CAN A SMALL MOM & POP LIQUOR STORE COMPETE WITH LARGE CHAIN GROCERY STORES?

Fort Lewis College

& SHIKHAR ACHARYA
University of North Texas at Dallas

In the spring of 2023, Chris and Molly Hamilton were contemplating the changes in Colorado laws affecting their small liquor store in Durango, W.J. Doyle Wine and Spirits (W.J. Doyle). On January 1, 2019, for the first time since Prohibition, Colorado consumers were able to buy full-strength beer at grocery stores and convenience stores. Prior to this change, only low alcohol "3.2 beer" was sold in most of the state's grocery stores. Although the Hamilton's beer sales had decreased in 2019 following the law change and had not returned to the pre-law level, the store remained profitable. But the Hamiltons were now facing a new law change that allowed wine to be sold in large grocery stores and convenience stores as well (see Appendix A for details).

The Hamiltons were not sure the same tactics that had worked with beer would work with wine. After all, were their beer customers the same as their wine customers? They weren't sure, although they thought the demographics of their beer customers were somewhat different from their typical wine customer. They realized they needed to specify those differences and then determine how they should add to their merchandising and marketing plans to compete with the large grocery stores. The video in Exhibit 1 discusses how small liquor stores in Colorado were coping after the wine law change. Exhibits 2 and 7 show photographs of the store.

Exhibit 1. "Our sales are down at least 50%," Local liquor stores see wine sales dip following new law

Source: New Tonight – KOAA News 5 (2025) http://www.youtube.com/watch?v=RvstbQueg94&t=13s



The Hamilton couple thought about several changes that might help keep their new competition from eating into their profits, but it was now time to start making specific decisions about wine sales. The very existence of the business that had supported their family since 2010 might be at stake.

Exhibit 2. W.J. Doyle Wine and Spirits Liquor Store

Source: Authors' Photo





The Hamiltons

Chris and Molly started W.J. Doyle Liquor Store "from scratch" in 2010. Chris was born and raised in Durango and his family included serious chefs and wine drinkers. They also had a long history in the legal profession. Chris received his law degree at the University of Colorado and was a practicing attorney before starting W.J. Doyle. This experience helped him understand the sometimes complicated and changing legal and regulatory environment that liquor store owners dealt with in Colorado. Chris grew up traveling with his family to places (such as France) where they could spend time learning about and enjoying wines. Chris was "a wine connoisseur" with extensive wine knowledge, and this knowledge had been valuable in the operation of the store. W.J. Doyle customers enjoyed the education Chris provided regarding the different varieties of grapes that went into making wines, and which wines would go with which foods. Chris was successful in "hand selling" wines to customers. He was also able to find local selections from small vineyards and/or distributors that he thought his customers would enjoy. Therefore, the Hamiltons were able to find better and more specialized wines at a better price than the highly advertised national brands. That was one reason W.J. Doyle's slogan was, "Helping you drink better for less."

Molly Hamilton was born and raised in Savannah, Georgia but went to college in Gunnison, Colorado. She worked as a bartender for Chris's uncle while in Gunnison, which is how Molly and Chris met. In 2000 Molly moved to Durango and within six months she was engaged to Chris. Molly had worked in retail for 23 years before starting the liquor store and was therefore familiar with retail sales marketing and merchandising as both a buyer and assistant manager. Although she had no prior experience in running a liquor store, her retail experience was useful when they decided to start W.J. Doyle. Their family, including their dogs, were often part of the store's atmosphere (see Exhibit 3).





Exhibit 3. Inside W.J. Doyle Wine and Spirits – Doyle Dog

Durango Beer, Wine, and Spirit Industry

Durango was a city in La Plata County, Colorado. Durango had a 2024 population of 19,955 and was growing at a rate of 1.07% annually. Its population had increased by 4.4% since the most recent census in 2020. The average household income in Durango was \$99,984 with a poverty rate of 14.23%. The median age was 36.6 years; 36.5 years for males and 36.7 years for females (World Population Review). Though Durango was a small resort city of almost 20,000 residents, its population understated its regional importance. As the county seat and home to a small liberal arts college, it had become the governmental, retail, and cultural "hub city" of southwestern Colorado. People flocked to Durango for a variety of reasons. Through careful preservation of its historic western architecture, the city had a vibrant downtown filled with the arts, shopping, and nightlife. The area offered abundant opportunities for cycling, skiing, hiking, white water rafting, kayaking, hunting, and fishing. In addition, the city was home to the historic Durango & Silverton Narrow Gauge Railroad and was situated within easy driving distance of Mesa Verde National Park.



There were six craft breweries in Durango, Colorado in 2024 (see Exhibit 4). Durango was also home to 16 small liquor stores that sold beer, wine, and spirits at the end of 2024 (see Appendix B). There were 16 before the beer sales regulation changed in 2019. Then one more small liquor store opened in January 2021. There were 17 local stores from January 2021 until July 2024 when one went out of business, bringing the total back to 16.

Exhibit 4. Local Craft Breweries

Source: Authors' Note

300/1013 11015
Carver Brewing Co.
Steamworks Brewing Co.
Anarchy Brewing Co.
Animas Brewing Co.
Ska Brewing Co.
Durango Beer & Ice Co & High Trestle Brewing Co. (in DB&I Co.)

After the law changed in 2019, the number of establishments that sold full strength beer increased. Four large grocery stores and 10 convenience stores/gas stations added full strength beer to their shelves (see Exhibit 5).

Exhibit 5. Local Grocery and Convenience Store Competition

Source: Authors' Notes, observations and interviews with Durango area store managers and/or owners, August and September 2024.

Large Grocery Stores	Sales
City Market	Beer and Wine
City Market	Beer and Wine
Wal Mart	Beer and Wine
Albertson's	Beer and Wine
Convenience Stores	Sales
Everyday Gas Station	Beer and Wine
Speedway Gas Station (1)	Beer and Wine
Speedway Gas Station (2)	Beer and Wine
Speedway Gas Station (3)	Beer and Wine
Maverik Gas Station	Beer and Wine
Speedway Gas Station (4)	Beer and Wine
Grandview Store	Beer and Wine
Needles Country Store	Beer and Wine
Circle K Gas Station	Beer
Sonoco (Grandview)	Beer



Customer Preferences and Marketing Strategy

Customer Preferences

The Hamiltons were aware of the well-known statistic that men were more likely to drink beer than women, while women were more likely to drink wine than men. In fact, they knew their best customers for "buttery" chardonnay were women over the age of 45 or 50. Women also bought Tequila when they bought spirits, for preparing margaritas, not for sipping. Women hardly ever bought the higher end spirits, such as bourbons, for themselves. Those customers tended to be male, restaurant people, or professionals. But tradesmen, such as electricians and plumbers, also tended to drink hard liquor, as well as beer (personal Interview with Chris Hamilton Oct. 2024).

Generally, they thought their beer customers were, on average, younger than their wine and spirits customers and probably had a lower average income as well. They knew college students drank cheap beer but also sometimes expensive beer and whiskey but hardly ever drank wine. For a while the college students drank a lot of Pabst Blue Ribbon (PBR) beer (they were buying 90 PBR 30 packs per week) until prices increased and they could no longer afford it; by fall of 2024, they were buying only about 30 or 40 PBR 30 packs per week. When college students bought more expensive liquor they bought it in small quantities. The Hamiltons thought the students were considering the alcohol content and were able to obtain a similar "buzz" with a small amount of liquor that they received from drinking a lot more beer (personal interview with Chris Hamilton, Oct. 2024). Exhibit 6 summarizes the Hamilton's thoughts on their customer preferences.



Exhibit 6. W.J. Doyle's Customer Preferences

Source: Authors' Notes, Interview with Chris Hamilton, Oct. 2024

Product	Demographic	Customer Preferences
	College Students	Preferred cheap beer; occasionally opted for less amounts of high ABV (alcohol by volume) (8-9%) expensive beer or spirits but generally did not buy wine.
Beer	Male	More likely to purchase beer than wine overall.
	Tradesmen (e.g., Electricians, Plumbers)	Primarily drank hard liquor and beer.
	Female, 45+	Strong preference for buttery Chardonnay; purchased more frequently than men.
Wine	Older Adults (Typically 45+)	More likely to drink wine than younger consumers.
Whiskey	More Professionals, Restaurant Staff	High-end whiskeys were popular among professionals but rarely purchases by women for self-consumption.
Tequila	Female	Often bought tequila for margaritas, not typically for sipping.
High-End Spirits	Male Professionals	Primarily purchased by men, especially in higher-end categories.

W. J. Doyle Beer Marketing Strategies

To compete with the new competitors in the beer market, the Hamiltons changed their marketing strategy and focused more on specific market segments as well as on customer service and personal assistance to customers.

They thought grocery store consumers tended to be low involvement beer buyers, more likely to stick with known brands with broad consumer recognition. They added a "Sam's Club membership type strategy where a customer could join for \$9.95 a month and that got the customer cost plus 15% on anything they bought" (personal interview with Chris Hamilton August 2024).



To improve their margins, they instituted a frequent customer punch card program early on and changed it from 5 punches to 10 in 2016. This program seemed to bring beer customers back to the store even after the law change in 2019.

Although they sold the traditional six packs, within about six months of the law change, they realized they could carry a larger variety of beer if they sold single cans. Each shelf in their store could take four 6-packs or 24 singles. They also realized by selling most of their beer as singles they could buy the larger packaging and break it into singles. By buying 30-packs they sold some singles with a higher margin than was customary in the industry. An example was Pabst Blue Ribbon. They could add in the costs of the materials and labor to make their own 6-packs while still getting a larger markup. By buying 30-packs they could sell six singles for 80 cents each or \$4.80 a 6-pack with a 33% markup compared to a 25-28% markup on singles when they bought 6-packs to stock their single cans. They thought at the time that by going to singles they would sell more beer because this allowed the customer to get exactly what they wanted. And this gave them a competitive edge because not many of the other liquor stores in the area sold singles (personal interview with Molly Hamilton, August 5, 2024). As one local college student explained, "It is fun to be able to mix and match different brands of beer in one 6-pack. That's why I often shop at W.J. Doyle" (personal interview with Will Bingaman November 2024).

Source: https://www.wjdoyledurango.com/

Exhibit 7. Inside W.J. Doyle Wine and Spirits

JCRI Journal of Case Research and Inquiry

After grocery stores were allowed to sell wine, the Hamiltons increased the prices of six pack singles to increase their margin. "A few cents here and there add up" (personal Interview with Molly Hamilton August 2024).

Other Liquor Stores' Beer Marketing Strategies

Other local liquor stores also thought they should change their strategies when the new beer sales law went into effect. For example, Spirits of the West lowered its prices to "keep up with the big grocery stores." Wagon Wheel Liquor focused on marketing and having better customer service, such as personal assistance that grocery stores did not have. Wagon Wheel also turned away from selling larger brand names that were carried by the grocery stores, hoping to improve the bottom line. Brightside Spirits went with a more unique selection of beer than the grocery stores carried. Liquor World said it had made no real strategy changes; the store had good name recognition, having opened in 1983, and wanted to stay consistent for regular customers. Star Liquor explained how it had shifted to digital marketing and buying unique brands, including the brands of local craft breweries that were not carried in the grocery stores (personal Interviews with local liquor store managers/owners, August and September 2024).

W. J. Doyle Financials

The Hamiltons had always used their own data that included revenue, cost of goods sold (COGS), and profit numbers for each of their four product categories (beer, wine, spirits, and other products they sold), as well as state and national beer sales data to make buying and marketing decisions (see Appendix D for product category data).

The Hamiltons noticed that the new strategies they implemented to remain competitive in the local beer market were not successful right away. As shown in Exhibits 8 and 9, total revenue and profit decreased from 2018 to 2019 by \$182,316.84 and \$37,730.28, respectively. This



happened even with a decrease in the cost of goods sold (COGS). However, in 2020 things turned around and total profit rose above the 2017 level and continued to increase through 2023.

Exhibit 8. W. J. Doyle's Total Revenue, COGS, and Profit April 13, 2016 – December 31, 2023

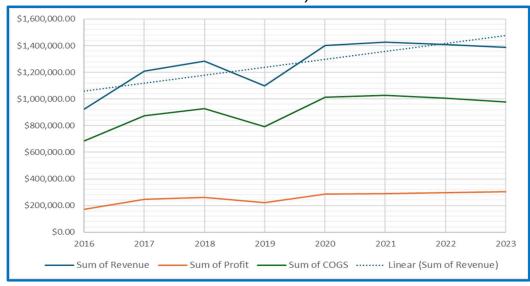
Source: Chris and Molly Hamilton

Year	Sum (Revenue)	Sum (COGS)	Sum (Profit)
2016	\$923,669.17	\$685,073.82	\$170,476.98
2017	\$1,209,318.69	\$872,602.43	\$248,705.61
2018	\$1,282,809.62	\$927,629.18	\$261,278.31
2019	\$1,100,492.78	\$793,961.31	\$223,548.03
2020	\$1,403,634.16	\$1,011,756.94	\$285,093.91
2021	\$1,427,024.34	\$1,027,020.46	\$291,494.21
2022	\$1,410,651.45	\$1,007,508.80	\$296,081.02
2023	\$1,387,421.42	\$979,307.25	\$302,862.55
Year = All	\$10,145,021.63	\$7,304,860.19	\$2,079,540.62

Notes: 2016 Data is from April-December. Expenses such as labor, marketing, overhead, etc. are not included in COGS.

Exhibit 9. W. J. Doyle's Total Revenue, COGS, and Profit April 13, 2016 – December 31, 2023

Source: Chris and Molly Hamilton



Notes: 2016 Data is from April-December. Expenses such as labor, marketing, overhead, etc. are not included in COGS.



They looked deeper into their numbers and uncovered some interesting patterns. Revenue and profit from beer sales decreased from 2018 to 2019 (with a decrease in COGS too, reflecting their strategy of lowering costs by buying in bulk). In fact, the numbers showed a statistically significant decrease in revenue and profit from beer sales after the law changed on January 1, 2019 (see data statistic details in Appendix C).

Although beer sales revenue and profit increased again in 2020, neither increased back to (or above) their 2018 levels (prior to the change in the Colorado law) as their total revenue and profits had done (see Exhibits 10 and 11). Therefore, something else was driving their return to higher total revenue and higher profits in 2020.

Exhibit 10. W. J. Doyle's Beer Revenue, COGS, and Profit April 13, 2016 – December 31, 2023

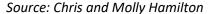
Source: Chris and Molly Hamilton

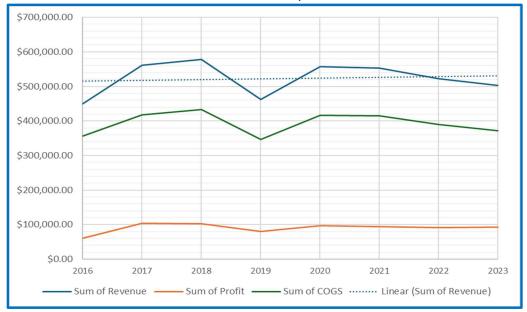
Beer			
Year	Sum (Revenue)	Sum (COGS)	Sum (Profit)
2016	\$450,138.73	\$355,975.36	\$61,227.61
2017	\$561,840.21	\$417,037.10	\$103,686.27
2018	\$578,337.53	\$433,643.28	\$102,356.41
2019	\$461,803.16	\$346,246.29	\$80,738.65
2020	\$557,403.79	\$416,984.93	\$97,218.62
2021	\$552,962.78	\$415,583.26	\$94,522.17
2022	\$521,900.03	\$389,804.11	\$91,629.10
2023	\$503,110.35	\$371,419.44	\$92,693.07
Year = All	\$4,187,496.58	\$3,146,693.77	\$724,071.90

Notes: 2016 Data is from April-December. Expenses such as labor, marketing, overhead, etc. are not included in COGS.



Exhibit 11. W. J. Doyle's Beer Revenue, COGS, and Profit April 13, 2016 – December 31, 2023





Notes: 2016 Data is from April-December. Expenses such as labor, marketing, overhead, etc. are not included in COGS.

They discovered their revenue and profits from spirit sales had decreased from 2018 to 2019, after steadily increasing. But revenue and profit from spirit sales increased substantially from \$364,438.36 in 2019 to \$484,081.80 in 2020 and from \$92,592.84 in 2019 to \$122,527.86 in 2020 respectively (see Exhibits 12 and 13). This was a statistically significant increase (see Appendix C). Spirit sales continued to be outlawed in grocery stores and convenience stores in Colorado. Therefore, was the Hamiltons' decrease in beer sales and increase in spirit sales due to their customers picking up beer while grocery or gas shopping but continuing to shop at W. J. Doyles for spirits? Were their customers buying "more" spirits at their favorite local liquor store? Was there an overall increase in spirit sales in Colorado or in the United States in 2020? What was driving the increase in spirit sales for W. J. Doyle in 2020?



Exhibit 12. W. J. Doyle's Spirits Revenue, COGS, and Profit April 13, 2016 – December 31, 2023

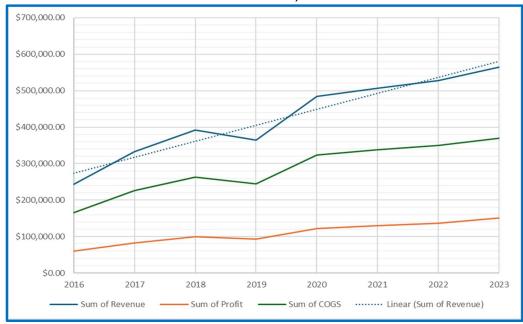
Source: Chris and Molly Hamilton

Spirits			
Year	Sum (Revenue)	Sum (COGS)	Sum (Profit)
2016	\$243,618.68	\$166,012.68	\$59,770.11
2017	\$332,783.05	\$225,580.57	\$82,831.12
2018	\$391,852.90	\$263,561.18	\$99,575.41
2019	\$364,438.36	\$244,327.38	\$92,592.84
2020	\$484,081.80	\$324,018.55	\$122,527.86
2021	\$506,603.74	\$337,662.98	\$129,680.46
2022	\$528,398.80	\$350,366.85	\$137,086.92
2023	\$564,314.04	\$370,132.88	\$150,411.20
Year = All	\$3,416,091.37	\$2,281,663.07	\$874,475.92

Notes: 2016 Data is from April-December. Expenses such as labor, marketing, overhead, etc. are not included in COGS.

Exhibit 13. W. J. Doyle's Spirits Revenue, COGS, and Profit April 13, 2016 – December 31, 2023

Source: Chris and Molly Hamilton



Notes: 2016 Data is from April-December. Expenses such as labor, marketing, overhead, etc. are not included in COGS.



Also interesting, revenue and profit from wine sales did not change in a statistically significant amount during the period after the 2019 law change (see Exhibits 14 and 15, and Appendix C). Although wine sales revenue did decrease in 2019, from 2018, by \$19,354.04. This was not a significant decrease. However, like spirit sales, wine sales revenue increased again in 2020 above that of 2018.

Exhibit 14. W. J. Doyle's Wine Revenue, COGS, and Profit April 13, 2016 – December 31, 2023

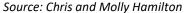
Source: Chris and Molly Hamilton

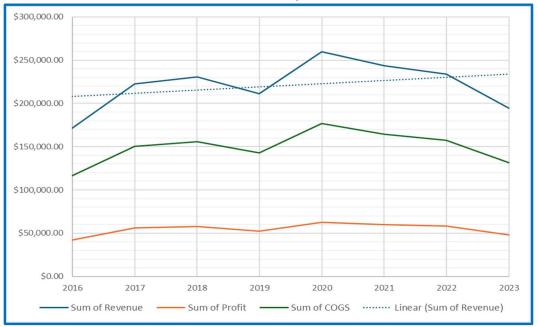
Wine			
Year	Sum (Revenue)	Sum (COGS)	Sum (Profit)
2016	\$171,403.81	\$116,693.75	\$42,155.79
2017	\$222,404.20	\$150,189.94	\$55,924.30
2018	\$230,645.10	\$156,061.71	\$57,723.68
2019	\$211,291.06	\$142,924.96	\$52,416.53
2020	\$259,885.64	\$176,982.04	\$62,837.04
2021	\$243,476.49	\$164,510.82	\$60,109.67
2022	\$233,881.62	\$157,402.80	\$58,335.27
2023	\$194,571.13	\$131,633.34	\$47,956.81
Year = All	\$1,767,559.05	\$1,196,399.36	\$437,459.09

Notes: 2016 Data is from April-December. Expenses such as labor, marketing, overhead, etc. are not included in COGS.



Exhibit 15. W. J. Doyle's Wine Revenue, COGS, and Profit April 13, 2016 – December 31, 2023





Notes: 2016 Data is from April-December. Expenses such as labor, marketing, overhead, etc. are not included in COGS.

The Hamiltons collected data on four product categories: beer, wine, spirits, and other products they offered for sale. This last category included cigarettes, non-alcoholic beverages, accessories, food items, tips, store account payments, discounted items, schnapps, and delivery fees. They found there was a decrease in revenue in 2018 (from 2017) for the "other" products they sold and in fact decreased even more significantly in 2019 (as compared to 2018). This created a loss of \$2,199.99 in 2019 from the sales of the "other" products the Hamilton's sold. This followed from the fact that beer, spirits, and wine revenues and profits were all down in 2019 (from the year before). This indicated less foot traffic in W. J. Doyles after the Colorado beer law change on January 1, 2019. Some of the "other" products that were sold were considered complements¹ to beer, spirits, and/or wine. For example, non-alcoholic beverages were complementary to spirits when making mixed drinks. Non-alcoholic beverages, food

¹ A complement in economics and consumer theory refers to a product that consumers associate closely with another item and is sometimes necessary for the other item's consumption; a complement is a good that is bought when another item is bought as decided by the consumer (Investopedia, 2024).



items, and cigarettes could also be considered impulse goods, which were items that consumers purchase without prior planning or intent. When consumers entered the liquor store, they ended up buying more than just the beer, spirits, or wine because they saw other items and decided to purchase them as well. With less foot traffic, impulse item sales were down for W. J. Doyle in 2019. Fortunately, profit for "other" products rebounded in 2020 and continued to increase through 2023 (see Exhibits 16 and 17).

Exhibit 16. W. J. Doyle's "Others" Revenue, COGS, and Profit April 13, 2016 – December 31, 2023

Source: Chris and Molly Hamilton

"Others"			
Year	Sum (Revenue)	Sum (COGS)	Sum (Profit)
2016	\$58,507.95	\$46,392.03	\$7,323.47
2017	\$92,291.23	\$79,794.82	\$6,263.92
2018	\$81,974.09	\$74,363.01	\$1,622.81
2019	\$62,960.20	\$60,462.68	-\$2,199.99
2020	\$102,262.93	\$93,771.42	\$2,510.39
2021	\$123,981.33	\$109,263.40	\$7,181.91
2022	\$126,471.00	\$109,935.04	\$9,029.73
2023	\$125,425.90	\$106,121.59	\$11,801.47
Year = All	\$773,874.63	\$680,103.99	\$43,533.71

Notes: 2016 Data is from April-December. Expenses such as labor, marketing, overhead, etc. are not included in COGS.



Exhibit 17. W. J. Doyle's Other Products Revenue, COGS, and Profit April 13, 2016 – December 31, 2023

Source: Chris and Molly Hamilton



Notes: 2016 Data is from April-December. Expenses such as labor, marketing, overhead, etc. are not included in COGS.

Conclusion

On March 1, 2023, Chris and Molly knew they now had more competitors selling wine. Could they offset a potential profit decrease with similar pricing, merchandising, or marketing techniques they had been using for beer? Or, due to differences in customer demographics or merchandising disparities, should they use some new methods to keep their loyal wine customers coming back (or to acquire new wine buyers)?





Appendix A. History and Background of Colorado's Alcoholic Beverage Laws

"During the 2016 legislative session, the Colorado General Assembly passed Senate Bill 16-197. On June 10, 2016, Gov. Hickenlooper signed Senate Bill 16-197 into law, concerning the retail sale of alcohol beverages. The signed bill restricted the issuance of new liquor-licensed drugstore and retail liquor store licenses except under specified circumstances; allowed liquor-licensed drugstore and retail liquor store licensees to obtain more licenses under limited circumstances; and repealed the limit on the alcohol content of fermented malt beverages on January 1, 2019.

"Effective January 1, 2019, the limitation on the maximum alcohol content of fermented malt beverages, also referred to as '3.2% beer', was eliminated, "thereby allowing grocery stores, convenience stores, and any other person currently licensed or licensed in the future to sell fermented malt beverages for consumption on or off the licensed premises to sell fermented malt beverages containing more than 3.2% alcohol by weight or 4% alcohol by volume" (Colorado Wyoming Petroleum Marketers Association & Convenience Store Association, LED Fact Sheet for Colorado Retailers on Fulls [sic] Strength Beer, 2024).

In 2023, Colorado voters approved Proposition 125, which allowed grocery stores and convenience stores to sell wine. The law went into effect on March 1, 2023. It allowed grocery stores and convenience stores that already had a beer license to sell wine, cider, and sake. It restricted fermented malt beverage and wine retailers from being within 500 feet of an existing retail liquor store.



Appendix B. Local Competition

Local Liquor Stores in the Durango Area

6th Street Liquor

Discount Liquors

Durango Liquor & Wine Co

Liquor World

Mac's Liquor Store

River Liquor

Skyridge Gas Station & Liquor

Spirits of the West

Star Liquors

Bear's General, formerly The Mercado Corner Market

Upper East Side Liquors

W. J. Doyle Wine and Spirits

Wagon Wheel Liquors

Wildcat Canyon Liquors

Hermosa Liquor

Animas Wine & Spirits

Helens Country Liquor Store – Went out of business July 2024.

Brightside Spirits

Wine Only

Four Leaves Winery

EsoTerra Ciderworks

Durango Wine Experience

Suncliffe Vineyards Tasting Room

Spirits Only

Durango Craft Spirits

Honey House Distillery

Beer Only

Carver Brewing Co.

Steamworks Brewing Co.

Anarchy Brewing Co.

Animas Brewing Co.

Ska Brewing Co.

Durango Beer & Ice Co & High Trestle Brewing Co. (in DB&I Co.).

Opened August 2020.

Durango Beer Co. – Went out of business August 2018.

Brew Pub and Kitchen - Went out of business March 2019.



Appendix C. Analysis W.J. Doyle Data after the Change in Beer Sales Law on January 1, 2019

Conclusions: W. J. Doyle Revenue

- Statistically significant decrease in revenue from beer sales after the law changed in 2019.
- Statistically significant increase in revenue from spirit sales after the law changed in 2019.
- No statistically significant change in revenue from wine sales after the law changed in 2019.

Revenue Change: T test – Test for difference in daily mean revenue for beer, wine, and spirits before and after full-strength beer sales were allowed in grocery and convenience stores on January 1, 2019.

Beer T Test: Yes-No Assuming unequal variances

Difference	398.609 t Ratio	15.81587
Std Err Dif	25.203 DF	390.1009
Upper CL Dif	448.160 Prob > t	<.0001*
Lower CL Dif	349.058 Prob > t	<.0001*
Confidence	0.95 Prob < t	1.0000

Conclusion: Statistically significant decrease in beer sales revenue after the law changed in January 2019.

Spirits T Test: Yes-No Assuming unequal variances

Difference	369.893 t Ratio	23.43111
Std Err Dif	15.786 DF	2224.061
Upper CL Dif	400.850 Prob > t	<.0001*
Lower CL Dif	338.935 Prob > t	<.0001*
Confidence	0.95 Prob < t	1.0000

Conclusion: Statistically significant increase in spirit sales revenue after the law changed in January 2019.

Wine T Test: Yes-No Assuming unequal variances

Difference	-1.297 t Ratio	-0.11984
Std Err Dif	10.824 DF	2123.039
Upper CL Dif	19.930 Prob > t	0.9046
Lower CL Dif	-22.524 Prob > t	0.5477
Confidence	0.95 Prob < t	0.4523

Conclusion: There was no significantly significant change in wine sales revenue after the law changed in 2019.



Conclusions: W. J. Doyle Profit

- Statistically significant decrease in profit from beer sales after the law changed in 2019.
- Statistically significant increase in profit from spirit sales after the law changed in 2019.
- There was no statistically significant change in profit from wine sales after the law changed in 2019.

Profit Change: T test – Test for difference in daily mean profit for beer, wine, and spirits before and after full-strength beer sales were allowed in grocery and convenience stores on January 1, 2019.

Beer T Test: Yes-No Assuming unequal variances

Difference	-18.427 t Ratio	2.19278
Std Err Dif	8.404 DF	1079.278
Upper CL Dif	1.938 Prob > t	0.0285*
Lower CL Dif	-34.916 Prob > t	0.9857
Confidence	0.95 Prob < t	0.0143*

Conclusion: Statistically significant decrease in beer sales profit after the law changed in January 2019.

Spirits T Test: Yes-No Assuming unequal variances

_ •	0 1	
Difference	103.560 t Ratio	24.75293
Std Err Dif	4.184 DF	2112.664
Upper CL Dif	111.764 Prob > t	<.0001*
Lower CL Dif	95.355 Prob > t	<.0001*
Confidence	0.95 Prob < t	1.0000

Conclusion: No statistically significant change in wine sales profit after the law changed in January 2019.

Wine T Test: Yes-No Assuming unequal variances

ville i rest. res ivo Assuming unequal variances				
Difference	-2.2810 t Ratio	0.9452		
Std Err Dif	2.4132 DF	1904.071		
Upper CL Dif	2.4518 Prob > t	0.3477		
Lower CL Dif	-7.0138 Prob	0.8277		
Confidence	0.95 Prob < t	0.1723		

Conclusion: No statistically significant change in wine sales profit after the law changed in January 2019.



Appendix D. W. J. Doyle's Yearly Revenue, Profit, and COGS by Product Type
April 13, 2016 – December 31, 2023

Source: Chris and Molly Hamilton

Categories by Year	Sum of Revenue	Sum of Profit	Sum of COGS
2016			
Beer	\$450,138.73	\$61,227.61	\$355,975.36
Others	\$58,507.95	\$7,323.47	\$46,392.03
Spirits	\$243,618.68	\$59,770.11	\$166,012.68
Wine	\$171,403.81	\$42,155.79	\$116,693.75
2016 Total	\$923,669.17	\$170,476.98	\$685,073.82
2017			
Beer	\$561,840.21	\$103,686.27	\$417,037.10
Others	\$92,291.23	\$6,263.92	\$79,794.82
Spirits	\$332,783.05	\$82,831.12	\$225,580.57
Wine	\$222,404.20	\$55,924.30	\$150,189.94
2017 Total	\$1,209,318.69	\$248,705.61	\$872,602.43
2018			
Beer	\$578,337.53	\$102,356.41	\$433,643.28
Others	\$81,974.09	\$1,622.81	\$74,363.01
Spirits	\$391,852.90	\$99,575.41	\$263,561.18
Wine	\$230,645.10	\$57,723.68	\$156,061.71
2018 Total	\$1,282,809.62	\$261,278.31	\$927,629.18
2019			
Beer	\$461,803.16	\$80,738.65	\$346,246.29
Others	\$62,960.20	-\$2,199.99	\$60,462.68
Spirits	\$364,438.36	\$92,592.84	\$244,327.38
Wine	\$211,291.06	\$52,416.53	\$142,924.96
2019 Total	\$1,100,492.78	\$223,548.03	\$793,961.31
2020			
Beer	\$557,403.79	\$97,218.62	\$416,984.93
Others	\$102,262.93	\$2,510.39	\$93,771.42
Spirits	\$484,081.80	\$122,527.86	\$324,018.55
Wine	\$259,885.64	\$62,837.04	\$176,982.04
2020 Total	\$1,403,634.16	\$285,093.91	\$1,011,756.94
2021			
Beer	\$552,962.78	\$94,522.17	\$415,583.26
Others	\$123,981.33	\$7,181.91	\$109,263.40
Spirits	\$506,603.74	\$129,680.46	\$337,662.98
Wine	\$243,476.49	\$60,109.67	\$164,510.82
2021 Total	\$1,427,024.34	\$291,494.21	\$1,027,020.46



Categories by Year	Sum of Revenue	Sum of Profit	Sum of COGS
2022			
Beer	\$521,900.03	\$91,629.10	\$389,804.11
Others	\$126,471.00	\$9,029.73	\$109,935.04
Spirits	\$528,398.80	\$137,086.92	\$350,366.85
Wine	\$233,881.62	\$58,335.27	\$157,402.80
2022 Total	\$1,410,651.45	\$296,081.02	\$1,007,508.80
2023			
Beer	\$503,110.35	\$92,693.07	\$371,419.44
Others	\$125,425.90	\$11,801.47	\$106,121.59
Spirits	\$564,314.04	\$150,411.20	\$370,132.88
Wine	\$194,571.13	\$47,956.81	\$131,633.34
2023 Total	\$1,387,421.42	\$302,862.55	\$979,307.25

Notes: 2016 Data is from April-December. Expenses such as labor, marketing, overhead, etc. are not included in COGS. "Others" include cigarettes, non-alcoholic beverages, accessories, food, tips, store account payments, discounted items, schnapps, and delivery fees.





Deborah Walker is a professor of economics in the Katz School of Business Administration at Fort Lewis College. Her teaching and research interests include public policy, Austrian economics, public choice, evolution of economic thought, economics of women's issues and entrepreneurship. Professor Walker is currently the Chair of the Economics, Accounting, and Marketing areas in the Katz School of Business.



Michael E. Valdez is the Bradley Family Professor at Fort Lewis College's Katz School of Business where he teaches courses in entrepreneurship, international management, and strategy. Dr. Valdez's research interests center on international management, crosscultural management, entrepreneurial success factors (micro and macro), and organizational reputation. His research has appeared in Entrepreneurship Theory and Practice, Academy of Management Review, Journal of Asia Business Studies, and Transportation Journal. He has presented his research at various conferences in the United States and abroad and is a member of the Academy of Management and the Academy of International Business.



Shikhar Acharya is an Assistant Professor of Business Statistics at the University of North Texas at Dallas. He earned his Ph.D. in Systems Engineering from the Missouri University of Science and Technology, where his research primarily focused on the detection of malicious devices. His work also involves exploring the use of statistical methods and machine learning algorithms to improve decision-making processes.



References

Colorado Senate Bill 18-243, https://leg.colorado.gov/bills/sb18-243. Retrieved May 26, 2024.

Colorado Senate Bill 16-197, https://sbg.colorado.gov/senate-bill-16-197. Retrieved May 26, 2024.

Colorado Wyoming Petroleum Marketers Association & Convenience Store Association, LED Fact Sheet for Colorado Retailers on Fulls [sic] Strength Beer, 2024.

Personal Interviews with Chris and/or Molly Hamilton. Various Dates in 2023 and 2024.

Personal Interviews with Local Durango Liquor store managers/owners. August and September 2024.

Personal Interview with Fort Lewis Student, Will Bingaman, November 2024.

World Population Review, http://worldpopulationreview.com/us-cities/durango-co-population. Retrieved May 26, 2024.







Journal of Case Research and Inquiry

Peer-Reviewed Cases, Notes and Articles

A publication of the Western Casewriters Association

Vol. 10 April 2025

ISSN 2377-7389