2025 Economic Impact Study of the Michigan Craft Beverage Industry

Prepared for:
Michigan Craft Beverage Council

By

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Executive Summary

Michigan is home to more than 760 craft wineries, breweries, distilleries and cideries, with more than 200 businesses producing more than one beverage type. Together these businesses are supported by a robust agricultural community that supplies wine grapes, hops, barley, corn, and apples, helping to create a thriving craft beverage experience in the Great Lake State.

The *2025 Michigan Craft Beverage Economic Impact Study* estimates the economic contributions made by the Michigan craft beverage industry to the state in 2025. John Dunham & Associates (JDA) conducted this research, which was funded by the Michigan Craft Beverage Council (MCBC). This work uses standard econometric models first developed by the U.S. Forest Service and currently maintained by IMPLAN, Inc.[1] Data comes from the MCBC, Data Axle,[2] and state and federal governments.

The study defines the Michigan craft beverage industry as businesses headquartered in the state of Michigan that produce wine, hard cider, beer, and spirits. In addition, standalone vineyards; taprooms and tasting rooms owned by craft beverage producers, wholesalers, and retailers of Michigan beverage alcohol products are included. In addition, the economic effects of the tourism sector, which includes non-local visitors traveling to Michigan craft beverage producers to taste products, tour facilities, or attend events, as well as the "beverage hospitality sector," which provides accommodations, dining, and related services within craft beverage establishments are included in the study.

The first tier of the Michigan Craft Beverage industry is those Michigan headquartered businesses that produce wine, hard cider, beer, and spirits. Once the craft beverage is produced and packaged, it is either sold through firms' own retail outlets (tap and tasting rooms, restaurants or through off-premise retail), or distributed directly to local on- and off-premises retailers. In other cases, beverages are shipped directly by craft beverage businesses to consumers in Michigan and across the country. Other craft beverage products move through the second tier of the industry – the wholesalers.

Of special significance to craft beverage producers in Michigan are the state's farms which provide many of the wine grapes, hops to barley, corn, apples, and other agricultural products used to produce craft beverages in Michigan.

Michigan is one of seventeen control states. The Michigan Liquor Control Commission (MLCC), a state agency, is responsible for all wholesaling of spirits and authorizes distribution agents (ADAs) to handle beer, hard cider, and wine sales in the state. The MLCC is responsible for transportation and the short-term storage of spirits from producers to the third tier – the retailers. The third tier, craft beverage retailers, purchase Michigan craft beverages from the wholesaler and are responsible for reselling these products to adult consumers. This tier is comprised of on-premises retailers such as restaurants, bars, sports stadiums, etc., and off-premises retailers including liquor stores and wine shops.

In addition to the three tiers of the Michigan craft beverage industry, the study examines the economic impact of the craft beverage hospitality sector in the state. This encompasses firms

[1] IMPLAN® model, 2023 Data, using inputs provided by the user and IMPLAN Group LLC, IMPLAN System (2024), 16905 Northcross Dr., Suite 120, Huntersville, NC 28078, www.IMPLAN.com.

[2] Data Axle is the leading provider of business and consumer data for the top search engines and leading in-car navigation systems in North America. Data Axle gathers data from a variety of sources, by sourcing, refining, matching, appending, filtering, and delivering the best quality data. Data Axle verifies its data at the rate of almost 100,000 phone calls per day to ensure absolute accuracy.

providing accommodation, dining, and related services within wineries, brewpubs, and other craft beverage production establishments. The economic impact in the state driven by non-local visitors traveling to Michigan craft beverage producers for tastings, tours, and events is also included in the study.

The study measures numerous factors of the craft beverage industry including the number of jobs, the wages paid to owners and employees, the total output, and estimates of taxes paid by the industry and its employees in Michigan. In addition, the study assesses the economic impact of suppliers to the Michigan craft beverage industry, as well as those industries supported by the induced spending of both the direct and supplier sectors.

Every industry inevitably makes purchases from a mix of different industries - thus, economic activity within one industry always extends beyond its origins, through means such as employee spending. The economic activity started by the Michigan craft beverage industry generates output and jobs in hundreds of other industries, often far removed from the site of the original operation. The impact of supplier firms and the "induced impact" of the re-spending by employees of industry and supplier firms are calculated using an input-output model of Michigan. The study calculates the impact on the State of Michigan and in each of the state's 148 legislative districts.

Table 1 on the following page outlines the overall economic impact of the craft beverage industry in Michigan. As the table shows, craft beverage producers generate over 5,750 full-time equivalent jobs in the state, producing over $2.1 billion worth of beverages. In addition, these firms provide over 8,200 jobs for workers in brewpubs, restaurants, hotels, orchards, and other operations attached to their production facilities. The entire industry directly provides FTE jobs for more than 25,100 people, paying over $900.6 million in wages and benefits. The industry directly creates nearly $4.0 billion in economic activity in the state.

Once the additional supplier and induced impacts are included, the Michigan Craft Beverage Industry is responsible for a total of nearly 41,130 FTE jobs in the state (nearly 1.0 percent of total employment), paying nearly $2.0 billion in wages and generating nearly $7.3 billion in economic output.[3]

Economic Impact Results

The Michigan craft beverage economic impact study examines Michigan headquartered wineries, cideries, breweries and distilleries, as well as wholesaling and retailing of Michigan craft beverage products. Additional impacts such as those related to stand alone vineyards, tourism expenditures, and hospitality operations at craft beverage producers are also included.

As Table 1 shows, craft beverage producers generate over 5,750 full-time equivalent jobs in the state, producing over $2.1 billion worth of beverages. In addition, these firms provide over 8,200 jobs for workers in brewpubs, restaurants, hotels, orchards, and other operations attached to their production facilities. Furthermore, tourism driven by visits to these establishments directly supports another 8,038 jobs, contributing $234.95 million in wages and $781.08 million in

[3] According to the Bureau of Labor Statistics, a total of 4,518,200 people were employed in Michigan as of January 2025. *State Employment and Unemployment -- January 2025*, Press Release, US Department of Labor, Bureau of Labor Statistics, March 17, 2025, at: https://www.bls.gov/news.release/laus.nr0.htm.

economic activity, while standalone vineyards contribute 562 jobs and $37.8 million in economic activity.

Table 1
Michigan Craft Beverage Industry Economic Impact

	Jobs	Wages	Output
Craft Beverage Producers	5,755	$277,780,100	$2,110,536,100
Standalone Vineyards	562	$25,298,000	$37,803,000
Wholesaling	358	$33,505,800	$139,287,700
On-Premise Retailing	1,466	$44,233,200	$123,857,500
Off-Premise Retailing	727	$28,411,400	$67,418,300
Tourism	8,038	$234,954,000	$781,079,700
Craft Beverage Hospitality	8,202	$256,429,200	$735,279,200
Total Direct Impact	25,108	$900,611,700	$3,995,261,500
Total Supplier Impact	8,553	$625,668,600	$1,909,209,200
Total Induced Impact	7,466	$448,101,800	$1,393,301,900
Total Economic Impact	**41,127**	**$1,974,382,100**	**$7,297,772,600**

The entire industry directly provides FTE jobs for more than 25,100 people, paying over $900.6 million in wages and benefits. The industry directly creates nearly $4.0 billion in economic activity in the state.

Once the additional supplier and induced impacts are included, the Michigan Craft Beverage Industry is responsible for a total of nearly 41,130 FTE jobs in the state paying nearly $2.0 billion in wages and generating nearly $7.3 billion in economic output.

Economic Impact by Product

As defined in this analysis, craft beverages consist of beer, cider, spirits, and wine produced in Michigan by companies headquartered in the state. Each of these products is an important part of the craft beverage industry, with many companies producing more than one type of beverage at its facilities.

Table 2
Michigan Craft Beverage Production and Sales Economic Impact

	Jobs	Wages	Output
Craft Beverage Producers	5,755	$277,780,100	$2,110,536,100
Wholesaling	358	$33,505,800	$139,287,700
On-Premise Retailing	1,466	$44,233,200	$123,857,500
Off-Premise Retailing	727	$28,411,400	$67,418,300
Tourism	8,038	$234,954,000	$781,079,700
Craft Beverage Hospitality	8,202	$256,429,200	$735,279,200
Total Direct Impact	24,546	$875,313,700	$3,957,458,500
Total Supplier Impact	8,538	$624,890,100	$1,907,474,000
Total Induced Impact	7,348	$440,988,000	$1,371,559,100
Total Economic Impact	**40,432**	**$1,941,191,800**	**$7,236,491,600**

All told, the production, distribution, and sale of craft beverage products in Michigan creates over 18,561 jobs, once supplier and induced impacts are included and nearly $5.8 billion in economic activity (Table 2 above). The largest product, in terms of economic impact is beer, followed by spirits, then wine and then cider.

Craft Beer Production and Sales

The production of craft beer begins at the brewery. In Michigan, there are 448 breweries producing craft beer either for sale on site, or via retailers across Michigan and for some, across the nation.

Table 3
Michigan Craft Beer Industry Economic Impact

	Jobs	Wages	Output
Breweries	3,376	$171,496,400	$1,082,424,200
Wholesaling	219	$20,702,400	$86,048,600
On-Premise Retailing	629	$18,935,400	$53,108,100
Off-Premise Retailing	278	$10,876,400	$25,801,700
Total Direct Impact	4,502	$222,010,600	$1,247,382,600
Total Supplier Impact	2,350	$175,803,100	$591,083,000
Total Induced Impact	2,097	$126,372,500	$398,024,000
Total Economic Impact	**8,949**	**$524,186,200**	**$2,236,489,600**

It is estimated that craft breweries in Michigan directly employ an estimated 3,376 (FTE) people in brewing and brewing related occupations. These jobs pay a total of $171.50 million in wages while contributing nearly $1.08 billion in economic activity to the state. The overall impact of the brewing industry is nearly 8,950 FET jobs, and over $2.2 billion in economic output.

Craft breweries in Michigan may sell directly to consumers through their tap rooms and on-site restaurants or self-distribute to retailers such as restaurants, bars, and liquor stores, and in many cases, sell through distributors to a wider market.

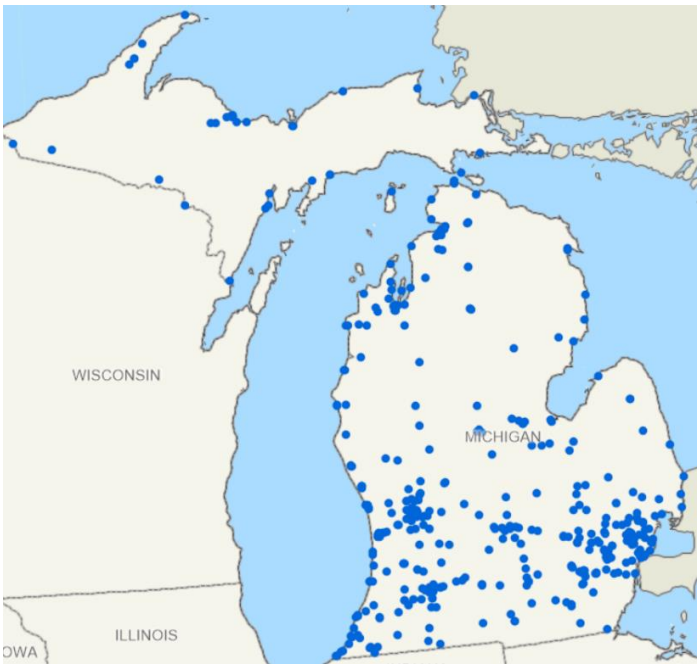
As Figure 1 on the following page shows, breweries spread across the state. These brewers range in size from 200,000 barrels in production to just a handful of barrels and employ from 1 to 147 brewing employees (FTE). Beer produced by brewers headquartered in Michigan but sold or distributed outside the state, are not included in this study.

Craft Spirits Production and Sales

The second largest sector of the craft beverage industry in Michigan is distilled spirits. According to American Craft Spirits Association, Michigan ranks 8th for number of craft spirit producers in the nation.[4]

The production of distilled spirits begins with a sugar source such as malted grain, molasses, or fruit. Sugars from these plant-based sources are converted into alcohol and carbon dioxide as part of a fermentation process.

Figure 1
Location of Michigan Breweries



Distilleries then continue the distilling process through the use of pot or continuous stills. The size, shape, and temperature of a still contribute to the overall flavor and alcohol content of the spirit.

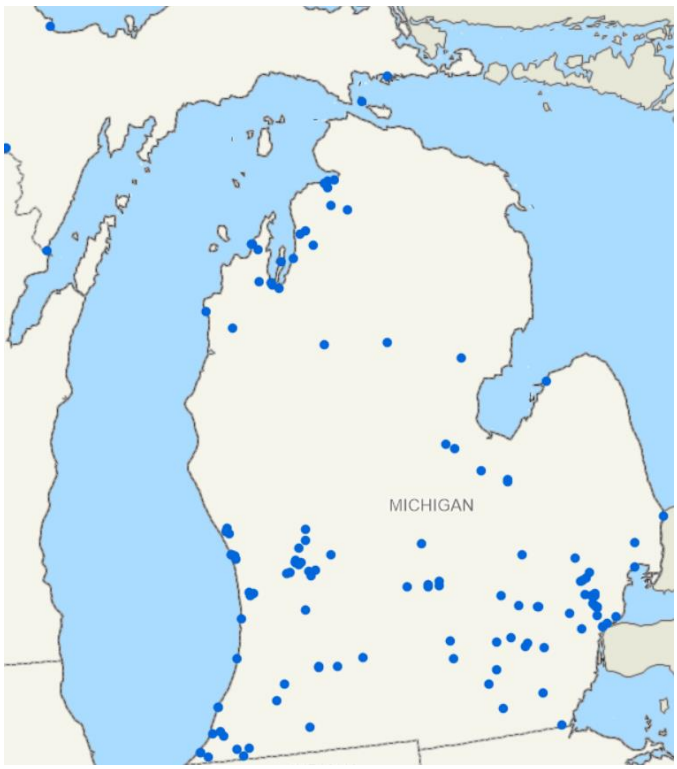
[4] https://americancraftspirits.org/wp-content/uploads/2017/02/2024-Craft-Spirits-Data-Project-Final.pdf

Table 4
Michigan Spirits Industry Economic Impact

	Jobs	Wages	Output
Distilleries	588	$30,573,200	$419,592,100
Wholesaling	6	$589,100	$2,476,100
On-Premise Retailing	41	$1,227,100	$3,434,500
Off-Premise Retailing	31	$1,179,200	$2,823,800
Total Direct Impact	666	$33,568,600	$428,326,500
Total Supplier Impact	758	$59,172,700	$196,423,400
Total Induced Impact	433	$25,975,200	$80,109,500
Total Economic Impact	**1,857**	**$118,716,500**	**$704,859,400**

Distilleries in Michigan may sell directly to consumers through their tasting rooms or distribute to local retail license holders through the state's control system. Worth noting is the explosive growth in RTD/canned cocktails that continue to gain market share and shelf space at Michigan retail stores. Michigan's 129 distilleries employ almost 588 people (FTE jobs) and pay nearly $30.57 million in wages and benefits. These firms directly generate well over $419.59 million in economic activity in the state. Once the supplier, induced and wholesale/retail of Michigan spirits is included, the impact to the state's economy is nearly $704.9 million, with nearly 1,860 FTE jobs created.

Figure 2
Location of Michigan Distilleries



Many breweries and wineries in Michigan also produce distilled spirits. The location of all of the distilleries in the state is shown in Figure 2 on the prior page.

Wine Production and Sales

According to the Alcohol and Tobacco Tax and Trade Bureau of the US Department of Treasury (TTB), Michigan is the 7th largest state in the country in terms of wine production, accounting for about 0.6 percent of the total volume.[5] While this pales in comparison to states like California and New York, it is still a significant volume. As Figure 3 below shows, the majority of the state's wineries cluster along the eastern shore of Lake Michigan.

Wineries in Michigan may grow winegrapes in their own vineyards and orchards, or they may purchase winegrapes from growers located both in Michigan and other states. Wineries then continue the vinification process of crushing, pressing, and fermenting the fruits, aging, and bottling and cellaring the wine. Michigan's 258 wineries may sell directly to consumers through their tasting rooms and on-site restaurants or self-distribute to local retail license holders. In addition, many of the state's wineries use local and national distributors to market their products across the state and the nation. Wineries employ 1,146 FTE workers in the state and pay $48.45 million in wages and benefits. These firms directly generate $389.44 million in economic activity in the state.

Figure 3
Location of Michigan Wineries

[5] 2023 data. See: *2023 Annual State Statistical Report – Wine*, US Department of The Treasury, Alcohol and Tobacco Tax and Trade Bureau, March 13, 2024, at: https://www.ttb.gov/regulated-commodities/beverage-alcohol/wine/wine-statistics.

Once the wholesale and retail sales of Michigan wine in the state, along with the supplier and induced impacts are included, the Michigan wine industry accounts for over 3,873 jobs, and $868.1 million in economic output.

Table 5
Michigan Wine Industry Economic Impact

	Jobs	Wages	Output
Wineries	1,146	$48,453,100	$389,439,500
Wholesaling	60	$5,494,100	$22,834,000
On-Premise Retailing	301	$9,104,900	$25,462,400
Off-Premise Retailing	158	$6,186,700	$14,673,700
Total Direct Impact	1,665	$69,238,800	$452,409,600
Total Supplier Impact	1,356	$94,086,500	$255,010,400
Total Induced Impact	852	$51,136,100	$160,666,500
Total Economic Impact	**3,873**	**$214,461,400**	**$868,086,500**

Craft Cider Production and Sales

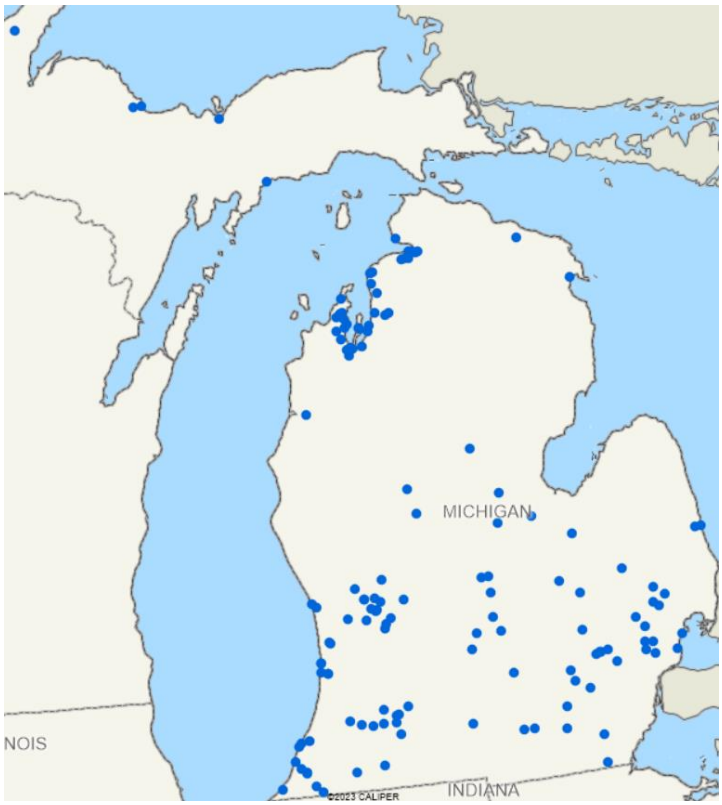
Hard cider production is an emerging industry in Michigan. The state is home to 135 cideries that craft hard ciders in three distinct styles: standard, specialty, and intensified and distilled.

Table 6
Michigan Hard Cider Economic Impact

	Jobs	Wages	Output
Cideries	645	$27,257,400	$219,080,300
Wholesaling	73	$6,720,100	$27,929,100
On-Premise Retailing	495	$14,965,800	$41,852,500
Off-Premise Retailing	260	$10,169,100	$24,119,100
Total Direct Impact	1,473	$59,112,400	$312,981,000
Total Supplier Impact	965	$67,583,900	$189,062,100
Total Induced Impact	749	$44,765,300	$143,700,400
Total Economic Impact	**3,187**	**$171,461,600**	**$645,743,500**

These hard cider producers may sell directly to consumers through their tasting rooms and on-site restaurants or self-distribute to local retail license holders. Michigan's hard cider producers employ 645 people (FTE jobs) and pay more than $27.26 million in wages and benefits. These firms directly generate $219.1 million in economic activity in the state. Once the wholesaling and retailing of cider in Michigan, as well as the supplier and induced effects are considered, the state's cider industry is responsible for nearly 3,190 FTE jobs and over $646.7 million in economic activity.

Figure 4
Location of Michigan Cideries



Michigan is the nation's second largest producer of apples[6]. As is the case with the state's wineries, there is a large concentration of cider producers located in the upper part of the state, along the eastern shore of Lake Michigan. This area is famous for its large-scale fruit-farming operations, many of which also produce hard cider.

Supplier and Induced Impacts

As with all productive activities, the full economic impact of the Michigan craft beverage industry extends beyond the initial direct impact. In order for the industries to conduct business, they require goods and services which must be purchased from other industries. This additional economic impact is referred to as the supplier impact.

Examples of the supplier impacts created by the Michigan craft beverage industry include businesses purchasing farming equipment and supplies, paying rent to landlords, buying packaging materials, hiring consultants, drivers, lawyers, and even creating government jobs responsible for the regulation or licensing of craft beverage businesses.

Of all the suppliers, the agricultural sector plays the most vital role. Growers supply fruits, vegetables, and grains, specifically winegrapes, hops, barley, corn, and apples, which are essential to the creation of craft beverages. The contributions of agricultural suppliers are

[6] https://www.michiganapples.com/

broken out in Table 14 on page 16; however, one of the most important supplier industries in Michigan are vineyards.

Vineyard Impacts

Michigan is home to five federally designated American viticultural areas (AVAs): Fennville, Lake Michigan Shore, Leelanau Peninsula, Old Mission Peninsula, and Tip of the Mitt. According to a USDA survey conducted in 2020, there are 3,375 acres of vineyards in the state, many of which are associated with wineries (estate vineyards), while others are stand-alone operations selling not only to Michigan wineries, but to producers throughout the country.[7]

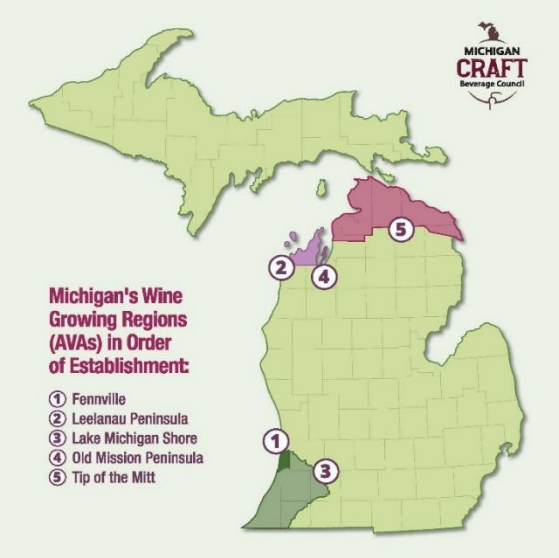
Michigan's stand-alone vineyards employ over 560 FTE workers, with much higher employment during the growing season and lower employment during the winter. These workers receive about $25.3 million in wages and benefits. Vineyards account for about $37.8 million in economic activity in the state, and when their supplier and induced effects are included, they generate $61.3 million in economic activity, while employing 699 FTE individuals. This figure does not include the estate vineyard operations which are part of the wineries themselves and are included in those figures.

Table 7
Michigan Vineyard Industry Economic Impact

	Jobs	Wages	Output
Stand-Alone Vineyards	562	$25,298,000	$37,803,000
Total Direct Impact	562	$25,298,000	$37,803,000
Total Supplier Impact	18	$778,700	$1,735,400
Total Induced Impact	119	$7,113,900	$21,742,700
Total Economic Impact	**699**	**$33,190,600**	**$61,281,100**

[7] National Agricultural Statistics Service (NASS) USDA Survey 2020 1380-ava-map-generic.pdf

Figure 5
Michigan Wine Growing Regions (AVAs)



Production of Craft Beverages in Michigan

The Michigan craft beverage industry produces a significant volume of beverages each year, contributing to the state's economy and tourism sector. Wineries across Michigan produce 1.9 million gallons of wine annually, offering a diverse selection of varietals that highlight the region's distinct growing conditions. Cideries contribute 1,2 million gallons of hard cider, benefiting from the state's abundant apple orchards. Breweries, which make up a substantial portion of the craft beverage sector, produce approximately 16.4 million gallons of beer, ranging from small-batch artisanal brews to nationally retailed brands.

Table 8
Michigan Craft Beverage Production

	Liters	Bottles	Gallons
Beer	62,053,119	661,899,935	16,392,699
Wine	7,116,424	9,488,566	1,879,960
Cider	4,615,310	49,229,971	1,219,236
Spirits	936,905	1,249,207	247,504

Meanwhile, Michigan distilleries generate 247,500 gallons of craft spirits, including whiskey, vodka, gin, and other specialty liquors. This collective production volume highlights the strength and growth of Michigan's craft beverage industry, reinforcing its role in both local and national markets. Note that production numbers in Table 8 include the use of fruit and grains from outside the state.

Craft Beverage Wholesaling

Traditionally, most alcoholic beverages are sold through what is called the three-tier system, whereby producers sell to wholesalers, who in turn sell to retailers.[8] In the case of Michigan, one of seventeen control states, a state agency, the MLCC is responsible for all wholesaling of spirits and allows authorized distribution agents (ADAs) to handle beer, hard cider, and wine sales in the state.

Unlike national brands, craft beverages are generally sold either on-site at taprooms, tasting rooms and brewpubs, or directly to consumers and local restaurants or retailers. However, a significant amount of Michigan produced products are distributed regionally and nationally by licensed beer distribution firms, or by wine and spirits distributors.[9]

Alcohol beverage wholesalers directly employ 358 people, paying them $33.51 million in wages, and generating $139.29 million in economic activity related to the distribution of craft beverages produced in the state of Michigan. Once supplier and induced firms are included, the wholesaling of craft beverages accounts for 1,450 FTE jobs in the state and over $360.9 million in economic activity.

Table 9
Economic Impact of Michigan Craft Beverage Wholesaling

	Jobs	Wages	Output
Wholesaling	358	$33,505,800	$139,287,700
Total Direct Impact	358	$33,505,800	$139,287,700
Total Supplier Impact	548	$39,928,800	$111,940,400
Total Induced Impact	544	$33,622,300	$109,682,400
Total Economic Impact	**1,450**	**$107,056,900**	**$360,910,500**

Craft Beverage Retailing

The third-tier, retailing, is responsible for selling craft beverages to consumers. The retailing tier is comprised of on-premises retailers such as restaurants, bars, sports stadiums, etc., and off-premises retailers like liquor stores and wine shops. These businesses sell not only Michigan craft beverages, but those from both national and international producers.

In Michigan, the third-party retail sale of craft beverage produced in the state directly creates 2,193 jobs in the on- and off-premises retail sectors. These jobs pay about $72.64 million in wages and benefits and contribute $191.28 million in economic activity to the state.

Once the supplier and induced impacts are included, the retail sales of Michigan produced craft beverages (not including direct sales by producers) generates over $746.4 million in economic activity, while leading to work for nearly 4,840 FTE employees. (See Table 10).

[8] Michigan allows certain wineries to both self-distribute and sell from their facilities. The State also allows wineries to directly ship wine to consumers under certain circumstances.

[9] According to the most recent analysis there are over 4,176 beverage alcohol wholesaling facilities across the United States. See: *The Wine and Spirits Industry Economic Impact Study: 2024*, Prepared for the Wine & Spirits Wholesalers of America by John Dunham & Associates, 2025, at: https://wswa.guerrillaeconomics.net/assets/res/methodology.pdf

Table 10
Economic Impact of Michigan Craft Beverage Retailers

	Jobs	Wages	Output
Retailing On-Premises	1,466	$44,233,200	$123,857,500
Retailing Off-Premises	727	$28,411,400	$67,418,300
Total Direct Impact	2,193	$72,644,600	$191,275,800
Total Supplier Impact	1,179	$85,856,900	$260,962,700
Total Induced Impact	1,466	$88,378,300	$294,161,800
Total Economic Impact	**4,838**	**$246,879,800**	**$746,400,300**

Craft Beverages-Related Tourism

Craft beverage facilities are an attractive destination not only for Michiganders, as well as international and out-of-state visitors. In fact, one of the major benefits of a developed craft beverage industry in a state is the ability to attract millions of visitors that not only tour and visit the craft beverage facilities, but also spend money in restaurants, hotels, and attractions located within the geographic area and across the state. As such, these tourists not only create business for the wineries, breweries, cideries, and distilleries they visit, but they also create jobs through their lodging, food, transportation, and other retail purchases. The economic impact of spending from these visitors is an important aspect of the overall craft beverage industry.

Over 5.9 million unique visits were made to Michigan's wineries, breweries, cideries and distilleries.

Table 11
Visitor Spending from Craft Beverage Related Tourism in Michigan

Category		Dollars Spent in Michigan		Dollars Per Visitor	Percent of Spending
Accommodations	$	168,923,115	$	93.70	11.2%
Restaurants and Bars	$	699,177,743	$	387.83	46.3%
Food Stores	$	21,073,459	$	11.69	1.4%
Local Transportation	$	116,268,428	$	64.49	7.7%
Gasoline	$	235,805,154	$	130.80	15.6%
Recreation	$	67,063,025	$	37.20	4.4%
Arts and other Entertainment Facilities	$	67,063,025	$	37.20	4.4%
Retail Stores	$	134,126,051	$	74.40	8.9%
Air Transportation	$	475,491	$	0.26	0.0%
Total Spending	$	1,509,975,491	$	837.58	100.0%

JDA estimates that just over 5.9 million unique visits were made to Michigan's wineries, breweries, cideries and distilleries.[10] These visits would be from tourists rather than local

[10] Typically, people visit more than one craft beverage facility while in the area. See tourism methodology for more details.

individuals visiting the craft beverage facility for an event, or to just pick up a bottle of wine or cider for dinner. Based on an average number of 760 craft beverage producing facilities visited by someone coming to the facility, this would mean that about 1.8 million unique individual tourists visited craft beverage facilities in 2024.[11] In addition to spending money at craft beverage facilities, tourists attended numerous events held at the facilities such as concerts, festivals, weddings, cookouts, or private dinner events.

Of those tourists visiting Michigan's wineries, breweries, cideries, and distilleries, about 6.0 percent were international visitors.[12]

These 1.8 million tourists spent an estimated $1.5 billion on the local economy outside of the visits made to the craft beverage facilities. (Table 11) The economic activity created by these visitors directly generates about 8,038 FTE jobs, paying about $235.0 million in wages and benefits, and contributing $781.1 million in economic activity to the state. Once the supplier and induced effects are considered, this tourist activity was responsible for 11,328 total FTE jobs in Michigan and $1.4 billion in economic activity.

Table 12

	Jobs	Wages	Output
Craft Beverages-Related Tourism	8,038	$234,953,900	$781,079,500
Total Direct Impact	8,038	$234,953,900	$781,079,500
Total Supplier Impact	1,701	$121,589,400	$362,685,400
Total Induced Impact	1,589	$95,436,600	$291,678,500
Total Economic Impact	**11,328**	**$451,979,900**	**$1,435,443,400**

Economic Impact of Craft Beverages-Related Tourism in Michigan

Craft Beverages Hospitality

Many of the craft beverage producers in Michigan operate other businesses in addition to their production facilities. These include restaurants (or brewpubs), hotels, event venues, food retailing operations and *agritainment* operations such as pick-your-own farms. While these are not directly part of the craft beverage production industry, they represent a separate *hospitality sector* that is dependent on the production of craft beverages for their existence. The craft beverage hospitality sector plays a vital role in enhancing the overall experience of visitors to wineries, breweries, distilleries, cideries, and other craft beverage establishments. This sector provides a unique opportunity for guests to immerse themselves in the culture of craft beverages through on-site accommodations, curated dining experiences, and personal events such as weddings or reunions.

JDA estimates that this craft beverage hospitality sector within wineries, breweries, distilleries, cideries, and other craft beverage production establishments - creates 8,202 jobs, generating $256.43 million in wages and $735.28 million in economic activity in Michigan.

[11] According to *Visitor Profile 2023*, Visit Napa Valley, at: https://www.visitnapavalley.com/about-us/research/. Visits include 3 wineries and 2 tasting rooms.

[12] *U.S. Travel Forecast 2024*, US Travel Association. No longer available online. 2025 forecast available at: *chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.ustravel.org/system/files?file=2025-01/US_Travel_Forecast_Tables_Winter2025.pdf*

Table 13
Economic Impact of Craft Beverage Hospitality

	Jobs	Wages	Output
Craft Beverage Hospitality	8,202	$256,429,100	$735,279,100
Total Direct Impact	8,202	$256,429,100	$735,279,100
Total Supplier Impact	1,409	$106,654,200	$313,209,600
Total Induced Impact	1,623	$97,302,100	$297,380,400
Total Economic Impact	**11,234**	**$460,385,400**	**$1,345,869,100**

This is separate from other parts of the craft beverage industry such as tourism and retailing. Once the supplier and induced impacts created by the hospitality sector are included the overall benefit to Michigan is the creation of more than 11,230 FTE jobs, paying $460.4 million in wages and benefits. Overall, the economic impact of this part of the craft beverage industry is over $1.3 billion.

Supplier and Induced Impacts

Throughout this report, the important impact of suppliers to the craft beverage industry has been discussed, as have the induced impacts, resulting from the spending of wages from employees in the direct and supplier segments in the general economy of the state. These impacts extend far beyond the breweries, distilleries, wineries and cideries producing craft beverages in the state. This section provides some detail as to the breakdown of these impacts. All supplier and induced impact calculations come directly from the IMPLAN model.[13]

Table 14
Supplier Impact of the Michigan Craft Beverage Industry

[13] See methodology section for more detail.

	Jobs	Wages	Output
Agriculture	996	$40,949,800	$105,169,200
Mining	7	$298,400	$3,578,500
Construction	84	$5,992,900	$17,552,800
Manufacturing	314	$27,896,800	$184,605,000
Transportation and Communication	1,493	$105,069,900	$345,157,600
Wholesaling	871	$89,016,500	$300,484,200
Retailing	150	$6,851,800	$18,917,900
Finance, Insurance and Real Estate	1,397	$92,494,500	$419,202,900
Travel and Entertainment	462	$15,452,700	$43,891,400
Business and Personal Services	2,600	$224,181,500	$440,137,800
Government	179	$17,463,800	$30,511,900
Other	-	$0	$0
Total Supplier Impact	**8,553**	**$625,668,600**	**$1,909,209,200**

Supplier Impacts

The supplier impact created by Michigan's craft beverage production, distribution, and retailing includes goods and services from a multitude of different sectors. These are purchases of varied goods such as farm equipment, tools, cash registers, and promotional materials. Services such as consulting, banking, legal, and marketing are also a part of the supplier impact. In the case of the Michigan craft beverage industry, government jobs are created in agencies responsible for the regulation of craft beverage related businesses.

An estimated 8,553 supplier jobs overall are created by the Michigan craft beverage industry, paying $625.67 million in wages, and generating about $1.91 billion in economic activity. Table 14 on the prior page provides a breakdown of the supplier impacts.

Induced Impacts

The induced impact is created by the expenditure of wages earned by employees in the direct and supplier sectors. These jobs are dependent on the Michigan craft beverage industry and would not exist if not for it. Businesses included in the induced impact spread across the general economy of the state and region, from restaurants and retailers to physicians' offices and universities. The induced impact of the Michigan craft beverage industry creates 7,466 jobs, paying $448.10 million in wages, and generating about $1.39 billion in economic activity.

Table 15
Induced Impact of the Michigan Craft Beverage Industry

	Jobs	Wages	Output
Agriculture	58	$2,244,700	$8,002,500
Mining	5	$186,800	$2,539,500
Construction	63	$4,200,700	$11,082,100
Manufacturing	134	$12,239,300	$77,814,200
Transportation and Communication	467	$35,877,700	$139,460,100
Wholesaling	176	$19,323,600	$71,745,700
Retailing	1,102	$47,187,100	$127,391,200
Finance, Insurance and Real Estate	887	$55,705,900	$402,402,600
Travel and Entertainment	1,088	$33,899,900	$103,469,700
Business and Personal Services	3,174	$218,600,000	$420,474,700
Government	60	$5,369,000	$15,028,500
Other	252	$13,267,100	$13,891,100
Total Supplier Impact	**7,466**	**$448,101,800**	**$1,393,301,900**

Fiscal Impacts

An important part of an impact analysis is the calculation of the contribution of the industry to the public finances of the state, its localities, and the country. The study also estimates taxes paid by the industry and its employees. Federal taxes include business and personal income taxes, FICA, and unemployment insurance. State and local tax systems, on the other hand, vary widely. Direct taxes include state sales taxes, license fees, and applicable gross receipt taxes. Private retailers pay real estate and personal property taxes, business income taxes, and other business levies that vary in each state and municipality. Taxes paid by businesses and their employees due to the operation of the entities are denoted as *business taxes,* while those related to the sale of beverage alcohol products (for example state excise and sales taxes) and denoted as *consumption taxes.*

All entities engaged in business activity generated by the industry pay similar taxes. In addition to this, consumers pay millions in federal, state, and local sales and excise taxes when they purchase craft beverage at both on- and off-premise establishments.

In the case of the Michigan craft beverage industry, the business taxes paid by firms operating in the Michigan craft beverage industry and their employees, as well as the businesses and employees in supplier and spending-induced industries, provide $497.84 million to the federal government and $429.99 million to state and local governments.

In addition, the consumption of craft beverages and other products sold by the Michigan craft beverage industry generated $124.45 million in state and local sales taxes, which includes $10.89 million in state craft beverage excise taxes. In addition, craft beverages sold by the Michigan craft beverage industry generated about $3.60 million in federal excise taxes. These include contributions from the craft beverages defined in the study: wine sales generated $41.9 million in state and local taxes, including $960,717 in excise taxes; beer sales generated $32.2 million in state and local taxes, including $2.3 million in excise taxes and $130,100 in bottle bill escheats; cider sales generated $27.14 million in state and local taxes, including $623,067 in

excise taxes; and spirits sales generated $23.3 million in state and local taxes, including $7.0 million in excise taxes.

Table 16
State Consumption Taxes Generated by Michigan Craft Beverage Industry

Tax	Beer	Wine	Cider	Spirits	Total
Volume (Barrels/Liters)	528,797	7,116,424	4,615,310	936,905	N/A
State Excise	$ 2,273,826	$ 960,717	$ 623,067	$ 7,026,789	$ 10,884,399
State Sales	$ 29,774,853	$ 40,894,545	$ 26,521,886	$ 8,455,638	$ 105,646,923
Control State Markup		$ -	$ -	$ 167,366	$ 167,366
Alcoholism Tax		$ -	$ -	$ 7,623,133	$ 7,623,133
Bottle Bill Escheat	$ 130,108				$ 130,108
Total	$ 32,178,787	$ 41,855,263	$ 27,144,953	$ 23,272,927	$ 124,451,929

Charitable Contributions

Charitable contributions are calculated as part of the economic impact model itself. The Bureau of Economic Analysis NIPA tables show spending per dollar of output for about 500 industry categories, including industries such as religious organizations, civic organizations, and social advocacy organizations.

JDA estimated the charitable contributions of the industry by analyzing the supplier and induced impacts in the following sectors: Individual and family services; community food, housing, and other relief services, including rehabilitation services; performing arts companies; museums, historical sites, zoos, and parks; religious organizations, grantmaking, giving, and social advocacy organizations; and labor and civic organizations. Spending in each of these categories is aggregated together to estimate the charitable contributions attributed to the craft beverage industry in Michigan.

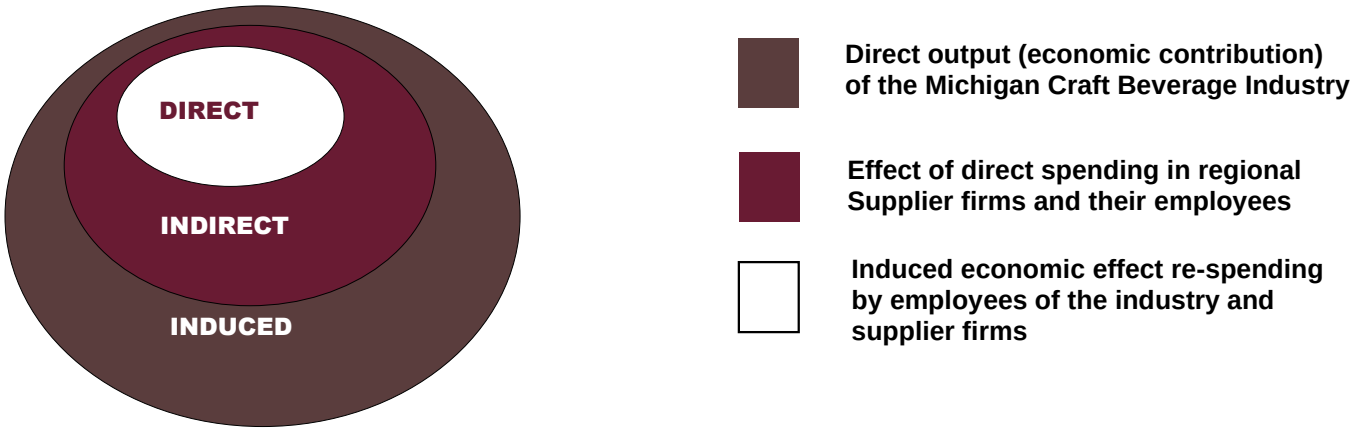
Based on these data, it is estimated that about $20.14 million is contributed by employees and companies in the craft beverage industry to charitable organizations.[14]

[14] This includes the production sectors (beer, wine, spirits, and hard cider) as well as the wholesale, retail, and standalone vineyard sectors.

Study Methodology

The Economic Impact Study begins with an accounting of the direct employment along the Michigan craft beverage industry. The data comes from a variety of government and private sources. It is sometimes mistakenly thought that initial spending accounts for all of the impact of an economic activity or a product. For example, at first glance it may appear that consumer expenditures for a beer are the sum total of the impact on the local economy. However, a single economic activity leads to a ripple effect where other sectors and industries benefit from this initial spending. This inter-industry effect of an economic activity can be assessed using multipliers from regional input-output modeling.

Figure 6
Graphical Description of Economic Impact Modeling



The economic activities of events are linked to other industries in the state and national economies. Activities related to the Michigan craft beverage industry represent the direct effects on the economy. Indirect impacts occur when these activities require purchases of goods and services such as advertising services or fertilizer from local or regional indirect firms. Additional induced impacts occur when workers involved in direct and indirect activities spend their wages. The ratio between induced output and direct output is termed the multiplier.

This method of analysis allows the impact of local production activities to be quantified in terms of final demand, earnings, and employment in the states and the nation as a whole.

Once the direct impact of the industry has been calculated, the input-output methodology discussed below is used to calculate the contribution of the indirect sector and the re-spending in the economy by employees in the industry and its indirect firms. This induced impact is the most controversial part of economic impact studies and is often quite inflated. In the case of this model, only the most conservative estimate of the induced impact has been used.

Model Description and Data

This economic impact analysis was developed by JDA based on data provided by the Michigan Craft Beverage Council (MCBC), Alcohol and Tobacco Tax and Trade Bureau (TTB), Data Axle and other state and federal government sources. The analysis utilizes the IMPLAN model in

order to quantify the economic impact of the Michigan craft beverage industry on the state economy.[15] The model adopts an accounting framework through which the relationships between different inputs and outputs across industries and sectors are computed. This model can show the impact of a given economic decision – such as a winery opening or vineyard sales – on a pre-defined, geographic region. It is based on the national income accounts generated by the US Department of Commerce, Bureau of Economic Analysis (BEA).[16]

Direct employment for the industry is calculated using data primarily from MCBC and Data Axle. Where these data were not available, direct employment was replaced with a median calculated by business type (winery, vineyard, brewery, cidery, distillery, etc.) As part of this process, the hospitality segment of beverage alcohol production facilities was separated out by function (restaurant, hotel, etc.) The jobs separated out were based on either the average or median figure for known facilities. These impacts were run through the IMPLAN model separately based on the primary industry of that specific activity.

The IMPLAN model is designed to run based on the input of specific direct economic factors. It uses a detailed methodology (see IMPLAN Methodology section) to generate estimates of the other direct impacts, tax impacts, and indirect and induced impacts based on these entries. In the case of this model, direct employment in the Michigan craft beverage industry is a starting point for the analysis. Direct employment is based on data provided to JDA by the MCBC and from Data Axle as of January 2025.

Data Axle data are recognized nationally as a premier source of micro-industry data. The company is the leading provider of business and consumer data for the top search engines and leading in-car navigation systems in North America. Data Axle gathers data from a variety of sources by sourcing, refining, matching, appending, and filtering. This data is then verified at a rate of almost 100,000 phone calls per day to ensure absolute accuracy.

Once the initial direct employment figures have been established, they are entered into a model linked to the IMPLAN database. The IMPLAN data are used to generate estimates of direct wages and output. Wages are derived from the U.S. Department of Labor's ES-202 reports. IMPLAN uses this data to provide annual average wage and salary establishment counts, employment counts, and payrolls at the county level. Since this data only covers payroll employees, it is modified to add information on independent workers, agricultural employees, construction workers, and certain government employees. Data are then adjusted to account for counties where non-disclosure rules apply. Wage data include not only cash wages but health and life insurance payments, retirement payments and other non-cash compensation. In short, it includes all income paid to workers by employers.

For some industries like craft beverage manufacturing, total output is the value of production by firms. For other industries like retailing and wholesaling, total output measured similarly to gross margin. Both types of output are estimated by IMPLAN from sources similar to those used by the Bureau of Economic Analysis (BEA) in its RIMS II series. Where no Census or government surveys are available, IMPLAN uses models such as the Bureau of Labor Statistics' growth model to estimate the missing output.

[15] IMPLAN® model, 2023 Data, using inputs provided by the user and IMPLAN Group LLC, IMPLAN System (2024), 16905 Northcross Dr., Suite 120, Huntersville, NC 28078, www.IMPLAN.com.

[16] The IMPLAN model is based on a series of national input-output accounts known as RIMS II. These data are developed and maintained by the U.S. Department of Commerce, Bureau of Economic Analysis as a policy and economic decision analysis tool.

The model also includes information on income received by the federal, state, and local governments and produces estimates for the following taxes at the federal level: corporate income, payroll, personal income, estate and gift, and excise taxes, customs duties, fines, and fees, etc. State and local tax revenues include estimates of corporate profits, property, sales, severance, estate and gift and personal income taxes, licenses and fees and certain payroll taxes.

Taxes paid due to the consumption of craft beverages in Michigan are also included in the analysis. This is based on estimates of sales volume for each of the products, the price of the products, based on IMPLAN output figures, and data from the State of Michigan Department of Licensing and Regulatory Affairs.[17] These figures – while mostly separate from the reported taxes paid – contain very small double counts. This is because individuals employed by the industry, or its suppliers, purchase some amount of craft beverages, and the sales and excise taxes paid by these people are already included in the supplier and induced tax data.

The data used to develop direct employment figures by sector is described in detail below.

Craft Beverage Producers

The economic impact of the Michigan craft beverage industry is based on licensing data from TTB[18] and the Michigan Department of Liquor Control,[19] MCBC, Data Axle, and other industry sources. Michigan craft beverage producers are defined as businesses headquartered in the state of Michigan that produce wine, hard cider, craft beer, and spirits.

Based on these combined datasets, it is estimated that there are 758 active craft beverage businesses in Michigan. Data Axle employment figures are used to estimate the jobs in each facility. Where no Data Axle data was available, median job figures were used.[20]

Vineyards

Most Michigan wineries are classified as *farm wineries* under Michigan law, in that they are defined as a place located on a farm in Michigan where wine is both manufactured and sold. For farm wineries in Michigan, it is assumed that they operate both wineries and vineyards. Vineyards that are standalone are counted separately from wineries and considered part of the direct impact of the Michigan craft beverage industry. Vineyard data are developed using data from the 2022 & 2021 Michigan Wine Grape Survey.[21] Additional data for the analysis came from the US Department of Agriculture and the Alcohol and Tobacco Tax and Trade Bureau.[22]

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17 *2024 Beer, Wine, & Mixed Spirit Drink Tax Collection*, webpage, State of Michigan, Department of Licensing and Regulatory Affairs, at: https://www.michigan.gov/lara/bureau-list/lcc/financial-management-division-reports/tax-collection-reports/2024-beer-wine-mixed-spirit-drink-tax-collection

18 Alcohol and Tobacco Tax and Trade Bureau, 2024. TTB licensing data. U.S. Department of the Treasury.

19 Michigan Liquor Control Commission. (2025). Active and escrowed license list. Michigan Department of Licensing and Regulatory Affairs. https://customers.mlcc.michigan.gov/som_activeescrowlicenselist.

20 Many of these facilities may produce more than one type of craft beverage (for example beer and wine, or wine and spirits).

21 Michigan Wine Collaborative, *2022 & 2021 Michigan Wine Grape Survey Results*, paid for by a Michigan Department of Agriculture and Rural Development Specialty Crop Block Grant, produced by Alchemae Craft Beverage Consulting, August 2023.

22 See: *2020 Small Fruit and Hops Inventory*, US Department of Agriculture, National Agricultural Statistics Service, at: https://www.nass.usda.gov/Statistics_by_State/Michigan/Publications/Michigan_Rotational_Surveys/mi_fruit20/Grapes%20hops.pdf, and *2023 Annual State Statistical Report – Wine*, US Department of The Treasury, Alcohol and Tobacco Tax and Trade Bureau, March 13, 2024, at: https://www.ttb.gov/regulated-commodities/beverage-alcohol/wine/wine-statistics.

The survey results provide data on the percentage of wine made from Michigan grapes as well as data on the break between grape farmers and wine makers who also grow grapes, the value of and tonnage of production, and both the revenue and acres for responding producers. This is supplemented by data from the TTB on overall wine production in the state and USDA data on the size of farms, the breakdown in production between wine and juice grapes, and the size of grape farms. These data were last updated in 2020 and were estimated for 2024 using a linear trend. According to industry trade sources, *In general, a winemaker expects to get slightly more than two 60-gallon barrels of wine from 1 ton of grapes.*[23]

All of these data were combined with data on the number of wineries and estimates of total sales of wine grapes from both estate and non-estate vineyards were calculated.

Table 17
Estimated Wine Grape Production in Michigan by Vineyard Type

		Output
Vineyards Not Winery	$	37,802,962
Vineyards included in wineries	$	52,603,609

Craft Beverage Wholesaling

Traditionally, most craft beverage is sold through what is called the three-tier system, whereby producers sell to wholesalers, who in turn sell to retailers.[24] In the case of Michigan, it is one of seventeen control states and the MLCC is responsible for all wholesaling of spirits and allows authorized agents to handle beer, hard cider, and wine sales in the state.

Craft Beverage Retailing

The third tier, retailing, is responsible for selling Michigan craft beverages to consumers through on- and off-premise businesses such as restaurants, bars, and liquor stores. Retail sales that are occurring at Michigan craft beverage owned facilities such as tasting rooms or restaurants within the winery's premises are not included in this impact. These impacts are captured separately in the *hospitality* section of the analysis.

Employment data were gathered at the zip code level from Data Axle. The Economic Census of Retail Trade by Product Line[25] and U.S. Department of Commerce – Bureau of Economic Analysis – Personal Consumption Expenditures by Type of Product[26] are used determine the type of off-premise stores that sell wine as well as the percent of sales at each store type that is due to the sale of wine. IMPLAN Use data and U.S. Department of Commerce – Bureau of Economic Analysis – Personal Consumption Expenditures by Type of Product is used to determine the type of on-premise stores that sell Michigan craft beverages as well as the percent of sales at each store type that is due to the sale of these products.

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23 *How many gallons of wine are in a ton of grapes?* Ask Dr. Vinny, Wine Spectator, April 12, 2021, at: https://www.winespectator.com/articles/how-many-gallons-of-wine-are-in-a-ton-of-grapes

24 Michigan allows certain wineries to both self-distribute and sell from their facilities. The State also allows wineries to directly ship wine to consumers under certain circumstances.

25 *2020 Economic Census - Retail Trade: Subject Series - Product Lines: Product Lines Statistics by Industry for the U.S. and States: 2020*, United States Census Bureau. These are the latest data available.

26 *Table 2.4.5U Personal Consumption Expenditures by Type of Product,* U.S. Department of Commerce – Bureau of Economic Analysis.

Craft Beverage-related Tourism

One of the crucial elements of the impact of the Michigan craft beverage industry on the state economy is the attractiveness of these facilities to tourists. Every year, thousands of people visit craft beverage-growing regions across the state in part to visit, or even stay, and to learn about craft beverages, and sample different craft beverages. In order to estimate the economic impact of these visits, it was first necessary to calculate the number of visitors to the Michigan craft beverage industry's 970 production facilities.[27]

JDA's standard tourism model is based on clustering effects of craft beverage facilities on the number of visitors. Using this model JDA calculates that a winery or similar craft beverage producer existing alone in a county would receive just over 2,040 visitors in a year and that the number of annual tourist visitors would rise linearly at a rate of about 6 additional visits per year for each additional facility in the county.

No state specific data are available to estimate the number of wineries or similar craft beverage producer each individual visitor goes to on a trip, however, an extensive survey of wineries in Napa California, suggests each person visits on average about 3 wineries, so dividing visits by 3 gives an estimate of just over 1.7 actual visitors going to craft beverage facilities in Michigan.[28]

Once the number of visitors was calculated, spending propensities using data broken into 24 industries based on percentages derived from the US Department of Commerce, Bureau of Economic Analysis were applied.[29] Data were inflated to 2025 dollars based on the Consumer Price Index.[30]

These spending propensities were multiplied by the number of visitors. Overnight and international visitors were assigned spending for the accommodation and air transportation categories, as well as water and bus transportation, taxi services, sports, gaming and performing arts categories. Spending was multiplied by the number of visitors and combined into aggregate categories for processing with the IMPLAN model. As such, rather than basing the direct tourism impact on jobs (as with the rest of the study), it is based on estimated visitor spending on key tourism categories.

Craft Beverage Hospitality

Many craft beverage producers not only house production facilities and tasting rooms, but also offer visitors access to a restaurant, lodging accommodations, retail food stores, or other venues not directly related to production. The impact of these facilities is separated from the production facilities themselves. Employment at each of these venues is based on the average (or median) employment for those facilities for which data are available from Data Axle. JDA staff searched the websites and physical locations (via Google Earth) of each facility contained in this analysis to determine the number of other *hospitality* operations co-located with each. The number of jobs was then allocated to each of these facilities based on the known averages divided by the number of venue types operated at each location.

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27 758 different facilities, many of which produce multiple products. Each product/facility pair is counted as one business.

28 *Visitor Profile 2023*, Visit Napa Valley, at: https://www.visitnapavalley.com/about-us/research/. Visits include 3 wineries and 2 tasting rooms.

29 *Tourism Satellite Accounts Data: 2023*, US Department of Commerce, Bureau of Economic Analysis, at: https://www.bea.gov/data/special-topics/travel-and-tourism/tourism-satellite-accounts-data-sheets.

30 *CPI Inflation Calculator*, US Department of Labor Bureau of Labor Statistics, at: https://www.bls.gov/data/inflation_calculator.htm. January 2023 to June 2025.

IMPLAN Model

The IMPLAN model is designed to run based on the input of specific direct economic factors. It uses a detailed methodology (see IMPLAN Methodology section) to generate estimates of the other direct impacts, tax impacts and indirect and induced impacts based on these entries.

Once the initial direct employment figures have been established, they are entered into a model linked to the IMPLAN database. The IMPLAN data are used to generate estimates of direct wages and output. Wages are derived from data from the U.S. Department of Labor's ES-202 reports that are used by IMPLAN to provide annual average wage and salary establishment counts, employment counts, and payrolls at the county level. Since this data only covers payroll employees (those eligible for unemployment insurance), it is modified to add information on those who are not, such as independent workers, agricultural employees, and construction workers. Data is then adjusted to account for counties where non-disclosure rules apply. Wage data includes not only cash wages, but health and life insurance payments, retirement payments, and other non-cash compensation as well. They include all income paid to workers by employers.

Total output is the value of production by industry in a given state. It is estimated by IMPLAN from sources similar to those used by the BEA in its RIMS II series. Where no Census or government surveys are available, IMPLAN uses models such as the Bureau of Labor Statistics' growth model to estimate the missing output.

The model also includes information on income received by the federal, state, and local governments, and produces estimates for the following taxes at the federal level: corporate income, payroll, personal income, estate and gift, excise taxes, customs duties, and fines, fees, etc. State and local tax revenues include estimates of corporate profits, property, sales, severance, estate and gift and personal income taxes as well as licenses, fees, and certain payroll taxes.

While IMPLAN is used to calculate the state level impacts, Data Axle data provide the basis for legislative district and local level estimates. Publicly available data at the county and legislative district level is limited by disclosure restrictions, especially for smaller sectors of the economy. This model therefore uses actual physical location data provided by Data Axle in order to allocate jobs – and the resulting economic activity – by physical address or when that is not available, zip code.

For zip codes entirely contained in a single county or district, jobs are allocated based on the percentage of total sector jobs in each zip code. For zip codes that are broken by geographies, allocations are based on the percentage of total jobs physically located in each segment of the zip code/district boundary where the segments are weighted by the density of roads to account for urban/commercial versus rural areas.

IMPLAN Methodology[31]

Input-output analysis, for which Wassily Leontief received the 1973 Nobel Prize in Economics for, is an econometric technique used to examine the relationships within an economy. It captures all monetary market transactions for consumption in a given period and for a specific

[31] This section is paraphrased from IMPLAN Professional: Users Guide, Analysis Guide, Data Guide, Version 2.0, MIG, Inc., June 2000.

geography. The IMPLAN model uses data from many different sources – as published government data series, unpublished data, sets of relationships, ratios, or as estimates. IMPLAN gathers this data, converts them into a consistent format, and estimates the missing components.

There are three distinct levels of data generally available in the United States: federal, state, and county. Most of the detailed data are available at the county level, but there are many issues with disclosure, especially in the case of smaller industries. IMPLAN overcomes these disclosure problems by combining a large number of datasets and estimating variables that are not found in the merged data. The data are then converted into national input-output matrices (Use, Make, By-products, Absorption, and Market Shares) as well as national tables for deflators, regional purchase coefficients, and margins.

The IMPLAN Make matrix represents the production of commodities by industry. The Bureau of Economic Analysis (BEA) Benchmark I/O Study of the US Make Table forms the basis of the IMPLAN model. The Benchmark Make Table is updated to current year prices and rearranged into the IMPLAN sector format. The IMPLAN Use matrix is based on estimates of final demand, value-added by sector, and total industry and commodity output data as provided by government statistics or estimated by IMPLAN. The BEA Benchmark Use table is then bridged to the IMPLAN sectors. Once the re-sectoring is complete, the Use tables can be updated based on the other data and model calculations of interstate and international trade.

In the IMPLAN model, as with any input-output framework, all expenditures are in terms of producer prices. This allocates all expenditures to the industries that produce goods and services. As a result, all data not received in producer prices are converted using margins derived from the BEA Input-Output model. Margins represent the difference between a producer and consumer prices. As such, the margins for any good add up to one.

Deflators, which account for relative price changes during different time periods, are derived from the Bureau of Labor Statistics (BLS) Growth Model. The 224 sector BLS model is mapped to the 528 sectors of the IMPLAN model. Where data are missing, deflators from BEA's Survey of Current Businesses are used.

Finally, the Regional Purchase Coefficients (RPCs) – essential to the IMPLAN model – must be derived. IMPLAN is derived from a national model, which represents the "average" condition for a particular industry. Since national production functions do not necessarily represent particular regional differences, adjustments need to be made. Regional trade flows are estimated based on the Multi-Regional Input-Output Accounts, a cross-sectional database with consistent cross interstate trade flows developed in 1977. These data are updated and bridged to the 528 sector IMPLAN model.

Once the databases and matrices are created, they go through an extensive validation process. IMPLAN builds separate state, and county models and evaluates them, checking to ensure that no ratios are outside of recognized bounds. The final datasets and matrices are not released until extensive testing takes place.

About John Dunham & Associates

Founded in 2000, John Dunham & Associates (JDA) is an economic research firm primarily focused on tax and regulatory economics. The firm employs sixteen people with senior staff in Florida, New York, and Washington, DC.

The JDA team takes pride in simplifying complex economic issues by translating them into useful, data-driven talking points for clients' advocacy and communication efforts. A fully documented methodology accompanies every economic study to provide clients with complete transparency and confidence in the data.

Several of JDA's senior staff members are former government relations and communications professionals with experience working for both trade associations and corporations. Through this breadth of experience on the front line of policy debates, JDA understands the importance of a perfectly crafted elevator speech. JDA sets itself apart from its competitors with its ability to take complex economic issues and explain them in simple terms for use with advocacy and communication campaigns.

Another key differentiator from other economic firms is that JDA is completely transparent about its methodologies and provides its clients with all the data used in its studies. This is particularly important when defending data in a policy debate as every number can be traced back to its original source.

JDA conducts analysis for a variety of industries and has particular expertise in the alcohol industry, having conducted studies for 20 national and state trade associations representing the interest of the wine, spirits, and beer industries.

Appendix A: Michigan State Legislative Districts

State House District	Total Jobs	Total Wages	Total Output	Breweries Count	Cideries Count	Distilleries Count	Wineries Count
State House District 1	222	$13,959,700	$42,529,900	0	0	0	0
State House District 2	61	$4,103,400	$15,189,100	0	0	0	0
State House District 3	102	$5,924,400	$21,009,700	2	0	0	0
State House District 4	130	$7,943,300	$28,594,400	0	0	0	0
State House District 5	151	$10,969,100	$26,890,200	2	1	1	0
State House District 6	116	$4,425,800	$17,659,800	4	0	1	2
State House District 7	139	$9,089,900	$32,883,700	2	0	0	0
State House District 8	231	$11,411,700	$60,700,900	5	0	1	4
State House District 9	696	$36,761,500	$143,570,600	12	1	0	4
State House District 10	217	$12,146,100	$50,015,300	2	0	0	0
State House District 11	23	$1,263,900	$5,633,300	0	1	0	0
State House District 12	99	$4,903,300	$26,984,000	3	1	1	0
State House District 13	30	$1,540,400	$6,116,100	1	0	0	0
State House District 14	58	$2,901,500	$10,481,100	1	0	0	0
State House District 15	103	$6,791,900	$22,275,500	0	0	0	1
State House District 16	118	$8,509,200	$23,299,100	0	0	0	0
State House District 17	75	$5,256,800	$15,284,200	0	0	0	0
State House District 18	137	$6,546,400	$30,013,500	2	0	0	1
State House District 19	63	$3,270,600	$10,014,500	0	0	0	0
State House District 20	154	$8,242,300	$28,182,300	2	0	0	0
State House District 21	342	$18,038,500	$48,365,700	0	0	0	0
State House District 22	359	$16,280,800	$62,778,000	10	2	1	0
State House District 23	199	$8,128,600	$34,376,200	3	1	1	1
State House District 24	42	$1,909,300	$8,775,300	1	1	0	0
State House District 25	40	$2,116,100	$7,564,900	1	0	0	0
State House District 26	72	$3,655,400	$11,259,200	1	0	0	0
State House District 27	26	$1,365,200	$5,042,900	1	0	0	0
State House District 28	226	$10,782,200	$35,340,000	1	0	0	0
State House District 29	49	$3,165,400	$10,002,800	0	0	0	0
State House District 30	333	$17,807,900	$104,175,100	1	0	1	1
State House District 31	167	$9,394,000	$30,678,500	2	1	1	1
State House District 32	195	$9,688,100	$37,262,900	3	2	0	1
State House District 33	165	$7,166,200	$26,164,900	5	0	0	1
State House District 34	455	$26,563,300	$92,517,400	5	6	2	2
State House District 35	221	$11,706,200	$43,292,400	5	0	1	0
State House District 36	340	$19,356,600	$72,638,500	4	2	2	1
State House District 37	737	$31,485,600	$119,046,700	6	17	5	6
State House District 38	858	$37,058,200	$168,228,200	21	20	10	7
State House District 39	776	$39,632,400	$147,542,700	11	8	3	2
State House District 40	218	$8,727,800	$36,632,600	4	3	3	0

State House District	Total Jobs	Total Wages	Total Output	Breweries Count	Cideries Count	Distilleries Count	Wineries Count
State House District 41	329	$13,762,600	$73,792,100	9	3	2	2
State House District 42	405	$19,511,100	$108,928,300	8	0	2	1
State House District 43	214	$10,451,800	$36,957,800	5	1	0	1
State House District 44	141	$6,269,600	$23,728,600	4	0	0	1
State House District 45	385	$19,278,300	$66,646,200	4	5	1	1
State House District 46	225	$10,965,900	$39,553,400	5	3	0	2
State House District 47	463	$19,283,300	$76,316,400	9	2	2	2
State House District 48	138	$7,097,700	$26,872,300	1	0	1	0
State House District 49	288	$15,013,900	$60,667,800	8	2	4	3
State House District 50	239	$9,873,000	$33,436,300	3	3	1	1
State House District 51	222	$12,983,900	$37,141,800	1	1	0	0
State House District 52	232	$12,170,600	$36,376,700	2	0	0	0
State House District 53	109	$5,461,600	$17,259,400	1	0	0	0
State House District 54	161	$9,406,800	$38,541,100	1	1	1	2
State House District 55	96	$3,900,700	$28,241,500	2	0	1	3
State House District 56	198	$7,027,900	$31,815,300	4	1	0	2
State House District 57	67	$3,546,900	$16,347,000	0	2	1	2
State House District 58	140	$7,366,100	$29,448,400	2	0	0	0
State House District 59	212	$12,235,500	$45,744,700	3	1	0	0
State House District 60	1	$75,800	$322,000	0	0	0	0
State House District 61	120	$5,199,000	$24,698,400	2	2	0	0
State House District 62	60	$3,211,300	$11,165,400	0	1	1	0
State House District 63	123	$5,598,600	$24,724,800	4	2	0	1
State House District 64	53	$2,638,300	$12,161,800	1	3	0	1
State House District 65	223	$10,111,300	$36,965,500	3	3	2	1
State House District 66	377	$20,499,300	$68,803,400	3	1	2	0
State House District 67	516	$48,040,100	$123,115,200	1	2	1	0
State House District 68	243	$14,649,000	$46,352,300	1	0	0	0
State House District 69	136	$8,388,100	$27,145,500	0	0	1	0
State House District 70	197	$12,162,000	$42,764,600	1	0	0	0
State House District 71	211	$11,028,600	$36,692,000	1	1	0	0
State House District 72	142	$6,109,200	$20,659,500	4	2	1	1
State House District 73	179	$8,411,000	$31,580,900	5	0	1	1
State House District 74	109	$5,716,700	$19,737,700	2	1	0	1
State House District 75	294	$12,406,400	$41,417,000	3	2	1	2
State House District 76	163	$7,287,700	$27,030,900	5	2	2	1
State House District 77	227	$8,213,500	$37,145,200	6	0	2	1
State House District 78	189	$9,514,300	$34,264,900	4	0	0	0
State House District 79	159	$8,149,300	$37,787,900	6	3	1	0
State House District 80	93	$5,300,900	$24,359,200	3	2	2	3

State House District	Total Jobs	Total Wages	Total Output	Breweries Count	Cideries Count	Distilleries Count	Wineries Count
State House District 81	200	$10,184,200	$37,272,100	4	2	4	2
State House District 82	296	$11,572,600	$49,110,300	10	1	0	1
State House District 83	59	$2,986,000	$10,098,700	2	0	0	0
State House District 84	349	$13,367,300	$66,512,200	12	2	2	6
State House District 85	100	$3,838,500	$19,298,700	3	2	0	0
State House District 86	332	$14,406,500	$88,231,500	10	2	2	3
State House District 87	141	$5,889,100	$37,736,300	5	0	0	3
State House District 88	152	$6,222,100	$34,931,200	6	2	2	5
State House District 89	271	$16,502,100	$65,093,900	2	0	2	0
State House District 90	312	$11,358,200	$51,572,500	7	5	4	3
State House District 91	290	$14,573,100	$53,009,200	3	1	0	0
State House District 92	225	$9,333,500	$33,966,300	4	1	0	0
State House District 93	202	$10,552,600	$40,495,200	2	0	2	0
State House District 94	137	$7,219,700	$29,441,000	1	0	0	1
State House District 95	233	$12,932,900	$55,954,100	5	3	2	2
State House District 96	92	$5,785,300	$23,740,900	2	0	0	0
State House District 97	320	$16,958,600	$59,838,100	2	1	2	2
State House District 98	885	$48,354,600	$193,404,800	5	5	2	1
State House District 99	338	$18,290,300	$63,942,200	4	4	1	1
State House District 100	319	$17,328,400	$60,921,200	4	5	2	0
State House District 101	310	$14,850,100	$47,180,200	3	1	0	0
State House District 102	399	$18,565,300	$80,527,200	9	11	0	0
State House District 103	1,886	$78,050,800	$368,520,800	23	49	16	9
State House District 104	811	$48,229,600	$172,504,100	8	9	8	6
State House District 105	621	$45,753,000	$136,611,400	5	0	0	2
State House District 106	833	$47,458,300	$153,081,300	6	6	2	0
State House District 107	1,075	$52,118,700	$210,473,300	19	21	10	8
State House District 108	694	$36,263,500	$123,838,100	8	6	1	1
State House District 109	479	$21,538,500	$98,475,900	15	0	3	2
State House District 110	421	$21,430,800	$81,522,300	9	0	1	0

State Senate District	Total Jobs	Total Wages	Total Output	Breweries Count	Cideries Count	Distilleries Count	Wineries Count
State Senate District 1	933	$56,409,300	$183,185,900	3	0	0	3
State Senate District 2	474	$29,507,500	$88,559,400	2	0	0	1
State Senate District 3	529	$26,732,300	$88,373,600	13	3	1	2
State Senate District 4	525	$36,316,500	$107,707,100	3	0	0	0
State Senate District 5	187	$12,203,800	$34,971,700	4	1	0	0
State Senate District 6	258	$14,570,900	$46,283,100	4	0	0	1
State Senate District 7	444	$28,174,300	$79,753,000	2	1	0	1
State Senate District 8	564	$27,819,600	$107,258,300	12	2	3	7
State Senate District 9	306	$14,000,600	$59,339,700	5	1	1	4
State Senate District 10	275	$15,839,400	$51,865,300	3	0	0	1
State Senate District 11	152	$7,464,500	$26,892,500	2	1	0	0
State Senate District 12	566	$32,790,300	$118,978,300	7	4	2	1
State Senate District 13	537	$27,087,700	$80,319,800	8	2	1	0
State Senate District 14	814	$44,569,400	$148,723,700	12	7	3	5
State Senate District 15	1,063	$52,448,200	$163,550,300	17	4	2	3
State Senate District 16	549	$28,974,700	$144,788,800	7	5	4	4
State Senate District 17	1,240	$54,089,700	$220,383,500	20	23	9	10
State Senate District 18	616	$33,349,300	$119,853,000	16	6	1	3
State Senate District 19	935	$42,913,200	$161,306,400	21	7	8	3
State Senate District 20	2,464	$116,936,900	$581,614,500	27	24	12	6
State Senate District 21	406	$17,327,700	$59,682,800	14	3	3	3
State Senate District 22	466	$22,430,800	$70,585,300	12	6	1	3
State Senate District 23	443	$22,259,800	$72,762,600	8	3	4	2
State Senate District 24	675	$41,409,500	$141,846,800	7	3	4	1
State Senate District 25	1,776	$103,630,800	$425,452,500	10	11	3	3
State Senate District 26	423	$23,382,700	$91,569,800	6	3	2	2
State Senate District 27	167	$8,966,800	$29,901,600	2	1	2	0
State Senate District 28	560	$25,890,800	$83,074,300	7	2	4	3
State Senate District 29	494	$25,031,200	$86,349,100	15	3	2	5
State Senate District 30	1,742	$87,034,200	$409,831,700	24	7	8	8
State Senate District 31	585	$25,051,300	$110,117,100	19	6	5	8
State Senate District 32	1,215	$58,433,500	$213,726,800	21	14	1	5
State Senate District 33	536	$27,043,000	$86,140,200	8	4	2	1
State Senate District 34	674	$34,667,600	$128,305,400	8	7	5	0
State Senate District 35	680	$36,640,000	$124,102,800	8	2	2	3
State Senate District 36	981	$54,384,600	$187,740,800	13	8	2	3
State Senate District 37	3,574	$163,959,500	$773,366,100	46	78	33	21
State Senate District 38	887	$42,661,000	$154,064,600	32	6	5	3