Report Methodology for Licensing Analysis for Washington State

Beau Whitney, Chief Economist
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Introduction:

There are several key factors that determine the success or failure of a cannabis regulatory system.

- **Price relative to the illicit market** – If the price difference is too great, the pace of consumer conversions away from the illicit market will slow considerably
- **Consumer access to cannabis products** – Consumers will only travel so far to acquire cannabis. If they do not have access, they will not buy cannabis products legally
- **Supply that is appropriate for the level of demand** – It is critical that there is sufficient supply to meet the demand. Equally important is that the supply is in balance with the demand and not too much.
- **The regulatory license structures** – Different structures have different effects on consumer and operator behaviors.

In this section, we will examine regulatory license structures and the methodology in determining the appropriate levels of licensure. This is based in part on requirements associated with RCW 69.50.335(1)(e)(B)(ii) and RCW 69.50.345.

Determining the appropriate number or range of licenses in a cannabis regulatory program is an essential function for any regulator. Until recently, the were two types of licensing strategies 1) an unlimited license structure or 2) a limited license structure. Each strategy has its advantages and disadvantages. In Washington, there are license caps at the retail level, but not at the producer or processing level.

An Overview of Unlimited and Limited licensed Regulatory Structures

Unlimited licenses:

Unlimited licenses in a cannabis regulatory program offer the benefits of including as many people as possible in the program that qualify. The characteristic of an unlimited licensed state is that there is generally too much supply than the state's cannabis consumers can handle. **The over supply of cannabis tends to lead to sharply declining prices, lower profits for licensees and economic stress**. With economic stress there may be a tendency towards diversion. It also can lead to an excess of delinquent payments from vendor to vendor, creating cash flow issues. On the other hand, **the lower prices result in greater legal participation by price sensitive consumers. Legal participation is a key public policy objective**.

Limited licenses:

States that limit the number of licenses have the opposite effect when compared to unlimited license states. The number of licenses issues is capped at certain levels and tends to remained fixed in number. *Quite often, the caps are set in an arbitrary manner and without data analysis to support them.* There are fewer suppliers than in unlimited states and as a result, there is generally less supply. States that put caps on retail licenses restricts the access of cannabis by consumers. With limited access and limited supply, limited license states tend to have higher prices. While higher prices are beneficial for the licensees, higher prices tend to slow the pace of

consumers converting from the illicit market into the legal market. **So, while the health of the operators may be good, in states with license caps, some of the other policy objectives (ex. Legal participation) may not be met to their fullest.**

Right sizing the cannabis regulatory license structure

Many regulators and policy makers take an either/or approach to the cannabis license structures. They either deploy a limited license structure or an unlimited one. Most of the time it is out of their hands as structure are often mandated legislatively. In instances where regulators have the flexibility on their license strategy, more and more regulators are beginning to consider a right sizing approach, where the number of licenses issued depends upon the market dynamics**. In this approach, over supply is limited, the health of the licensee is considered and the level of legal participation is maximized to the extent of the taxation level.** Right sizing achieves public policy objectives, because it incentivizes consumer to participate legally and there is less incentive for diversions related to economic distress. Right sizing can be done at the state level, or, in this case at the county level.

Market Factors that Help Shape the License Structure

In order to ascertain the number of licenses required at each step in the cannabis value chain, there are a few items that need to be considered.

- **The Demand** – This is the amount of cannabis that has been consumed in the past and is forecasted to be consumed in the future. This can be defined in terms of cannabis products, cannabis output requirements or cannabis revenues. This data is available and tracked by the WLCB

- **The Supply** – This is the amount of cultivated output produced over a given period and is also the amount of capacity that has been licensed. This will be used to ascertain how much supply is available to meet the demand. If there is too much supply capacity or output, then no additional licenses are required, if there is not enough, then the current supply capacity will help define how much more is needed

- **The number of consumers in an area** – The number of consumers is a determine by federal surveys. It can also be derived other ways. The number of consumers in an area will determine how much potential demand there is as well as how much supply will be needed

- **The level of consumption by the consumers** – This is defined by how much cultivated output is consumed per capita. This can be calculated by examining the number of consumers participating in the legal program, how much inventory was available and how much was left over at the end of a period. The difference is the amount of consumption. Per capita consumption helps define the requirements for supply capacity.

- **The number of consumers participating in the legal regulatory marketplace** – This is defined as legal participation. Legal participation is important as it is a key public policy objective. The goal is to maximize the legal of legal consumer participation by incentivizing the consumer to participate.

- **The projected growth in the market** – This can be calculated various ways, but it is an estimation of how much additional demand there will be for the market to support.

- **The number of current licenses issued in an area** – Knowing the number of licenses issued, will help define how many more or less are required.

- **The average revenues per license types** - This can be ascertained via surveys or via regulatory or seed to sale data. There is a minimum threshold of economic viability in terms of revenues, particularly at the retail level

Here is how it works

1. The key to right sizing is initially knowing how much demand there is in total and how much demand there is currently supported.
2. The second key is to assess how much supply there is. This is both installed capacity and how much that capacity is utilized
3. Once the supply and demand are estimated, then it comes down to access. Retailers need a minimum amount of revenue per store to remain viable, whereas consumers need access within a 30 – 40 minutes radius of where they live. The farther the drive, the less likely the consumer will participate legally.
4. The rest is a math equation.

There are nuances to this. That is where the analysis comes in.

The Math: How to Calculate Key Indicators Used in Assessing License Requirements

Note: This methodology can be applied to the state level or the county level. This report will try to provide both as they are interrelated, but will focus primarily on licenses at the ***county level***.

How to calculate demand potential

1. Find a reliable source for demographic data. W.E. tends to use census data
2. Determine the total number of citizens 18 years or older in a given area (state, county, city, region)
3. Divide by 3. This is the total number of cannabis consumers in that area. This is also known as the total addressable market

How to calculate the supply potential

1. Obtain a breakdown of all license types for cultivation. Different cultivator licenses have different allowable canopy (Sq ft)
2. Calculate the total square feet for each license type (Indoor, outdoor, greenhouse, etc)
3. To calculate the total output POTENTIAL multiply each license type as follows:
    a. For Indoor: 0.432 lbs / sq ft
    b. For Greenhouse: 0.217 lbs / sq ft
    c. For Outdoor: 0.101 lbs / sq ft
    d. Source: Resource Innovation Institute
4. Add the total output of each license type up. This is your total output potential

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How to calculate the utilized capacity

1. This data can be provided by WSLCB.
2. Multiply each licensee type by the output potential and then by the utilization rate
3. Utilization rate can be calculated by comparing the amount of capacity licensed versus the actual amount of canopy used.
4. Amount canopy used / amount licensed = utilization rate

How to calculate to total potential supply required.

1. Determine total # of consumers in the area
2. Multiply by per capita consumption amount

How to calculate the total sales potential

1. Determine total number of consumers in an area
2. Multiple by a per capita spending rate
3. This calculates the total POTENTIAL sales (Also known at Total Addressable Market or TAM)
4. Note: This may be periodically adjusted to adjust for general pricing declines and changes in consumer spending patterns.
    a. Example: Massachusetts in 2023 experienced flat YoY revenues, but saw product volumes increase.

How to calculate the percentage of legal sales

1. Determine total sales potential
2. Subtract total legal sales as reported by the regulator
3. Result is the amount of illicit sales
4. The percentage is then calculated by dividing legal sales by total sales potential
5. The result should be a number less than one
    a. Legal / Potential = Percentage of legal sales

Calculating the percentage of legal supply

1. Determine the total supply potential (Based on capacity or utilization)
2. Multiply by the percentage of legal sales

Or

1. Determine the total number of consumers
2. Multiply by the percentage of total legal sales
3. Multiply 1 and 2 by the per capita consumption

Determining the total retail outlets required

1. Determine to existing total legal sales
2. Examine forecasted YoY growth
3. Determine future sales forecast
4. Divide future sales forecast by $2.5 million (Min. Amount to remain healthy and viable)
5. This gives a rough outline to be used as guidance for further analysis

Determining Maximum Retail potential

1. Determine the total number of consumers in an area
2. Multiply by the per capita spending
3. Divide by $2.5 million
4. This is the upper bound of an area for retail

Determining the level of cultivation (producer) potential – (Note this is based on pounds rather than licenses)

1. Based upon the amount of supply required per capita, calculate the total amount of supply already licensed
2. This can be done by multiplying the license types in a given area (State or county) by the average output per square foot of each grow type (Indoor, Greenhouse, Outdoor). This is based on canopy
3. Compare the amount of total supply required to the amount of cultivation output capacity already licensed
4. The difference is the amount of pounds of additional capacity available to be licensed

Determining the number of producer licenses – (Based on output capabilities of applicants)

1. Once the amount of additional capacity is available to be licensed, review each license application for its grow type (indoor, greenhouse, outdoor) and the amount of canopy requested
2. Multiply the canopy requested by the amount of output per square foot model by grow type
3. If the amount of output projected by the applicant is less than the potential in a county, then licensure can move forward.
4. Note: It is very important when it comes to supply that the entire state be assessed for its output, before allocations can be made at the state level.

Determining the number of processor licenses

Note: Processing is the one area where limitations out output is not as important. If consumer access is licensed and the supply is limited, then the amount of raw materials are also a limiting factor. It is a de-facto gate on output. Suppliers of processed materials should be given the ability to develop products that support market opportunities. Regulators must monitor raw material inputs into the processors for cultivators.

1. Calculate the total spends in a given area (State or County)
2. Multiply the spending amount by 0.45. (This represents the share of market typically attributed to processed products)
3. Further divide by $2.75 million (This is the average amount of revenue typically required by a manufacturer)
4. The result will be the number of processor licenses that can be supported in a given area.
5. Note: Given that processed products are more shelf stable, and have a longer shelf life, processed materials can be transported over distance.
6. Although a county may be able to support additional processing licensure, supply from other counties may be sufficient to meet the localized demand

Decision Points in Determine the Number of License Required

Once these main factors have been determined an analysis can be made related to the number of licenses required in an area.

Retail Licenses

- Are the number of retail licenses issued current greater than, less than or equal to the number of retailers required to support future growth.

- Are the number of retail licenses in an area greater than, less than or equal to the total requirements for retail, based on the potential market

Producer Supply and Cultivation

Is the supply capacity greater than, less than or equal to the supply required to support current demand and for future growth?

Is the supply capacity that is utilized greater than less than or equal to the total amount of supply required in a given area to support current demand and future growth

Processing

Are the number of licenses able to be supported in a given area based on sales market share? Or can other processors already support the total demand in a market?

Is the amount of available raw material sufficient to support the processing market? Are procedures in place to avoid or detect the importation of raw materials from illicit channels?

Summary: Answers to These Questions will Identify Gaps and Help Determine Gap Mitigation Strategies

The answers to the retail, supply and processing questions above will determine the level of future licensure. It will also be the basis for discussions on license strategy. If there are too many licenses in a given area, discussion can center around how this is impact consumer and operator behavior. These discussions can serve to help provide guidance on enforcement and compliance. If there are too few, there is opportunity for additional license issuance.

If the supply is in excess on one area of the state but lacking in another, how should the supply be balanced or equally distributed? Or, if supply is in line with the demand overall, but not regionally, do adjustments even need to be made? (A.k.a. if is not broken, and the system is working then there may not be a need to fix).

The key though, is that there is a strategy and data available to ascertain where things are in balance and where things are not. This will help focus the strategy on areas of concern that can help support public policy, regulatory and legislative objectives.

End of section…