



OREGON CANNABIS

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RETAIL SALES AND JOB CREATION

In Oregon's Burgeoning Cannabis Sector

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The economics of the retail cannabis sector in Oregon are very promising. This study has uncovered and highlights key indicators, including:

2,156
jobs

\$46M
in wages

initial market
of almost
\$300M¹

112%
sales increase from
“limited sales”

¹ Excluding concentrate, extract, or edible sales



JOB CREATION

IN THE

OREGON CANNABIS RETAIL SECTOR



2,156
NEW JOBS
CREATED

1,345
FULL TIME
EMPLOYEES

805
PART TIME
EMPLOYEES



JOB CREATION, ROBUST SALES AND A GROWING WAGE BASE
Oregon Cannabis Jobs Report





Executive Summary

As the Oregon Cannabis market comes into the light, there are several fundamental questions that arise when trying to ascertain the size and scope of the market. The researchers of this white paper were given the task of developing a scientifically based research analysis of the retail cannabis market. This exercise was the first of its kind in Oregon and the researchers took painstaking care to ensure it withstood scientific rigor. The key aspect of this white paper is that it is the baseline for future analysis to build upon. This team plans to extend this body of work to producers, processors and auxiliary businesses in future publications.

This study, called the Oregon Cannabis Jobs Report, was undertaken to provide a preliminary benchmark of the current status and future potential of the economic impact of the cannabis retail sector throughout Oregon. The cannabis retail sector at this stage of the industry's existence is limited to medical dispensaries and combined medical and adult use dispensaries. A survey was developed specifically to gather reliable and accurate data that would highlight key economic impacts of the cannabis retail sector including employment, sales, wages and expected growth for these businesses. The ultimate goal of this report is to inform the public policy discussion around Oregon's cannabis industry so that elected officials, community stakeholders and the general public can make pragmatic policy decisions based on data, and likely trends as the policy and business landscape continues to change on a seemingly day to day to basis. The legislative and regulatory environment is still dynamic, but is taking shape now that more data is becoming available.

The survey findings suggest that sales, employment and future prospects for growth are generally lower for medical only dispensaries than for medical/adult use dispensaries. These indicators are also affected by location where certain local government restrictions have only allowed already established medical dispensaries to continue to operate after passage of HB3400, but have not permitted new cannabis retail establishments to open.



Job creation for the industry as a whole stands at approximately 2,156 jobs, including both part time and full time. Wages generated by these jobs are expected to total approximately \$46 million in 2016. However, it should be noted that this estimate is based on sales levels in October 2015 and may be somewhat higher than what final wages will be once the market settles, given our estimate does not take into account the impact of the 25% tax on adult use sales. On the other hand, if Washington and Colorado are relevant indicators, adult use sales will continue to increase overall throughout this first year, and \$46 million in wages could be realized.

Forecasting employment growth using a model based on low, medium and high growth scenarios shows, respectively, 9%, 13% and 27% potential growth in cannabis retail jobs created by the end of 2017.

Many survey respondents expressed the wish to be able to provide benefits to their employees, but difficulties are presented from running predominantly cash businesses and having to pay higher risk premiums due to being cannabis businesses. Common challenges include uncertainty on how to classify employees for purposes of providing healthcare, paid time off or retirement benefits. We found, however, that 28% of all employees do receive some benefits, 45% of dispensaries offer benefits to full time managers, and 31% of dispensaries offer benefits to full time budtenders.

One of the key pieces of information we sought was a reliable comparison of sales in September 2015 to October 2015, or before and after the launch of adult use sales. We found that median total monthly sales for both types of dispensaries increased approximately 152%, from \$23,000 per dispensary in September to \$58,000 in October.

For the industry as a whole (medical and adult use combined), the estimated monthly sales statewide totaled nearly \$11 million for September 2015 and almost \$23 million for October 2015, representing a 112% increase month over month. The data also indicated that those dispensaries that sell to both patients and adult use consumers represent 96% of total sales across the retail market.

Using a low growth scenario to estimate the statewide economic impact of the retail cannabis industry by YE2017, we estimate that the wage and compensation effect will total almost \$100 million, the effect on the State's GDP would total over \$122 million, and the business income spending effect would total over \$196 million.



Oregon Cannabis Jobs Report Retail Cannabis Survey Results February 2016

Introduction – Why this study?

The Oregon cannabis economy has been thriving and mostly unregulated for quite some time. With the recent change in State law to allow for medical production and consumption and then limited adult use consumption, many questions have arisen about the nature of the Oregon cannabis market. Earlier estimates made by Whitney Economics, ECONorthwest, and the State Legislative Revenue Office have differed considerably, and there has not been a generally agreed upon baseline to use in making policy and business decisions. The key finding of this report is that the market is much stronger than might have been imagined, and the economic impact to Oregon is considerable. Specifically, the number of jobs that exist today within the retail sector justifies further analysis into the impact and growth of jobs in this and other sectors of the cannabis market. As other sectors of the market, such as production, processing, wholesaling and ancillary come online, we expect to see a steady increase in the jobs created to sustain the new cannabis economy in Oregon.

The purpose of the Oregon Cannabis Jobs Report is to gather data on the economic impact of regulated cannabis retail activity throughout the state where these businesses are currently allowed to operate. The research team utilized a randomized, representative survey and rigorous statistical analysis with the goal of providing state and local policy makers, cannabis industry members, advocates and the general public with reliable information on current sales, employment and the overall economic impact of the cannabis retail sector.

It is important to note that while the data collected is very preliminary, as it was gathered only in the first few months of adult use sales, we undertook it because no one else was collecting this information. Instead, the focus of the majority of research on the legal cannabis industry has been on potential negative public health impacts. These include changes in rates of DUIs, emergency room visits, teen use, crime rates and other negative health outcomes. Very little research has been done on cannabis businesses as drivers for job creation, tax revenue and economic growth...until now.

We assert that we have established a baseline of data as a jumping off point for additional, more in depth studies of the cannabis industry, including producers, processors and other ancillary businesses, that for resource and time constraints could not be included in the scope of this project.



Survey Sample and Methodology

Between December 9, 2015 and January 16, 2016 the Oregon Cannabis Jobs Report conducted a telephone and online survey of cannabis dispensaries registered with the Oregon Health Authority (OHA) throughout the State of Oregon. All survey data was collected confidentially and anonymized with no identifying information, including dispensary business names or employees' names, recorded or associated with responses to the survey questions.

The survey sample included dispensaries categorized by the OHA as serving medical patients only or serving both medical patients and adult use² consumers. The source of the sample was the Directory of Registered Dispensaries maintained by the OHA that was current as of November 29, 2015.³ The number of medical only and medical/adult use dispensaries were 49 and 292, respectively.

Overall, we achieved a 55% response rate. Broken down by medical and medical/adult use, the response rates were 24% and 57%, respectively.

When adjusted for closures (see below), the response rates improved to 37% for medical only and 59% for medical/adult use.

The margin of error for survey results is +/- 10%.

Shifts in the Retail Market

During the course of the survey, we discovered that at least 22 or 11% of the dispensaries in our sample had closed or been unable to open. For the majority, we were unable to discern a reason for the closure or inability to open, but at least 6 of the dispensaries were either unable to open at all or closed after commencing business due to the passage of local or county government restrictions on cannabis businesses.

For medical/adult use dispensaries in our sample, 4% had closed or never opened and 35% of medical only dispensaries had closed or never opened (46 to 30). We also found that many of the dispensaries listed on the OHA site as "Medical Only" had, in fact, converted to serving both types of consumers.

² "Adult Use" is the term preferred by the cannabis industry and is used in this report throughout instead of the term "recreational"

³ <http://www.oregon.gov/oha/mmj/Pages/directory.aspx>



Job Creation and Ownership – 2,156 New Jobs Created

On average, ownership of dispensaries is shared by at least 2 individuals. Current industry wide median employment is 3 full time employees (FTE) and 2 part time employees (PTE) per dispensary. Industry wide employment totals are approximately 1,347 FTEs and 808 PTEs, for a total of 2,156 new jobs created in the retail sector of the industry from its inception in 2013 to 2015. FTEs currently constitute about 63% of the entire dispensary workforce.

Separating out medical and medical/adult use shows that for those dispensaries identifying as medical only, current FTE is estimated at 70 and PTE at 125 for a total of 195 employees for medical only dispensaries, putting FTEs at about 36% of total employment in this subsector. (See Table 1.)

Table 1. Estimated Current Employment

	Full Time	Part Time	Total	% Full Time
Medical Sales Only	70	125	195	35.8%
Medical & Adult Use Sales	1,277	683	1,961	65.1%
Industry-Wide Totals	1,347	808	2,156	62.5%

In order to forecast potential job growth in the cannabis retail sector, three scenarios were modeled based on the following assumptions: a low growth scenario of 850 total licenses issued by OLCC, a medium growth scenario of 880 total licenses issued by OLCC, and a high growth scenario of 984 total licenses issued by OLCC. The number of dispensaries in these growth scenarios were calculated by Whitney Economics based on an economic analysis of growth, supply and demand, and statements from OLCC. In each scenario we assume 38% of all licenses issued are retail licenses. Based on trends toward medical/adult use, we added an expected 5.3% of medical only dispensaries.⁴ (See Table 2.)

Table 2. Employment Growth Scenarios By Year End 2017

Scenario	Total Dispensaries	Full Time	Part Time	Totals	Incr. Over Current
Low	340	1505	852	2357	9%
Medium	367	1558	882	2440	13%
High	394	1743	986	2729	27%

The projected number of licenses issued by OLCC was taken from OLCC representatives' estimations and observance of the number and type of applications filed as of the writing of this report and updated regularly on OLCC's website.⁵

⁴ Based on no co-location

⁵ http://www.oregon.gov/olcc/marijuana/Documents/mj_app_stats_by_county.pdf, accessed 2/2/2016.



Hiring Stimulated by Adult Use Sales – The Ramp Up Begins

The majority of dispensaries surveyed (74%) responded positively when asked if they hired more employees as a result of the October 1 launch of adult use sales. Seventy-one percent of medical/adult use dispensaries responded that they hired more employees while only 3% of medical only dispensaries hired more employees. Industry wide, an estimated 450 additional FTEs and 423 PTEs were hired, again with the bulk of these in medical/adult use dispensaries (447 FTE and 374 PTEs). Using the current estimated industry wide employment total referenced above of 2,156 employees, October 1 adult use sales appear to be responsible for a 40% jump in hiring in the cannabis retail subsector. Dispensaries do seem to be able to quickly and nimbly adjust employment to reflect sales volume.

Future Planned Hiring

Almost 74% of all dispensaries surveyed planned to hire more employees in 2016 with 47% planning to hire in the first quarter of the year and the majority of these first quarter hires being PTEs. We estimate that medical only dispensaries will hire a total of about 26 PTEs and no FTEs, while medical/adult use dispensaries will hire about 172 FTEs and 240 PTEs for total planned, or anticipated, job creation of 412 positions throughout the retail sector in the first three months of 2016. Note that these estimates are valid only if sales remain at levels comparable to or greater than the last quarter of 2015.

Wages and Compensation

Positions most common to cannabis dispensaries are Budtender and Manager and are filled with both full time and part time employees. The majority of employees, including part time managers, are paid on an hourly basis. Approximately half of full time managers are salaried.

Full time budtenders earn, on average, about \$13/hour and part time budtenders earn, on average, about \$12/hour. Average wages for full and part time managers were difficult to estimate given wide ranges in the data. Survey responses indicated that hourly wages ranged from \$11/hour to \$25/hour for full time managers and \$11/hour to \$22.50/hour for part time managers.

Other positions include office manager, receptionist, and IT manager with those positions being predominantly full time and paid, on average, about \$13/hour.



Job Creation in the Cannabis Sector vs. Other Economic Sectors

In keeping with the purpose of this report to provide and document preliminary economic activity and the impact of cannabis retail in the state, we compared the level of job creation in cannabis retail with that of the beer, wine and liquor retail sector in Oregon. We believe beer, wine and liquor to be the most appropriate retail subsector for comparison, acknowledging the fact that beer, wine and liquor retail, unlike cannabis, has the advantage of having a long history of industry classification and economic activity tracking.

Using the most recent figures available, the Oregon Employment Department reports that in September 2015, beer, wine and liquor retail stores (private) employed 1,450 individuals compared to 2,156 in cannabis dispensaries. Wages generated by the beer, wine and liquor retail stores totaled slightly over \$28 million in 2014 and we estimate that wages generated by cannabis retail could total almost \$46 million in 2016.⁶

Barriers to Employment and Provision of Benefits

We found that 28% of all employees working for dispensaries in our sample do receive some benefits. Further, 45% of dispensaries offer benefits to full time managers and 31% of dispensaries offer benefits to full time budtenders. However, anecdotally, we learned of the difficulties facing dispensaries in how to classify employees and the barriers to providing benefits like healthcare, paid time off, retirement plans and other supplemental compensation. Since most banks refuse to open accounts for cannabis businesses, some dispensaries opt to pay employees in cash. Other dispensaries choose to hire from temporary employment agencies that handle wage reporting and other state and federal requirements. A number of dispensaries function as cooperatives with shared ownership and work responsibilities.

While the lack of banking services and illegal federal status of cannabis present significant barriers to providing retirement, healthcare and other benefits to employees, and make it difficult for dispensaries to navigate these issues, many consistently expressed the desire to provide such additional compensation.

Sales

For the month of September 2015, the median total monthly sales amount for all

⁶ [https://www.qualityinfo.org/ed-ewind/?at=1&t1=1-4101000000-50-5-1021-44-44531-0000-00](https://www.qualityinfo.org/ed-ewind/?at=1&t1=1-4101000000-50-5-1021-44-44531-0000-00;); (NAICS 44531) Beer, Wine, and Liquor Stores, Private Oregon (accessed 2/10/16).



dispensaries was approximately \$23,000 per dispensary.⁷ In October, after the launch of adult use sales, the median monthly sale amount more than doubled to \$58,000, an increase of 152%.

For the industry as a whole, we estimate that monthly sales totaled nearly \$11 million for September 2015 and almost \$23 million for October 2015 representing a 112% increase month over month. Breaking down sales between medical only and dispensaries that converted to medical/adult use, dispensaries that remained medical only saw sales decline from September to October by 13% from just over \$1 million to about \$875,000 month over month. From the data we collected, it is not possible to determine the exact reasons for the decline; however, some of this decrease may be attributable to the availability of cannabis directly to patients from producers/caregivers as a result of the harvest of outdoor⁸ grown cannabis that occurs in the fall. The data does indicate that those dispensaries that sell to both patients and adult use consumers represented 96% of sales across the retail market in October 2015. (See Table 3)

Table 3. Sales Estimates

	Dispensaries (September)	Sales (September)	Dispensaries (October)	Sales (October)
Medical Sales Only	32	\$1,008,000	32	\$876,266
Medical & Adult Use Sales*	273	\$9,823,505	281	\$22,094,601
Industry-Wide Totals	305	\$10,831,505	313	\$22,970,868

*In September, these dispensaries sold to medical patients only, but in October converted to limited sales. They are retroactively categorized for the purposes of comparison.

Expected Economic Impact

Using IMPLAN⁹ economic analysis software, we estimated the potential impact of cannabis dispensaries in Oregon communities. We used IMPLAN estimates for 2017 when we anticipate the industry will be more stable. Because the Oregon Employment Department is classifying adult use dispensaries under NAICS Code 453998, described as “All Other Miscellaneous Store Retailers (except Tobacco Stores)”, we used this sector classification for the IMPLAN analysis.¹⁰

⁷ Not all dispensaries were willing to provide information on sales; this amount is based on 81% of the total respondents.

⁸ For purposes of this report, the term “outdoor” is used to describe cannabis not traditionally grown in a climate controlled greenhouse or indoors; however, we acknowledge that the preferred term is “sungrown”.

⁹ IMPLAN Group LLC, IMPLAN System (data and software), 16905 Northcross Dr. Suite 120, Huntersville, NC 28078

¹⁰ Nick Beleiciks, Oregon Employment Department, email message to Kelly Norman and two others, January 19, 2016, forwarded by Norman to authors (received January 28, 2016).



Table 4. Potential Economic Impact

Impact Type	Employment	Labor Income	Value Added	Output
Direct Effect	2,357	\$65,171,647	\$61,618,162	\$90,949,900
Indirect Effect	282	\$13,159,407	\$25,146,076	\$43,344,357
Induced Effect	482	\$20,637,631	\$35,341,370	\$61,803,217
Total Effect	3,121	\$98,968,685	\$122,105,608	\$196,097,474

Table 4 IMPLAN Definitions:

- Direct Effect* : Economic impact of cannabis dispensaries
- Indirect Effect* : Economic impact of other businesses engaged in business-to-business activities with dispensaries
- Induced Effect* : Economic impact generated by dispensary employees and proprietors spending labor income
- Employment* : Number of jobs
- Labor Income* : Wages and other compensation earned by employees and proprietors
- Value Added* : A measure of economic output; contribution to GDP, or the difference between gross sales minus the intermediate inputs of business operations
- Gross Output* : A measure of economic output; the difference between gross sales and the cost of goods sold, or gross retail margins

Conclusion

We believe Oregon’s cannabis retail sector is off to a strong start and that the potential for it to positively contribute to the health of the state’s economy and provide additional budgetary resources for key public services is significant.

It became evident early in our study that we were barely scratching the surface of the cannabis industry’s economic impact and how many jobs currently exist within the commercial industry today. While the scope of this study was limited to the retail sector, we will be conducting further economic analysis of all elements of the cannabis industry, including but not limited to production, processing, wholesaling and ancillary. This will provide a more complete picture of the jobs created, wage base, income tax revenue and other benefits generated for Oregon communities by this successful and growing business sector.



About the Authors

J. Hildegard Hinkel, MPH • J. Hildegard Hinkel is a writer, researcher and project manager with over 20 years experience in community health, health education, media and business. Her background includes research analysis on tobacco use and tobacco control policies in the United States and globally. Before starting a publishing company in 2012, Hilde directed and evaluated community health programs in Western New York, including a half million dollar project exploring how public media can be used to empower underserved communities to address health issues from the grassroots. As a public health advocate, Hilde participated in multiagency efforts to coordinate programs and service delivery in Buffalo, New York. Her published works span from popular articles in magazines and blogs to academic writings and quantitative research. Hilde has a Master in Public Health (State University of New York at Buffalo, 2009) and a BA with a concentration in Political Economy and Economics (The Evergreen State College, 1997). Hilde lives in Portland, Oregon.

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