both*** *sectors maintained low levels of concentration of transfers despite substantial growth in production and sales following adult-use implementation. Although cultivation volume and wholesale sales moderated after rapid early expansion, there was no evidence of sustained market concentration, and manufacturing sales remained consistently above $700 million annually. Delivery sales more than doubled between 2023 and 2025. Further, microbusiness wholesale activity emerged as a small but growing component of the regulated market. HHI analyses further demonstrate that statewide and congressional districts exhibit low levels of sales concentration with dispensary, cultivation, and manufacturing markets all remaining well below accepted thresholds for highly concentrated markets. While regional differences in sales volume and consumer demand exist, there is no evidence that any region is dominated by a small number of operators or that Missouri's regulated cannabis market is currently overconcentrated.*

The following section evaluates the competitiveness of Missouri's regulated cannabis market and assesses whether any geographic markets exhibit evidence of excessive market concentration. Market concentration was measured using the Herfindahl-Hirschman Index (HHI), a commonly used economic metric that quantifies the degree to which sales are concentrated among firms. Given the lack of usable ownership data, the analysis examines concentration across individual licenses as opposed to firms or ownership groups. The analysis employed track-and-trace data for retail sales, and cultivation and manufacturing transfers since the start of the adult use market, in addition to de-identified unique license data. Higher HHI values indicate greater concentration and less competition, while lower values indicate a more competitive marketplace.

Missouri's cannabis licensing framework allocates licenses across the state's eight congressional districts. As a result, evaluating competition at the congressional district level provides insight into whether competitive conditions differ across geographic markets and whether certain regions exhibit higher levels of market concentration than others. **Figure 6** has been reshown below displays the congressional district boundaries used throughout the following analyses.

Figure 6 - Missouri Congressional Districts



Statewide Trends and Analysis in Cannabis Product Sales, Retail Licensing, and Competition

Statewide Sales by Product Category, By Month

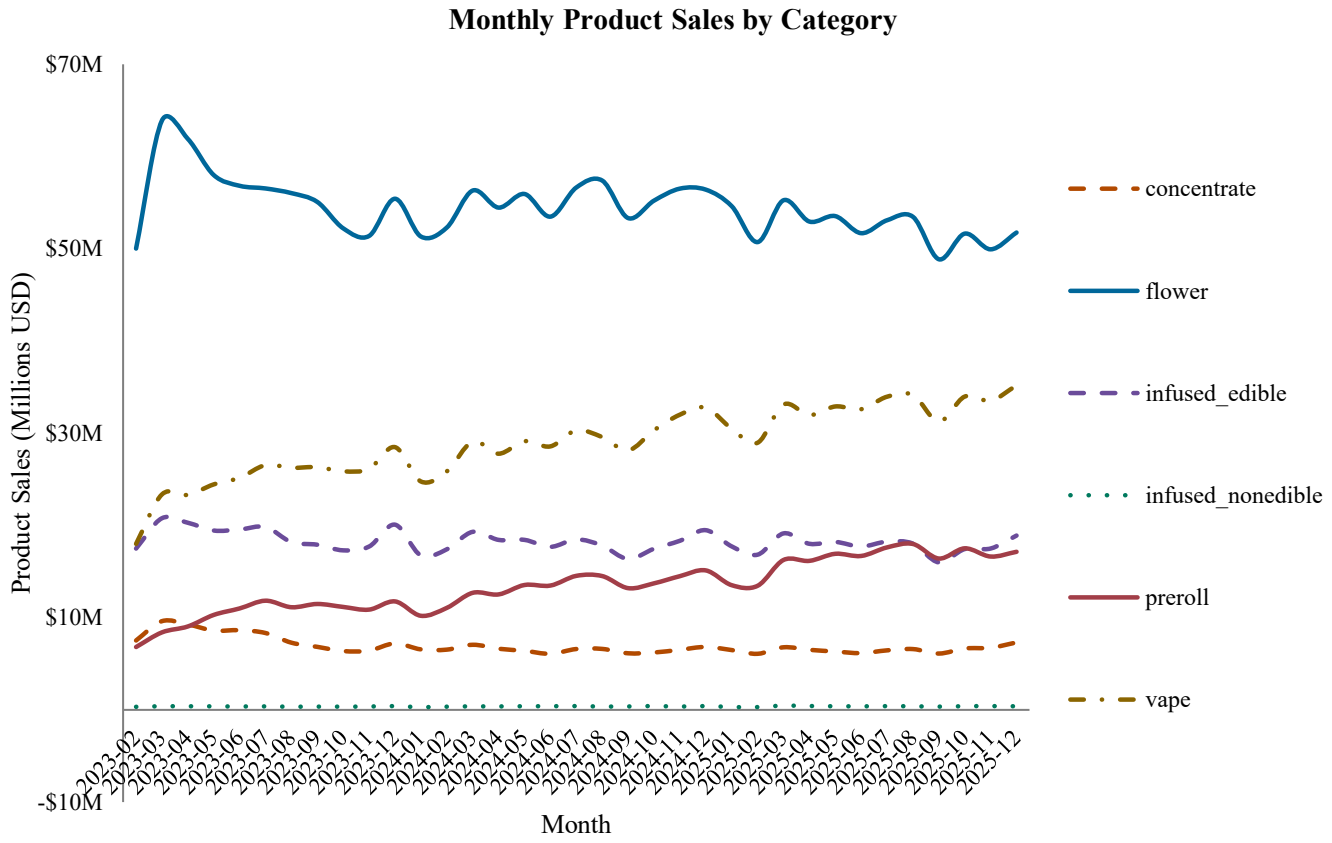
Figure 11 shows trends among cannabis product sales at the state-wide level. Flower remained the largest cannabis product category in Missouri, consistently generating more monthly sales than any other product type. However, flower sales gradually declined from peaks exceeding $60 million per month in early 2023 to approximately $51-57 million per month by late 2025, indicating a gradual reduction in flower's dominance within the broader marketplace.

At the same time, vape products exhibited sustained growth throughout the examined period. Monthly vape sales increased from approximately $18 million per month in early 2023 to more than $35 million per month by the end of 2025, representing the largest increase observed among any major product category. Prerolls also experienced substantial growth, increasing from approximately $8–9 million per month to approximately $17–18 million per month over the same period. Infused edible sales remained comparatively stable, generally fluctuating between $17 million and $20 million per month. Concentrate

sales similarly exhibited little long-term growth, remaining relatively consistent at approximately $6 million to $8 million per month.

The simultaneous decline in flower sales and growth in vape and preroll sales suggests that Missouri consumers are increasingly diversifying their purchasing behavior beyond traditional flower products. Importantly, the statewide trends closely mirror the patterns observed across congressional districts, indicating that these shifts reflect broad market-wide changes rather than localized regional phenomena. While flower continues to serve as the foundation of Missouri's cannabis market, an increasing share of consumer spending is being directed toward manufactured and convenience-oriented product categories.

Figure 11. Missouri Statewide Product Sales by Category, by Month



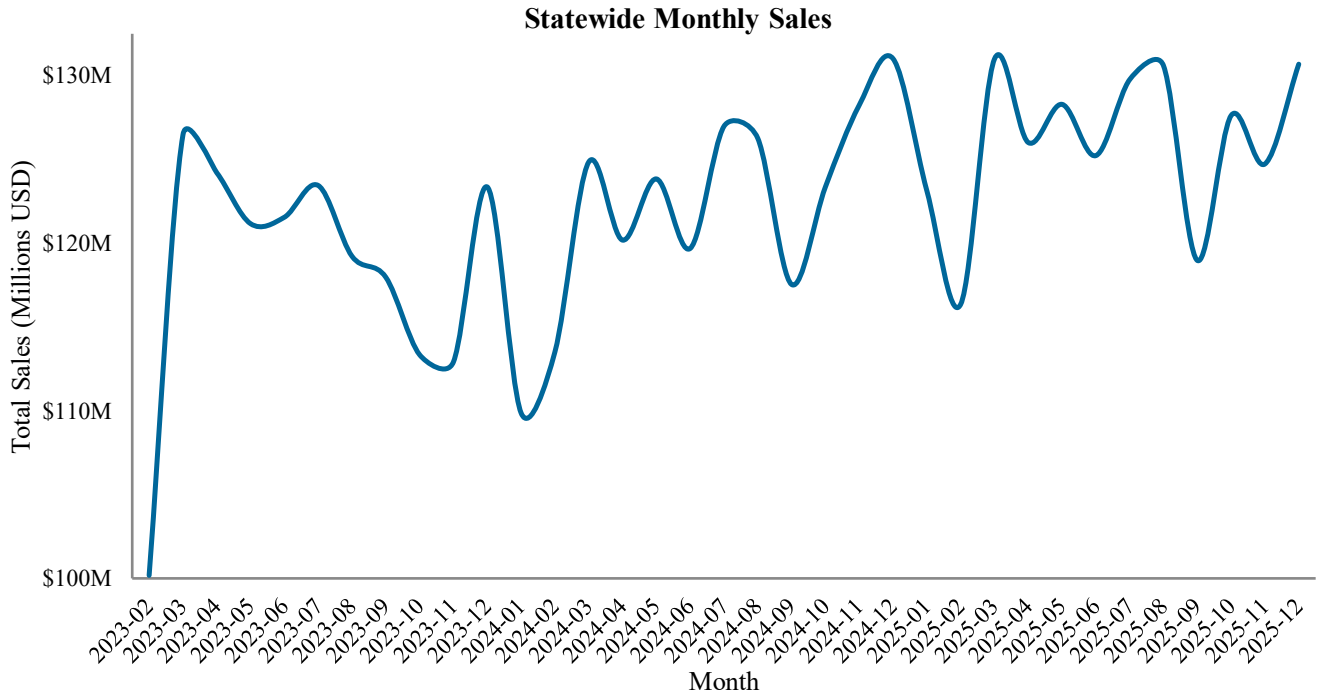
Statewide Monthly Cannabis Sales

Figure 12 illustrates statewide monthly cannabis sales over the study period. Statewide cannabis sales remained strong throughout the years, consistently exceeding $110 million per month and generally ranging between approximately $115 million and $130 million. Following the implementation and expansion of the adult-use market, monthly sales increased substantially during 2023 and continued to exhibit modest growth through 2024 and 2025.

Although month-to-month fluctuations were evident, the overall trend was characterized by stability rather than volatility. Monthly sales generally ranged between approximately $120 million and $130 million throughout most of the observation period, with several months in late 2024 and 2025 exceeding $130 million in total sales. The highest sales levels observed during the study period occurred in 2025, indicating that consumer demand remained robust even as the market matured and additional dispensary licenses entered operation.

Periodic declines in monthly sales were typically followed by recoveries, suggesting that short-term fluctuations may reflect seasonal purchasing patterns, variation in the number of dispensary days per month, promotional activity, or other temporary market conditions rather than sustained reductions in demand. Importantly, no prolonged downward trend was observed across the years.

Figure 12. Statewide Monthly Cannabis Sales



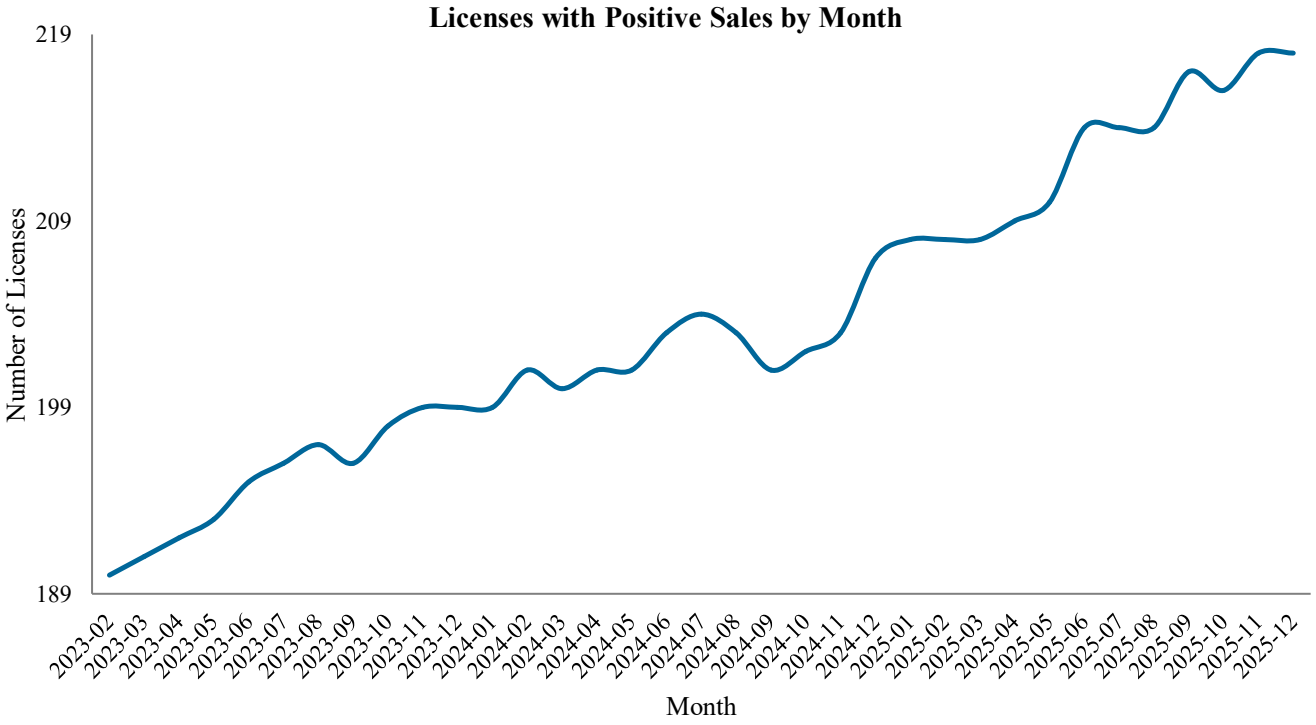
Statewide Retail Licenses with Positive Sales by Month

Figure 13 shows the number of licensed retail businesses reporting positive monthly sales over the study period. The number of licensed dispensary businesses reporting more than zero dollars of sales in a month (positive sales) increased steadily, rising from approximately 190 licenses in early 2023 to nearly 220 licenses by the end of 2025. While month-to-month fluctuations were observed, the overall trend reflects continued expansion in the number of operators actively participating in Missouri's regulated cannabis market.

Growth occurred gradually throughout 2023 and 2024, with the number of active licenses increasing from approximately 190 to just over 205 during this period. Beginning in late 2024 and continuing through 2025, the number of licenses with positive sales increased more rapidly, ultimately surpassing 215 active operators by mid-2025 and reaching its highest observed level by the end of 2025.

Importantly, the increase in active licenses occurred during a period in which statewide cannabis sales remained relatively stable overall, despite shifts in consumer purchasing across product categories. This suggests that market growth may have been increasingly characterized by a larger number of businesses competing for sales rather than by proportional increases in consumer demand. As a result, average sales per active license may have experienced downward pressure over time even as statewide market sales remained substantial. The continued increase in active licenses, coupled with the gradual diversification of consumer purchasing patterns across product categories, indicates that Missouri's regulated cannabis market remained in an expansion and maturation phase. Future market performance will likely depend not only on overall consumer demand, but also on the ability of individual operators to compete within an increasingly crowded marketplace.

Figure 13. Retail Licenses with Positive Sales by Month



Statewide Average Retail Sales by Store, by Year and Month

Table 14 below summarizes statewide retail licenses, total cannabis sales, and average annual sales per retail license from 2023 through 2025. As Missouri's regulated cannabis market continued to expand between 2023 and 2025 with the number of dispensary licenses increasing from 201 to 220 active operators, annual sales grew from approximately $1.30 billion in 2023 to $1.51 billion in 2025, representing an increase of roughly 16%. Despite the continued addition of dispensary licenses, average sales per license remained remarkably stable. Average annual sales per dispensary increased from approximately $6.49 million in 2023 to $6.91 million in 2024 before moderating slightly to $6.87 million in 2025. Overall, average sales per license remained within a relatively narrow range throughout 2023 to 2025, despite continued market expansion.

Table 14. Statewide Retail Licenses and Cannabis Sales by Year

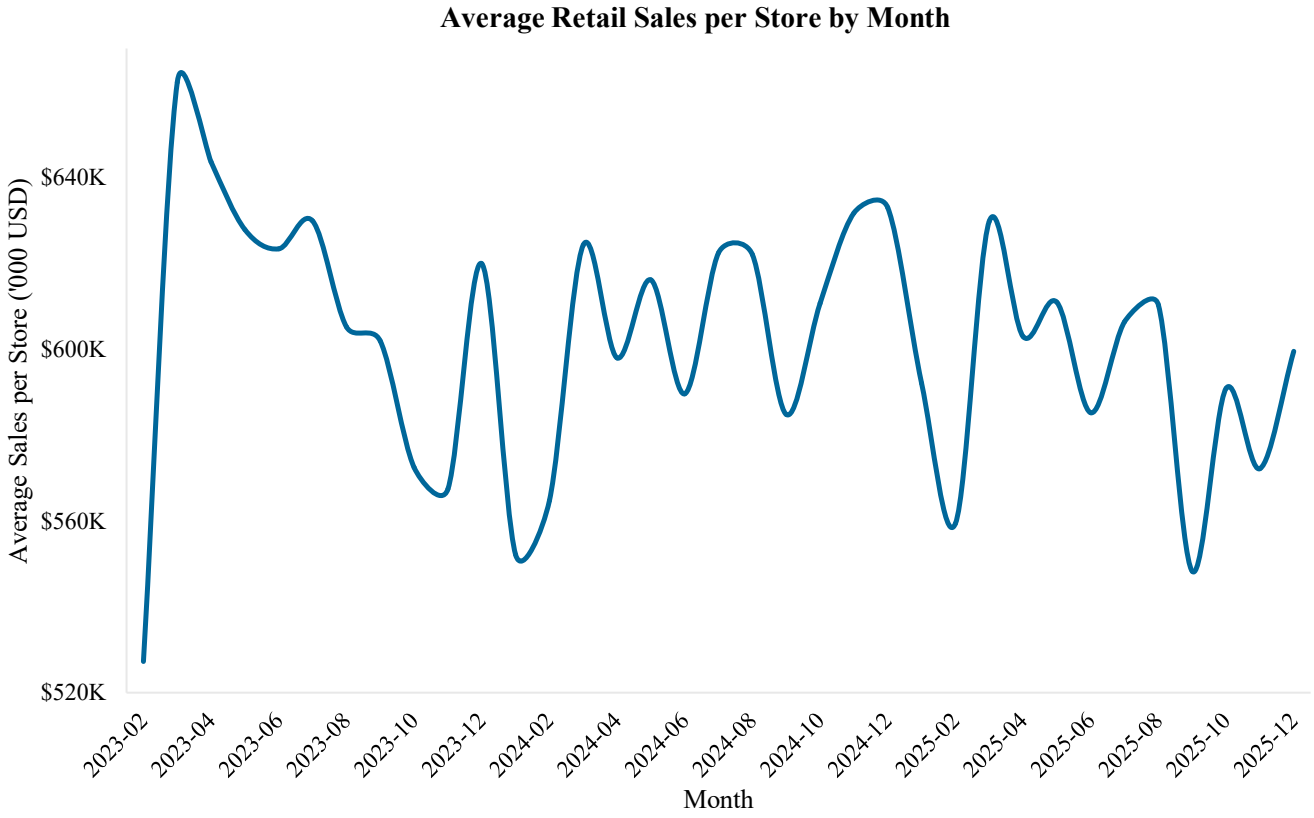
Category	2023	2024	2025
Number of Retail Licenses	201	212	220
Sales	$1,303,839,175.87	$1,465,342,132.60	$1,512,396,840.62
Average Sales Per Retail License	$6,486,762.07	$6,911,991.19	$6,874,531.09

When examining individual dispensary sales by month, we find a similar pattern of stability. **Figure 14** shows that average monthly sales per dispensary store remained relatively stable throughout the period despite continued growth in the number of active dispensary licenses. Following the launch of the adult-use market, average sales per store exceeded $650,000 per month during portions of 2023 before gradually stabilizing between approximately $550,000 and $630,000 per month throughout 2024 and 2025.

Several months in both 2024 and 2025 recorded average store revenues exceeding $625,000, while temporary declines were generally followed by recoveries in subsequent months. By the end of 2025, average monthly sales per store remained near $600,000 despite the market supporting more active dispensary licenses than at any previous point during the years studied.

The relative stability of average store revenues is notable given the simultaneous increase in dispensary participation. Between 2023 and 2025, the number of active dispensary licenses increased by nearly 10%, yet average sales per store remained within a relatively narrow range. This pattern may suggest that growth in consumer demand largely kept pace with increases in dispensary capacity, limiting the degree of revenue dilution that often accompanies market expansion.

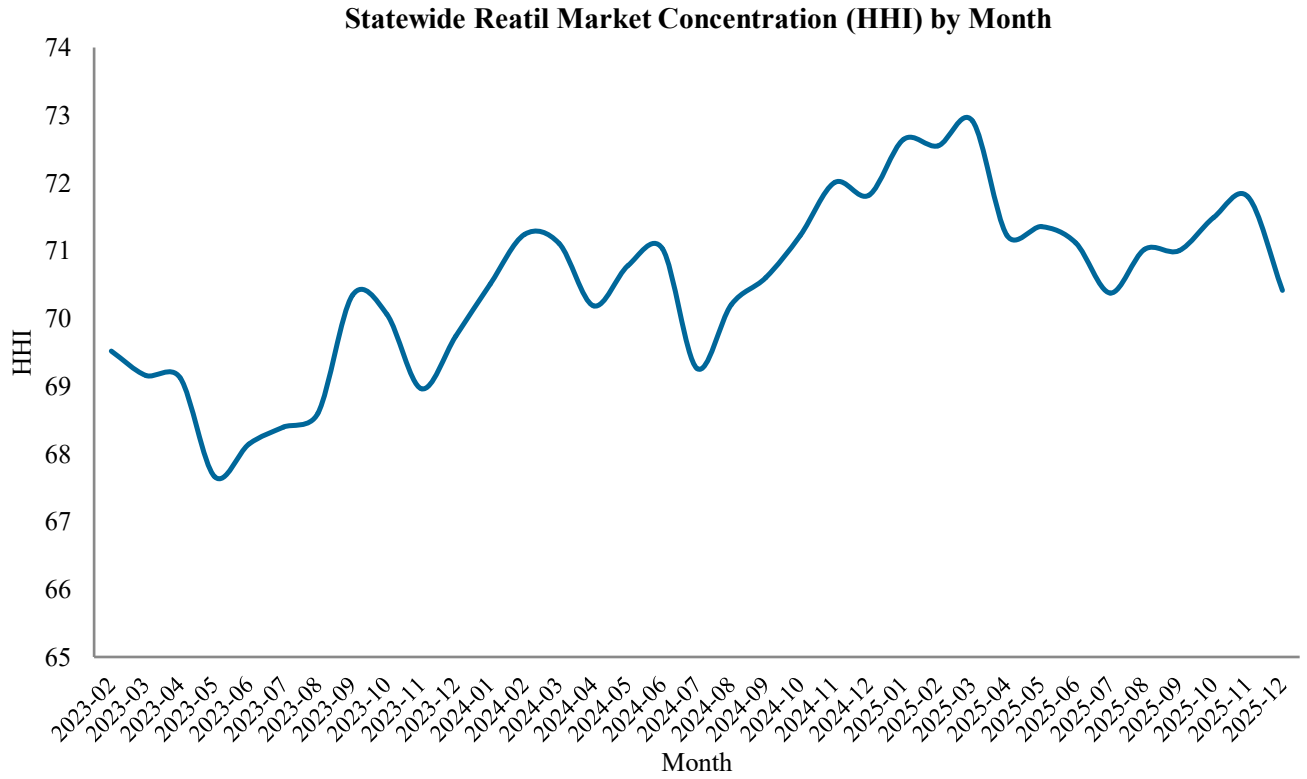
Figure 14. Average Retail Sales Per Store by Month



Statewide Retail Competition by Month (HHI)

Statewide dispensary sales concentration remained consistently highly competitive throughout the years, as shown below in **Figure 15.** Although HHI values fluctuated modestly over time, all values remained substantially below commonly accepted thresholds used to identify concentrated markets. These findings suggest that Missouri's dispensary cannabis market sales distribution remains highly competitive at the statewide level, with no evidence that a small number of dispensaries dominate statewide sales activity.

Figure 15. Statewide Retail Market Concentration (HHI) by Month



Regional (Congressional District) Trends and Analysis in Cannabis Product Sales, Retail Licensing, and Competition

Congressional District Cannabis Sales by Product and Proportion

Product sales patterns were generally consistent across Missouri's congressional districts, with flower remaining the dominant product category in every district and year examined. However, **Table 15** shows notable shifts in product mix occurred between 2023 and 2025, particularly with respect to flower, vape products, and prerolls.

Across all districts, flower's share of total sales declined over time. In 2023, flower accounted for approximately 43% to 54% of sales depending on the district. By 2025, flower's market share had fallen to approximately 37% to 50%, with the largest declines observed in Congressional Districts 2, 3, 5, and 6. Despite these declines, flower remained the largest product category statewide.

Much of the reduction in flower's share was accompanied by growth in vape products. Vape sales increased both in absolute dollars and as a proportion of total sales across every congressional district. By 2025, vape products represented approximately one-quarter to nearly one-third of all sales in several districts, including Congressional Districts 2, 5, and 6. The highest vape market shares were observed in Congressional District 6 (28.6%), Congressional District 2 (28.3%), and Congressional District 5 (27.9%).

Prerolls also demonstrated sustained growth across Missouri. In 2023, prerolls generally accounted for between 8% and 9% of sales. By 2025, their share had increased to approximately 12% to 14% across most districts. This pattern was remarkably consistent geographically, suggesting broad consumer

adoption rather than growth concentrated within specific regions. In contrast, concentrates and infused products exhibited relatively stable market shares over time. Concentrates generally accounted for approximately 5% to 7% of sales, while infused edibles consistently represented roughly 13% to 17% of sales across districts and years. Infused non-edible products remained a very small segment of the market, accounting for less than 1% of sales in every congressional district.

While differences between districts were evident, the overall direction of market evolution was highly consistent statewide. Urban and suburban districts tended to exhibit somewhat higher vape market penetration and lower flower market shares than several rural districts, but all regions demonstrated movement toward a more diversified product mix characterized by declining flower dominance and increasing consumer expenditures on vapes and prerolls.

Table 15. Cannabis Product Sales ($/USD) and Proportion of Sales by Congressional District 2023-2025

Year	CD	Concentrate (in millions)	% of sales	Flower (in millions)	% of sales	Infused Edible (in millions)	% of sales	Infused Nonedible (in millions)	% of sales	Preroll (in millions)	% of sales	Vape (in millions)	% of sales
2023	1	6.25	5.04	66.91	53.9	17.32	13.95	0.3	0.24	11.56	9.31	21.78	17.55
2023	2	9.04	6.65	59.46	43.73	23.77	17.48	0.49	0.36	10.99	8.08	32.23	23.7
2023	3	10.01	7.03	65.38	45.94	22.75	15.99	0.44	0.31	13.1	9.21	30.63	21.52
2023	4	9.11	6.95	65.23	49.8	19.62	14.98	0.4	0.31	11.86	9.05	24.77	18.91
2023	5	17.8	6.5	125.22	45.69	45.81	16.72	0.74	0.27	22.94	8.37	61.53	22.45
2023	6	13.31	7.57	75.5	42.95	29.82	16.97	0.65	0.37	15.87	9.03	40.63	23.11
2023	7	11.63	6.67	85.44	48.97	28.88	16.55	0.62	0.36	15.01	8.61	32.88	18.85
2023	8	8.93	6.12	74.2	50.8	20.61	14.11	0.41	0.28	12.46	8.53	29.44	20.16
2024	1	5.55	4.01	72.5	52.36	17.94	12.96	0.33	0.24	16.25	11.73	25.91	18.71
2024	2	7.85	5.57	57.78	40.98	23.29	16.52	0.49	0.34	14.84	10.52	36.75	26.07
2024	3	8.79	5.66	67.26	43.32	22.95	14.78	0.46	0.29	18.17	11.71	37.62	24.24
2024	4	7.41	5.39	64.65	47.01	18.92	13.76	0.4	0.29	15.91	11.57	30.24	21.98
2024	5	16.59	5.6	126.69	42.79	44.78	15.13	0.86	0.29	31.06	10.49	76.09	25.7
2024	6	12.79	5.92	89.92	41.59	33.44	15.47	0.76	0.35	22.63	10.47	56.65	26.2
2024	7	10.65	5.26	93.68	46.27	31.11	15.37	0.73	0.36	21.54	10.64	44.77	22.11
2024	8	8.53	4.79	86.84	48.7	23.52	13.19	0.48	0.27	18.67	10.47	40.29	22.59
2025	1	5.47	4.15	65.86	49.94	16.32	12.38	0.26	0.2	17.97	13.63	26	19.71
2025	2	8.14	5.4	55.95	37.12	23.79	15.78	0.46	0.3	19.76	13.11	42.64	28.29
2025	3	8.58	5.72	58.45	38.95	21.92	14.61	0.43	0.29	21.26	14.17	39.41	26.27
2025	4	7.31	5.19	60.54	42.95	18.72	13.28	0.4	0.28	20.18	14.31	33.83	24
2025	5	15.92	5.41	114.57	38.95	42.68	14.51	0.98	0.33	37.85	12.87	82.1	27.92
2025	6	13.62	5.55	95.35	38.88	36.28	14.79	0.82	0.33	29.1	11.87	70.07	28.57
2025	7	10.63	4.94	93.22	43.3	30.65	14.24	0.75	0.35	26.73	12.42	53.29	24.76
2025	8	8.52	4.62	83.6	45.4	23.37	12.69	0.51	0.28	23.44	12.73	44.71	24.28

Congressional District Cannabis Sales by Month

Figure 16 illustrates monthly dispensary cannabis sales by congressional district from February 2023 through December 2025. Consistent with the cumulative sales analyses presented previously, Congressional District 5 maintained the largest dispensary market throughout the study period, generating monthly sales that generally ranged between approximately $23 million and $27 million. Although monthly sales fluctuated seasonally, District 5 exhibited relatively stable performance and consistently outpaced all other districts.

Congressional District 6 represented the second-largest dispensary market and demonstrated the strongest sustained growth over the study period. Monthly sales increased from approximately $16 million during early 2023 to more than $21 million by the end of 2025, indicating continued expansion in consumer demand and dispensary activity. Congressional District 7 also experienced notable growth, increasing from roughly $16 million to nearly $19 million in monthly sales over the same period.

A second tier of markets, including Congressional Districts 2, 3, and 8, exhibited moderate but consistent sales volumes. Monthly sales within these districts generally ranged between $12 million and $16 million, with gradual upward trends evident across much of the study period. While month-to-month variability was observed, these districts demonstrated steady market performance without pronounced volatility.

Congressional Districts 1 and 4 consistently generated the lowest monthly dispensary sales, typically ranging between approximately $10 million and $13 million. Despite lower overall sales volumes, these districts followed similar temporal patterns as the larger markets, including modest increases over time and recurring seasonal fluctuations.

Across all congressional districts, monthly sales displayed broadly synchronized movement, with temporary declines occurring during similar periods and recovery occurring concurrently across markets. This consistency suggests that statewide factors, such as seasonal purchasing behavior or broader market dynamics, influenced sales patterns more strongly than district-specific shocks. Importantly, while the absolute size of regional markets differed considerably, every district exhibited relatively stable growth over the observation period, reflecting continued maturation of Missouri's regulated cannabis market rather than evidence of localized market instability.

Figure 16. Monthly Sales by Congressional District

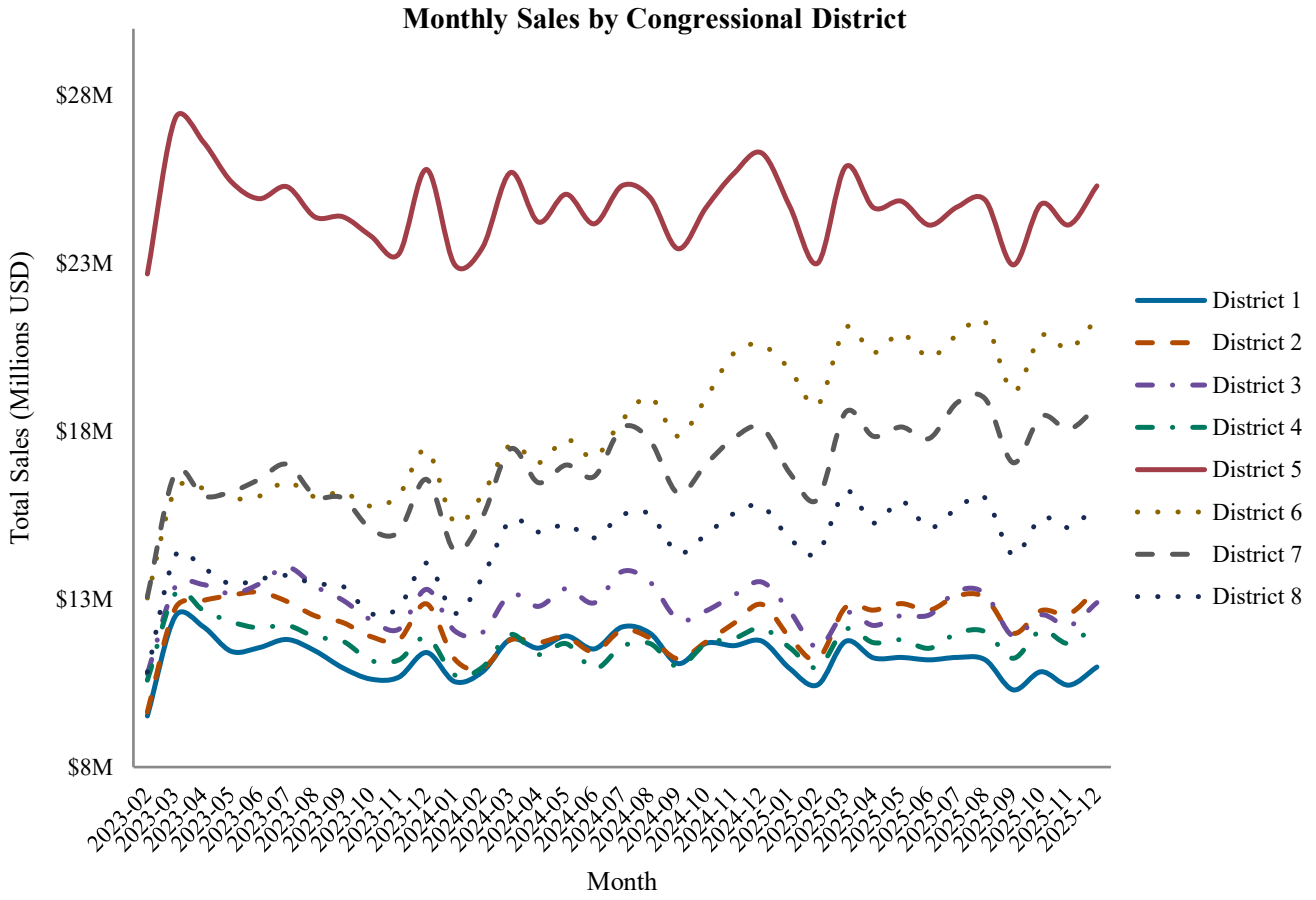


Table 16 on the following page presents total annual dispensary cannabis sales by congressional district between 2023 and 2025. Consistent with the monthly sales trends, Congressional District 5 generated the highest dispensary sales throughout the study period, while Congressional Districts 6 and 7 represented the next largest dispensary markets. Retail sales generally increased across congressional districts between 2023 and 2025, although the rate of growth varied by region. Districts 6, 7, and 8 experienced the largest increases in annual sales over the study period, whereas Districts 1 and 3 exhibited modest declines between 2024 and 2025 but remained above their 2023 sales levels. Overall, these findings indicate continued statewide market growth while highlighting meaningful differences in the size and pace of expansion across Missouri's regional cannabis markets.

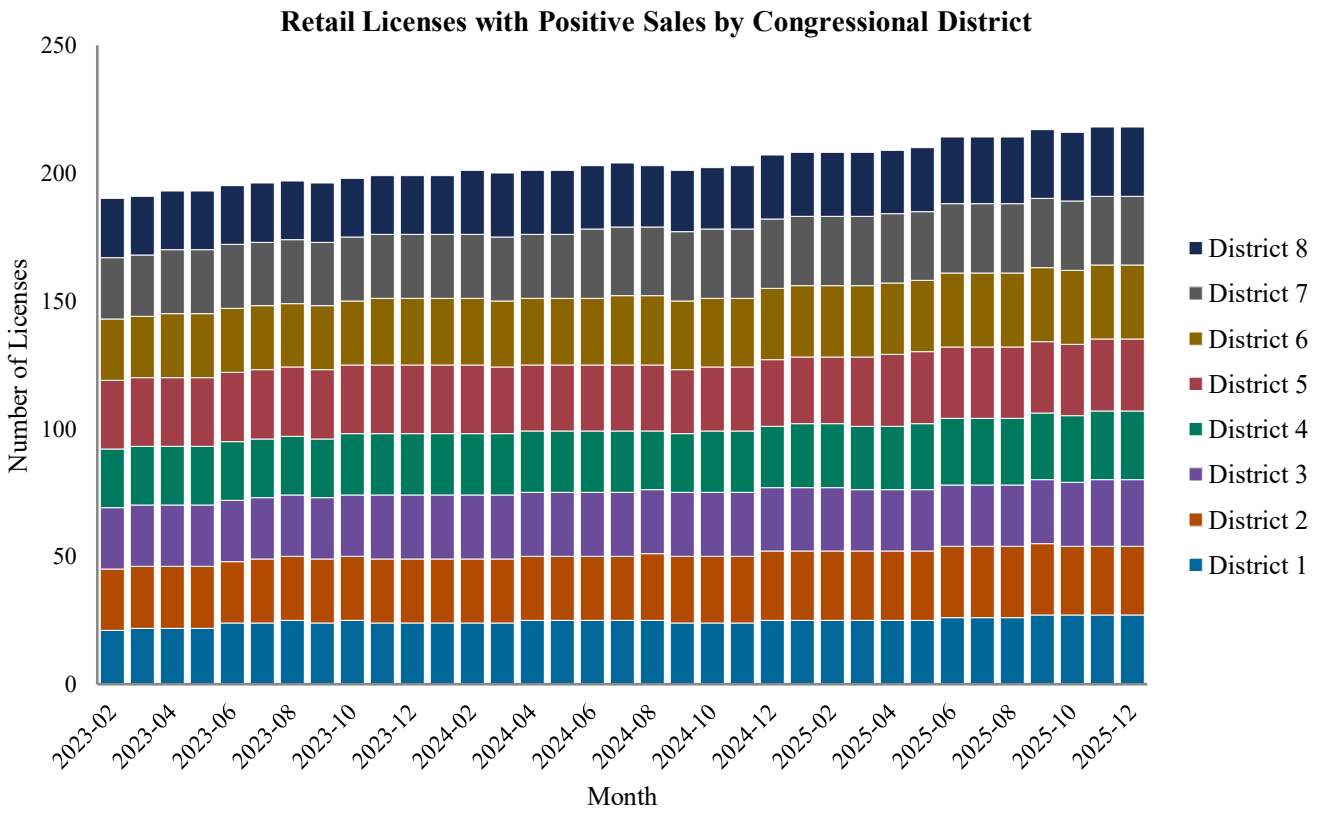
Table 16. Congressional District Retail Total Sales by Year

Congressional District	2023	2024	2025
1	$124,147,087.96	$138,475,448.80	$131,879,833.64
2	$135,970,424.28	$140,994,908.65	$150,734,447.66
3	$142,319,729.55	$155,246,232.98	$150,051,606.36
4	$131,001,689.44	$137,541,543.28	$140,969,500.56
5	$274,050,918.79	$296,072,717.84	$294,104,844.36
6	$175,784,527.54	$216,197,194.26	$245,236,646.99
7	$174,481,402.40	$202,481,784.28	$215,271,870.07
8	$146,083,395.91	$178,332,302.51	$184,148,090.98

Number of Retail Licenses with Positive Sales

Figure 17 displays the number of licensed dispensaries reporting positive dispensary sales within each congressional district from February 2023 through December 2025, and **Table 17** shows this volume by year. The number of active dispensary licenses generally increased across all congressional districts over the years, reflecting the continued opening and operation of newly licensed dispensaries. Most districts experienced gradual increases of approximately two to five active dispensaries during the study period, with little evidence of abrupt changes or sustained declines.

Figure 17. Number of Retail Licenses with Positive Sales by Congressional District



Overall, these findings suggest that dispensary license growth occurred statewide, with each congressional district experiencing either stable or increasing numbers of operating dispensaries over time and that growth in dispensary sales may have been accompanied by a corresponding increase in the number of active market participants rather than being driven solely by increased sales among existing dispensaries.

Table 17. Number of Retail Licenses with Positive Sales by Congressional District

Congressional District	2023	2024	2025
1	25	26	27
2	27	27	28
3	25	26	26
4	24	24	27
5	27	28	28
6	26	28	29
7	25	27	28
8	23	26	27

Retail Sales by Licenses by Month and Year

As shown in **Figure 18**, the relatively narrow range in active dispensary licenses across congressional districts is notable given the substantial differences in sales volumes observed throughout the state. While districts supported similar numbers of active dispensaries, average sales per store varied considerably across regions. Higher-volume districts, particularly Congressional Districts 5, 6, and 7, consistently generated greater average sales per dispensary than lower-volume districts, suggesting meaningful regional differences in market size, consumer demand, and revenue opportunities despite comparable levels of dispensary participation.

Figure 18. Average Retail Sales per Store Congressional District by Month

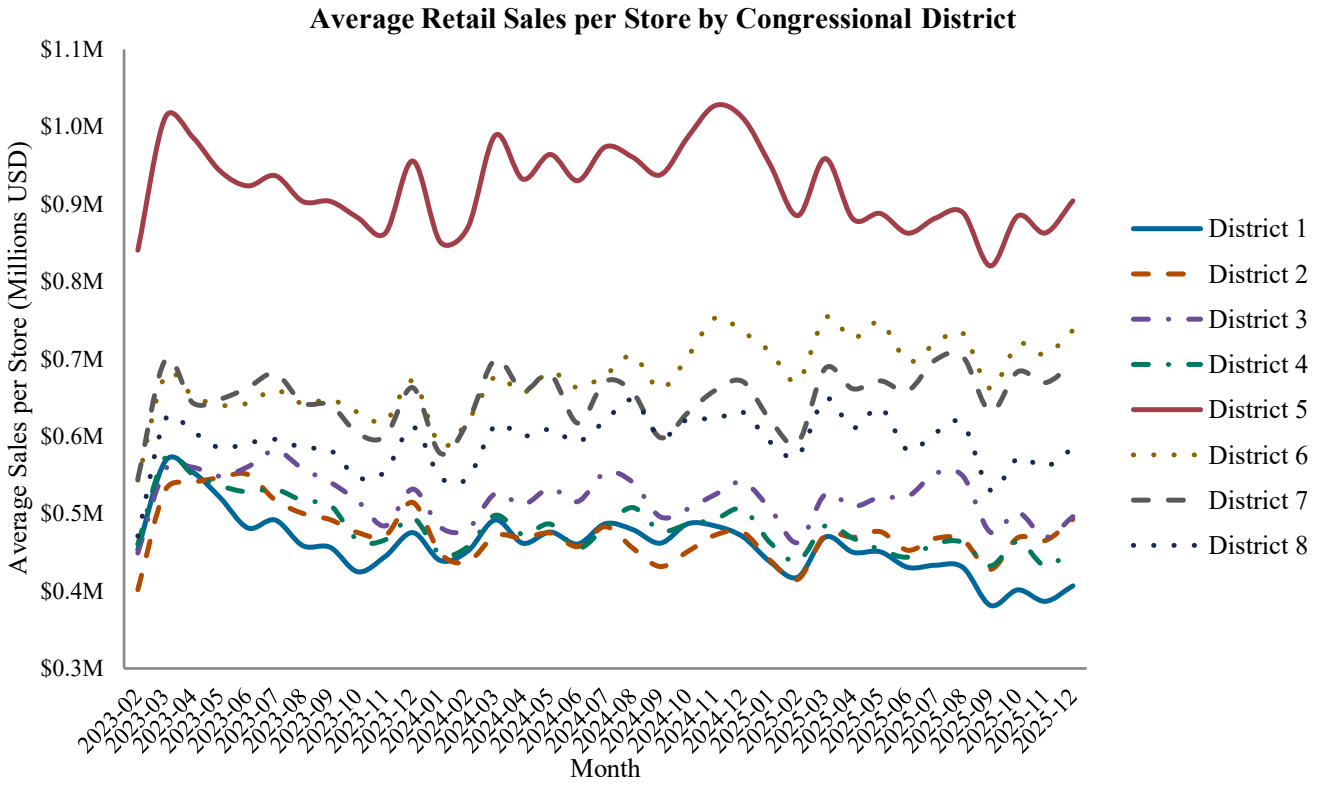


Table 18 displays this data by year. These findings indicate that the number of active licenses alone does not fully explain regional market performance, as dispensaries operating in different congressional districts may experience substantially different sales environments.

Table 18. Average Retail Sales per Store by Congressional District and Year

Congressional District	2023	2024	2025
1	$4,965,883.52	$5,325,978.80	$4,884,438.28
2	$5,035,941.64	$5,222,033.65	$5,383,373.13
3	$5,692,789.18	$5,971,008.96	$5,771,215.63
4	$5,458,403.73	$5,730,897.64	$5,221,092.61
5	$10,150,034.03	$10,574,025.64	$10,503,744.44
6	$6,760,943.37	$7,721,328.37	$8,456,436.10
7	$6,979,256.10	$7,499,325.34	$7,688,281.07
8	$6,351,452.00	$6,858,934.71	$6,820,299.67

Substantial variation in total dispensary sales was observed across Missouri at the congressional district level. Congressional District 5 consistently generated the highest dispensary sales during the period, exceeding $274 million in 2023 and approaching $300 million annually in both 2024 and 2025. Congressional Districts 6 and 7 represented the next largest regional markets, with sales increasing steadily throughout the years and surpassing $200 million annually by 2025 (see **Table 19**).

While all districts generated significant dispensary sales, growth rates varied. Congressional District 6 experienced the most pronounced expansion, with annual sales increasing from $175.8 million in 2023 to $245.2 million in 2025, representing growth of nearly 40% over the three-year period. Congressional Districts 7 and 8 also demonstrated substantial increases, with sales growing approximately 23% and 26%, respectively. In contrast, Congressional Districts 1 and 3 experienced modest declines between 2024 and 2025 after earlier periods of growth.

By 2025, dispensary sales ranged from approximately $131.9 million in Congressional District 1 to $294.1 million in Congressional District 5, highlighting meaningful differences in market size across regions. However, despite these differences in absolute sales volume, all districts maintained annual sales exceeding $130 million, suggesting broad participation in Missouri's regulated cannabis market throughout the state.

The strongest growth was concentrated in Congressional Districts 6, 7, and 8, where annual sales increased by $69.5 million, $40.8 million, and $38.1 million, respectively, between 2023 and 2025. Viewed alongside the relatively similar number of active dispensary licenses across districts, these findings indicate that market size and dispensary performance vary considerably by region.

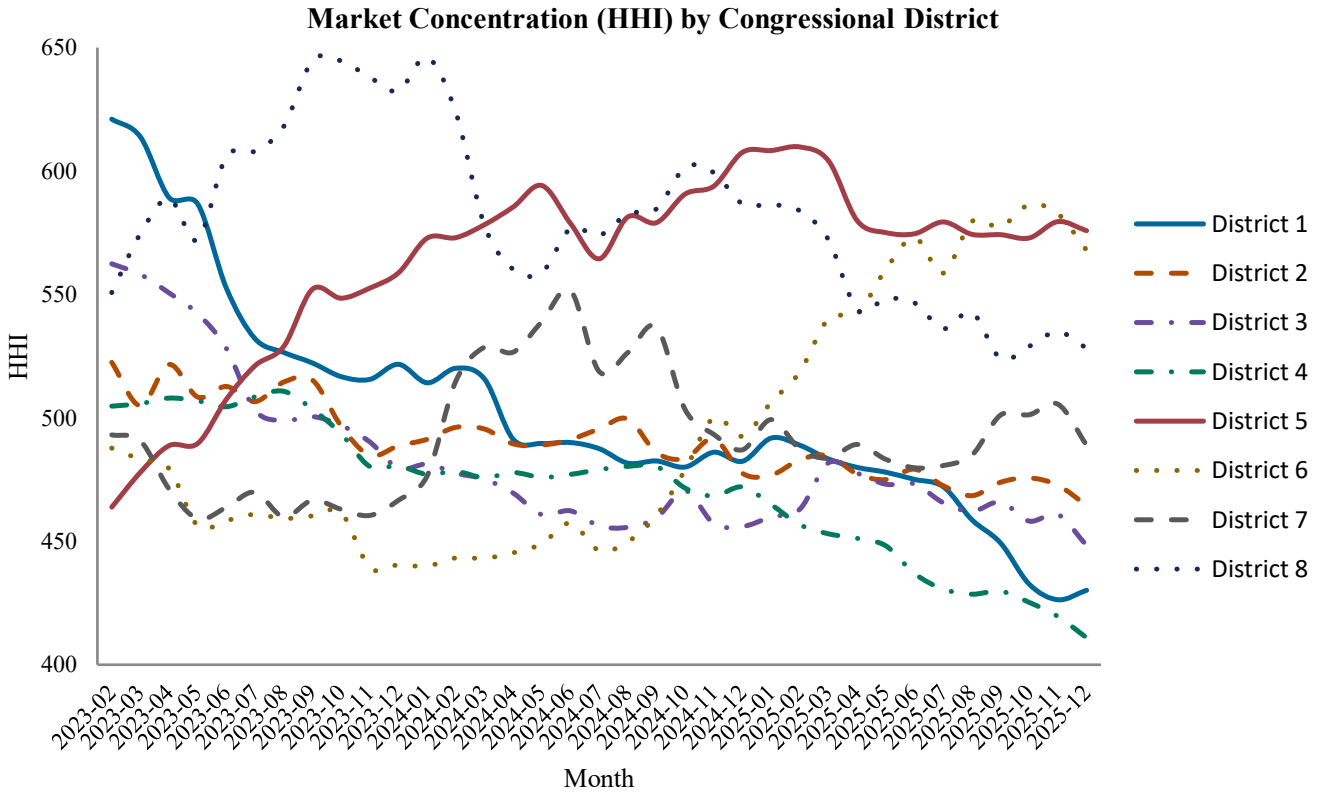
Table 19. Total Retail Sales by Congressional District and Year

Congressional District	2023	2024	2025
1	$124,147,087.96	$138,475,448.80	$131,879,833.64
2	$135,970,424.28	$140,994,908.65	$150,734,447.66
3	$142,319,729.55	$155,246,232.98	$150,051,606.36
4	$131,001,689.44	$137,541,543.28	$140,969,500.56
5	$274,050,918.79	$296,072,717.84	$294,104,844.36
6	$175,784,527.54	$216,197,194.26	$245,236,646.99
7	$174,481,402.40	$202,481,784.28	$215,271,870.07
8	$146,083,395.91	$178,332,302.51	$184,148,090.98

Congressional District Retail Market Concentration (HHI) by Month

Figure 19 illustrates monthly market concentration, measured using the HHI, across Missouri's congressional districts from 2023 through 2025. Market concentration varied across congressional districts, indicating that competitive conditions were not identical throughout the state. Several districts experienced declining concentration over time, while others became modestly more concentrated. Despite these regional differences, all district-level HHI values remained within a range considered unconcentrated under commonly accepted competition benchmarks.

Figure 19. Market Concentration (HHI) by Congressional District 2023-2025



Congressional District Market Concentration (HHI) by Year

Market concentration is best viewed by year as opposed to month. Market concentration by year (**Table 20**) varied across Missouri's congressional districts, indicating that competitive conditions differed modestly across regions. Several congressional districts experienced declining HHI scores between 2023 and 2025, including Congressional Districts 1, 2, 3, 4, and 8, suggesting that dispensary sales became more evenly distributed among licensed dispensaries over time. Congressional District 4 experienced the largest decline, with HHI decreasing from 497.5 in 2023 to 433.0 in 2025.

In contrast, Congressional Districts 5 and 6 experienced increases in market concentration over the years. Congressional District 5 exhibited a gradual increase in HHI from 511.6 in 2023 to 578.4 in 2025, while Congressional District 6 increased from 455.9 to 555.6 over the same period. Congressional District 7 experienced a temporary increase in 2024 before declining slightly in 2025.

Similar to the monthly findings, despite regional differences, all congressional district annual HHI values remained well below commonly accepted thresholds associated with concentrated markets. **These findings further suggest that dispensary sales distribution remained healthy throughout Missouri, with no congressional district exhibiting concentration levels typically associated with limited competition or market dominance.**

Table 20. Congressional District HHI Score by Year

Congressional District	2023	2024	2025
1	543.9	486.3	457.7
2	494.8	487.7	469.6
3	507.2	461.5	460.9
4	497.5	473.9	433
5	511.6	573	578.4
6	455.9	431.9	555.6
7	462.5	507.2	485.9
8	601.5	567.5	542

Statewide Trends and Analysis in Cultivation Transfer Volume, Sales, and Competition

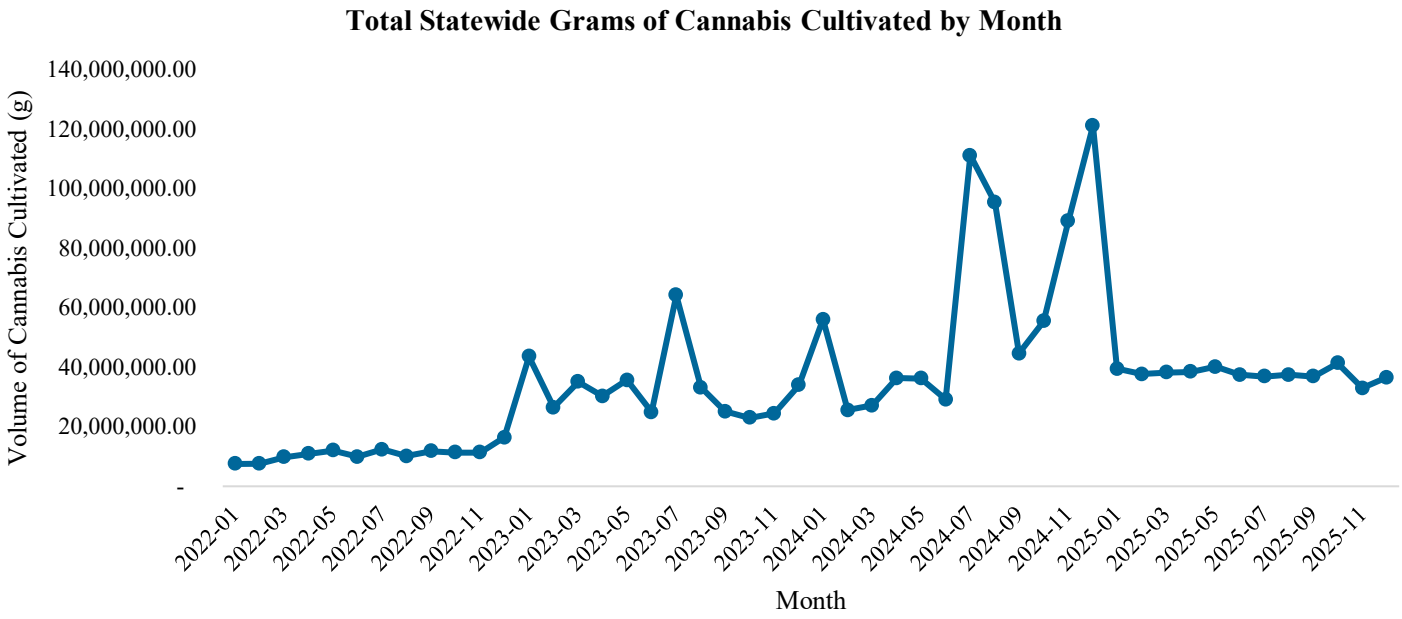
Statewide Cannabis Cultivation Transfer Volume by Month

Figure 20 displays statewide monthly cannabis cultivation volumes over the study period. Statewide cannabis cultivation volume increased substantially over the study period, although production exhibited considerably greater month-to-month variability than dispensary sales. This is expected due to differences in cultivation practices (e.g. indoor versus outdoor, etc.), processing times, variation in the month transfers occur, and other influences. During 2022, the last year prior to the establishment of the adult-use market, monthly cultivation volumes remained relatively low and stable, generally below 15 million grams per month. Beginning in early 2023, production increased markedly, with monthly cultivation volumes frequently ranging between approximately 25 million and 45 million grams and several months exhibiting substantially larger harvest volumes.

The largest increases in cultivation occurred during 2024, when several months exceeded 50 million grams and periodic production spikes surpassed 100 million grams. The highest cultivation transfer volume observed during the study period occurred in late 2024, reaching approximately 120 million grams in a single month. These periodic increases were followed by rapid declines, suggesting that cultivation activity occurred in production cycles rather than increasing at a constant monthly rate.

Following the peak production observed in late 2024, statewide cultivation volumes stabilized throughout 2025 at approximately 35 to 40 million grams per month. Although these monthly volumes remained well above those observed during 2023, they were substantially lower than the temporary production peaks recorded during 2024. Overall, the findings suggest that Missouri's cultivation sector expanded considerably during the study period while gradually transitioning toward a more consistent level of monthly production after periods of rapid capacity growth.

Figure 20. Statewide Cultivation Volume (Grams) By Month



Cannabis Cultivator Licenses and Annual Cultivation Transfer Volume

Statewide cannabis cultivation expanded rapidly from 2022-2025 as Missouri's regulated market matured and transitioned from a medical-use only cannabis market. This data can be found in **Table 21**, which includes statewide cannabis cultivation volume and unique cultivation licenses by year, Total annual cultivation transfer volume increased from approximately 131.3 million grams in 2022 to 400.2 million grams in 2023 before reaching a peak of 727.2 million grams in 2024. Although annual cultivation declined to 453.7 million grams in 2025, production remained substantially higher than that observed during the initial year of the regulated market.

Growth in cultivation volume occurred alongside continued expansion in licensed production capacity. The number of licensed cultivation facilities increased steadily from 44 in 2022 to 50 in 2023, 56 in 2024, and 61 in 2025. Overall, Missouri added nearly 39% more cultivation licenses during the study period while annual production volumes increased substantially relative to 2022.

The decline in total cultivation volume observed in 2025 despite continued growth in licensed cultivation facilities suggests that production expansion began to moderate following the rapid increases observed during the initial implementation of the adult-use market. Nevertheless, statewide cultivation remained well above pre-expansion levels, indicating that Missouri's regulated cultivation sector continued to operate at substantially greater production capacity than during the early years of legalization.

Table 21. Statewide Cannabis Cultivation Volume and Unique Cultivation Licenses by Year

Year	2022	2023	2024	2025
Total Volume (Grams)	131,261,998.76	400,187,123.48	727,202,124.20	453,678,490.65
Number of Cultivation Licenses	44	50	56	61

Statewide Cultivation Sales by Month

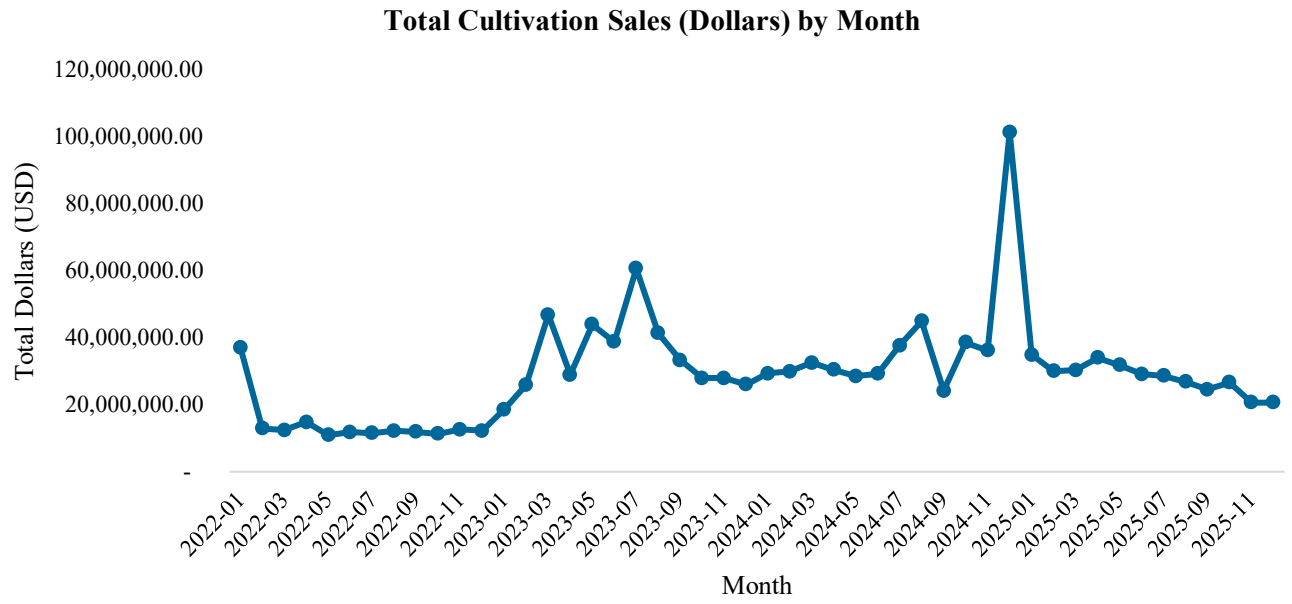
Figure 21 presents statewide monthly cultivation sales from 2022 through 2025. Monthly cannabis sales exhibited substantial variability throughout the study period, reflecting fluctuations in wholesale market activity. During much of 2022, monthly sales remained relatively low and stable, generally ranging between approximately $10 million and $15 million. Beginning in early 2023, monthly sales increased considerably, with typical monthly sales ranging from approximately $25 million to $45 million, although several months recorded substantially higher sales volumes.

The largest increase occurred in late 2024, when monthly sales briefly exceeded $100 million, representing the highest sales volume observed during the time period. Additional periods of elevated sales were also observed during 2023, including one month approaching $60 million. These periodic increases were followed by returns to more typical monthly sales levels, suggesting that wholesale sales activity occurred in intermittent cycles rather than following a steady upward trajectory.

Following the pronounced spike observed in late 2024, monthly wholesale sales generally stabilized throughout 2025, with most months ranging between approximately $20 million and $35 million. Although sales gradually moderated during the latter half of 2025, monthly wholesale activity remained substantially higher than that observed during the early stages of the regulated market in 2023.

Overall, the findings indicate that Missouri's wholesale cannabis market experienced rapid expansion during the transition to the adult-use market, followed by a period of greater stabilization. While periodic spikes in monthly sales continued to occur, the broader pattern suggests that wholesale market activity became more consistent over time despite ongoing short-term fluctuations.

Figure 21. Statewide Cultivation Sales by Month



Cannabis Cultivator Licenses and Annual Sales

Table 22 summarizes annual statewide cultivation sales alongside the number of unique licensed cultivation businesses from 2022 through 2025. Statewide flower cultivation sales increased substantially during the early years of Missouri's regulated cannabis market before moderating in 2025. Total annual cultivation sales increased from approximately $171.7 million in 2022 to $420.0 million in 2023 and reached a peak of $462.8 million in 2024. Annual cultivation sales declined to $338.3 million in 2025, well below sales of $420.0 million in 2023 despite a more than fifty-million-gram difference in production between 2023 and 2025. These findings highlight a likely large decline in the wholesale price of cannabis from 2023 through the end of 2025.

Growth in flower cultivation sales occurred alongside continued expansion in licensed cultivation capacity. The number of unique cultivation licenses increased steadily from 44 in 2022 to 50 in 2023, 56 in 2024, and 61 in 2025, reflecting continued participation in Missouri's regulated cultivation market. Similar upward trends were found for the number of cultivation licensees that engaged in the sale of pre-roll flower products with an expansion of sales to match. Though total sales did not decline like in flower cultivation sales, the number of licensees that engage in this business practice did decline from 2024 to 2025 by one licensee.

While flower cultivation sales moderated in 2025 despite the addition of new cultivation licenses, annual sales remained substantially above 2023 levels. Together, these findings suggest that Missouri's cultivation sector experienced rapid expansion during the implementation of the adult-use market before transitioning toward a more mature production environment characterized by continued industry participation and moderated wholesale sales growth.

Table 22. Statewide Cannabis Cultivation Sales and Unique Cultivation Licenses by Year

Year	2022	2023	2024	2025
Flower Cultivation Sales	$171,706,206.00	$ 420,033,718.59	$462,754,103.74	$338,310,977.53
Unique Origin Licenses (Flower)	44	50	56	61
Pre-Rolls Cultivation Sales	-	$15,850,577	$19,028,892	$21,906,852
Unique Origin Licenses (Pre-Rolls)	-	16	19	18

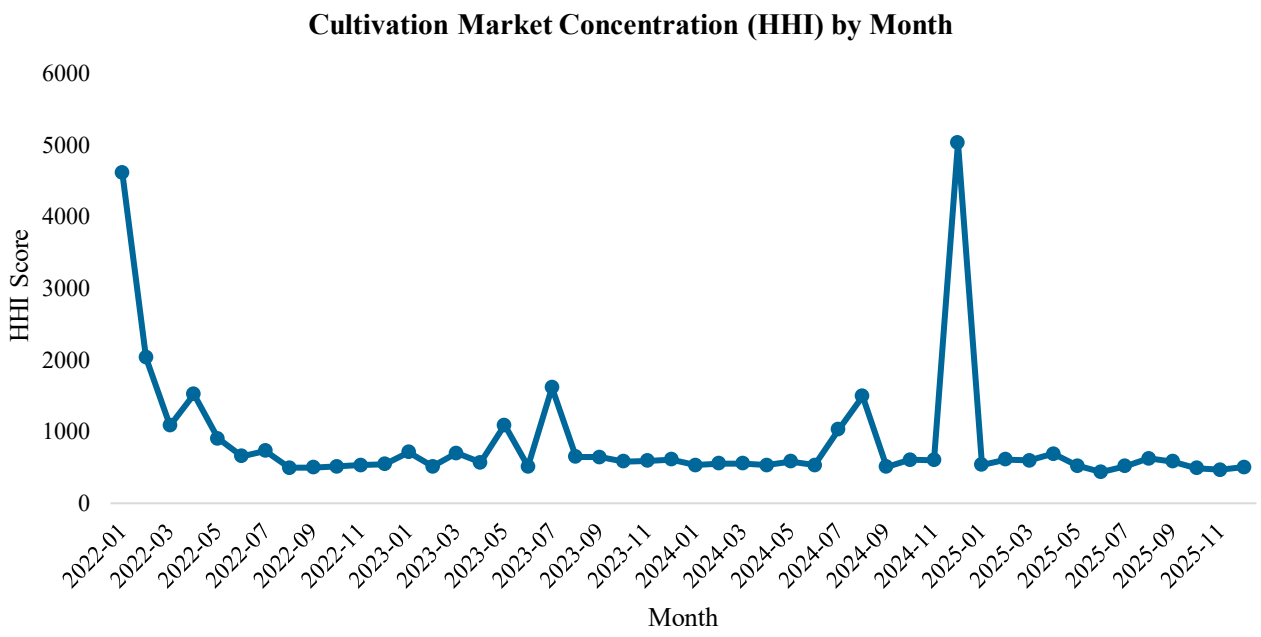
Statewide Cultivation Market Concentration (HHI) by Month

Figure 22 below illustrates statewide cultivation market concentration (HHI) over the study period. Cultivation market concentration exhibited substantially greater month-to-month variability than was observed within Missouri's dispensary market, as expected based on differences in cultivation practices and variability in when transfers occur. During portions of the study period, HHI values fluctuated considerably, including several pronounced increases that were followed by rapid returns to lower concentration levels. The largest spikes occurred during the beginning of 2022 and again in early 2025, when HHI values temporarily exceeded 4,500 before declining during subsequent months.

Outside of these temporary increases, monthly HHI values generally remained between approximately 500 and 700 throughout much of 2023, 2024, and 2025. Although periodic fluctuations were observed, the overall pattern suggests that cultivation market concentration remained relatively stable for most of the study period, with intermittent periods of higher concentration rather than sustained increases over time.

Overall, the findings indicate that competitive conditions within Missouri's cultivation market varied from month to month to a greater extent than those observed among dispensaries. **However, the temporary nature of the largest increases suggests that elevated concentration was episodic rather than indicative of a sustained shift toward a more concentrated cultivation market.**

Figure 22. Statewide Cannabis Cultivation Market Concentration (HHI) by Month



Statewide Cultivation Market Concentration (HHI) by Year

Market concentration within Missouri's regulated cultivation sector remained relatively low throughout the years despite modest year-to-year variation, as seen in **Table 23**. The statewide cultivation HHI was 850.0 in 2022 before declining to 473.4 in 2023, indicating increased competition as additional cultivation licenses entered the market. Although the HHI increased to 829.8 in 2024, concentration declined again to 500.7 in 2025.

Throughout the study period, annual HHI values remained below commonly accepted thresholds used to identify concentrated markets. These findings suggest that Missouri's cultivation sector maintained low transfer concentration despite continued expansion in production capacity and periodic changes in cultivation sales. Although concentration fluctuated modestly over time, there was no evidence that cultivation transfers became persistently concentrated among a small number of licensed facilities.

Table 23. Statewide Cannabis Cultivation Market Concentration (HHI) by Year

Year	2022	2023	2024	2025
HHI Score	850.0	473.4	829.8	500.7

Statewide Trends and Analysis in Manufacturing Sales and Competition

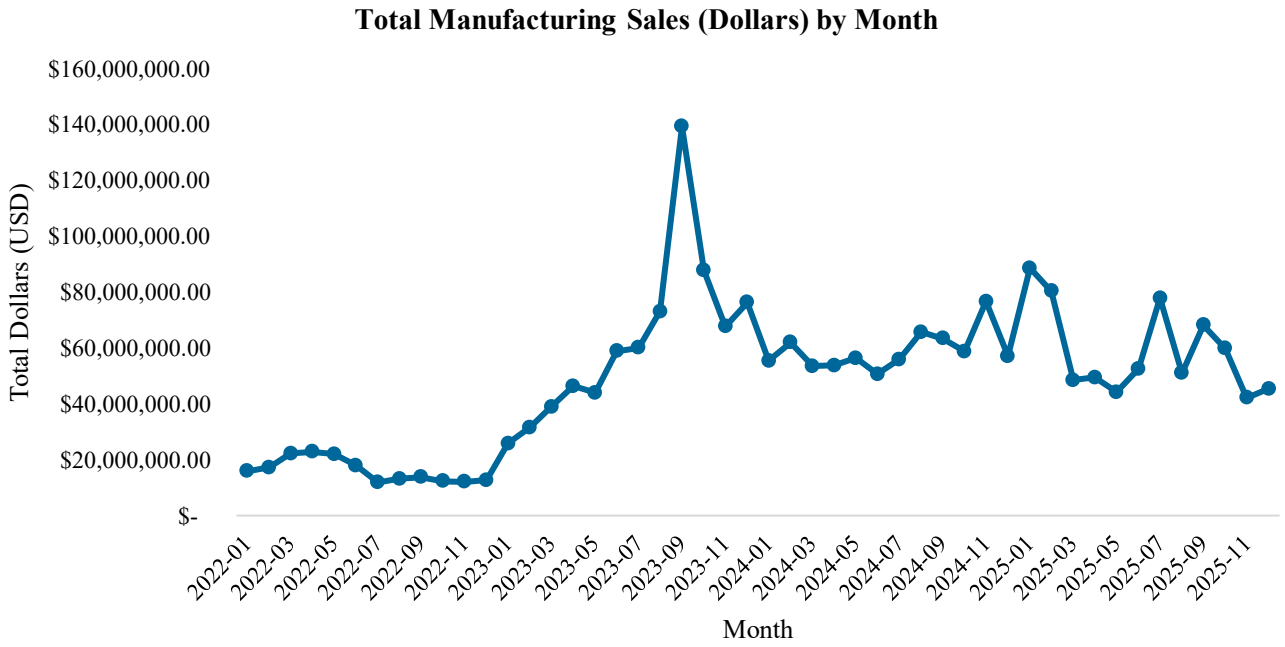
Statewide Cannabis Manufacturing Sales by Month

Monthly manufacturing sales increased substantially during the study period (see **Figure 23**), reflecting continued expansion in Missouri's regulated cannabis manufacturing sector. Prior to adult-use legalization, throughout much of 2022, monthly manufacturing sales remained relatively stable, generally ranging between approximately $12 million and $22 million. Beginning in early 2023, monthly sales increased steadily, reaching approximately $60 million by mid-2023 before experiencing a pronounced increase later that year.

The highest monthly manufacturing sales observed during the study period occurred in late 2023, when monthly sales briefly exceeded $135 million. Throughout 2024 and 2025, monthly sales generally fluctuated between approximately $45 million and $80 million, with several temporary increases approaching $90 million.

Although month-to-month variability was evident, manufacturing sales remained roughly consistent during 2024 and 2025 than during the early stages of the regulated market. The sustained increase in monthly manufacturing sales suggests continued growth in demand for manufactured cannabis products, including products such as vape cartridges, concentrates, edibles, beverages, and other infused products. While periodic fluctuations occurred throughout the study period, no prolonged downward trend was observed following the market expansion that occurred during 2023.

Figure 23. Statewide Manufacturing Sales by Month



Cannabis Manufacturing Licenses and Annual Sales

Table 24 summarizes annual statewide manufacturing sales alongside the number of unique licensed manufacturing facilities from 2022 through 2025. Statewide cannabis manufacturing sales increased substantially following the implementation of Missouri's adult-use market before stabilizing in subsequent years (2023 onward). Total annual manufacturing sales increased from approximately $194.1 million in 2022 to $749.6 million in 2023, representing nearly a fourfold increase in annual sales. Manufacturing sales moderated slightly to $709.4 million in 2024 and remained relatively stable at $708.1 million in 2025.

Growth in manufacturing sales occurred alongside a relatively stable number of licensed manufacturing facilities. The number of unique manufacturing licenses remained at 68 in both 2022 and 2023 before increasing modestly to 73 in 2024 and 70 in 2025. Despite these relatively small changes in the number of licensed manufacturers, annual manufacturing sales remained consistently above $700 million during both 2024 and 2025.

Overall, these findings suggest that Missouri's manufacturing sector experienced rapid expansion during the transition to the adult-use market before reaching a period of relative stability. Following the substantial increase observed in 2023, annual manufacturing sales remained remarkably consistent despite modest changes in the number of licensed manufacturers, indicating a mature and sustained level of manufacturing activity.

Table 24. Statewide Cannabis Manufacturing Sales and Unique Manufacturing Licenses by Year

Year	2022	2023	2024	2025
Total Manufacturing Sales	$194,056,241.51	$749,576,590.42	$709,390,287.35	$708,050,039.02
Unique Origin Licenses	68	68	73	70

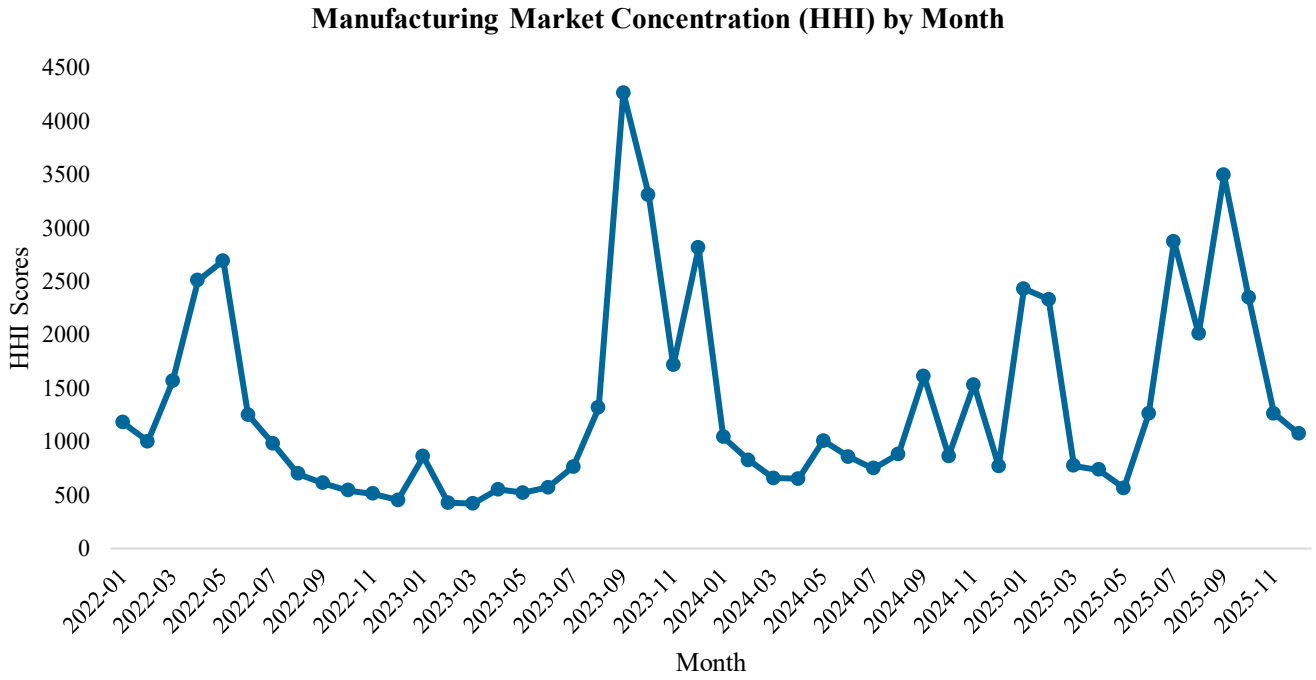
Statewide Manufacturing Market Concentration (HHI) by Month

Manufacturing market concentration exhibited greater month-to-month variability than was observed within Missouri's dispensary market. During the study period, HHI values fluctuated considerably, with several temporary increases followed by rapid returns to lower concentration levels, as expected based on differences in manufacturing processes and variability in transfers (see **Figure 24** below). The largest increase occurred in late 2023, when the monthly HHI briefly exceeded 4,000, while additional periods of elevated concentration were observed during portions of 2022, 2024, and 2025.

Outside of these temporary increases, monthly HHI values generally remained between approximately 500 and 1,000, indicating relatively consistent competitive conditions over the months. Although periodic fluctuations were evident, these periods of elevated concentration were short-lived and were typically followed by declines in subsequent months.

Overall, the findings suggest that Missouri's manufacturing sector experienced intermittent changes in market concentration rather than sustained shifts in competitive structure. While temporary increases in HHI occurred throughout the months, the broader pattern indicates that these fluctuations were episodic and did not represent a persistent trend toward increased market concentration.

Figure 24. Statewide Cannabis Manufacturing Market Concentration (HHI) by Month



Statewide Manufacturing Market Concentration (HHI) by Year

Market concentration within Missouri's regulated manufacturing sector varied modestly throughout the years (see **Table 25**). The statewide manufacturing HHI increased from 1,038.1 in 2022 to 1,208.5 in 2023 before declining to 752.3 in 2024. Market concentration increased again to 990.2 in 2025, although it remained below the level observed during the initial expansion of the adult-use market in 2023.

Overall, the manufacturing sector exhibited modest year-to-year fluctuations in market concentration, with manufacturing transfers remaining broadly distributed across licensed facilities. The decline in HHI observed in 2024 suggests that manufacturing sales became more evenly distributed across licensed operators before becoming somewhat more concentrated in 2025. Despite these fluctuations, there was no evidence of sustained increases in market concentration over the years.

Table 25. Statewide Manufacturing Market Concentration (HHI) by Year

Year	2022	2023	2024	2025
HHI Score	1038.1	1208.5	752.3	990.2

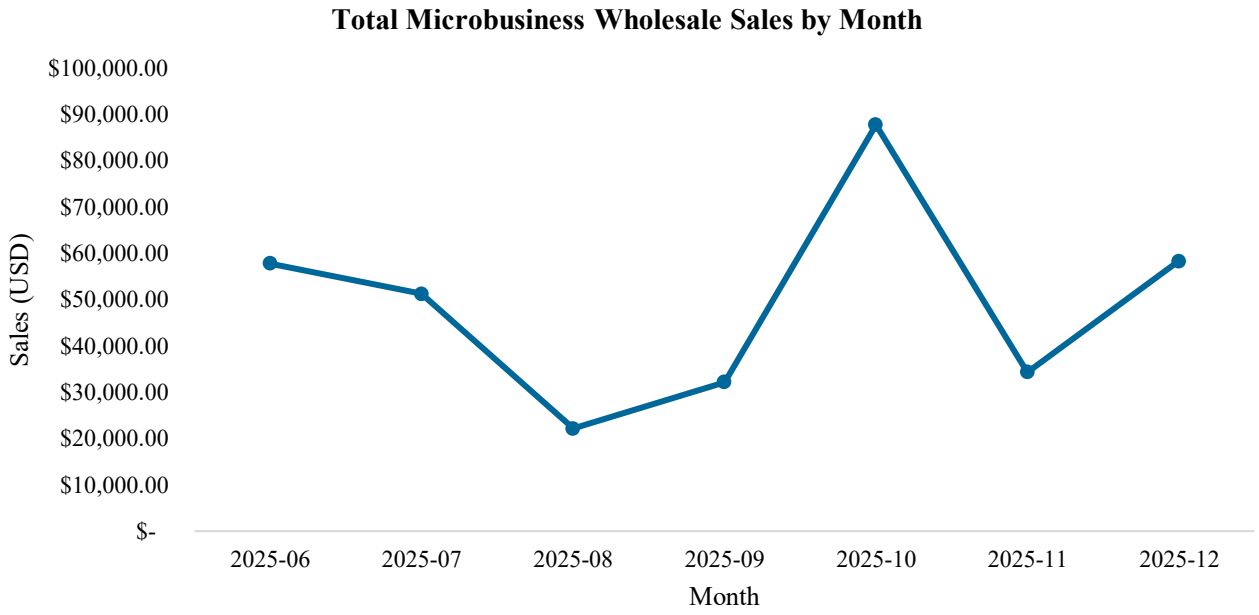
Statewide Trends and Analysis in Microbusiness Wholesale Sales

Statewide Cannabis Microbusiness Wholesale Sales by Month

Figure 24 illustrates statewide monthly wholesale sales generated by cannabis microbusiness wholesale licensees during 2025. Wholesale sales remained modest throughout the year of 2025, ranging from approximately $22,000 to $88,000 per month. Monthly sales exhibited considerable variability, with the highest sales occurring in October 2025 and lower sales observed during August and November. These fluctuations likely reflect the early stage of Missouri's microbusiness wholesale program, in which a relatively small number of licensed operators (**Table 26**) are actively producing and distributing

products. Given that microbusiness wholesale licenses were implemented as a social equity initiative and represent a substantially smaller segment of Missouri's regulated cannabis market than comprehensive cultivation and manufacturing licenses, the observed sales volumes should be interpreted as indicative of an emerging market segment rather than an established wholesale marketplace. Continued monitoring will be necessary to evaluate whether wholesale activity increases as additional microbusinesses become operational and mature within the regulated market.

Figure 25. Statewide Cannabis Microbusiness Wholesale Sales by Month (2025)



Three licensed microbusiness wholesalers reported sales during the study period, providing context for the relatively modest statewide wholesale sales volumes observed in **Figure 24**. Market concentration analyses were not conducted for the cannabis microbusiness wholesale market as only three microbusiness wholesale licensees reported sales, and data were available for a single year of operation. Given the limited number of active market participants and the absence of longitudinal data, HHI estimates would provide limited interpretive value and would not support meaningful conclusions regarding market concentration or competitive dynamics.

Table 26. Statewide Microbusiness Wholesale Sales and Licenses by Year (2025)

Year	2025
Total Sales	$343,837.46
Unique Origin Licenses	3

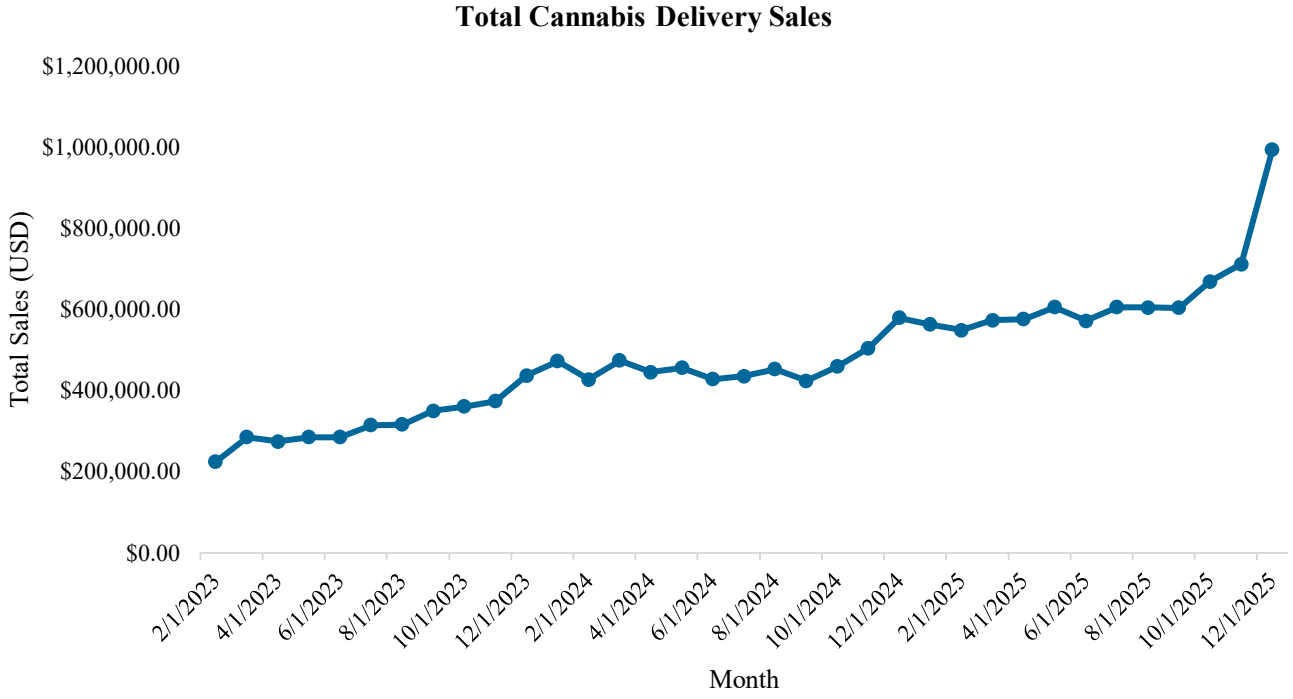
Statewide Trends and Analysis in Delivery Sales and Competition

Statewide Cannabis Delivery Sales by Month

Delivery sales increased steadily over the years, rising from approximately $220,000 per month in early 2023 to approximately $1.0 million by December 2025 (see **Figure 26**). Following gradual growth throughout 2023 and most of 2024, monthly delivery sales stabilized near $550,000 to $600,000 before accelerating during the final months of 2025. The pronounced increase observed in December 2025

suggests continued expansion in consumer adoption of cannabis delivery services, although additional data will be necessary to determine whether this represents a sustained trend or seasonal variation.

Figure 26. Statewide Cannabis Delivery Sales by Month



Total delivery sales more than doubled between 2023 and 2025, increasing from $3.5 million to $7.6 million annually (**Table 28**). During the same period, the number of dispensaries offering delivery services remained relatively stable, ranging from 24 to 29 unique licensees, suggesting that growth in delivery sales was driven primarily by increased utilization of delivery services rather than substantial expansion in the number of participating dispensaries.

Unlike traditional dispensary sales, delivery sales represent a supplemental service offered by a relatively small subset of licensed dispensaries rather than a distinct license category. Because only 24 to 29 dispensaries reported delivery sales annually and delivery accounted for a small proportion of total dispensary sales, HHI estimates would provide limited insight into the competitiveness of Missouri's overall cannabis dispensary market. Consequently, delivery sales are presented descriptively to characterize utilization trends rather than to evaluate market concentration.

Table 28. Statewide Delivery Sales and Unique Licenses by Year

Year	2023	2024	2025
Total Sales	$3,509,530.21	$5,561,526.50	$7,628,367.04
Unique Origin Licenses	26	24	29

Multi-Level Modeling: Examining the Relationship Between Market Concentration and Cannabis Purchasing outside the Regulated Market

To evaluate whether local market concentration was associated with cannabis purchasing behavior outside of the regulated market, a series of multilevel regression models were estimated using respondents nested within Missouri counties. There were four independent variables of interest, the county-level dispensary Herfindahl-Hirschman Index (HHI), the county-level numeric number of stores, the county-level retail density by land, and the county-level retail density by adult population which were included alongside demographic characteristics and self-reported reasons for purchasing cannabis.

Contrary to expectations, dispensary market concentration was not significantly associated with the amount respondents reported spending on cannabis outside the regulated market. Likewise, measures of county-level dispensary access, including dispensary density based on usable land area and population, were not significantly associated with illicit purchasing behavior. Instead, cannabis purchasing outside the regulated market was primarily and positively explained by individual-level characteristics such as cannabis use days, total cannabis spending, and purchasing motivations. Variables related to demographics and respondents' stated reasons for obtaining cannabis were consistently associated with outside the regulated market expenditures, such as highlighting source or convenience as important, holding all else constant, whereas structural measures of dispensary market competition were not.

Several explanations may account for these findings. First, the Missouri sample exhibited relatively little variation in outside of the market purchasing in dollars. Second, a large proportion of the sample is concentrated in a few counties, which matches existing population distributions, but provides less variation for testing the relationship between HHI, density measures, or number of stores, and outside of the regulated market purchasing. When variation in market concentration is limited, statistical models have relatively little opportunity to detect meaningful relationships between concentration and consumer purchasing behavior. Consequently, the absence of a statistically significant association may reflect the relatively homogeneous competitive conditions observed across Missouri rather than conclusive evidence that market concentration has no influence on purchasing outside of the regulated market.

Third, the findings suggest that dispensary concentration does not appear to be a primary driver of cannabis purchasing outside of the regulated market within Missouri's current dispensary market. While economic theory predicts that increased competition may reduce incentives to purchase from illicit sources, no such relationship was observed across the range of market conditions examined in this study. Economic theory predicts that increased competition should improve consumer outcomes through lower prices, greater product availability, and improved service quality. However, Missouri's objective dispensary market already appears to operate within a competitive range, but perceptions of convenience still are driving some variation in purchases outside of the regulated market. As a result, further reductions in market concentration through additional dispensary licenses may not meaningfully alter consumer purchasing decisions, but may shift some decisions if it is perceived to be more convenient for some consumers.

Instead, the results indicate that purchasing decisions outside of the regulated market are driven primarily by consumer-level factors rather than market structure. Consistent with previous descriptive analyses, respondents who reported purchasing from illicit sources were more strongly influenced by factors such as lower prices, convenience, product preferences, and other purchasing motivations than by differences in local dispensary competition. These findings suggest that consumer behavior may be

more responsive to economic and behavioral incentives than to modest differences in market concentration.

Taken together, these findings do not provide evidence that the current level of dispensary market concentration contributes meaningfully to cannabis purchasing in Missouri. Rather, they suggest that Missouri's existing licensing framework has produced a sufficiently competitive dispensary marketplace such that additional reductions in market concentration alone are unlikely to substantially reduce illicit market participation.

This finding should *not* be interpreted as evidence that additional dispensary licenses would have no effect on consumer behavior. Instead, the results indicate that, within the range of market conditions currently observed in Missouri, market concentration does not appear to be a primary determinant of purchasing outside of the regulated market, holding all else constant. Future research is warranted to examine whether other measures of dispensary access, including travel distance, drive time, or neighborhood-level dispensary availability, are more strongly associated with consumer purchasing decisions than regional measures of market concentration.

Assessment of Current Cannabis Market Concentration and Future Licensing Considerations

Retail Licenses

The analyses conducted for this study do not identify evidence that Missouri's dispensary cannabis market is currently overconcentrated at either the statewide or congressional district level. The HHI analyses indicate that retail sales remained broadly distributed across dispensaries throughout the state, with all congressional districts maintaining HHI values well below commonly accepted thresholds for highly concentrated markets. Although competitive conditions varied modestly across regions, no district exhibited evidence that dispensary sales were dominated by a small number of operators. These findings suggest that Missouri's current licensing framework has generally supported a competitive dispensary marketplace rather than one characterized by excessive concentration.

Regional analyses also demonstrate that market conditions differ across congressional districts with respect to sales volume, consumer purchasing behavior, and market growth. However, these differences appear to reflect variation in consumer demand and regional market characteristics rather than excessive market concentration. Districts with larger dispensary markets or stronger sales growth did not consistently exhibit higher HHI values or lower average sales per dispensary.

Based on the available evidence, the analyses do not suggest that Missouri's dispensary market is currently operating at a level of concentration that would preclude additional dispensary participation. Future market concentration would likely depend on the geographic distribution of newly issued licenses and the degree to which new market entrants become clustered within existing commercial areas. Because current concentration levels remain well below accepted benchmarks across all congressional districts, the findings suggest that Missouri possesses competitive capacity for additional market participation before concentration becomes a statewide concern. Continued monitoring of HHI and regional market dynamics following future licensing decisions would allow DCR to identify localized concentration should it emerge over time.

Cultivation Licenses

The analyses indicate that Missouri's cultivation sector maintained low transfer concentration throughout the study period, with annual HHI values remaining well below commonly accepted thresholds for highly concentrated markets, consistent with competitive conditions. Although cultivation licenses increased steadily between 2023 and 2025, cultivation volume and wholesale sales exhibited signs of stabilization following the rapid expansion associated with implementation of the adult-use market. Wholesale activity reached a pronounced peak in late 2024 before moderating throughout 2025, suggesting that Missouri's cultivation sector may be transitioning from a period of expansion to a market characterized by slower wholesale growth and increasing competitive pressure among cultivators. Annual cultivation sales also declined in 2025 despite continued growth in licensed cultivation facilities, suggesting that production capacity has stabilized in response to falling wholesale prices through 2024.

Unlike the dispensary sector, where additional licenses were accompanied by relatively stable average dispensary performance, the cultivation sector demonstrated evidence of increasing production capacity alongside moderating wholesale activity. These findings do not indicate excessive market concentration but may suggest the emergence of greater competitive pressure among cultivators as the market matures.

Future cultivation licensing decisions should continue to consider the balance between production capacity and downstream market demand. Continued monitoring of cultivation volumes, wholesale sales, wholesale prices, license utilization, and HHI will allow DCR to identify when production levels are changing and the potential sources of those changes.

Manufacturing Licenses

The analyses suggest that Missouri's manufacturing sector has transitioned toward a relatively stable market following the initial expansion of the adult-use market. Manufacturing sales increased substantially between 2022 and 2023 before remaining consistently above $700 million annually throughout 2024 and 2025 despite relatively small changes in the number of licensed manufacturers. Although manufacturing HHI exhibited modest year-to-year variation, there was no evidence of sustained increases in market concentration or persistent market dominance by a small number of operators.

Compared with cultivation, the manufacturing sector appears to exhibit a closer alignment between production capacity and market demand. Stable annual sales, relatively consistent license counts, and competitive market concentration collectively suggest that the manufacturing segment has reached a more mature stage of market development.

There is no indication for an immediate need for substantial changes to manufacturing licensing. Continued monitoring of manufacturing sales, product demand, and market concentration will allow DCR to identify future shifts in competitive conditions while supporting a stable and competitive manufacturing sector.

Factors Influencing Development of Cannabis Facilities in Impoverished or Underserved Areas

Given that the limitations of the data provided, there are limited quantitative ways to derive the answer of what influences development of cannabis facilities in impoverished or underserved areas, empirically. However, based on microeconomic theory literature, it is understood that the decision to establish a

cannabis facility is fundamentally an investment decision driven by the expectation that market demand will generate a sufficient return on investment to justify the costs and risks associated with development and long-term operation. Consequently, interest in developing cannabis facilities within underserved areas is largely determined by the extent to which local market conditions support economically viable business operations.

Among the most important determinants of investment interest is the level of demand within a potential area. Population size, cannabis demand, and proximity to existing cannabis businesses all influence the potential revenues of a new cannabis facility, specifically dispensary. Areas that may be considered underserved from a geographic perspective may not necessarily represent attractive investment opportunities if population density or consumer demand is insufficient to support profitable operations. Conversely, communities with demonstrated demand and relatively limited dispensary access may present opportunities for additional market entry where operators identify unmet market demand.

The regulatory environment also plays a significant role in influencing facility development by affecting both the feasibility and cost of market entry. Local governments that permit cannabis businesses create opportunities for development, while jurisdictions that prohibit cannabis businesses effectively eliminate the possibility of facility development within their boundaries. Among jurisdictions that allow cannabis businesses, local zoning regulations, land use restrictions, permitting requirements, and the degree of local government support can substantially influence where facilities may be located and the attractiveness of potential development opportunities. Overly restrictive zoning requirements, limited availability of appropriately zoned properties, lengthy permitting processes, or regulatory uncertainty may discourage investment by increasing development costs, extending project timelines, and reducing the likelihood of a return on investment.

Financial incentives also encourage investment by improving the economic feasibility of projects located within underserved or economically disadvantaged communities. Should the state be seeking to facilitate encouragement to establish dispensary facilities in underserved communities, it may consider policies such as tax incentives, infrastructure assistance, grants, low-interest financing, expedited permitting, or other economic development programs to reduce capital expenditures or ongoing operating costs associated with facility development. By improving expected returns on investment, these policies may encourage private sector development in underserved communities.

Overall, cannabis facility siting decisions are primarily driven by expected market demand, competitive conditions, the regulatory environment, and anticipated return on investment. Accordingly, if the DCR seeks to encourage development within impoverished or underserved communities, policy approaches that improve the economic attractiveness of these areas, whether by reducing development costs, lowering regulatory barriers, or improving the expected return on investment, are likely to have the most impact.

V. Interpretation of Findings and Answering Research Objectives

The analyses presented throughout this report were designed to address the specific research objectives identified by the Missouri Department of Health and Senior Services. The following section synthesizes the study findings to directly answer each objective by integrating evidence from multiple data sources and analytical approaches, including consumer survey data, Missouri track-and-trace data, economic and statistical analyses, qualitative policy review, and CPPC's subject matter expertise. The resulting interpretations provide an evidence-based assessment of Missouri's cannabis market and the factors shaping consumer behavior, market competition, and future policy considerations.

Objective 1: Examine cannabis consumer behaviors and purchasing patterns across all cannabis sources in Missouri.

To accomplish this objective, CPPC integrated findings from the Missouri-specific Regulatory Determinants of Cannabis Outcomes Survey (RDCOS) with Missouri track-and-trace sales data to evaluate cannabis purchasing behaviors across regulated and alternative markets. Analyses examined consumer demand by product type and acquisition source, monthly expenditures, purchasing motivations, patient and adult-use consumer purchasing patterns, regional differences in consumer behavior, home cultivation, informal cannabis sharing, alternative cannabinoid use, and standardized THC demand across Missouri's congressional districts.

The analyses demonstrate that Missouri's regulated cannabis market has achieved broad consumer adoption, with licensed dispensaries accounting for approximately 93% of all reported cannabis expenditures among past-month consumers. Consumer demand is concentrated among a relatively small number of product categories, with flower accounting for approximately one-half of all monthly cannabis spending, followed by vape products and edibles. Medical cannabis patients consistently reported higher product utilization and expenditures than adult-use consumers across every major product category, yet both groups relied overwhelmingly on licensed dispensaries for product acquisition. Consumer purchasing decisions were driven primarily by price (66%), THC potency (58%), and convenience (40%), while legal status ranked comparatively low as a purchasing consideration. Among consumers who reported purchasing from illicit sellers, lower prices (62%) and convenience (35%) were the primary motivations, whereas virtually no respondents cited a lack of adult-use dispensary access as a reason for purchasing from the illicit market.

Regional analyses identified modest differences in purchasing behaviors and market participation across Missouri's congressional districts; however, regulated dispensaries remained the dominant source of cannabis purchases in every region. Home cultivation and alternative acquisition channels represented only a small proportion of overall cannabis demand, and informal sharing frequently involved products that had originally been purchased through licensed dispensaries.

Objective 2: Identify what factors encourage a competitive marijuana market, and how markets and sources may be competing for consumer purchasing.

To accomplish this objective, CPPC analyzed Missouri track-and-trace data to evaluate competition across the regulated cannabis market using Herfindahl-Hirschman Index (HHI) analyses at both the statewide and congressional district levels, trends in dispensary sales, license growth, and dispensary

performance over time. These quantitative findings were supplemented by multilevel modeling examining the relationship between dispensary availability and illicit cannabis consumption, as well as consumer survey findings describing the factors that most influence purchasing decisions across regulated and unregulated sources.

The findings show that Missouri's regulated cannabis market has maintained low levels of market concentration throughout its expansion, consistent with competitive conditions. Between 2023 and 2025, annual dispensary sales increased from approximately $1.30 billion to $1.51 billion, while the number of active dispensary licenses grew from 201 to 220. Despite continued market expansion, average annual sales per dispensary remained relatively stable at approximately $6.5-$6.9 million, suggesting that consumer demand largely kept pace with increases in dispensary capacity rather than resulting in substantial revenue dilution. HHI analyses further demonstrated that both statewide and congressional district markets remained well below commonly accepted thresholds for market concentration, indicating that no geographic market was dominated by a small number of operators.

Consumer survey findings further suggest that competition among cannabis sources is driven primarily by traditional market forces rather than legal status alone. Consumers consistently identified price, THC potency, convenience, and product selection as the most important factors influencing purchasing decisions. Among individuals who reported purchasing cannabis from illicit sellers, lower prices and convenience were the primary motivations, while very few respondents cited limited legal access as a reason for participating in the illicit market. Multilevel modeling similarly found little evidence that increasing dispensary density alone substantially reduced illicit purchasing behaviors, suggesting that competitive market performance depends not only on the availability of licensed dispensaries, but also on their ability to compete on price, product offerings, convenience, and overall consumer value.

Overall, these findings suggest that Missouri's regulated cannabis market has developed into a market characterized by low levels of concentration. In which consumer purchasing decisions are shaped primarily by economic and market characteristics rather than structural barriers to legal access. The evidence suggests that maintaining a competitive cannabis market will depend on preserving healthy competition among licensed businesses while supporting market conditions that allow regulated dispensaries to effectively compete with alternative sources on the attributes consumers value most.

Objective 3: Identify if local marijuana market areas are overconcentrated and what marijuana market areas could become overconcentrated if license limits are lifted.

To accomplish this objective, CPPC analyzed Missouri track-and-trace sales data and conducted HHI analyses (described above) to assess changes in competitive conditions as Missouri's regulated cannabis market expanded, and findings were evaluated alongside trends in dispensary licensing, market growth, and regional sales performance to assess the potential implications of future licensing decisions.

The analyses found no evidence that Missouri's regulated dispensary, cultivation, or manufacturing cannabis market is currently overconcentrated, either statewide or within any congressional district for dispensary. Throughout the study period, HHI values for all supply chain areas remained well below commonly accepted thresholds associated with highly concentrated markets, indicating that dispensary competition remains strong despite continued market growth.

Between 2023 and 2025, the number of active dispensary licenses increased from 201 to 220, while annual dispensary sales increased from approximately $1.30 billion to $1.51 billion. Average dispensary sales remained relatively stable over the same period, suggesting that consumer demand has largely kept pace with increases in dispensary capacity rather than becoming concentrated among a small number of operators. Although sales volumes varied across congressional districts, higher-volume markets did not exhibit correspondingly higher HHI values, indicating that larger regional markets generally maintained low levels of sales concentration.

The findings further suggest that lifting dispensary license limits would not, by itself, be expected to result in overconcentrated local markets. Rather, future market concentration is more likely to depend on the geographic distribution of new licenses and whether new businesses become disproportionately clustered within specific commercial areas. Because current concentration levels remain well below accepted benchmarks across all congressional districts, Missouri's regulated cannabis market appears capable of supporting additional market participation before market concentration becomes a statewide concern. Continued monitoring of HHI and regional market dynamics following future licensing decisions will enable DCR to identify localized changes in competition should they emerge over time.

Objective 4: Determine what factors encourage interest in building marijuana facilities in impoverished or underserved areas using descriptive statistics and inferential statistics.

To accomplish this objective, CPPC synthesized findings from the quantitative analyses presented throughout this report, including consumer demand, regional market variation, dispensary competition (HHI), licensing trends, and market growth, with existing economic and cannabis policy literature and the project team's subject matter expertise. Rather than relying on a single statistical analysis, this objective was addressed by evaluating how market conditions, competitive dynamics, and regulatory factors influence business investment decisions and facility siting.

The findings indicate that investment decisions are driven primarily by expected market demand, competitive conditions, regulatory certainty, and anticipated return on investment. The quantitative analyses demonstrate that while consumer demand and market opportunities vary across the state, dispensary competition remains strong, suggesting that businesses are more likely to locate facilities where market conditions support long-term profitability than in response to market concentration. The regulatory environment also plays an important role, as zoning requirements, permitting processes, and local government support can substantially influence the feasibility and cost of development. Financial incentives, infrastructure investments, low-interest financing, grants, and expedited permitting may further encourage facility development by improving the economic attractiveness of underserved communities. Overall, the evidence suggests that policies aimed at strengthening local market conditions and reducing barriers to investment are likely to have the greatest impact on encouraging cannabis facility development in underserved areas.

Objective 5: Identify how and where cannabis supply may better align with consumer demand and evaluate policy approaches that may improve market efficiency

The findings of this study indicate that Missouri's regulated cannabis market is largely aligned with current consumer demand. Licensed dispensaries capture approximately 93% of reported cannabis expenditures, indicating that the regulated market has been broadly successful in meeting consumer demand and competing with illicit sources. Consumer demand remains concentrated among flower, vape products, and edibles, while track-and-trace data demonstrate that product availability has evolved in a similar direction, with continued growth in vape and preroll sales and declining reliance on flower over time.

Our analyses also identified an opportunity to better align cannabis supply with consumer demand by providing greater flexibility in how cannabis licenses are distributed geographically. Consumer demand, purchasing priorities, and market size differed across congressional districts, yet retail sales remained broadly distributed across licensed dispensaries statewide, with no region exhibiting evidence of excessive market concentration. HHI analyses indicate that dispensary sales remain well below commonly accepted concentration thresholds, suggesting that Missouri's current licensing framework has supported a competitive marketplace. Regional differences in market size appear to reflect variation in consumer demand rather than market dominance by a small number of operators. These findings suggest that future improvements in supply-demand alignment are likely to depend less on increasing the total number of licenses statewide and more on allowing new market entry to occur where consumer demand is strongest and where businesses can most efficiently serve regional markets.

The evaluation further suggests that supply-demand alignment differs across segments of the cannabis supply chain. While the dispensary market continues to demonstrate stable performance despite modest license expansion, the cultivation sector appears to be entering a more competitive phase of market maturity. Cultivation licenses increased steadily throughout the study period even as cultivation volume and wholesale sales began to stabilize, suggesting that production capacity may be expanding more rapidly than downstream wholesale demand. In contrast, the manufacturing sector demonstrated relatively stable sales, license counts, and market concentration, indicating that manufacturing capacity currently remains well aligned with consumer demand. Future licensing decisions may warrant different approaches across license types, with continued monitoring of cultivation capacity, wholesale activity, manufacturing demand, and market concentration to ensure that supply remains responsive to changing market conditions.

The findings further suggest that market efficiency may be improved by ensuring that the regulated market remains competitive on the factors consumers value most. Throughout the report, price, THC potency, and convenience consistently emerged as the primary drivers of purchasing behavior, while lack of legal access was rarely identified as a reason for participating in the illicit market. This indicates that future policy efforts may be more effective if they focus on improving the regulated market's competitiveness, reducing unnecessary barriers to efficient business investment, and allowing supply to respond to evolving consumer demand rather than relying on fixed geographic allocation requirements.

In summary, Missouri's cannabis market has transitioned from an early-stage market focused on expanding access to a mature market in which future gains are more likely to come from improving market efficiency, maintaining competitive conditions, and providing sufficient regulatory flexibility for supply to adapt to changing consumer demand over time. The evidence does not indicate an immediate need for substantial changes to the overall licensing framework. Rather, the findings support continued monitoring of consumer demand, HHI, wholesale market conditions, license utilization, and regional

market dynamics to guide future licensing decisions and ensure that supply remains appropriately aligned with demand as Missouri's regulated cannabis market continues to mature.

VI. Policy Considerations for the Division of Cannabis Regulation

Based on the comprehensive findings of this study, CPPC developed the following policy considerations for DCR's review and consideration. These considerations are intended to highlight potential opportunities, tradeoffs, and areas for future evaluation as Missouri's regulated cannabis market continues to mature.

Note: Additional analyses and findings generated through the forthcoming Phase 2 Economic Study may provide further context, support refinement of the considerations presented below, or identify additional policy considerations not yet evident from the Phase 1 findings alone.

Policy Consideration 1: Enhance Market Monitoring Through De-Identified Ownership Data

CPPC recommends developing or enhancing a de-identified ownership database that links licensed facilities to common ownership groups and can be routinely maintained to support future market concentration analyses. While ownership information is collected as part of Missouri's licensing and regulatory processes, these data are complex and subject to legal and confidentiality considerations that may limit external use. Organizing ownership information into an analysis-ready, de-identified dataset would facilitate routine assessments of ownership concentration while preserving the confidentiality of licensees. Incorporating ownership data into future HHI analyses would complement the facility-level sales concentration analyses presented in this report and provide a more comprehensive assessment of Missouri's regulated cannabis market.

This distinction is particularly important when evaluating licensing policies. The analyses presented in this report assess the concentration of sales and transfers across licensed facilities but do not evaluate ownership concentration. License limits influence the number of licensed facilities operating within the market but may not directly affect market concentration if multiple licenses are held by the same ownership group or if consolidation occurs through mergers, acquisitions, or other business arrangements. Conversely, ownership concentration alone does not necessarily indicate limited competition if market activity remains broadly distributed and consumers continue to experience competitive pricing, product availability, and access. Evaluating both facility-level sales concentration and ownership concentration would provide policymakers with a more complete framework for monitoring market structure and assessing the potential impacts of future licensing decisions.

Policy Consideration 2: Remove population and congressional district-based dispensary license allocation requirements and allow market-driven geographic distribution

Missouri should consider eliminating statutory requirements that tie cannabis license allocations to fixed population-based formulas and congressional district boundaries and instead allow license issuance decisions to be guided by consumer demand, market conditions, and shared economic markets. Under the current framework, some license types are allocated according to population while others are

distributed across congressional districts, despite substantial differences in population size, population density, geographic area, dispensary accessibility, and consumer demand across regions and counties. As a result, license allocations may not align with actual market needs.

Congressional district-based allocation requirements can create artificial constraints on market entry in areas with strong consumer demand. This may reduce overall market efficiency and limit competition in high-demand regions while leaving dispensary access gaps in other counties within the district. Allowing cannabis businesses to locate in response to market demand without artificial constraints may enable the regulated market to adapt more effectively to changing consumer preferences and population patterns. A market-driven approach would also improve capital allocation by allowing entrepreneurs and investors to direct resources toward areas where businesses are most likely to succeed, rather than where licenses are available due to geographic quotas.

DCR would retain its existing authority to monitor market conditions, prevent excessive concentration of facilities, and ensure adequate statewide access. However, removing congressional district allocation requirements would provide greater flexibility to address regional demand differences while supporting a more competitive and economically efficient cannabis market.

However, because congressional district allocation requirements are embedded within Missouri's Constitution through a voter-approved ballot measure, CPPC recognizes that removing these provisions may present legal, procedural, and political challenges. Accordingly, CPPC has identified several alternative policy options that could advance similar objectives while operating within the existing constitutional structure.

Alternative Policy Consideration 2.1: Maintain the current Retail licensing Structure.

DCR may determine that no immediate changes to licensing limits are warranted. Missouri's regulated cannabis market currently captures approximately 93% of consumer cannabis spending, indicating that the regulated market has been largely successful in competing with illicit sources. Additionally, market concentration metrics indicate that the market has maintained low levels of concentration, while tax revenues, consumer access, and product availability continue to support the objectives established under Amendment 3.

Under this approach, DCR would maintain existing licensing limits and continue monitoring key performance indicators, including regulated market capture, market competitiveness, tax revenue generation, consumer access, and administrative oversight capacity. This option recognizes that regulatory intervention is not always necessary when a market is functioning effectively for meeting demand. If future monitoring indicates declining competitiveness, reduced consumer access, or growth in illicit market activity, DCR could reevaluate licensing limits at that time.

Alternative Policy Consideration 2.2: Increase Retail licenses in Congressional Districts with Higher Market Concentration

If DCR seeks to modestly increase competition while minimizing market disruption, it could consider issuing additional licenses only within congressional districts exhibiting relatively higher levels of market concentration. Specifically, DCR could prioritize districts with higher dispensary-level HHI scores (i.e., moderately concentrated) while maintaining existing license levels in districts with lower scores.

This targeted approach would allow DCR to incrementally reduce concentration disparities across market areas and encourage additional competition where it may be most beneficial. By focusing new license issuance on relatively more concentrated districts, DCR could increase consumer choice and competitive pressure while avoiding a statewide expansion that may introduce unnecessary market instability. Existing operators would likely face increased competitive pressure in affected districts, but the overall risk of widespread business closures or market disruption would be lower than under a statewide expansion strategy.

Alternative Policy Consideration 2.3: Expand Retail Licenses Statewide to Increase Competition and Reduce Prices

If DCR's primary objective is to maximize competition and further reduce barriers to participation in the regulated market, it could consider issuing additional licenses statewide regardless of existing concentration levels. A statewide expansion would likely increase competitive pressure across all market areas, potentially resulting in lower dispensary prices, lower average dispensary revenue per store, and improved consumer access. This approach may be particularly beneficial for attracting the remaining consumers who continue to purchase from illicit sources, especially those who identify price as a primary factor influencing their purchasing decisions.

However, increased competition would also accelerate market consolidation and business attrition. As additional licenses enter the market, some existing businesses may experience declining revenues and reduced profitability, leading less competitive operators to exit the market. While this outcome may improve overall market efficiency from an economic perspective, it could create challenges for individual licensees and increase regulatory oversight demands during the transition period.

Policy Consideration 3: Continue Monitoring Alternative Cannabinoids but Do Not Prioritize Additional Regulatory Action at Current Time.

Based on the findings of this study, CPPC does not recommend that DCR prioritize significant policy or regulatory changes related to alternative cannabinoids at this time. With the exception of CBD and THCA, consumer awareness, adoption, and frequency of use for alternative cannabinoids remain relatively low. Most products, including Delta-8 THC, Delta-10 THC, THCP, THCV, HHC, CBG, and related cannabinoids, were used by only a small share of respondents during the past month, and frequent use was uncommon. The findings suggest that alternative cannabinoids currently function as a supplemental market rather than a meaningful substitute for Missouri's regulated cannabis industry.

While THCA demonstrated higher levels of awareness and use than other alternative cannabinoids, overall consumer engagement with the category remains limited compared to traditional cannabis products available through Missouri's regulated market. Furthermore, Missouri's regulated cannabis market currently captures approximately 93% of consumer cannabis expenditures, indicating that alternative cannabinoid products are not substantially diverting consumers away from the regulated system.

Further, recent federal policy developments have introduced significant uncertainty regarding the future of the intoxicating hemp marketplace, making the long-term size and structure of the alternative cannabinoid market difficult to predict. Given the relatively low prevalence of use, limited evidence of significant substitution away from Missouri's regulated cannabis market, and ongoing federal policy

developments, CPPC recommends that DCR continue monitoring alternative cannabinoid trends rather than pursuing major regulatory or legislative interventions at this time. Future evaluation may be warranted if consumer adoption increases substantially, if federal policy changes alter market dynamics, or if evidence emerges that alternative cannabinoids are materially affecting regulated cannabis sales, public health outcomes, or consumer behavior.

Policy Consideration 4: Conduct Additional Research on Informal Cannabis Redistribution and Secondary Market Activity

While the findings of this study suggest that Missouri's regulated cannabis market captures the vast majority of consumer expenditures, they also indicate that cannabis products frequently circulate through informal social networks after their initial purchase. Nearly half of consumers (47%) reported receiving cannabis for free at least sometimes, including 8% who reported doing so frequently. Additionally, more than half (54%) of consumers who obtained cannabis through friends or family indicated that the product originally came from a licensed dispensary. These findings suggest that regulated cannabis products may continue to circulate through informal channels after their initial dispensary sale.

Importantly, the current study was not designed to determine the extent to which these transfers represent lawful gifting, informal cost-sharing arrangements, or unlicensed resale activity. Although self-reported cannabis sales between individuals were relatively uncommon, the high prevalence of purchasing cannabis from friends or family members suggests that additional research may be warranted to better understand these behaviors.

CPPC recommends that DCR consider conducting targeted survey research to further examine informal cannabis redistribution, including gifting practices, social sharing behaviors, and potential secondary market activity involving cannabis products originally purchased through licensed dispensaries. At present, the available evidence does not suggest that informal redistribution represents a major challenge to Missouri's regulated cannabis market. However, a more detailed understanding of these behaviors would help DCR evaluate whether future policy, educational, or enforcement responses are warranted.

Policy Consideration 5: Consider Economic and Regulatory Incentives to Encourage Cannabis Facility Development in Underserved Communities

If the DCR seeks to encourage cannabis facility development within underserved communities, Missouri could consider policy approaches that improve the economic feasibility of investment in these areas. Facility siting decisions across cultivation, manufacturing, and dispensary operations are primarily driven by expected market demand, competitive conditions, the regulatory environment, and anticipated return on investment. As a result, the absence of existing cannabis businesses or limited market competition alone does not necessarily make an underserved or economically disadvantaged community an attractive investment opportunity. Rather, operators are more likely to pursue development opportunities where market conditions support long-term financial viability.

Potential policy approaches include tax incentives, infrastructure assistance, grants, low-interest financing, expedited permitting, and other economic development initiatives that reduce capital expenditures or ongoing operating costs associated with facility development. Although many of these tools extend beyond DCR's direct regulatory authority, the agency could support or coordinate with state

and local partners to advance these initiatives where they align with broader economic development objectives. These approaches may improve the relative attractiveness of underserved communities by reducing development costs, lowering investment risk, and improving expected returns on investment for prospective cannabis businesses.

However, expanding cannabis facility development in underserved communities may also involve important policy considerations that vary by license type. For dispensary facilities, research from the tobacco literature has consistently demonstrated that higher dispensary density is associated with increased tobacco use, reduced smoking cessation, greater youth exposure, and disproportionate impacts in socioeconomically disadvantaged communities. Although comparable evidence for cannabis dispensaries remains limited and mixed, these findings suggest that decisions regarding dispensary expansion should consider not only market competition and consumer access, but also the potential public health implications associated with increased dispensary availability. By comparison, cultivation and manufacturing facilities may present different considerations, including environmental impacts and odor concerns. Policy decisions regarding facility development should consider the distinct benefits and tradeoffs associated with each license type.