

The Economic Contributions of the Cannabis Industry to La Plata County, Colorado



Final Report – February 2018

Prepared by

Information Services, Inc.

Durango, CO 81302

Phone 970.385.4897

dkgis@frontier.net

Prepared for

Local First

Durango, CO 81302

Phone 970.799.6618

www.local-first.org



Acknowledgements

This report would not have been possible without the generous financial support of the following businesses: Durango Organics, The Greenery, Durango Cannabis Company, Sweet CO2 Oil, Santé, Aurum Labs, and the Southwest Colorado Small Business Development Center.

Additional in-kind research and content support was provided by: Aurum Labs, Green Lab Solutions, The Durango Business Improvement District (BID), Marijuana Policy Group, Colorado Department of Local Affairs, Colorado Department of Revenue, Durango Organics, and Fort Lewis College.

Final thanks goes to the Board and staff of Local First for having the forward thinking leadership to organize, fundraise for, and complete this effort so that the community could have important economic data on the cannabis industry in order to make informed decisions.

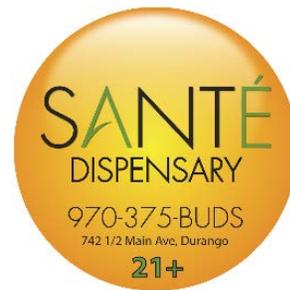


Table of Contents

Executive Summary	1
Introduction	2
Background	2
Local Regulations	3
Tax Revenues	3
Fees and Licenses.....	6
Other Sales Tax Initiatives.....	7
Business Spending Patterns	7
Employment Effects.....	9
Aurum Labs – A Case Study.....	11
Multiplier Effects.....	12
Visitor Demand	13
Other Considerations.....	14
Conclusions	14

List of Figures

Figure 1. Distribution of Marijuana Tax Revenue from the State of Colorado.....	3
Figure 2. Sales Tax and Fee Revenues 2015 – 2017.....	4
Figure 3. La Plata County Distribution of Marijuana Sales Tax Revenues.....	5
Figure 4. City of Durango Sales Tax Collections 2015 – 2017	5
Figure 5. City of Durango Fee Schedule	6
Figure 6. La Plata County Fee Schedule	6
Figure 7. Business Spending Patterns	7
Figure 8. Indoor Cultivation of Marijuana.....	8
Figure 9. Marijuana Testing Laboratory.....	8
Figure 10. Marijuana Bud trimmer	9
Figure 11. Edible Marijuana Products.....	9
Figure 12. NAICS Codes Associated with Cannabis Jobs	9
Figure 13. Wage Comparison 2016.....	10
Figure 14. Employment Multiplier Effects	12
Figure 15. Total Employment Effects in 2016 of the Cannabis Industry in La Plata County, CO.....	12

Executive Summary

Between January 2014 – when recreational marijuana stores first opened in Colorado – and December 2017, sales for medical and recreational marijuana in Colorado topped \$4.49 billion, with sales tax revenues of just under \$640 million. This report outlines the results of a 2017 study on the economic impact of the cannabis industry in **La Plata County, CO**.

The study finds that **\$27.7 million** in legal marijuana sales in **La Plata County** generated **\$36.9 million** in economic output, supported an estimated **351 jobs** resulting in **\$14.8 million** in labor income in 2016 (these data are not yet available for 2017).

\$27.7 Million
Total Sales in 2016
\$36.9 Million
Economic Output in 2016
351 Jobs
Employment Impact in 2016
\$14.8 Million
Labor Income in 2016

Although cannabis sales are not currently allowed in Bayfield or Ignacio, those towns receive a portion of the earned revenues collected by the county, as does the City of Durango.

Revenues from Cannabis Businesses in La Plata County, CO				
	2015	2016	2017	Cumulative 15 - 17
La Plata County	\$ 307,000	\$ 385,000	\$ 428,000	\$ 1,120,000
Durango	\$ 874,000	\$ 1,209,000	\$ 1,301,000	\$ 3,384,000
Bayfield	\$ 17,000	\$ 21,000	\$ 23,000	\$ 61,000
Ignacio	\$ 15,000	\$ 18,000	\$ 20,000	\$ 53,000
Sales Tax Revenues	\$ 1,213,000	\$ 1,633,000	\$ 1,772,000	\$ 4,618,000
*La Plata County	\$ 46,000	\$ 79,000	\$ 55,000	\$ 180,000
City of Durango	\$ 152,000	\$ 151,000	\$ 175,000	\$ 478,000
Licenses and Fees	\$ 198,000	\$ 230,000	\$ 230,000	\$ 658,000
Total Revenues	\$ 1,411,000	\$ 1,863,000	\$ 2,002,000	\$ 5,276,000

Rounded to nearest \$1,000

* 2017 licenses and fees through November 2017

The cannabis industry in La Plata County produced significant, and growing, revenues for state and local governments in 2015 – 2017, including **\$4.6 million in sales tax revenues** and **\$658,000 in licenses and fees**, totaling **\$5.2 million in revenues** during that time period.

Additional economic benefits also accrue from visitors/tourists that make purchases of other goods and services in the county, and from the cannabis businesses that make local charitable contributions.

The complex and costly cannabis fee and licensing structure varies widely at the state and local levels. Some local businesses have considered leaving the La Plata County area in search of a more competitive business environment if permitting costs continue to increase. Furthermore, high compliance costs act as barriers to local small business operators, thus promoting business consolidation and potentially reducing the economic benefits from the cannabis industry to La Plata County

This study was a first step in quantifying the economic impacts of the cannabis industry in La Plata County. Additional work is needed to continue to understand both the economic impacts of the industry as well as the steps that local governments can take to help support a growing industry, and ensure it continues to provide positive economic benefits.

Introduction

This report focuses on the economic contributions of the cannabis industry in La Plata County, CO to state and local governments, and the citizens of La Plata County, Bayfield, Durango and Ignacio. The economic contributions examined here include revenues from sales taxes, licensing and fees as well as employment and household spending. The purpose of this study is to quantify the economic contributions of the cannabis industry so that informed decisions can be made in regards to the industry's future in La Plata County.

Background

The cannabis industry includes stores that retail *medical* marijuana (by prescription only) and *recreational* marijuana. Currently, 29 states and the District of Columbia have legalized marijuana in some form. In general, the use of medical marijuana is increasing, particularly among people with chronic illnesses and pain. Organizations such as the National Cannabis Industry Association have worked toward increasing the legitimacy of medical marijuana use through the establishment of industry standards. These efforts have helped spur demand.

However, the legal sale of recreational marijuana is currently limited to the states of Alaska, California, Colorado, Maine, Massachusetts, Nevada, Oregon, Washington and Vermont. [Colorado Amendment 64](#), which was passed by voters on November 6, 2012, led to legalization in January 2014. At that time, legal recreational marijuana use became a reality in Colorado, stimulating demand for industry products as hundreds of retail stores opened throughout the year.¹ The development of edible cannabis products (edibles) has also spurred greater consumer acceptance of medical and recreational marijuana. Edibles can take the form of food, extracts and oils, ranging from marijuana-infused mints and candies to baked goods and beverages, among many other products. Edibles provide a more convenient and familiar product to consumers, thereby stimulating consumer demand for marijuana products that do not require smoking.

The industry has already seen substantial changes. When Colorado initiated regulations for the medical marijuana industry in 2010, the state adopted the 70/30 rule, which required retailers to grow 70% of the product they sold. The rule was designed to prevent licensed retail stores from sourcing their product from the black market. However, it proved to be a major challenge for smaller stores, resulting in less-than-ideal mergers between growers and retailers in a vertical integration structure.² **Vertical integration** is a strategy where a company expands its business operations into different steps on the same production path, such as when a manufacturer owns its supplier and/or distributor.

Up until 2014 only owners of licensed medical marijuana stores could apply for and obtain permits to run cannabis grow sites. Entrepreneurs therefore had to balance their time and money between grow sites and marijuana storefronts – which require different skills and expertise. Vertical integration is still required on the medical side, and has become stricter, with reduced ability to accumulate inventory.

With the newer recreational marijuana businesses not having the vertical integration requirement, owners can choose to devote their entire business to either growing cannabis for the industry, manufacturing cannabis based products, or selling it to consumers via storefront retail shops. Retail

¹ Oliver, Kelsey. 2017. Medical & Recreational Marijuana Stores. IBISWorld Industry Report OD4142. October 2017.

² Henterly, Lael. 2016. "The Vertical Integration Debate." *Marijuana Venture*, April 18, 2016. <https://www.marijuanaventure.com/vertical-integration-debate/>

stores can still grow their own cannabis if they want to, though inventory quantities are capped based on sales history. The wholesale market for cannabis could grow significantly as a result of the changes, since licensed recreational grows can now be a stand-alone business.

Local Regulations

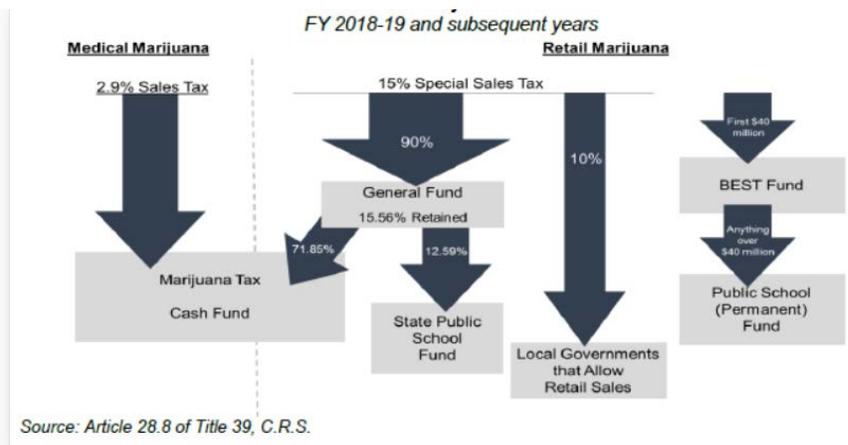
The La Plata County Board of County Commissioners approved revised medical and recreational marijuana regulations in June 2014.³ The new code added land-use rules for marijuana shops, licensing requirements, and fees for the addition of recreational marijuana businesses in the county. Currently, marijuana facilities are treated as a commercial business, needing a Class II land use permit, which requires a review process, a compatibility analysis, and possibly a neighborhood meeting.

The first recreational marijuana store opened for business in the City of Durango in September 2014. Marijuana business licensing in **Durango** requires both City and State approval, which is initiated at the local level by first obtaining a Limited Use Permit (LUP) from the City of Durango Community Development Department. Stores in unincorporated areas of the county require county and state approval. The Town of **Bayfield** is currently reconsidering its decision to ban retail sales of marijuana after residents pointed out the economic benefits that are accruing to neighboring towns.⁴ The Town of **Ignacio** has not yet rescinded its permanent ban on marijuana sales. However, the potential financial benefits continue to be discussed by town trustees.⁵

Tax Revenues

Between January 2014 – when recreational marijuana stores first opened in Colorado – and December 2017, sales for medical and recreational marijuana in Colorado topped \$4.49 billion, with sales tax revenues of just under \$640 million. Taxes on the cannabis industry are complex, and continue to change as the industry matures. Marijuana tax revenue is distributed by the state to a variety of funds.

Figure 1. Distribution of Marijuana Tax Revenue from the State of Colorado



The state’s 2.9% sales tax applies to medical marijuana. Sales tax revenue on medical marijuana is subject to the state’s constitutional spending limit (TABOR).

³ Mueller, Sarah. 2014. “La Plata County approves marijuana rules.” *Durango Herald*, June 10, 2014. <https://durangoherald.com/articles/74254>

⁴ Mazur, Melanie Brubaker. 2017. “Marijuana sales coming to Bayfield?” *Durango Herald*, December 20, 2107. <https://durangoherald.com/articles/200481>

⁵ McWilliams, Carole. 2016. “Ignacio again says no to marijuana businesses.” *Durango Herald*, October 27, 2016. <https://durangoherald.com/articles/111238>

Retail marijuana is currently subject to a voter-approved excise tax of 15% and a voter-approved special sales tax of 15%. Because they are voter approved, the marijuana excise tax and special sales tax are exempt from the state's constitutional spending limit.⁶

What does this mean in terms of actual taxes in La Plata County? The tax structure was revised by the state in July 2017 to include a 15% special sales tax in which the state share is 90% of the total tax collected, and the local government share is 10% of the total tax collected. For example, if there were a total of \$100 worth of **retail** marijuana sales reported by a business owner to the state in 2017:

- The state collected \$15 (15% special sales tax revenue), of which \$1.50 (10%) went to the local licensing authority, i.e. Durango, and \$13.50 (90%) was retained by the state
- The state collected, and disbursed to La Plata County \$2.00 (2% county sales tax)
- The City of Durango collected \$3 (3% city sales tax) - Durango is a home rule city and administers its own sales taxes.

Altogether, a total of \$20 (20%) was collected in state special sales tax, county and city sales tax per \$100 of retail marijuana sales in 2017. In addition to these taxes, there is a 15% excise tax on the wholesale transfer of retail marijuana. Excise tax is a state level tax which, according to the Colorado Department of Revenue (CDOR), cannot be summarized by county. It is imposed on the first sale or transfer from a retail marijuana cultivation facility to a retail marijuana store or retail marijuana product manufacturing facility.

Based on an examination of cannabis sales taxes, and licensing and application fees that are reported to the Colorado Department of Revenue, the cannabis industry in La Plata County and the City of Durango produced significant, and growing, revenues for state and local governments in 2015 - 2017.

Figure 2. Sales Tax and Fee Revenues 2015 – 2017

	2015	2016	2017	% Change
Total includes both medical and recreational marijuana sales	Total	Total	Total	2015 to 2017
¹ La Plata County Sales reported to the CDOR	\$ 21,592,776	\$ 27,020,459	\$ 27,798,516	29%
Colorado sales tax revenue	\$ 1,006,008	\$ 1,909,225	\$ 2,632,306	162%
License and application fee revenues are not available from the state	NA	NA	NA	
Marijuana Tax Revenues to Colorado	\$ 1,006,008	\$ 1,909,225	\$ 2,632,306	162%
Unincorporated La Plata County Sales	\$ 1,628,897	\$ 780,359	\$ 265,316	-84%
La Plata County earned sales tax revenue (2%)	\$ 412,638	\$ 516,926	\$ 575,312	39%
² Fees and Licenses	\$ 45,600	\$ 79,000	\$ 55,025	21%
Marijuana Tax and Fee Revenues to La Plata County	\$ 2,087,135	\$ 1,376,285	\$ 895,653	-57%
Total Sales reported to the City of Durango	\$ 19,963,897	\$ 26,240,100	\$ 27,533,200	38%
City of Durango sales tax revenue (3%)	\$ 598,925	\$ 787,203	\$ 825,996	38%
City of Durango sales tax revenue from state (.10 of 15%)	\$ 201,114	\$ 336,920	\$ 371,375	85%
Fees and licenses	\$ 152,250	\$ 150,500	\$ 175,025	15%
Marijuana Tax and Fee Revenues to Durango	\$ 952,289	\$ 1,274,623	\$ 1,372,396	44%

¹ Sales reported include unincorporated areas of the county and the City of Durango

² 2017 fees and licenses to LPC through Nov. 2017, a final, year-end figure will be available in June 2018

⁶ Silbaugh, Larson. 2017. Memorandum on Marijuana in the State Budget. November 17, 2017. <http://leg.colorado.gov/publications/marijuana-revenue-state-budget>

The sales tax revenues returned to the county from the state are distributed as shown in the following table. **Although cannabis sales currently are not allowed in Bayfield or Ignacio, those towns receive a portion of the earned revenues collected by the county, as does the City of Durango.**

Figure 3. La Plata County Distribution of Marijuana Sales Tax Revenues

Year	Revenue	La Plata County (74.45%)	Durango (18%)	Bayfield (4%)	Ignacio (3.55%)
2015	\$412,638	\$ 307,209	\$ 74,275	\$ 16,506	\$ 14,649
2016	\$516,926	\$ 384,851	\$ 93,047	\$ 20,677	\$ 18,351
2017	\$575,312	\$ 428,320	\$ 103,556	\$ 23,012	\$ 20,424

As noted previously, Durango is a home rule city and administers its own sales taxes, which are 3%. Sales tax revenue collected by Durango from the cannabis industry totaled almost \$826,000 (3.6% of total collections) in 2017. To provide some perspective, that exceeds revenues from some other business types such as liquor stores, construction, furniture and appliances, professional services and amusement venues, as shown in Figure 4.

Figure 4. City of Durango Sales Tax Collections 2015 – 2017

City of Durango Sales Tax Collections						
Business Type	2015		2016		2017	
	Sales Tax Revenue	% of Total	Sales Tax Revenue	% of Total	Sales Tax Revenue	% of Total
Construction	\$ 129,428	0.6%	\$ 161,918	0.7%	\$ 105,967	0.5%
Utilities & Telecom	\$ 1,329,593	5.9%	\$ 1,299,230	5.7%	\$ 1,285,417	5.5%
Hardware & Lumber	\$ 1,886,773	8.4%	\$ 1,919,818	8.4%	\$ 2,041,506	8.8%
Grocery & Drug	\$ 3,568,601	15.9%	\$ 3,649,943	15.9%	\$ 3,647,286	15.6%
Department Stores	\$ 3,669,801	16.2%	\$ 3,630,820	15.8%	\$ 3,699,762	15.9%
Furniture & Appliances	\$ 176,328	0.8%	\$ 158,670	0.7%	\$ 169,203	0.7%
Restaurants & Taverns	\$ 3,033,330	13.6%	\$ 3,132,450	13.6%	\$ 3,173,311	13.6%
Liquor Stores	\$ 679,693	3.0%	\$ 693,938	3.0%	\$ 704,173	3.0%
Sporting Goods	\$ 675,197	3.0%	\$ 651,790	2.8%	\$ 569,069	2.4%
Gifts & Galleries	\$ 622,279	2.8%	\$ 567,625	2.5%	\$ 513,867	2.2%
Misc Retail	\$ 1,814,943	7.8%	\$ 1,951,610	8.5%	\$ 2,107,017	9.0%
Hotels & Motels	\$ 1,592,054	7.4%	\$ 1,690,606	7.4%	\$ 1,713,006	7.3%
Professional Services	\$ 300,936	1.3%	\$ 293,986	1.3%	\$ 314,501	1.3%
Equipment Sales, Leases	\$ 617,223	2.8%	\$ 566,118	2.5%	\$ 555,840	2.4%
Automotive	\$ 1,393,889	6.1%	\$ 1,516,931	6.6%	\$ 1,585,655	6.8%
Amusement	\$ 84,598	0.4%	\$ 87,134	0.4%	\$ 96,678	0.4%
Retail Marijuana	\$ 424,446	1.9%	\$ 643,273	2.8%	\$ 716,160	3.1%
Medical Marijuana	\$ 174,479	0.8%	\$ 143,930	0.6%	\$ 109,836	0.5%
Other	\$ 245,190	1.1%	\$ 226,855	1.0%	\$ 221,688	1.0%
TOTALS	\$ 22,418,781	100%	\$ 22,986,645	100%	\$ 23,329,942	100%

According to the Director of the Durango Business Improvement District, revenues to the City of Durango through sales tax collections on the cannabis industry are a welcome addition, especially since some retail sectors are declining.

“The addition of retail marijuana stores has produced more sales tax collections for our City. In the Central Business District (CBD), this industry has grown to the sixth largest in just three years. The stores in the CBD have contributed over \$600,000 in sales tax revenue over the three years this industry has been allowed. For the entire city, nearly \$1.75 million in new sales tax has been created by this industry. The industry has seen rapid growth, with double-digit increases for many months. Interestingly, midway through 2017, we began to observe a slowdown in the growth, and by the end of the year we observed some decreases in total sales in the CBD”.⁷

Fees and Licenses

While states provide a legal avenue for dispensaries to open, regulations are extensive and costly for prospective operators. There is a very complex fee and licensing structure, which varies widely at the state and local levels. **For example, a testing laboratory in Gunnison pays \$3,000 for a first-year license, while the same license costs \$20,000 in Aurora, and \$10,000 in Durango.** Businesses that operate in both medical and retail arenas pay double the fees. A case study from Aurum Labs, a testing laboratory in La Plata County (presented later in this report, p.11) highlights how the fee and licensing structure could serve to drive businesses out of the local area towards more favorable operating conditions.

Figure 5. City of Durango Fee Schedule

Durango (all types included)	First Year	Annual Renewal
Application Fee	\$ 2,500	
Operating Fee	\$ 5,000	\$ 5,000
License Fee	\$ 2,500	\$ 3,000
Total	\$10,000	\$ 8,000

Fees and Licenses accruing to the City of Durango from the cannabis industry totaled \$152,250 in 2015 and grew by 15% to \$175,000 in 2017.⁸

When a business applies to the state for a new license, they are charged an initial application fee, a portion of which is returned to the city or county of application.⁹ Fees and Licenses accruing to the county from the cannabis industry totaled \$45,600 in 2015 and grew by 20% to \$55,000 in 2017 (through November 2017, a final revenue report for 2017 is expected in June 2018).

Figure 6. La Plata County Fee Schedule

La Plata County	Medical	Retail
Application Fee	\$ 1,000	*portion from state
License	\$ 3,000	
Operation Fee		\$ 3,500
Annual Renewal Fee	\$ 3,000	\$ 3,000

The county charges a variety of fees based on the **type** of business, i.e. retail store, testing facility.¹⁰

* depends on type of business

⁷ Tim Walsworth – Executive Director of the Durango Business Improvement District, Personal communication via email 1-24-2018).

⁸ Personal communication from City of Durango Clerk’s Office. 970-375-5013.

⁹ MED Application and Licensing. Fee Schedule January 24, 2018.

<https://www.colorado.gov/pacific/sites/default/files/MED%20Fee%20Table%20Color%20Jan%2024-2018%20.pdf>

¹⁰ La Plata County Code – Appendix A – Fee Schedule. January 30,2018.<http://online.encodeplus.com/regs/la-plata-co/doc-viewer.aspx#secid-1831>additional tax burden to the marijuana industry.

Other Sales Tax Initiatives

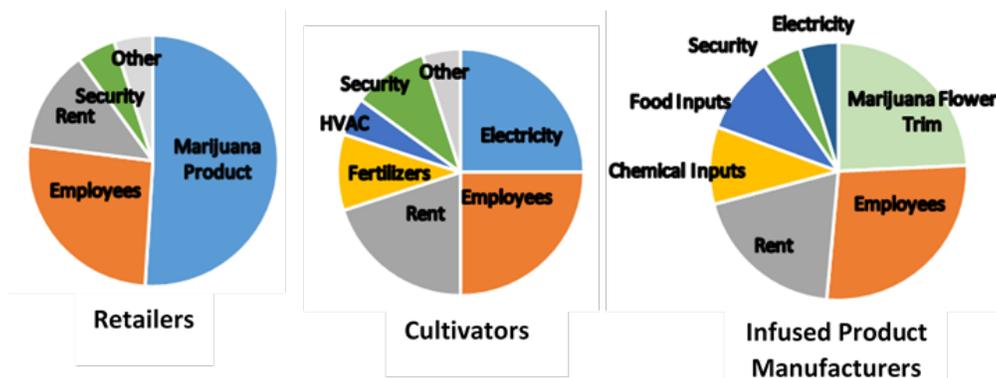
In the 2017 legislative session, lawmakers passed a bill allowing counties to levy, with voter approval, a sales tax on retail marijuana within their jurisdictions. The enabling legislation allows counties to collect tax on sales that transpire in municipalities within their jurisdictions, provided that the municipality does not have its own special sales tax – which would nullify the county’s collection ability within the municipality unless the two jurisdictions enter an intergovernmental agreement delineating how the revenue would be shared.

In June 2017, the La Plata County Board of County Commissioners (BOCC) directed their staff to research these taxes as a potential way to generate revenues for the county. **Ultimately, the BOCC did not move to take further action on the excise tax issue out of concern that the financial benefits to the county would not be sufficient to offset any negative impacts of adding an additional tax burden to the marijuana industry.**¹¹ The Durango City Council also directed their staff to explore alternate revenue sources. In August 2017 there was a public hearing that provided the marijuana industry an opportunity to express their perspective on an additional excise tax (proposed as 5%). After hearing their input, the City Council decided not to pursue this revenue option. Unless the City Council directs staff in the future, this item is not moving forward.¹²

Business Spending Patterns

Although detailed industry spending data was not collected for businesses in La Plata County for this report, a recent (2016) statewide analysis by the Marijuana Policy Group (MPG) can reasonably be applied here. They estimated business spending patterns for each industry segment, including: retailers, cultivators, and infused product manufacturers. MPG found that since marijuana is largely a cash-only business and is confined within the state, most of the cash accrues directly to local cultivation and manufacturing. Financial services are limited, and instead funds are spent on security and cash transportation services, such as armored vehicles. The largest spending category for retailers is the product itself (marijuana flowers) followed by employee payrolls, business rent, security services, compliance, and consulting services.¹³

Figure 7. Business Spending Patterns



¹¹ Personal email communication with Megan Graham - Public Affairs Officer for La Plata County. 12-15-2017.

¹² Personal email communication with Ron LeBlanc - City Manager of Durango. 2-6-2018.

¹³ Light, Orens, Rowberry and Salaga. 2016. "The Economic Impacts of Marijuana Legalization in Colorado". *The Marijuana Policy Group*. October 2016. <http://www.mjpolicygroup.com/pubs/MPG%20Impact%20of%20Marijuana%20on%20Colorado-Final.pdf>

Figure 8. Indoor Cultivation of Marijuana



Cultivation in Colorado is almost exclusively indoors, with the exception of an outdoor grow operation in Pueblo.¹⁴ Electricity and HVAC are the largest portion of spending, next to fertilizers, pesticides, and other agricultural inputs. Payrolls round-out the largest components of spending for cultivators.¹⁵

Infused product manufacturers purchase marijuana trim and flower as the primary input to production, followed by other food products, then machinery rents, payrolls, warehouse rental (or imputed rent), security and cash management services, and chemicals.

Figure 9. Marijuana Testing Laboratory



In addition, all three segments of the marijuana industry have increased their spending on product safety and testing services. Firms in Colorado are now required to test for potency and product safety, including pesticide residue and other harmful chemicals.¹⁶

Ancillary demand for specialized legal and other consulting services, i.e. investment banking and business valuation is also growing as the industry matures.

¹⁴ Schaneman, Bart 2017. "Colorado marijuana companies brace for flood of cannabis from outdoor grows." *Marijuana Business Daily*. August 24, 2017. <https://mjbizdaily.com/colorado-marijuana-companies-preparing-upcoming-outdoor-harvest/>

¹⁵ Photo from <https://www.scpr.org/news/2017/11/07/77490/california-proposes-armored-cars-to-transport-pot/>

¹⁶ Photo from https://www.lablynxpress.com/index.php?title=Starting_a_Cannabis_Testing_Lab

Employment Effects

According to the MPG report (2016) each segment of the marijuana business has a unique employment profile. Retail stores and dispensaries hire sales clerks, called “bud-tenders,” followed by back-office staff that performs data-entry and general business administration.

Figure 10. Marijuana Bud trimmer



Cultivators employ “trimmers” — individuals who hand-trim the marijuana buds from the leaves — as well as agronomists and back-office workers for data-entry and compliance. Since many firms in Colorado are vertically-integrated, it is difficult to pinpoint specific roles for some company workers, as they transition between different posts. For example, a retail worker may also provide data entry and compliance services during the mid-day hours, but then transition into the bud-tender role and serve patrons during the peak hours of operation.¹⁷

Figure 11. Edible Marijuana Products



Manufacturers and edibles companies hire “chefs” and other factory floor staff, while concentrates manufacturers primarily hire machine operators.¹⁸

Figure 12. NAICS Codes Associated with Cannabis Jobs

Marijuana -- Medical	
Baked Goods	325412
Caregivers	621610
Chemical Extracts/Oils/Tinctures	325411
Dispensary	621399
Marijuana -- Retail	
Edibles and Tinctures Manufacturing	325411
Grow Operations	111419
Retail Shops	453998
Wholesaler of whole leaf	424590
Wholesalers of infused products	424990

It is important to note that cannabis businesses report their number of employees, and wages paid, under an existing NAICS code.¹⁹ The six digit codes that are typically associated with jobs in the marijuana industry are shown in Figure 12.

¹⁷ Photo from https://www.wyomingnews.com/news/report-medical-marijuana-program-could-cost-wyoming-money/article_3826a1dc-0d06-11e6-9e6e-df399ddfb32f.html

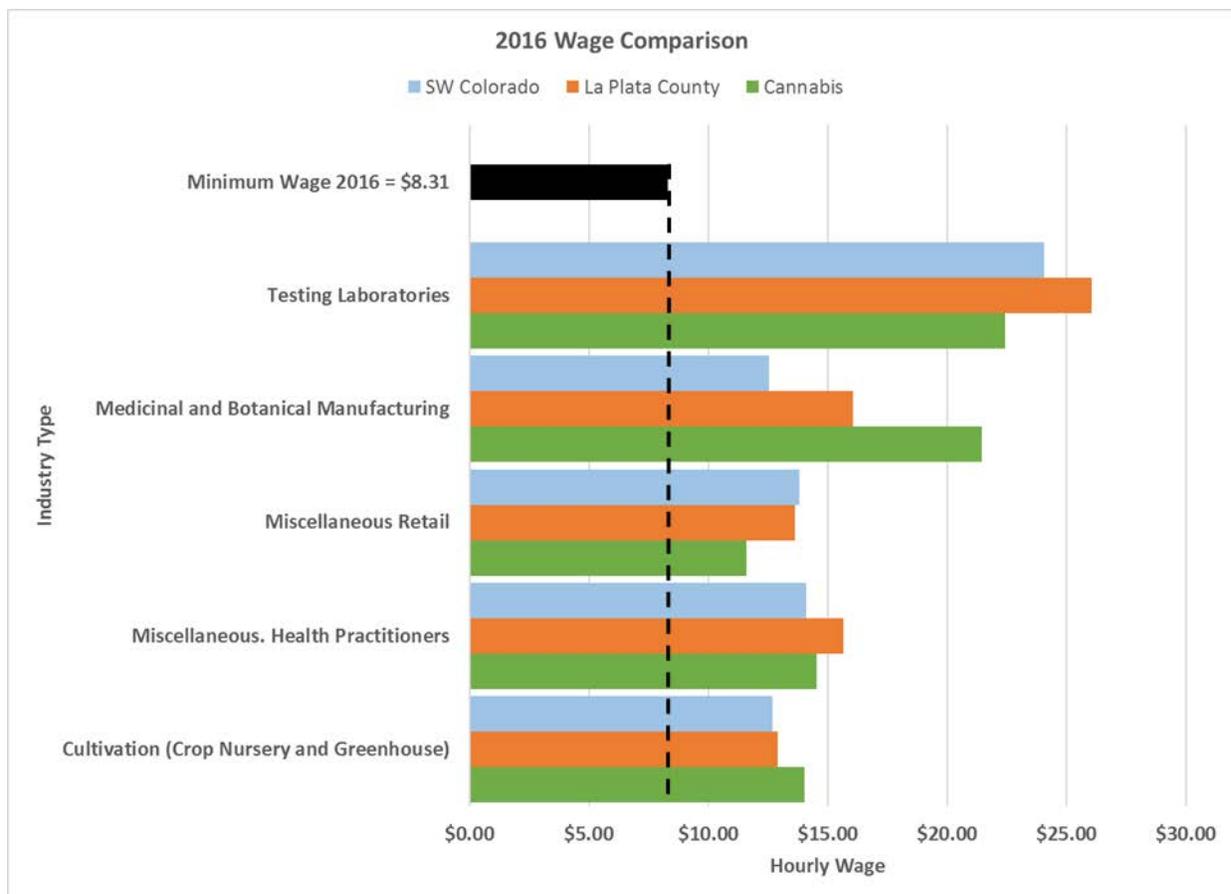
¹⁸ Photo from <http://www.kitchendivine.com/marijuanacandymolds/>

¹⁹ The North American Industry Classification System (NAICS) is the standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy. <https://www.census.gov/eos/www/naics/>

Finding the businesses to include in this analysis was problematic as the tradename of a business may be different than the company name being reported in the data supplied to Labor Market Information (LMI) from unemployment insurance filings. And, if a business has multiple stores in different counties, they may not show up in the La Plata County dataset. Labor Market Information (LMI) does not have the authority to require a company to report its employees at its multiple locations - LMI can ask them, but the company may or may not comply with this request. Luckily this was only the case for two stores in our study. To remedy this, we made calls to corporate headquarters and/or talked to store managers to get an estimated number of employees at each store for 2016. **Details regarding the numbers of jobs and wages paid by local companies in 2017 are not available until July 2018.**

MPG (2016) has suggested that standardized NAICS codes be developed for the cannabis industry in order to integrate marijuana activities into the overall economy. In this way, the production activities for each marijuana segment can be connected with the rest of the Colorado economy. NAICS codes are updated every 5 years by the Federal Office of Management and Budget (OMB). They were just recently updated in 2017, so the next possible chance for an update that will include marijuana is 2022.

Figure 13. Wage Comparison 2016



Wages in the cannabis industry are comparable to, or better than, wages in other types of industries in La Plata County, and were much better than the state mandated minimum wage of \$8.31/hr in 2016. This varied by industry segment. Some of the more specialized employment sectors include testing labs, which provide jobs with good wages and benefits. However these businesses, including Aurum Labs, face a number of barriers and challenges to doing business locally. We found their story to be compelling, so have included a case study here.

Aurum Labs – A Case Study

Aurum Labs provides third party testing services to cannabis cultivators and producers.²⁰ Testing ensures that products being sold to consumers are compliant with all relevant health and safety criteria. Aurum Labs is the only Marijuana Testing Facility on the Western Slope capable of providing all mandated testing services (Potency, Terpene, Residual Solvent, Microbiological, and Pesticide Residue testing). Currently, all the other existing fully certified marijuana laboratories are in Denver.

Aurum Labs currently has 15 highly educated and specialized employees and believes in providing a fair, livable wage and a good quality of life for their employees, and attempts to hire local first. They have employed a number of FLC alumni/graduates (7 currently) in the last three years. They have five salaried employees with an average wage of \$55K/year and 10 hourly employees with an average wage of \$15.50/hr. In addition to offering annual, sick and family medical leave, they provide a minimum of 50% contribution towards employee's health insurance premiums.

Over the last four years, Aurum Labs has faced a number of barriers and challenges to doing business in Durango. They were the first lab to work with the City of Durango to allow Marijuana Testing Facilities within the city limits adding time and cost to the bottom line. Also, there is an extremely high overhead to run such a highly regulated, quality control laboratory. Analytical Instrument leases and employee compensation make up a major portion of the costs, with license applications and renewal fees close behind.

Currently, Aurum must have a Medical and Retail License from the State, each approximately \$1,800. Occupational license renewals annually cost another \$1,500 - for a total of \$5,100 in State license fees. Medical and Retail licenses from the City of Durango cost \$8,000 each, for a total of \$16,000 total just to operate in Durango. In total, that is over \$20,000 in license fees alone. Most business licenses in other industries are often under \$500.

Aurum Labs is one example of a cannabis-related business that plays a crucial health and safety role in the industry, and, who, if permitting costs continue to increase, may have to consider leaving the area in search of a more competitive business environment. Other businesses have expressed this same concern at both the city and county level and are looking at relocating their businesses due to excessive permitting costs.

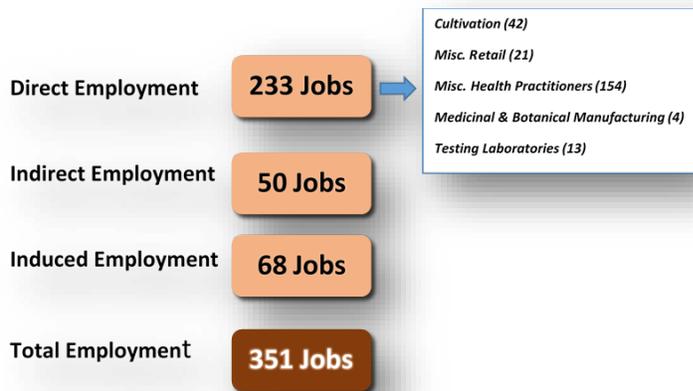
In addition, the loss of Aurum Labs to the region could result in cannabis companies going to Denver labs for particular types of testing that are not currently available in Durango or on the western slope. Aurum Labs would like to see fair permitting processes and fees at the city and county level that support this growing industry, keeping money recirculating locally.

²⁰ <https://www.aurum-labs.com/>

Multiplier Effects

Based upon data derived from quarterly unemployment insurance (UI) filings, there were 15 cannabis related establishments operating in La Plata County in 2016, employing an estimated **233 direct jobs**. These employees were directly involved with the marijuana business — either in stores and dispensaries, cultivations, infused product manufacturing operations or testing laboratories.

Figure 14. Employment Multiplier Effects



IMPLAN Economic modeling²¹ allows us to assign an additional **50 indirect jobs** supported by intermediate input purchases made by the cannabis industry for general business goods and services. These ancillary jobs include commercial real-estate agents, construction and HVAC specialists, consulting, legal, and advisory services, and other business services.

Induced employment is generated when direct and indirect employees and proprietors spend their income on local housing, food and entertainment, supporting an additional **68 jobs**. Altogether, an estimated **351 jobs** are supported by the cannabis industry in La Plata County.

IMPLAN also estimates other economic indicators related to employment in the various sectors, including:

- **Labor Income** includes employee wages, salaries, and payroll benefits as well as proprietor (owner) income.
- **Economic Output** is a measure of the total estimated value of the production of goods and services supported by sales made by the industry. Output is the sum of all intermediate sales (business to business) and final demand (sales to consumers and exports). There is very little economic leakage to other states from this industry.

Figure 15. Total Employment Effects in 2016 of the Cannabis Industry in La Plata County, CO.

Impact Type	Jobs	Job Income	Economic Output
Direct Effect	233	\$ 10,140,000	\$ 22,185,000
Indirect Effect	50	\$ 2,005,000	\$ 6,295,000
Induced Effect	68	\$ 2,678,000	\$ 8,497,000
Total Effect	351	\$ 14,823,000	\$ 36,977,000

\$ Rounded to nearest \$1,000

These numbers are expected to increase for 2017 based on the number of facilities (18) licensed by the state. However, that data will not be available until July 2018.

²¹ IMPLAN. The framework for this analysis is the IMPLAN software and data system developed by the IMPLAN Group LLC. IMPLAN is a widely used input-output modeling system. This analysis uses IMPLAN version 3.1 software with 2015 county, state, and national-level data. Economic effects are reported in 2016 dollars.

Visitor Demand

A study commissioned by the Colorado Tourism Office (2015) showed legal marijuana as a growing motivator for trips to Colorado.²² Surveys in October and November of potential summertime visitors who were exposed to the state's tourism ads revealed that the marijuana laws influenced vacation decisions nearly 49% of the time. But the survey's director said the questions may not have captured the opinion of people who opted out of Colorado travel because of legal pot. And, only 8% of the Colorado tourists who responded to the survey said they visited a marijuana dispensary.

In the latest wave of research (the winter 2016 survey from Strategic Marketing Research Insights, the firm hired by the Colorado Tourism Office), 7% of visitors said it's a motivator to travel here, and 12% said they've actually visited a shop while in-state (even if they don't necessarily make a purchase).

"I think definitely the laws are having an influence when people are considering Colorado. We can see that it's still not a large percentage in terms of what people are doing, but it's become more of a motivator for those who want to do it," said Denise Miller, director of tourism surveys for Strategic Marketing and Research Insights (SMARI), as she presented the midyear update to the tourism office's Board of Directors. "It's certainly having some influence — both, I think, positive and negative — on that decision process."²³

Locally, Dr. Lorraine Taylor, Assistant Professor of Management at Fort Lewis College, has conducted considerable research on Southwest Colorado's tourism industry as influenced by the introduction of marijuana.²⁴ In her multi-year research, Taylor surveyed a number of Durango dispensaries, and hundreds of cannabis customers, including both tourists and residents.

Her findings were that about 20% of customers were coming to town on day trips from northern New Mexico (80% were visiting for other reasons, from other locales). One survey question asked, 'How long are you staying?' and many answered "20 minutes," Taylor recalls. "Here in Durango, we see a lot of day trips where people just cross the state line to make a purchase, then leave." Taylor's data also indicates that the location of a dispensary matters far more to tourists than the quality of products or customer service.

According to a recent article, Colorado's southern border communities led the state in 2017 per-capita cannabis sales. Las Animas led the state in per-capita sales at \$3,118, followed by neighboring Costilla County at \$1,036. Montezuma County was fifth at \$735, according to calculations utilizing Colorado Department of Revenue sales data and Colorado State Demography Office population estimates.²⁵

La Plata County per-capita sales are estimated to be about \$500 (not included in the article). The mountain communities of Ouray and Summit county tallied the third and fourth highest per-capita sales

²² Blevins, Jason. 2015. Marijuana has huge influence on Colorado tourism, state survey says." *The Denver Post*, December 9, 2015. <https://www.denverpost.com/2015/12/09/marijuana-has-huge-influence-on-colorado-tourism-state-survey-says-2/>

²³ Jaremko – Greenwold, Anya. 2016. "Cannabis tourists take Colorado." *DGO*, November 10, 2016. <http://www.dgomag.com/articles/1338-cannabis-tourists-take-colorado>

²⁴ Taylor, Lorraine L. 2018. Powerpoint presentation provided to Information Services, Inc. "Data supporting the economic impact of Marijuana Tourism."

²⁵ Wallace, Alicia. 2018. "Recreational marijuana sales highest per capita in Colorado's southern border towns." *The Cannabist*, February 9, 2018. <https://www.thecannabist.co/2018/02/09/colorado-marijuana-sales-southern-border/98669/>

at \$797 and \$740, respectively. Populous Denver and Arapahoe counties, which accounted for 40% of the state's recreational sales, had per-capita totals of \$532 and \$173, respectively, according to the analysis.

It is difficult to quantify the actual economic contributions of marijuana tourism. While they are here, marijuana tourists make other purchases at restaurants, gas stations, grocery stores and local retail stores. They also visit other area attractions and purchase lodging, although Durango is lacking in spaces where people can consume their purchases legally. Tourists are allowed to buy products, though many hotels and lodging accommodations restrict smoking in their rooms – but they're not allowed to smoke in public, either. "That's the new wave in tourism; figuring out how we can provide positive experiences without putting them in the threat of legal issues," said Taylor.

Other Considerations

Community Involvement – The cannabis industry is similar in most respects to other types of businesses in the local area. One similarity is their propensity to help others in the community. In a survey distributed to marijuana businesses, Information Services, Inc. found that 70% of respondents made yearly local charitable contributions.

Public Safety – Cannabis industry employees cannot have a felony conviction, drug related or not, for the last 10 years, and stand to lose their employment badge if convicted. This promotes a law-abiding work force. On any given weekend the amount of arrests related to the use of alcohol can meet or exceed the amount of incidents related to use of legal marijuana for the last 6 to 12 months. This illustrates a cost benefit to the county where the taxes and fees roll in, but there is a much lower demand for mitigation, enforcement, and incarceration of legal marijuana users.

Business location – The clustering of cannabis business in close quarters commercial zones could present a problem in the future of poor use of potential commercial retail space for numerous other business. Example - highway frontage used for windowless grow operations with 100,000 + cars passing each day. These spaces could be much better used by non-marijuana business who desire exposure to promote sales. Grow operations can be located in discreet locations that do *not* desire exposure to promote business.

Conclusions

On the state level, over the past few years, a large and growing number of states have expanded the legality of marijuana or cannabis, some continuing to keep it as an illegal narcotic, some allowing it for medicinal purposes and some allowing it for recreational use. As with a broad spectrum of legal treatment, there comes a broad spectrum of tax treatment, with each state that allows some limited or unlimited use of cannabis enacting tax provisions that are all different. On the federal level, the issues tend to be fairly broad. There is no direct taxation of cannabis at the federal level, so the issues turn on how cannabis is treated differently from any other business. Effectively, the federal government has wavered in how it treats cannabis, from respecting states' rights to determine legality to treating it as an illegal narcotics trade.²⁶

²⁶ CCH Tax Law Editors. 2017. *Cannabis Taxation: Federal and State Tax Guidebook*. Wolters Kluwer 12-12-2017.

According to the Marijuana Policy Group (MPG), legal marijuana demand is projected to grow in Colorado by 11% per year through 2020.²⁷ This growth will be driven by a demand shift away from the black market and by cannabis-specific visitor demand. By 2020, the regulated market in Colorado may become saturated.

MPG has also observed that, as the Colorado market matures, it is becoming more consolidated. Larger, more competitive companies are growing, while smaller, less competitive companies struggle and eventually exit the market. Colorado has had an active recreational market for almost four years and new studies show that 33% of dispensaries are now a part of a chain, and that number is likely to increase exponentially. As with any new industry, thousands of business owners and entrepreneurs flood the market, but as time goes on and the more established businesses continue to grow, they slowly overtake the smaller businesses.

Private industry owners purport that consolidation is not being caused purely by price competition, but instead by high compliance costs. For example, the owner of one of Colorado's largest retailers recently stated that many small operations are unable to properly comply with the state's complex regulations, leading them to exit the market. This observation, if correct, would be unfortunate for rural counties in which a majority of all businesses are small and locally owned, because clearly the cannabis industry is an important economic contributor to the La Plata County economy.

This study was a first step in quantifying the economic impacts of the cannabis industry in La Plata County. Additional work is needed to continue to understand both the economic impacts of the industry as well as the steps that local governments can take to help support a growing industry, and ensure it continues to provide positive economic benefits.

Next steps might include:

- Further explore discrepancies in city and county permitting fees that may be a disincentive to businesses staying here or moving away
- Explore duplicative permitting processes for medical and retail segments of the industry
- Continue to educate local governments and citizens about the economic contributions of the cannabis industry in the local economy.

²⁷ Light, Orens, Rowberry and Salaga. 2016. "The Economic Impacts of Marijuana Legalization in Colorado". *The Marijuana Policy Group*. October 2016. <http://www.mjpolicygroup.com/pubs/MPG%20Impact%20of%20Marijuana%20on%20Colorado-Final.pdf>