

**2017 Economic Impact Study
of the Michigan Wine Industry**

Prepared for:



By



John Dunham & Associates

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Executive Summary

The 2017 Michigan Wine Economic Impact Study estimates the economic contributions made by the wine industry to the Michigan economy in 2017. John Dunham & Associates (JDA) conducted this research, which was funded by the Michigan Grape & Wine Industry Council (MGWIC). This work used standard econometric models first developed by the U.S. Forest Service, and now maintained by IMPLAN Group, LLC. Data came from MGWIC, WineAmerica, additional industry sources, government publications, and Infogroup.¹

The study defines the Wine Industry as: winegrape growing, wine and cider production, the wholesaling, retailing and direct to consumer sales of wine and cider in the State of Michigan.² The first tier of the industry is comprised of vineyards and apple orchards which grow winegrapes and cider apples. Wineries and cideries, in turn, use these fruits to produce wine and cider. Once the wine or cider is produced and packaged, it is ready for the second tier of the industry – the wholesalers. Wholesalers are responsible for transporting and the short-term storage of wine and cider from producers to the third tier – the retailers. The retailing tier is made up of on-premise retailers such as restaurants, bars, sport stadiums, etc. and off-premise retailers such as liquor stores, grocery stores, etc. In Michigan, wineries and cideries also have the ability to distribute to retailers, as well as sell their products directly to the consumer through their own channels such as tasting rooms and restaurants.

In addition to the three tiers of the industry, the study calculates the economic contribution to each state made through the spending of tourists visiting Michigan's 208 wineries.³

Associations and organizations that help develop the wine industry through education and research have been included in this study.

The study measures various factors of the Michigan wine industry including the number of jobs, the wages paid to employees, the value added, and total output. In addition, it assesses the economic impact of the suppliers that support the Michigan wine industry, as well as those industries supported by the induced spending of both the direct and supplier industries.

Every industry inevitably makes purchases from a mix of different industries—thus, an economic activity within one industry always extends beyond its origins, through means such as employee spending. Economic activity started by the wine industry generates output (and jobs) in hundreds of other industries, often in states 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 the United States. The study calculates the impact at the state, legislative district, and county levels.

The study also estimates taxes paid by the industry and its employees. Federal taxes include industry-specific excise and sales taxes, business and personal income taxes, FICA, and unemployment insurance. State and local tax systems, on the other hand, vary widely. Direct retail taxes include state and local sales taxes, license fees, and applicable gross receipt taxes. Retailers pay real estate and personal property taxes, business income taxes, and other business levies that vary in each state and municipality. All entities engaged in business activity generated by the industry pay similar taxes. In addition to this,

¹ Infogroup is the leading provider of business and consumer data for the top search engines and leading in-car navigation systems in North America. Infogroup gathers data from a variety of sources, by sourcing, refining, matching, appending, filtering, and delivering the best quality data. Infogroup verifies its data at the rate of almost 100,000 phone calls per day to ensure absolute accuracy.

² Throughout this study, all references to the “wine industry” include the production, wholesaling, and retailing of wine and cider.

³ Throughout this study, the winery count refers to the number of winery facilities. A single winery may have multiple facilities throughout the state or country. Each of these facilities is included in the winery count.

consumers pay millions in federal, state and local sales and excise taxes when they purchase wine and cider at both on- and off-premise establishments.

Members of the industry and their employees pay \$719.4 million in federal, state and local business taxes. Consumption taxes, which account for state and local sales taxes as well as excise taxes that apply to specific retail services, contribute \$134.1 million to the American and Michigan economy.

Economic Impact Results

The Michigan Wine Industry includes wineries and cideries, winegrape growers, wholesalers that handle wine and cider, as well as retail establishments that sell wine and cider to consumers, including grocery stores, warehouse clubs, restaurants, and bars. The wine industry also attracts many visitors to wineries and vineyards in Michigan. The economic impact of spending from these visitors is an important aspect of the overall wine industry. Their economic contribution is estimated in the tourism impact and includes spending on lodging, food, transportation, retail purchases, and other spending. In addition, the economic impact of associations, and research and educational organizations which promote and support the wine industry in Michigan are included in the study. Overall, the wine industry in Michigan directly creates 27,930 jobs, generating \$772.6 million in wages. The industry directly generates \$2.1 billion in economic activity in the state.

The full economic impact of the wine industry extends beyond the initial direct impacts. In order for these companies to conduct their businesses, they require goods and services that 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 wine industry include when these businesses purchase farming equipment and supplies, pay rent to landlords, buy packaging materials, hire consultants, drivers, lawyers, and even creating government jobs responsible for the regulation or licensing of wine and cider businesses. This supplier impact also includes goods and services provided by Michigan firms to wineries located throughout the United States.⁴

Furthermore, the induced impact is created when the people employed by the direct and supplier sectors spend their wages. These expenditures can be captured in businesses such as movie theaters, restaurants, retail shops, health care, and education.

Table 1
Michigan Wine Economic Impact

	Jobs	Wages	Economic Output
Vineyards	171	\$4,713,400	\$7,768,100
Wineries and Cideries	1,798	\$84,351,400	\$479,058,700
Wholesale	1,250	\$110,756,900	\$307,010,700
Retail	20,601	\$478,114,900	\$1,083,168,100
Tourism	4,042	\$88,624,400	\$243,837,400
Associations	10	\$602,100	\$1,657,200
Research and Education	58	\$5,457,400	\$14,468,700
Total Direct Impact	27,930	\$772,620,500	\$2,136,968,900
Total Supplier Impact	7,557	\$441,259,400	\$1,418,953,000
Total Induced Impact	11,812	\$555,516,900	\$1,846,374,300
Total Impact	47,299	\$1,769,396,800	\$5,402,296,200

⁴ More detail on these operations can be found in *2017 Economic Impact Study Of the Wine Industry Methodology and Documentation*, prepared for: WineAmerica by John Dunham & Associates, August 10, 2017 at: <http://wineamerica.org/impact>. The results of this study differ somewhat from the WineAmerica analysis based on differences in definitions, and the inclusion of certain survey data from Michigan wineries that have led to slightly more jobs in the state than was estimated earlier.

Vineyards and Orchards

The production of wine and cider begins with the farming of winegrapes and cider apples at vineyards and orchards. In Michigan, about 3,050 acres of farmland are used to grow winegrapes. These vineyards produce about 7,100 tons of grapes with a total value of \$9.5 million to be used specifically in the process of making wine.⁵

Table 2
Winegrape Vineyards in Michigan

Acres	Quantity (tons)	Winegrape Value	Price per ton
3,050	7,100	\$9,514,000	\$1,340

The vast majority of winegrape vineyards in Michigan are small farms tending to less than 10 acres of vineyards dedicated to growing winegrapes even though the bulk of the grapes are grown by a few large farms. Of the estimated 252 farms in Michigan that are growing winegrapes, 181 farms with less than 10 acres of land used for growing winegrapes amount to a total of 575 acres. Meanwhile, the 24 largest farms with 30 or more acres of land dedicated to growing winegrapes amount to 1,695 acres or about 56 percent of total acres.⁶

Table 3
Breakdown of Winegrape Vineyards in Michigan by Size

Size Group	Farms	Acres
1 – 9	181	575
10 – 29	47	780
30+	24	1,695
Total	252	3,050

It is estimated that vineyards in Michigan directly employ an estimated 171 full-time equivalent (FTE) people growing winegrapes.⁷ These jobs pay a total of \$4.7 million in wages while contributing \$7.8 million in economic activity to the state.

Table 4
Economic Impact of Vineyards in Michigan

	Jobs	Wages	Economic Output
Vineyards	171	\$4,713,400	\$7,768,100

⁵ *Noncitrus Fruits and Nuts 2016 Summary*. USDA – NASS. Available at: <http://usda.mannlib.cornell.edu/usda/current/NoncFruiNu/NoncFruiNu-06-27-2017.pdf>

⁶ *Michigan Grape Inventory 2016-2017*. Michigan Department of Agriculture & Rural Development.

⁷ Some of these jobs may be double counted in the winery impacts. Limited data available makes it difficult to estimate the impact from vineyards that are owned and operated by wineries. The impact of winery owned vineyards is already captured in the winery economic impact.

*Wineries and Cideries*⁸

Wineries and cideries may grow winegrapes and cider apples in their own vineyards and orchard or they may purchase winegrapes, cider apples or fruit juice from independent vineyards and orchards from across the country to produce their wine and cider. Wineries and cideries then continue the manufacturing process which may include crushing, pressing, and fermenting the fruits, aging and bottling the wine or cider. Wineries and cideries in Michigan may sell directly to consumers through their tasting rooms and on-site restaurants or self-distribute to retailers such as restaurants, bars, and liquor stores. The impact of these are included in the wineries and cideries impact and are not included in the wholesale and retail economic impacts in order to avoid double counting sales. Michigan wineries and cideries employ an estimated 1,798 and generate \$84.4 million in wages. These firms directly generate \$479.1 million in economic activity in the state.

Table 5
Economic Impact of Wineries and Cideries in Michigan

	Jobs	Wages	Economic Output
Wineries	1,441	\$68,181,500	\$384,965,800
Cideries	357	\$16,169,900	\$94,092,900
Total	1,798	\$84,351,400	\$479,058,700

Wholesalers

The majority of the wine and cider products will then enter the wholesale and retail sectors of the industry. The second tier, wholesaling, involves the transportation of wine and cider from the producers to retailers such as grocery stores, liquor stores, restaurants, and bars. Wholesalers may also provide short term storage for wine and cider products before distributing to retailers. The wholesale industry plays an important role in distributing wine and cider products responsibly and efficiently while creating approximately 1,250 jobs in Michigan. These jobs pay about \$110.8 million in wages and contribute \$307.0 million in economic activity to the state.

Table 6
Economic Impact of Wine Wholesalers in Michigan

	Jobs	Wages	Economic Output
Wholesalers	1,250	\$110,756,900	\$307,010,700

Retailers

The third tier, retailing, is responsible for selling wine and cider products to consumers through on- and off-premise businesses such as restaurants, bars, and grocery stores and liquor stores. Only the portion of economic activity created by these businesses due to the sale of wine or cider is accounted for in the analysis.⁹ In Michigan, the wine industry creates 20,601 jobs in the on- and off-premise retail and

⁸ Data on wineries from *2017 Economic Impact Study Of the Wine Industry Methodology and Documentation*, prepared for: WineAmerica by John Dunham & Associates, August 10, 2017 at: <http://wineamerica.org/impact>.

⁹ *2012 Economic Census - Retail Trade: Subject Series - Product Lines: Product Lines Statistics by Industry for the U.S. and States: 2012*, United States Census Bureau and *Table 2.4.5U Personal Consumption Expenditures by Type of Product*, U.S. Department of Commerce – Bureau of Economic Analysis.

hospitality sectors. These jobs pay about \$478.1 million in wages and contribute \$1.1 billion in economic activity to the state.

Table 7
Economic Impact of Wine Retailers in Michigan

	Jobs	Wages	Economic Output
Retailers	20,601	\$478,114,900	\$1,083,168,100

Tourism

Wineries and vineyards are an attractive destination for Michigan and out-of-state visitors. These visitors not only create business for the wineries and vineyards they visit but they also spend millions on lodging, food, transportation, and other retail purchases. JDA estimates that about 514,130 people made over 1,692,660 visits to Michigan's wineries and vineyard. In addition to spending in the wineries and vineyards on wine, food, events, etc., these people spent an estimated \$252.7 million in other parts of the Michigan economy. The economic activity created by these visitors generates about 4,042 jobs, paying about \$88.6 million in wages, and contributes \$243.8 million in economic activity to the state.

Table 8
Economic Impact of Wine Tourism in Michigan

	Jobs	Wages	Economic Output
Tourism	4,042	\$88,624,400	\$243,837,400

Ancillary Businesses

The promotion and protection of the wine and cider industry in Michigan is supported by trade associations. The Michigan Grape & Wine Industry Council's impact is measured in this sector. These associations serve to encourage growth and development of wine and cider related industries through education and sound public policies. Michigan's wine and cider associations provide a critical service to the industry and help drive its growth. These associations create approximately 10 jobs, paying about \$602,100 in wages and generate \$1.7 million in economic activity.

Table 9
Economic Impact of Wine Associations in Michigan

	Jobs	Wages	Economic Output
Associations	10	\$602,100	\$1,657,200

The wine industry in Michigan is also supported by research and education organizations which are involved in applied research and educational programs to protect and improve wine and cider related industries. These organizations are responsible for spreading sound business practices as well as promoting new, innovative techniques to further the development of the Michigan wine industry. Approximately 58 people were employed in Michigan based research and education organizations, receiving about \$5.5 million in wages and generating \$14.5 million in economic activity.

Table 10
Economic Impact of Wine Research and Education in Michigan

	Jobs	Wages	Economic Output
Research and Education	58	\$5,457,400	\$14,468,700

Supplier firms

The supplier impact created by the wine industry includes goods and services from a multitude of different sectors. These purchases include varied goods such as farm equipment, supplies, tools, cash registers, and promotional materials. Services such as consulting, banking, legal, and marketers are also a part of the supplier impact. In the case of the wine industry, government jobs are created in government agencies responsible for the regulation of wine related businesses. An estimated 7,557 supplier jobs are created by the wine industry, paying \$441.3 million in wages and generating about \$1.4 billion in economic activity.¹⁰

Table 11
Supplier Impact of the Wine Industry in Michigan

	Jobs	Wages	Economic Output
Agriculture	727	\$25,817,400	\$52,202,700
Mining	41	\$1,962,500	\$10,594,100
Construction	148	\$7,760,700	\$25,055,100
Manufacturing	810	\$63,454,100	\$360,137,900
Wholesale	370	\$32,727,700	\$89,701,600
Retail	281	\$7,728,100	\$22,230,000
Transport & Comm.	867	\$62,827,600	\$247,649,700
Finance, Insurance, R.E.	1,024	\$44,401,400	\$235,045,500
Bus. & Pers. Svcs	2,656	\$173,869,200	\$326,858,900
Travel & Entertainment	488	\$9,377,500	\$27,552,300
Government	145	\$11,333,200	\$21,925,200
Other	0	\$0	\$0
Total	7,557	\$441,259,400	\$1,418,953,000

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 wine industry in Michigan and would not exist if not for it. Businesses included in the induced impact include everything from restaurants and movie theaters to physicians' offices and universities. The induced impact of the wine industry created 11,812 jobs, paying \$555.5 million in wages and generating about \$1.8 billion in economic activity.

¹⁰ This includes the impact of purchases of supplies and services by wineries located throughout the United States from companies located in Michigan. See *2017 Economic Impact Study Of the Wine Industry Methodology and Documentation*, prepared for, WineAmerica by John Dunham & Associates, August 10, 2017 at: <http://wineamerica.org/impact>.

Table 12
Induced Impact of the Wine Industry in Michigan

	Jobs	Wages	Economic Output
Agriculture	220	\$9,935,100	\$24,675,800
Mining	37	\$1,546,700	\$9,259,300
Construction	138	\$7,237,900	\$23,906,900
Manufacturing	565	\$44,063,100	\$332,862,700
Wholesale	329	\$29,012,400	\$80,161,700
Retail	1,493	\$47,527,600	\$116,524,600
Transport & Comm.	608	\$47,005,100	\$214,292,600
Finance, Insurance, R.E.	1,388	\$66,637,700	\$439,355,000
Bus. & Pers. Svcs	4,982	\$255,413,600	\$465,044,700
Travel & Entertainment	1,755	\$36,597,400	\$110,515,000
Government	118	\$7,662,800	\$21,616,400
Other	179	\$2,877,500	\$8,159,600
Total	11,812	\$555,516,900	\$1,846,374,300

Fiscal Impacts

An important part of an impact analysis is the calculation of the contribution of the industry to the public finances of the country. In the case of the wine industry, the business taxes paid by firms and their employees provide \$395.9 million to the federal government and \$323.6 million to state and local governments. In addition, the consumption of wine in Michigan generated an estimated \$26.2 million in federal tax revenues and \$108.0 million in state and local tax revenues. These consumption taxes include taxes such as excise taxes and sales taxes.

Table 13
Fiscal Impact of the Wine Industry in Michigan

	Federal	State and Local	Total Taxes
Business Taxes	\$395,879,400	\$323,551,100	\$719,430,500
Consumption Taxes	\$26,188,900	\$107,950,200	\$134,139,100
Total Taxes	\$ 422,068,300	\$ 431,501,300	\$ 853,569,600

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 impacts in 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.

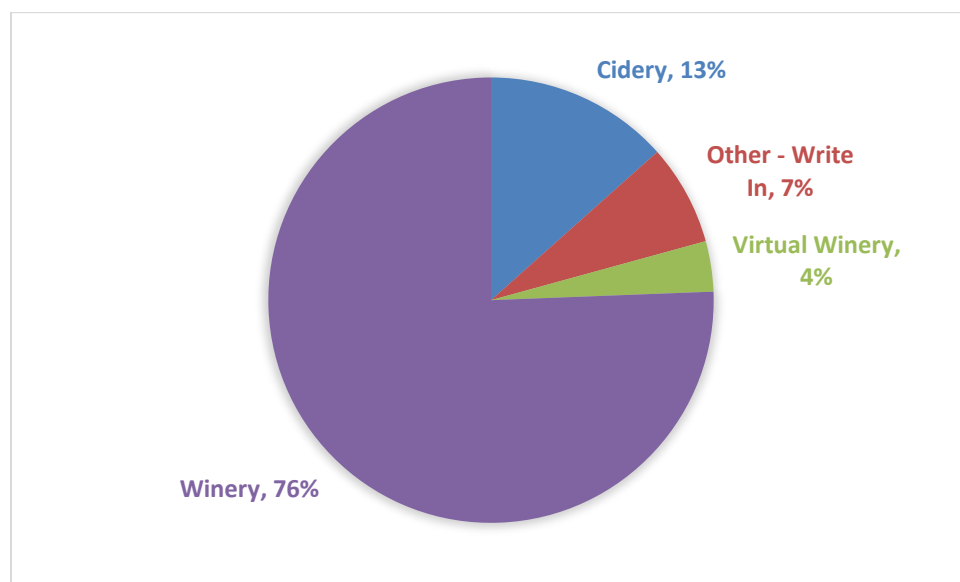
Spending in each of these categories is aggregated together to estimate the charitable contributions attributed to the wine industry in Michigan. It is estimated that about \$13.5 million is contributed by employees and companies in the wine industry to charitable organizations.

Wine Industry Census

JDA conducted an online census survey of Michigan wineries and cideries in order to collect and supplement information not available through other publicly available sources. The list of companies surveyed was compiled from government license data, Infogroup,¹¹ and data provided by MGWIC. The survey (attached as Appendix F) was conducted electronically through SurveyGizmo and was sent out to a prospective 252 target wineries and cideries. The survey was conducted from July to September 2017. Follow up phone calls were made to target companies in order to obtain updated contact information, collect data over the phone, and to provide additional information regarding the purpose of the survey and its intended use. In total, 65 of these companies were either unable to be reached and were removed from the survey list. Of the 96 companies that responded, 71 were classified as wineries, 12 as cideries, and 13 as either a brewery or a distillery. The remaining 91 companies either did not respond or chose to opt out of the survey. Considering that the state has a total of 238 wineries and cideries, the survey has a confidence interval of +/-6.2 percent.

Respondents were asked to choose which facility type best describes their company. Seventy six percent of respondents classified their company as a winery and three percent as a virtual winery. A virtual winery is defined as a company that owns, promotes, and/or sells their own brand of wine but has a contract winery produce the wine. Eleven of the respondents (11.5 percent) classified their company as a cidery while seven percent chose other. Respondents were able to write in their own response if they selected “Other” and over half of these respondents described their business as a winery and a cidery while the remainder made beer, wine, cider, and spirits.

Figure 1
Company Classification

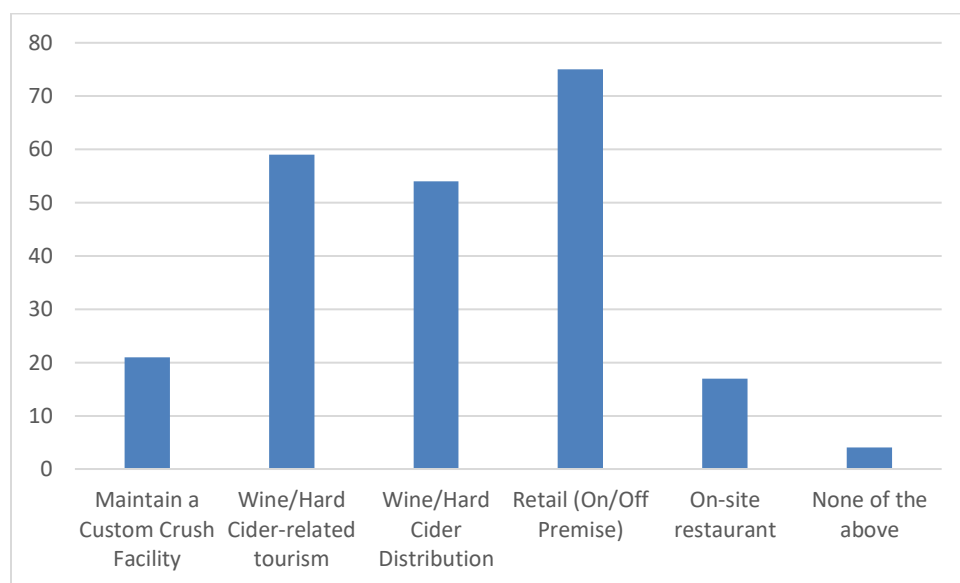


In order to learn about the different wine-related activities wineries and cideries engage in, respondents were asked to pick from the following: Maintain a custom crush facility, wine/hard cider-related tourism, wine/hard cider distribution, retail (on or off premise), on-site restaurant or none of the above. Seventy-

¹¹ Infogroup is the leading provider of business and consumer data for the top search engines and leading in-car navigation systems in North America. Infogroup gathers data from a variety of sources, by sourcing, refining, matching, appending, filtering, and delivering the best quality data. Infogroup verifies its data at the rate of almost 100,000 phone calls per day to ensure absolute accuracy.

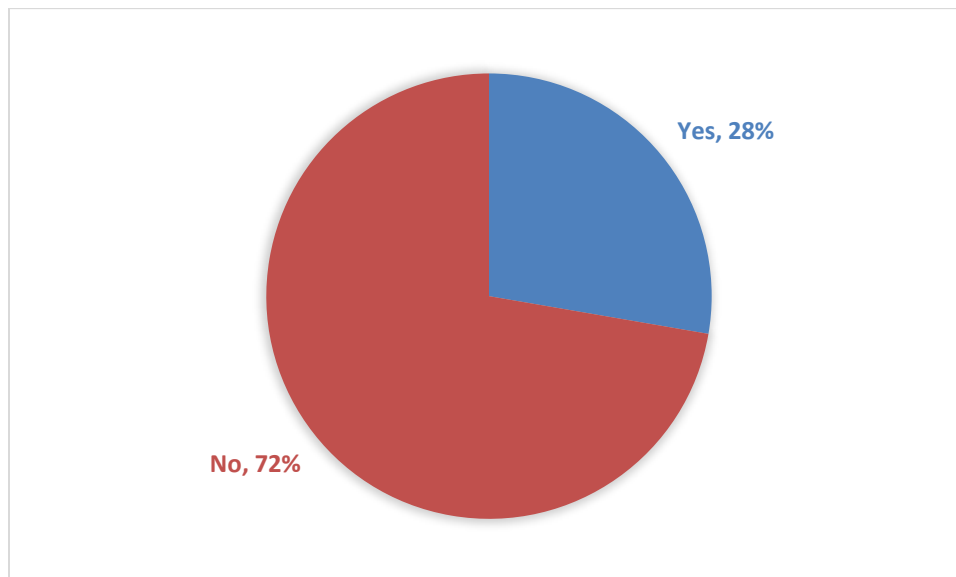
five responses indicated that their business conducts some retailing of their product. Fifty-nine responses indicated that they are involved in some wine/hard cider-related tourism, fifty-four indicated they perform some wine/hard cider distribution, twenty-one indicated they maintain a custom crush facility, seventeen responses indicated that their business has an on-site restaurant, and four responses performed none of the above.

Figure 2
Wine-related Activities



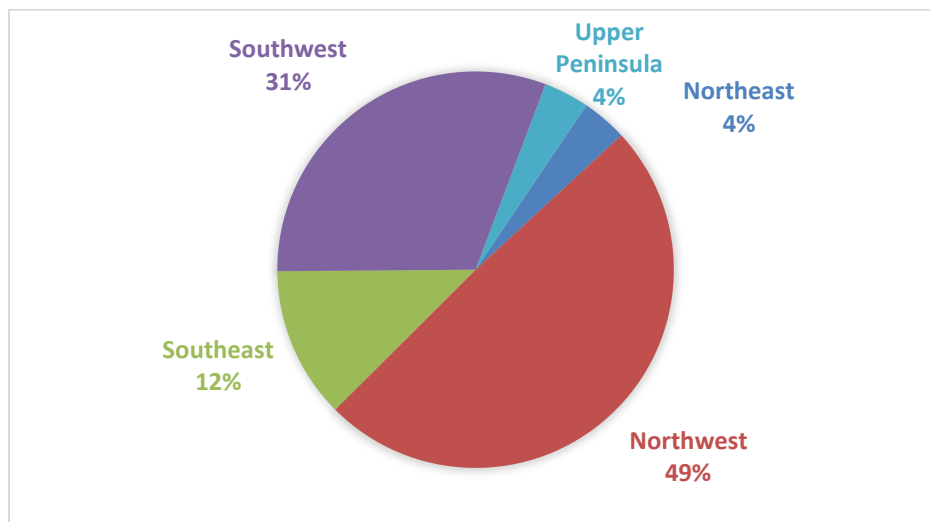
Respondents were asked if they imported any winegrapes or cider apples from outside of Michigan and if so, where from. About seventy-two percent of respondents stated that they do not import any wine grapes or cider apples while the remaining twenty-eight percent do. The top states where winegrapes are being imported from are California, followed by Oregon and Washington. Grape juice can also be imported in order to make wine in Michigan. The top three states where grape juice is imported from are Washington, California, and Oregon.

Figure 3
Out-of-State Importation of Winegrapes or Cider Apples



Winery and cidery operations in Michigan are spread out through the various regions. The largest concentration of respondents (49 percent) operate their businesses in the northwest region of Michigan. The southwest region has the second most respondents (31 percent), 12 percent of respondents operated in the southeast region, and both the northeast and upper peninsula regions had four percent of responses each.

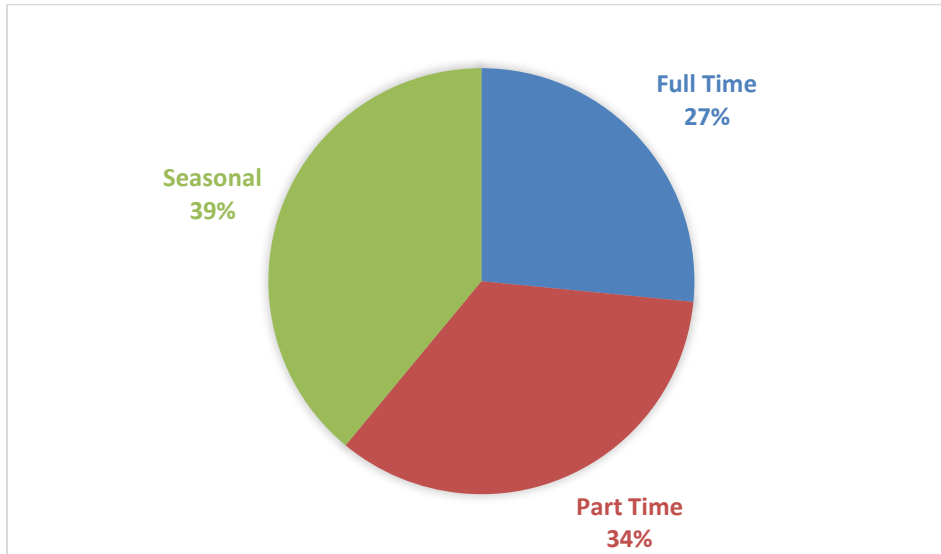
Figure 4
Winery and Cidery Operations by Region



Employment data regarding the breakdown of full-time, part-time, and seasonal employees showed a fairly even split across the three types. About thirty-nine percent of all employees hired were seasonal employees, thirty-four were part-time, and about twenty-seven percent were full-time employees. It is

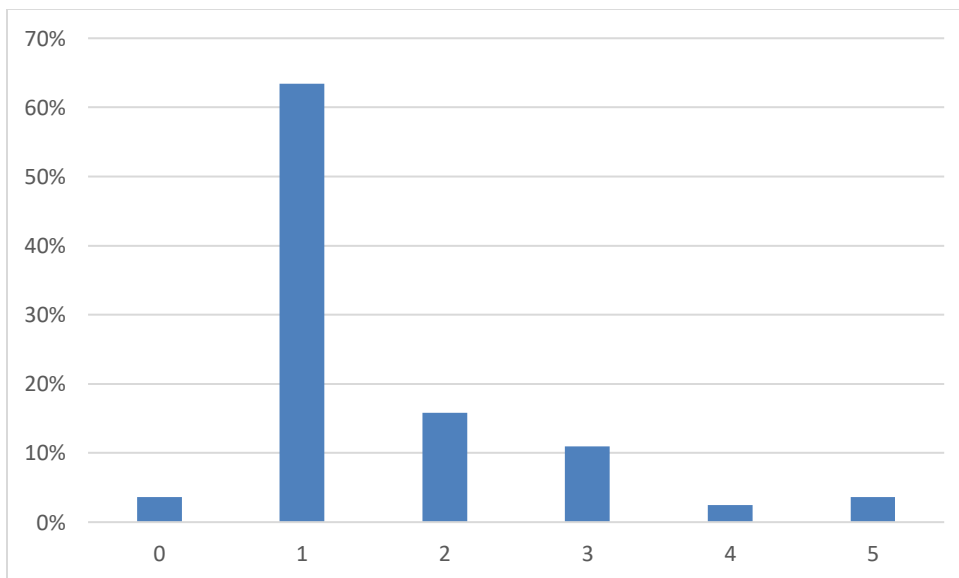
important to keep in mind that these are individual employees or people and not “full-time equivalent” employees.¹²

Figure 5
Employees by Type



Most respondents (63 percent) reported operating at least one tasting room under their license, sixteen percent operated two tasting rooms, eleven percent operated three tasting rooms, two percent operated four tasting rooms and four percent operate five tasting rooms. four percent operated no tasting rooms.

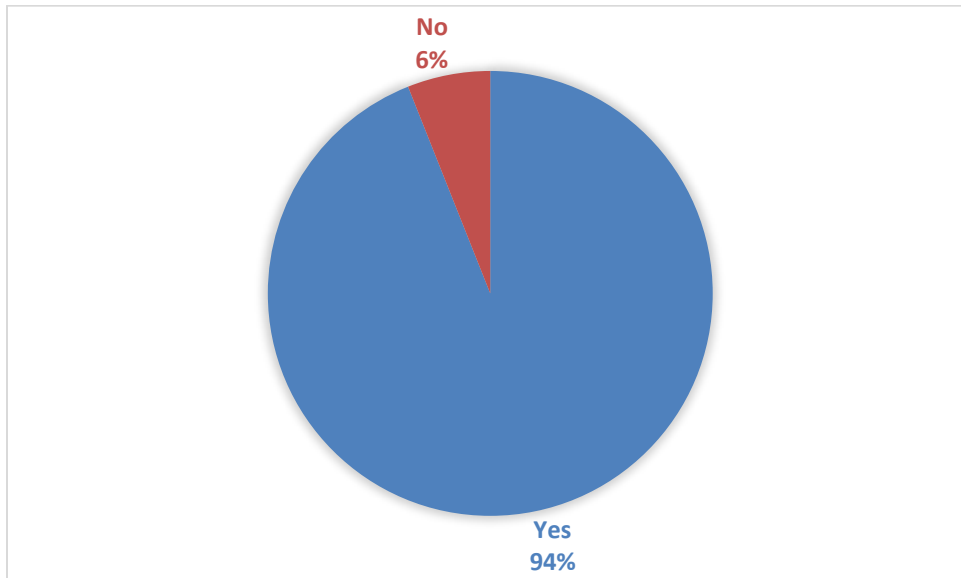
Figure 6
Number of Tasting Rooms Operated



¹² For the analysis, two part-time employees were considered to be one FTE, while 12 seasonal employees were converted to one FTE.

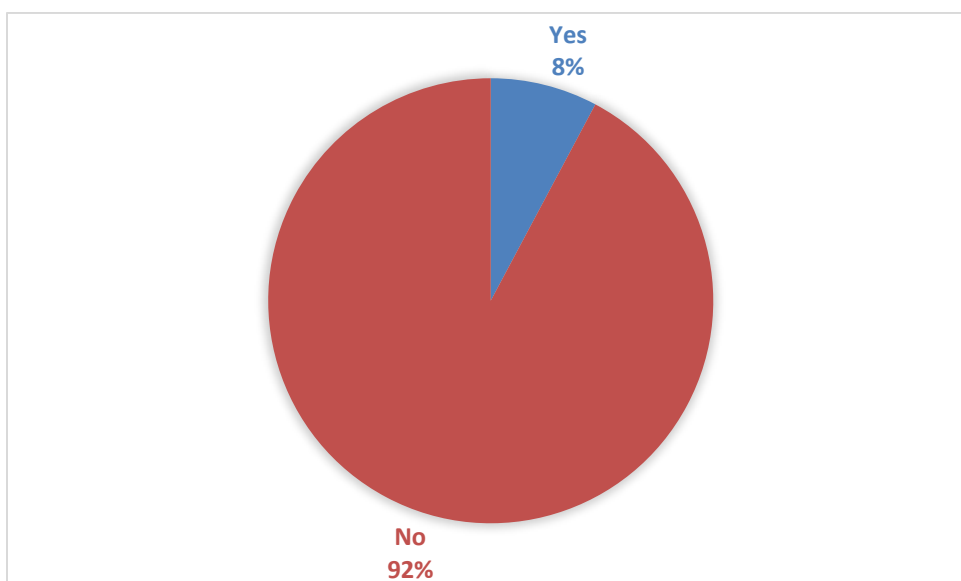
Tourism is an important aspect of the Michigan wine industry. It is no surprise that an overwhelming ninety-four percent of respondents receive tourists at their place of business. Six percent did not currently receive any tourists.

Figure 7
Wineries Receiving Tourist Visits



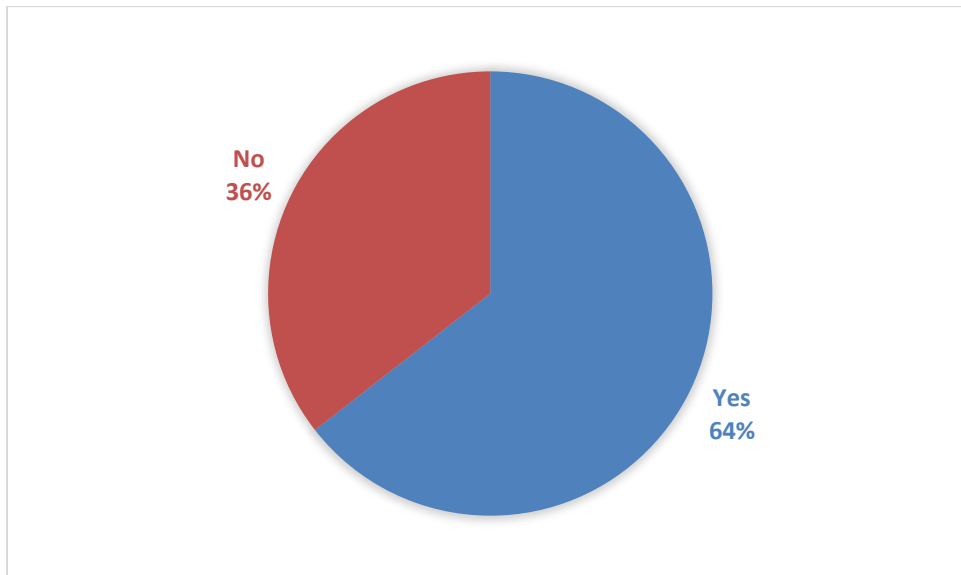
Although a majority of respondents indicated they receive tourist visits at their facilities, eight percent claimed to have lodging accommodations such as a hotel or, bed and breakfast.

Figure 8
Lodging Accommodations Availability at Winery



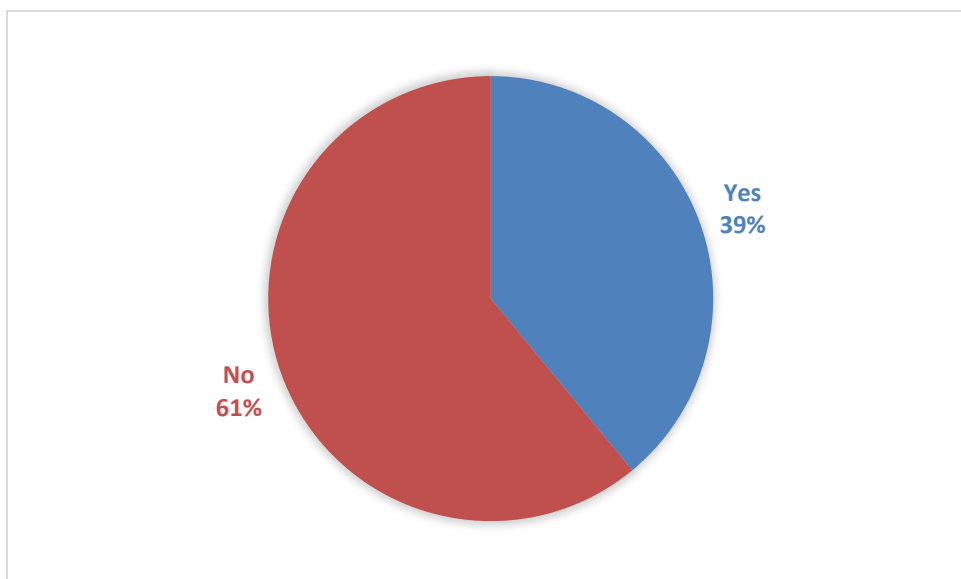
About sixty-four percent of respondents answered that they serve some type of food at their winery or cidery and thirty-six percent do not.

Figure 9
Food Served at Winery



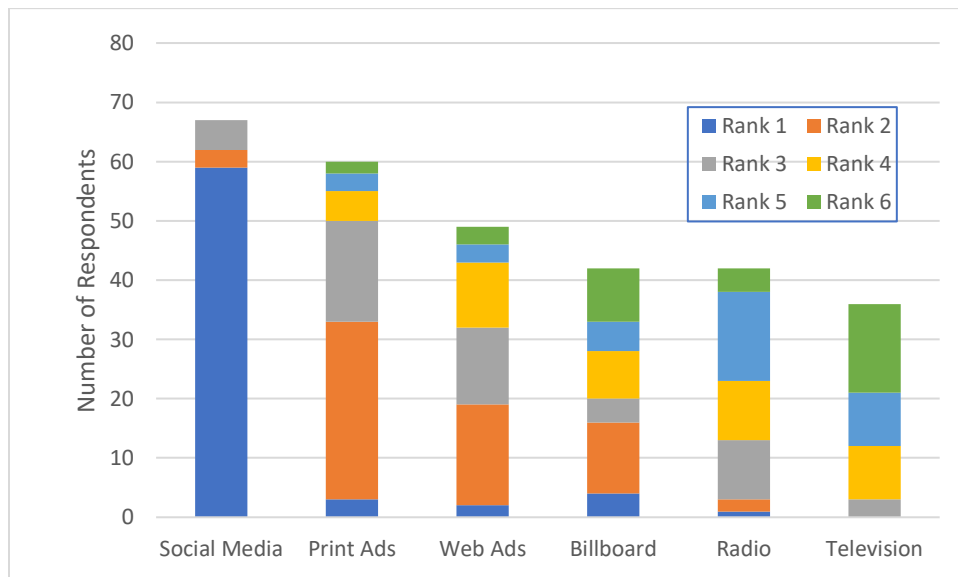
Respondents were asked if they had any infrastructure related winery or tourism related expenses such as parking fees and zoning permits. Sixty-one percent of respondents stated that they did not have any such expenses and thirty-nine percent stated that they did.

Figure 10
Infrastructure Related Expenses



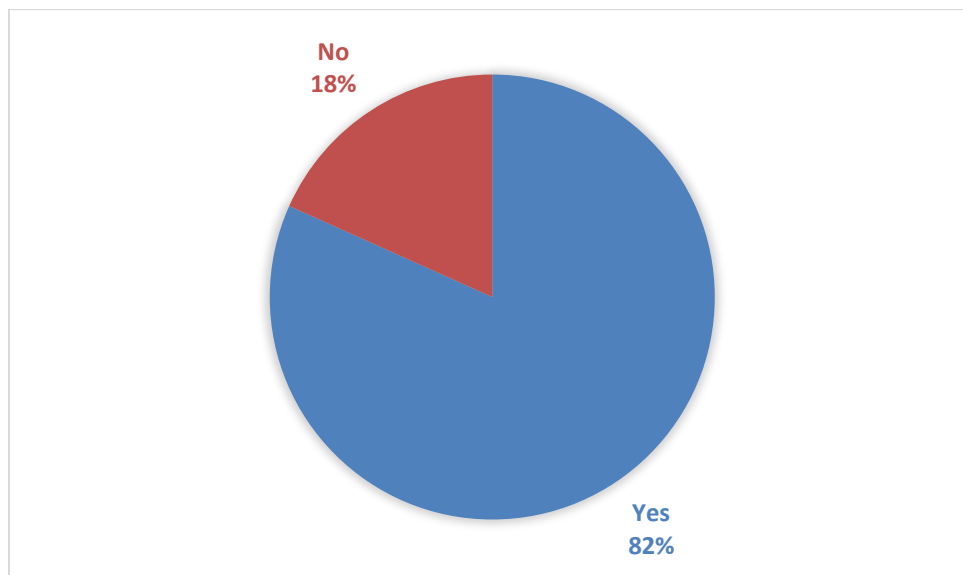
Respondents were asked to rank their preferred method of marketing. There were fifty-nine responses ranking social media as their preferred method of for marketing. Print ads are ranked second and web ads come third.

Figure 11
Preferred Marketing Methods



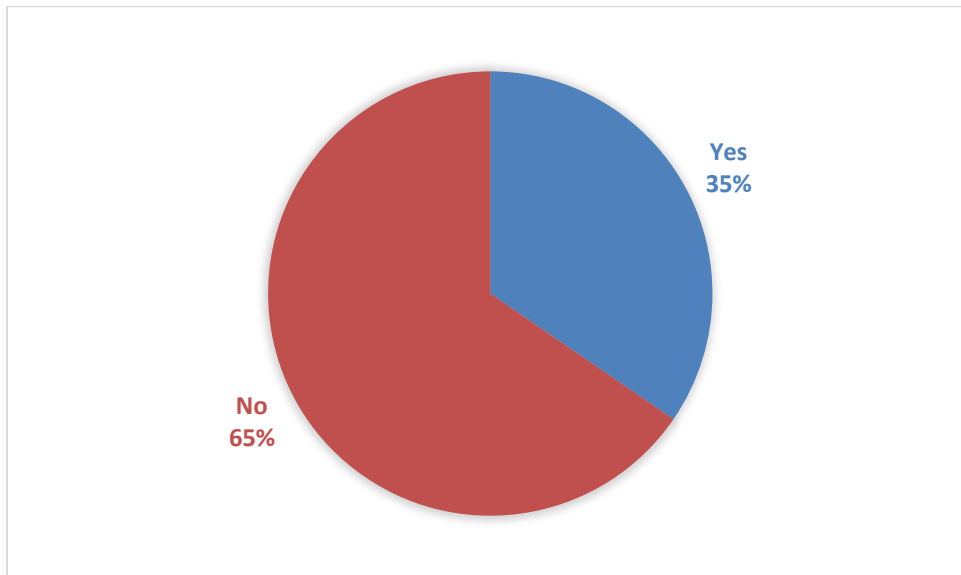
Respondents were asked about their future plans of expanding production and their responses showed signs of growth and optimism in the future of the industry. Eighty-two percent of respondents planned on increasing wine/hard cider production next year. Eighteen percent did not plan to increase their production.

Figure 12
Plans to Increase Production Next Year



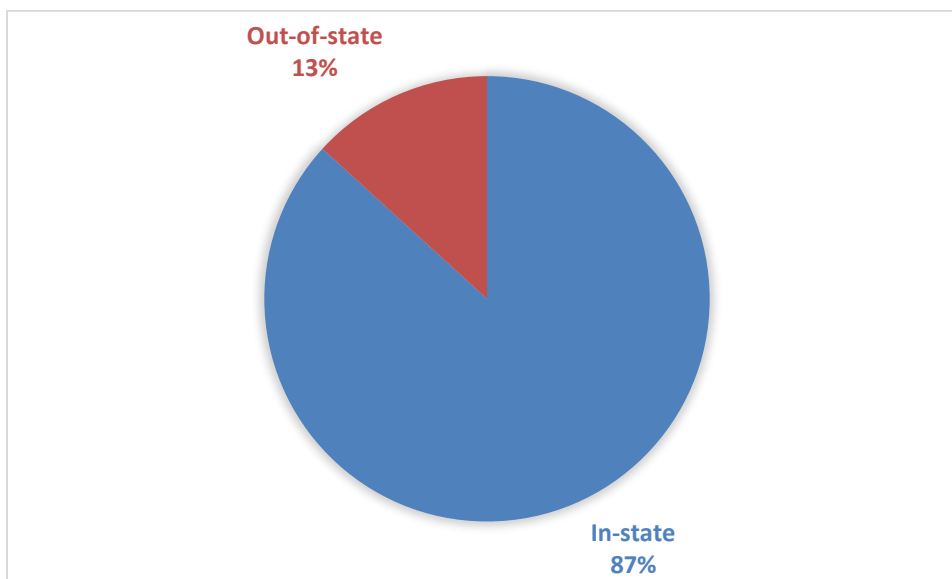
Although a majority of respondents are projected to increase production next year, thirty-five percent of respondents planned on increasing vineyard acreage next year. About sixty-five percent of respondents did not plan on expanding their vineyard acreage.

Figure 13
Plans to Increase Vineyard Acreage Next Year



Respondents were asked to estimate the percentage of sales that were wholesaled or self-distributed in-state and out-of-state. It is estimated that about eighty-seven percent of wine and cider is sold or distributed in-state and about thirteen percent is distributed or sold out-of-state.

Figure 14
Sales by Market



Michigan Cider Impact Model

Cideries

The economic impact of cideries is based on government licensing data, Infogroup, and survey data from Michigan wineries and cideries. Cideries are defined as producing their own brands, cideries/production facilities contracted to produce cider for other companies.¹³

Based on these combined datasets, it is estimated that there are about thirty cideries in the state of Michigan. Employment data from the survey was used when available. If no survey data for the company was available, Infogroup employment figures are used for estimate the jobs in each facility. Median job figures were used where employment figures were not available. JDA estimates that there are about 357 jobs relating to the production or marketing of cider in Michigan. These workers earn an estimated \$16.2 million and generate an estimated \$94.1 million in economic activity for the state's economy.

Limitations of Data

The economic impact of cider is limited by the lack of cider specific data. Cider businesses in Michigan are licensed under the same classification as wineries. At the federal level, the U.S. Department of Treasury's Alcohol and Tobacco Tax and Trade Bureau also regulates cider as wines. This makes it difficult to separate the economic contribution of wine products from cider products. Wholesale and retail impacts from the distribution and sale of cider in Michigan are not able to be distinguished from those of the sale of wine due to this limitation. JDA was able to use state and federal license data which was supplemented with survey data in order to identify cideries in Michigan and estimate the economic impact generated by these firms. As such the retail and wholesale impact of cider sold outside of the production facility or tasting room is contained in the wine figures.

There is also a lack of apple orchard data regarding usage for the production of cider. Apple orchard data on utilization is limited, therefore it is difficult to distinguish the quantity and value of the apples being used to produce cider apart from apples being used for other purposes. As the cider industry is a fast-growing industry in both Michigan and the United States, it is important that such data be available in order to more accurately measure its economic contribution and importance to the economy.

¹³

There are companies that are licensed as wineries for marketing purposes only. These companies might consist of just a single individual or small group of individuals who have simply developed a label and have sales agreements with restaurants or distributors. The actual wine is produced under contract with either a larger branded winery, or at a so-called custom crush facility that provides all of the labor and equipment. Both custom crush facilities and the companies that market this wine are included in this analysis as wineries.

Study Methodology

Vineyards

The vineyards that supply winegrapes to the wine industry are vital to the Michigan economy. Due to limited data, individual facility data for each vineyard in Michigan was not available to use in the economic impact study. Data used to estimate the economic impact of vineyards came from the United States Department of Agriculture and the Michigan Department of Agriculture and Rural Development. Data from the *Michigan Grape Inventory 2016-2017* from MDARD was used to estimate the statewide vineyard acreage. Data from the *Noncitrus Fruits and Nuts 2016 Summary*¹⁴ were used to estimate quantity and value of winegrapes grown in Michigan, while the *2012 Census of Agriculture* was used to help estimate the acreage by counties in Michigan.¹⁵

Vineyards that were part of a winery operation may be double counted since there is no data available to separate independent vineyards from vineyards which are owned and operated by a winery.

JDA estimates that there are about 3,050 acres of farmland in Michigan being used to grow an estimated 7,100 tons of winegrapes worth about \$9.5 million. In order to tend to these vineyards, an estimated 171 full-time equivalent jobs are needed. It is important to note that full-time equivalent jobs are not the same as number of people. FTE jobs are estimated using the value of winegrapes grown and IMPLAN.

Many of the jobs on farms are different than other occupations in that they are not the normal eight hours a day, 40 hours a week kind of activity. Even many owners of small farms operations only work part-time on agricultural activities, and a great majority of labor intensive vineyard activities (harvesting, pruning, shoot thinning and suckering) are performed by teams of seasonal workers who move from vineyard to vineyard and between agricultural sectors. These workers often only work for a few days or weeks on any given farm.

Due to the seasonal nature of vineyard work, one full-time equivalent farm job is equal to the work performed by 4.2 actual farm workers, with an average farm worker performing about 450 hours of labor in the industry (compared with about 1900 hours for a full-time worker in a non-agricultural occupation).¹⁶

Wineries

The economic impact of wineries is based on government licensing data, Infogroup, industry sources, and survey data from Michigan wineries and cideries.¹⁷ Wineries include those that produce their own wines, wineries/production facilities contracted to produce wines for other companies, and companies marketing their own wine brand, but not producing the wine itself (so called virtual wineries).¹⁸

¹⁴ *Noncitrus Fruits and Nuts 2016 Summary*. USDA – NASS. Available at: <http://usda.mannlib.cornell.edu/usda/current/NoncFruitNu/NoncFruitNu-06-27-2017.pdf>

¹⁵ *2012 Census Publications*. USDA - NASS, Census of Agriculture - Publications - 2012, agcensus.usda.gov/Publications/2012/.

¹⁶ US Department of Agriculture, 2012 Census, USDA, National Agriculture Statistics Service. Farm jobs statistics are measured differently than non-agricultural jobs as most workers are either seasonal or hourly. Many agricultural employees are seasonal workers who move from vineyard to vineyard over the planting and harvest period.

¹⁷ A large portion of this data was provided by WineAmerica as it had been collected as part of a prior study conducted for that organization.

¹⁸ There are companies that are licensed as wineries for marketing purposes only. These companies might consist of just a single individual or small group of individuals who have simply developed a label and have sales agreements with restaurants or distributors. The actual wine is produced under contract with either a larger branded winery, or at a so-called custom crush facility that provides all of the labor and equipment. Both custom crush facilities and the companies that market this wine are included in this analysis as wineries.

Based on these combined datasets, it is estimated that there are about 208 active wineries in the State of Michigan. Employment data from the survey was used when available. If no survey data for the company was available, Infogroup employment figures are used to estimate the jobs in each facility. Median job figures were used where employment figures were not available. JDA estimates that there are about 1,798 jobs relating to the production or marketing of wine in Michigan. These workers earn an estimated \$84.4 million and generate an estimated \$479.1 million in economic activity for the state's economy.

Wholesale

The wholesaling tier is responsible for the transportation of Michigan wine from wineries, importation of wines from other states or countries, and for the storage of these products for a limited amount of time. Data to identify these facilities include Alcohol Wholesaler Permit Lists from the US Department of the Treasury Alcohol and Tobacco Tax and Trade Bureau (TTB), Dun and Bradstreet (D&B) and the Wine and Spirits Wholesalers of America (WSWA). JDA estimates that there are about 122 facilities in Michigan that are responsible for the wholesaling of wine. D&B employment data is used to estimate the number of jobs in each facility that was associated with the distribution of wine. Where employment data is unavailable, median employment figures are used. JDA estimates that there are about 1,250 jobs in the wine wholesaling sector, earning about \$110.8 million in wages and benefits, and contributing about \$307.0 million in economic activity to the U.S. economy.

Retail

The retailing tier is comprised of both on-premise retailing and off-premise retailing. On-premise retailers allow for the consumption of wine at the facility. Examples of on-premise retailers include businesses such as restaurants, bars, and sporting venues. Off-premise retailers sell wine to take away and consume elsewhere. Examples of these types of retailers include businesses such as grocery stores, liquor stores, and warehouse clubs. Retail sales that are occurring at winery owned facilities such as tasting rooms or restaurants within the winery's premises are not included in this impact. These impacts are captured in the winery sector.

Employment data were gathered at the zip code level from Infogroup, The Economic Census of Retail Trade by Product Line¹⁹ and U.S. Department of Commerce – Bureau of Economic Analysis – Personal Consumption Expenditures by Type of Product²⁰ is used to 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 wine as well as the percent of sales at each store type that is due to the sale of wine. JDA estimates that there about 20,601 people employed in Michigan that are responsible for selling wine in retail businesses. These workers earn about \$478.1 million in wages and benefits while contributing \$1.1 billion in economic activity to Michigan's economy.

Associations

The wine associations sector is defined as trade associations which participate in the promotion of wine related industries such as wineries, winegrape vineyards, importers, and even suppliers. These

¹⁹ 2012 Economic Census - Retail Trade: Subject Series - Product Lines: Product Lines Statistics by Industry for the U.S. and States: 2012, United States Census Bureau.

²⁰ Table 2.4.5U Personal Consumption Expenditures by Type of Product, U.S. Department of Commerce – Bureau of Economic Analysis.

associations serve to encourage growth and development of wine related industries through education and sound public policies

Data for wine associations were provided by WineAmerica, Wines&Vines²¹, and Infogroup. Employment data for each facility is gathered from the Infogroup database. Any employment data that is missing is estimated using median job figures. JDA estimates that wine related trade associations employ about 10 people in Michigan. These workers earn approximately \$602,100 in wages and benefits while contributing an estimated \$1.7 million in economic activity to the state's economy.

Research and Education

The research and education sector is defined as organizations which are involved in applied research and educational programs that facilitate the development and advancement of knowledge that enable wineries, winegrape growers, and other wine-related industries to improve and protect the quality of their goods and services.

Data for wine research and educational organizations were provided by WineAmerica, Wines&Vines²², and Infogroup. Employment data for each facility is gathered from the Infogroup database. Any employment data that is missing is estimated using median job figures. JDA estimates that research and education specialists employ about 58 people in the U.S. These workers earn approximately \$5.5 million in wages and benefits while contributing an estimated \$14.5 million in economic activity to the U.S. economy.

Wine Tourism

One of the important elements of the impact of wineries on the Michigan economy is their attractiveness to tourists. Every year, hundreds of thousands of people visit wine growing regions across the state in part to visit (or even stay at) wineries, learn about wine and sample different wines. In order to estimate the economic impact of these visits it was first necessary to calculate the number of visitors to the state's 208 wineries. This was done at the county level based on an econometric model that used detailed data calculated by key wine producing counties as a means of estimating visitors per winery. A function was developed that estimated the number of visits per winery based on the number of wineries in each of the 1,407 counties in the United States that produce wine. This relies on the idea of economic clustering, which suggests that a larger grouping of wineries would attract more visitors to each winery than a smaller grouping. The tendency of locational clustering of similar types of firms has been documented by economists since at least the beginning of the twentieth century. British academic Stephen Brown described the rule of 'retail compatibility,' which explains how retail businesses, such as restaurants, know that two compatible firms in close proximity will show an increase in business volume directly proportionate to the incidence of consumer interchange between them.²³ This concept was confirmed by a study by Andrei Rogers who found that the clustered spatial pattern exhibited by consumer goods retailers appears to contradict a common hypothesis that these stores tend to repel one another.²⁴

²¹ Wines & Vines – Buyer's Guide Online – Associations, accessed June 14, 2017. Available at: <https://www.winesandvines.com/buyersguide/browse/Product/100/Associations>

²² Wines & Vines – Buyer's Guide Online – Education, accessed June 14, 2017. Available at: <https://www.winesandvines.com/buyersguide/browse/Product/101/Education>

²³ See: DeFranco, Laurence, William Lilley III, and John Dunham, *The Case of the Transient Taxpayer: How Tax-Driven Price Differentials for Commodity Goods Can Create Improbable Markets*, *Business Economics*, July 1998.

²⁴ See: Rogers, Andrei, *A Stochastic Analysis of the Spatial Clustering of Retail Establishments*, *Journal of the American Statistical Association*, December 1965.

While Rogers suggests that population densities have a lot to do with the clustering, there is significant economic theory that suggests that the tendency of activities to cluster is related more to competitive characteristics than to generalized demographic characteristics.²⁵

Using this model JDA calculates that a winery existing alone in a county would receive just under 2,050 visitors in a year, and that the number of annual tourist visitors would rise linearly at a rate of about 3.5 additional visits per year for each additional winery in the county.²⁶ As such, a county with 100 wineries would see just fewer than 240,000 visits, while one with 1,000 wineries would report nearly 5.7 million.

Multiplying out the number of visits across the 36 counties in Michigan with wineries gives a total of over 514,130 million unique tourist visits. These are people specifically visiting the Michigan wine producing counties with wineries. Based on this model and survey data results from 96 different Michigan wineries, it is estimated that a total of 1,178,570 additional unique visits to Michigan wineries occur each year. The bulk of these are local visitors attending an event, having dinner or just stopping by to purchase a bottle of wine. This means that all told, there were an estimated 1,692,667 unique visits to wineries in Michigan. No state specific data are available to estimate the number of wineries each individual visitor goes to on a trip, however, an extensive survey of wineries in Napa California, suggests each person visits on average 3.29 wineries, so dividing visits by 3.29 gives an estimate of just over 514,132 actual wine related visitors going to wineries across the state.²⁷

Once the number of visitors was calculated, spending propensities using data as broken into 25 industries based on percentages derived from the US Department of Commerce, Bureau of Economic Analysis.²⁸ These were in turn, 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.

²⁵ See: Braid, Ralph, *Spatial Price Competition with Consumers on a Plane, at Intersections, and Along Main Roadways*, Journal of Regional Science, Vol 33, No. 2, 1993.

²⁶ The model had an R-squared statistic of 0.748 suggesting that a linear model was appropriate. The T-statistic on the coefficient was 2.982 meaning that the model was significant to the 10 percent level. This is a good level of significance considering the very low number of counties for which data were available.

²⁷ See: *2014 Napa Valley Visitor Profile: Report of Findings*, prepared by Destination Analysts for Visit Napa Valley, March 2015, at <http://sodacanyonroad.org/docs/Napa%20Valley%202014%20Visitor%20Profile%20Study%20-%20Final%20Report%20of%20Findings.pdf>. These were the only data available on visits per person that we have been able to find.

²⁸ U.S. Travel and Tourism Satellite Accounts, US Department of Commerce, Bureau of Economic Analysis, at: http://www.bea.gov/industry/tourism_data.htm. The following categories were used in the analysis: Traveler accommodations, food services and drinking places, domestic passenger air transportation services, international passenger air transportation services, passenger rail transportation services, passenger water transportation services, interurban bus transportation, interurban charter bus transportation, urban transit systems and other transportation services, taxi service, scenic and sightseeing transportation services, automotive rental, other vehicle rental, automotive repair services, parking lots and garages, highway tolls, travel arrangement and reservation services, motion pictures and performing arts, spectator sports, participant sports, gambling, all other recreation and entertainment, gasoline, retail Sales, food stores.

IMPLAN

The IMPLAN Group 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), they are modified to add information on those who are not, such as: independent workers, agricultural employees, and construction workers. 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 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.

State sales and excise taxes were calculated based on total wine sales volume data from 2016 (the latest available) and state and federal excise and sales tax rates as of the beginning of 2017.

IMPLAN Methodology²⁹

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

There are three different 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.

²⁹ This section is paraphrased from IMPLAN Professional: Users Guide, Analysis Guide, Data Guide, Version 2.0, MIG, Inc., June 2000.

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 bases 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 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 536 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 536 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.

The Michigan Grape and Wine Industry Council is a 12-member Council established by the Legislature to promote Michigan's wine and wine grape-growing industries. New wineries are starting up in Michigan every year, wine grape acreage continues to grow, sales of Michigan wines are increasing, and the reputation of Michigan as a world-class wine region is gaining more national and international attention. In 2017, the Michigan Grape & Wine Industry Council recognizes 132 producers of Michigan wine.

Mission Statement

The Michigan Grape and Wine Industry Council has been established within the Michigan Department of Agriculture & Rural Development to provide for research, education and the promotion of the Michigan wine grape and wine industry, to stimulate economic development through value-added, sustainable agriculture.

(January 2013)

Appendix A – Economic Impact Rankings by Congressional District

District	Winery Jobs	Winery Wages	Winery Output	Rank
Michigan Congressional District 1	581	\$27,415,400	\$155,183,900	1
Michigan Congressional District 6	334	\$15,780,300	\$89,303,600	2
Michigan Congressional District 7	214	\$10,053,900	\$57,136,400	3
Michigan Congressional District 2	151	\$6,982,600	\$40,074,700	4
Michigan Congressional District 10	117	\$5,482,000	\$31,133,500	5
Michigan Congressional District 4	96	\$4,504,900	\$25,560,300	6
Michigan Congressional District 11	86	\$3,969,700	\$22,882,900	7
Michigan Congressional District 3	69	\$3,186,100	\$18,255,600	8
Michigan Congressional District 5	42	\$1,987,100	\$11,297,600	9
Michigan Congressional District 12	39	\$1,862,100	\$10,513,900	10
Michigan Congressional District 8	32	\$1,508,100	\$8,569,400	11
Michigan Congressional District 9	25	\$1,189,500	\$6,716,000	12
Michigan Congressional District 13	9	\$429,900	\$2,431,000	13
Michigan Congressional District 14	0	\$0	\$0	14

District	Vineyard Jobs	Vineyard Wages	Vineyard Output	Rank
Michigan Congressional District 6	144	\$3,972,500	\$6,547,100	1
Michigan Congressional District 1	24	\$653,300	\$1,076,600	2
Michigan Congressional District 8	2	\$46,900	\$77,300	3
Michigan Congressional District 10	0	\$8,600	\$14,200	4
Michigan Congressional District 4	0	\$8,100	\$13,300	5
Michigan Congressional District 2	0	\$7,000	\$11,500	6
Michigan Congressional District 7	0	\$6,400	\$10,500	7
Michigan Congressional District 5	0	\$4,800	\$8,000	8
Michigan Congressional District 3	0	\$3,400	\$5,600	9
Michigan Congressional District 11	0	\$800	\$1,300	10
Michigan Congressional District 12	0	\$700	\$1,100	11
Michigan Congressional District 9	0	\$300	\$600	12
Michigan Congressional District 14	0	\$300	\$500	13
Michigan Congressional District 13	0	\$200	\$400	14

District	Wholesale Jobs	Wholesale Wages	Wholesale Output	Rank
Michigan Congressional District 5	157	\$13,869,400	\$38,445,100	1
Michigan Congressional District 3	144	\$12,759,900	\$35,369,500	2
Michigan Congressional District 12	136	\$12,064,100	\$33,440,800	3
Michigan Congressional District 13	131	\$11,650,300	\$32,293,900	4
Michigan Congressional District 6	125	\$11,072,400	\$30,692,000	5
Michigan Congressional District 1	119	\$10,536,100	\$29,205,500	6
Michigan Congressional District 9	116	\$10,268,000	\$28,462,200	7
Michigan Congressional District 2	112	\$9,879,700	\$27,385,700	8
Michigan Congressional District 11	80	\$7,073,400	\$19,607,000	9
Michigan Congressional District 14	69	\$6,084,100	\$16,864,600	10
Michigan Congressional District 8	53	\$4,715,600	\$13,071,300	11
Michigan Congressional District 7	9	\$783,900	\$2,173,000	12
Michigan Congressional District 4	0	\$0	\$0	13
Michigan Congressional District 10	0	\$0	\$0	13

District	Retail Jobs	Retail Wages	Retail Output	Rank
Michigan Congressional District 8	2,300	\$52,551,400	\$118,110,700	1
Michigan Congressional District 1	2,144	\$50,146,200	\$116,537,300	2
Michigan Congressional District 3	1,844	\$42,955,000	\$96,543,900	3
Michigan Congressional District 7	1,824	\$42,437,000	\$95,637,600	4
Michigan Congressional District 6	1,667	\$39,447,800	\$92,586,000	5
Michigan Congressional District 10	1,759	\$40,657,900	\$89,550,400	6
Michigan Congressional District 11	1,595	\$36,394,200	\$81,713,800	7
Michigan Congressional District 4	1,425	\$33,180,800	\$78,387,000	8
Michigan Congressional District 12	1,428	\$33,141,700	\$74,373,200	9
Michigan Congressional District 2	1,180	\$27,632,200	\$62,710,000	10
Michigan Congressional District 5	1,184	\$27,590,300	\$60,871,100	11
Michigan Congressional District 13	905	\$21,145,300	\$47,362,600	12
Michigan Congressional District 14	735	\$16,879,900	\$37,875,800	13
Michigan Congressional District 14	735	\$16,879,900	\$37,875,800	13

District	Association Jobs	Association Wages	Association Output	Rank
Michigan Congressional District 6	5	\$301,100	\$828,600	1
Michigan Congressional District 8	5	\$301,100	\$828,600	1
Michigan Congressional District 1	0	\$0	\$0	3
Michigan Congressional District 2	0	\$0	\$0	3
Michigan Congressional District 3	0	\$0	\$0	3
Michigan Congressional District 4	0	\$0	\$0	3
Michigan Congressional District 5	0	\$0	\$0	3
Michigan Congressional District 7	0	\$0	\$0	3
Michigan Congressional District 9	0	\$0	\$0	3
Michigan Congressional District 10	0	\$0	\$0	3
Michigan Congressional District 11	0	\$0	\$0	3
Michigan Congressional District 12	0	\$0	\$0	3
Michigan Congressional District 13	0	\$0	\$0	3
Michigan Congressional District 14	0	\$0	\$0	3

District	Research and Education Jobs	Research and Education Wages	Research and Education Output	Rank
Michigan Congressional District 8	52	\$4,892,900	\$12,971,900	1
Michigan Congressional District 6	6	\$564,600	\$1,496,800	2
Michigan Congressional District 1	0	\$0	\$0	3
Michigan Congressional District 2	0	\$0	\$0	3
Michigan Congressional District 3	0	\$0	\$0	3
Michigan Congressional District 4	0	\$0	\$0	3
Michigan Congressional District 5	0	\$0	\$0	3
Michigan Congressional District 7	0	\$0	\$0	3
Michigan Congressional District 9	0	\$0	\$0	3
Michigan Congressional District 10	0	\$0	\$0	3
Michigan Congressional District 11	0	\$0	\$0	3
Michigan Congressional District 12	0	\$0	\$0	3
Michigan Congressional District 13	0	\$0	\$0	3
Michigan Congressional District 14	0	\$0	\$0	3

District	Tourism Jobs	Tourism Wages	Tourism Output	Rank
Michigan Congressional District 1	1,216	\$25,679,000	\$70,505,100	1
Michigan Congressional District 6	721	\$15,117,800	\$41,268,400	2
Michigan Congressional District 7	427	\$9,072,200	\$24,764,200	3
Michigan Congressional District 10	266	\$5,764,400	\$15,723,600	4
Michigan Congressional District 4	241	\$5,267,500	\$14,448,900	5
Michigan Congressional District 2	218	\$4,788,400	\$13,074,900	6
Michigan Congressional District 11	159	\$3,953,600	\$11,001,500	7
Michigan Congressional District 5	148	\$3,559,400	\$9,965,900	8
Michigan Congressional District 12	148	\$3,455,000	\$9,605,300	9
Michigan Congressional District 3	156	\$3,496,400	\$9,555,200	10
Michigan Congressional District 9	115	\$2,623,800	\$7,152,000	11
Michigan Congressional District 13	73	\$2,279,700	\$7,024,800	12
Michigan Congressional District 8	108	\$2,454,900	\$6,702,100	13
Michigan Congressional District 14	46	\$1,112,400	\$3,045,900	14

District	Total Direct Jobs	Total Direct Wages	Total Direct Output	Rank
Michigan Congressional District 1	4,084	\$114,430,000	\$372,508,400	1
Michigan Congressional District 6	3,002	\$86,256,500	\$262,722,500	2
Michigan Congressional District 7	2,474	\$62,353,400	\$179,721,700	3
Michigan Congressional District 8	2,552	\$66,470,900	\$160,331,300	4
Michigan Congressional District 3	2,213	\$62,400,800	\$159,729,800	5
Michigan Congressional District 2	1,661	\$49,289,900	\$143,256,800	6
Michigan Congressional District 10	2,142	\$51,912,900	\$136,421,700	7
Michigan Congressional District 11	1,920	\$51,391,700	\$135,206,500	8
Michigan Congressional District 12	1,751	\$50,523,600	\$127,934,300	9
Michigan Congressional District 5	1,531	\$47,011,000	\$120,587,700	10
Michigan Congressional District 4	1,762	\$42,961,300	\$118,409,500	11
Michigan Congressional District 13	1,118	\$35,505,400	\$89,112,700	12
Michigan Congressional District 9	866	\$28,036,800	\$73,239,200	13
Michigan Congressional District 14	850	\$24,076,700	\$57,786,800	14

Appendix B – Economic Impact Rankings by State House of Representatives District

District	Winery Jobs	Winery Wages	Winery Output	Rank
Michigan House District 101	261	\$12,358,000	\$69,775,900	1
Michigan House District 78	170	\$8,061,500	\$45,516,800	2
Michigan House District 104	168	\$7,936,600	\$44,811,600	3
Michigan House District 66	54	\$2,572,400	\$14,524,000	4
Michigan House District 94	54	\$2,546,900	\$14,380,100	5
Michigan House District 71	53	\$2,508,300	\$14,162,500	6
Michigan House District 56	49	\$2,316,000	\$13,076,600	7
Michigan House District 107	47	\$2,224,700	\$12,561,200	8
Michigan House District 65	34	\$1,615,300	\$9,120,100	9
Michigan House District 55	31	\$1,457,900	\$8,231,800	10
Michigan House District 79	30	\$1,440,900	\$8,135,600	11
Michigan House District 80	30	\$1,419,800	\$8,016,500	12
Michigan House District 81	29	\$1,350,700	\$7,626,500	13
Michigan House District 51	28	\$1,345,000	\$7,593,900	14
Michigan House District 90	24	\$1,146,000	\$6,470,500	15
Michigan House District 105	20	\$946,500	\$5,344,300	16
Michigan House District 83	17	\$798,800	\$4,510,100	17
Michigan House District 100	17	\$798,600	\$4,508,900	18
Michigan House District 27	17	\$785,300	\$4,433,900	19
Michigan House District 57	16	\$767,200	\$4,331,900	20
Michigan House District 73	16	\$735,500	\$4,152,700	21
Michigan House District 38	14	\$684,900	\$3,866,800	22
Michigan House District 106	13	\$615,300	\$3,473,800	23
Michigan House District 109	13	\$601,400	\$3,395,500	24
Michigan House District 84	12	\$578,400	\$3,265,800	25
Michigan House District 74	11	\$532,700	\$3,008,000	26
Michigan House District 52	11	\$514,800	\$2,906,800	27
Michigan House District 108	11	\$514,800	\$2,906,800	27
Michigan House District 59	10	\$473,300	\$2,672,200	29
Michigan House District 20	9	\$425,900	\$2,405,000	30
Michigan House District 24	9	\$404,200	\$2,282,100	31
Michigan House District 98	9	\$404,200	\$2,282,100	31
Michigan House District 61	8	\$389,000	\$2,196,500	33
Michigan House District 36	8	\$378,600	\$2,137,700	34
Michigan House District 91	8	\$378,600	\$2,137,700	34
Michigan House District 110	8	\$356,900	\$2,014,900	36
Michigan House District 97	7	\$347,100	\$1,959,600	37
Michigan House District 69	7	\$339,200	\$1,915,100	38
Michigan House District 32	7	\$331,300	\$1,870,500	39
Michigan House District 47	6	\$284,000	\$1,603,300	40

Michigan House District 72	6	\$284,000	\$1,603,300	40
Michigan House District 103	5	\$236,600	\$1,336,100	42
Michigan House District 9	5	\$214,900	\$1,213,300	43
Michigan House District 26	5	\$214,900	\$1,213,300	43
Michigan House District 30	5	\$214,900	\$1,213,300	43
Michigan House District 53	5	\$214,900	\$1,213,300	43
Michigan House District 92	5	\$214,900	\$1,213,300	43
Michigan House District 11	4	\$189,300	\$1,068,900	48
Michigan House District 23	4	\$189,300	\$1,068,900	48
Michigan House District 33	4	\$189,300	\$1,068,900	48
Michigan House District 45	4	\$189,300	\$1,068,900	48
Michigan House District 46	4	\$189,300	\$1,068,900	48
Michigan House District 49	4	\$189,300	\$1,068,900	48
Michigan House District 58	4	\$189,300	\$1,068,900	48
Michigan House District 60	4	\$189,300	\$1,068,900	48
Michigan House District 82	4	\$189,300	\$1,068,900	48
Michigan House District 86	4	\$189,300	\$1,068,900	48
Michigan House District 102	4	\$174,600	\$985,900	58
Michigan House District 29	3	\$142,000	\$801,700	59
Michigan House District 87	3	\$142,000	\$801,700	59
Michigan House District 93	3	\$142,000	\$801,700	59
Michigan House District 99	2	\$118,300	\$668,000	62
Michigan House District 22	2	\$94,700	\$534,400	63
Michigan House District 31	2	\$94,700	\$534,400	63
Michigan House District 63	1	\$47,300	\$267,200	65
Michigan House District 75	1	\$47,300	\$267,200	65
Michigan House District 4	0	\$4,100	\$23,300	67
Michigan House District 1	0	\$0	\$0	68
Michigan House District 2	0	\$0	\$0	68
Michigan House District 3	0	\$0	\$0	68
Michigan House District 5	0	\$0	\$0	68
Michigan House District 6	0	\$0	\$0	68
Michigan House District 7	0	\$0	\$0	68
Michigan House District 8	0	\$0	\$0	68
Michigan House District 10	0	\$0	\$0	68
Michigan House District 12	0	\$0	\$0	68
Michigan House District 13	0	\$0	\$0	68
Michigan House District 14	0	\$0	\$0	68
Michigan House District 15	0	\$0	\$0	68
Michigan House District 16	0	\$0	\$0	68
Michigan House District 17	0	\$0	\$0	68
Michigan House District 18	0	\$0	\$0	68
Michigan House District 19	0	\$0	\$0	68
Michigan House District 21	0	\$0	\$0	68
Michigan House District 25	0	\$0	\$0	68

Michigan House District 28	0	\$0	\$0	68
Michigan House District 34	0	\$0	\$0	68
Michigan House District 35	0	\$0	\$0	68
Michigan House District 37	0	\$0	\$0	68
Michigan House District 39	0	\$0	\$0	68
Michigan House District 40	0	\$0	\$0	68
Michigan House District 41	0	\$0	\$0	68
Michigan House District 42	0	\$0	\$0	68
Michigan House District 43	0	\$0	\$0	68
Michigan House District 44	0	\$0	\$0	68
Michigan House District 48	0	\$0	\$0	68
Michigan House District 50	0	\$0	\$0	68
Michigan House District 54	0	\$0	\$0	68
Michigan House District 62	0	\$0	\$0	68
Michigan House District 64	0	\$0	\$0	68
Michigan House District 67	0	\$0	\$0	68
Michigan House District 68	0	\$0	\$0	68
Michigan House District 70	0	\$0	\$0	68
Michigan House District 76	0	\$0	\$0	68
Michigan House District 77	0	\$0	\$0	68
Michigan House District 85	0	\$0	\$0	68
Michigan House District 88	0	\$0	\$0	68
Michigan House District 89	0	\$0	\$0	68
Michigan House District 95	0	\$0	\$0	68
Michigan House District 96	0	\$0	\$0	68

District	Vineyard Jobs	Vineyard Wages	Vineyard Output	Rank
Michigan House District 78	58	\$1,595,400	\$2,629,400	1
Michigan House District 66	49	\$1,349,500	\$2,224,100	2
Michigan House District 79	29	\$783,900	\$1,291,900	3
Michigan House District 104	11	\$309,400	\$509,900	4
Michigan House District 101	11	\$294,300	\$485,000	5
Michigan House District 59	8	\$207,400	\$341,800	6
Michigan House District 67	1	\$34,700	\$57,200	7
Michigan House District 80	1	\$30,100	\$49,600	8
Michigan House District 107	1	\$22,400	\$37,000	9
Michigan House District 105	1	\$14,900	\$24,600	10
Michigan House District 106	0	\$9,900	\$16,300	11
Michigan House District 69	0	\$8,800	\$14,600	12
Michigan House District 103	0	\$4,700	\$7,700	13
Michigan House District 72	0	\$4,400	\$7,300	14
Michigan House District 100	0	\$3,900	\$6,500	15
Michigan House District 110	0	\$3,800	\$6,300	16
Michigan House District 63	0	\$2,700	\$4,400	17
Michigan House District 82	0	\$2,600	\$4,300	18
Michigan House District 68	0	\$2,600	\$4,200	19
Michigan House District 84	0	\$2,500	\$4,000	20
Michigan House District 56	0	\$1,600	\$2,700	21
Michigan House District 91	0	\$1,400	\$2,300	22
Michigan House District 65	0	\$1,300	\$2,200	23
Michigan House District 52	0	\$1,300	\$2,100	24
Michigan House District 83	0	\$1,300	\$2,100	24
Michigan House District 85	0	\$1,300	\$2,100	24
Michigan House District 81	0	\$1,100	\$1,800	27
Michigan House District 62	0	\$1,000	\$1,700	28
Michigan House District 108	0	\$1,000	\$1,700	28
Michigan House District 17	0	\$900	\$1,500	30
Michigan House District 64	0	\$900	\$1,400	31
Michigan House District 61	0	\$800	\$1,300	32
Michigan House District 94	0	\$700	\$1,200	33
Michigan House District 102	0	\$700	\$1,200	33
Michigan House District 32	0	\$700	\$1,100	35
Michigan House District 51	0	\$700	\$1,100	35
Michigan House District 87	0	\$700	\$1,100	35
Michigan House District 48	0	\$600	\$900	38
Michigan House District 92	0	\$400	\$700	39
Michigan House District 46	0	\$300	\$600	40

Michigan House District 89	0	\$400	\$600	40
Michigan House District 95	0	\$400	\$600	40
Michigan House District 33	0	\$300	\$500	43
Michigan House District 44	0	\$300	\$500	43
Michigan House District 55	0	\$300	\$500	43
Michigan House District 57	0	\$300	\$500	43
Michigan House District 88	0	\$300	\$500	43
Michigan House District 93	0	\$300	\$500	43
Michigan House District 98	0	\$300	\$500	43
Michigan House District 99	0	\$300	\$500	43
Michigan House District 50	0	\$200	\$400	51
Michigan House District 86	0	\$200	\$400	51
Michigan House District 96	0	\$300	\$400	51
Michigan House District 36	0	\$200	\$300	54
Michigan House District 49	0	\$200	\$300	54
Michigan House District 54	0	\$200	\$300	54
Michigan House District 90	0	\$200	\$300	54
Michigan House District 97	0	\$200	\$300	54
Michigan House District 23	0	\$100	\$200	59
Michigan House District 38	0	\$100	\$200	59
Michigan House District 39	0	\$100	\$200	59
Michigan House District 40	0	\$100	\$200	59
Michigan House District 43	0	\$100	\$200	59
Michigan House District 60	0	\$100	\$200	59
Michigan House District 12	0	\$100	\$100	65
Michigan House District 18	0	\$0	\$100	65
Michigan House District 19	0	\$0	\$100	65
Michigan House District 20	0	\$100	\$100	65
Michigan House District 21	0	\$100	\$100	65
Michigan House District 22	0	\$0	\$100	65
Michigan House District 24	0	\$100	\$100	65
Michigan House District 25	0	\$0	\$100	65
Michigan House District 26	0	\$0	\$100	65
Michigan House District 27	0	\$0	\$100	65
Michigan House District 28	0	\$0	\$100	65
Michigan House District 29	0	\$100	\$100	65
Michigan House District 30	0	\$100	\$100	65
Michigan House District 31	0	\$0	\$100	65
Michigan House District 34	0	\$100	\$100	65
Michigan House District 35	0	\$100	\$100	65
Michigan House District 37	0	\$100	\$100	65
Michigan House District 41	0	\$100	\$100	65
Michigan House District 45	0	\$100	\$100	65
Michigan House District 53	0	\$100	\$100	65
Michigan House District 1	0	\$0	\$0	85

Michigan House District 2	0	\$0	\$0	85
Michigan House District 3	0	\$0	\$0	85
Michigan House District 4	0	\$0	\$0	85
Michigan House District 5	0	\$0	\$0	85
Michigan House District 6	0	\$0	\$0	85
Michigan House District 7	0	\$0	\$0	85
Michigan House District 8	0	\$0	\$0	85
Michigan House District 9	0	\$0	\$0	85
Michigan House District 10	0	\$0	\$0	85
Michigan House District 11	0	\$0	\$0	85
Michigan House District 13	0	\$0	\$0	85
Michigan House District 14	0	\$0	\$0	85
Michigan House District 15	0	\$0	\$0	85
Michigan House District 16	0	\$0	\$0	85
Michigan House District 42	0	\$0	\$0	85
Michigan House District 47	0	\$0	\$0	85
Michigan House District 58	0	\$0	\$0	85
Michigan House District 70	0	\$0	\$0	85
Michigan House District 71	0	\$0	\$0	85
Michigan House District 73	0	\$0	\$0	85
Michigan House District 74	0	\$0	\$0	85
Michigan House District 75	0	\$0	\$0	85
Michigan House District 76	0	\$0	\$0	85
Michigan House District 77	0	\$0	\$0	85
Michigan House District 109	0	\$0	\$0	85

District	Wholesale Jobs	Wholesale Wages	Wholesale Output	Rank
Michigan House District 72	196	\$17,336,800	\$48,056,400	1
Michigan House District 96	157	\$13,869,400	\$38,445,100	2
Michigan House District 7	131	\$11,650,300	\$32,293,900	3
Michigan House District 60	115	\$10,194,000	\$28,257,200	4
Michigan House District 23	89	\$7,859,300	\$21,785,600	5
Michigan House District 107	58	\$5,140,900	\$14,250,300	6
Michigan House District 37	42	\$3,726,300	\$10,328,900	7
Michigan House District 26	34	\$3,025,800	\$8,387,400	8
Michigan House District 104	31	\$2,776,200	\$7,695,400	9
Michigan House District 2	27	\$2,357,800	\$6,535,700	10
Michigan House District 15	27	\$2,357,800	\$6,535,700	10
Michigan House District 40	27	\$2,357,800	\$6,535,700	10
Michigan House District 22	26	\$2,318,500	\$6,426,700	13
Michigan House District 53	21	\$1,846,900	\$5,119,600	14
Michigan House District 90	20	\$1,766,000	\$4,895,300	15
Michigan House District 109	16	\$1,410,100	\$3,908,600	16
Michigan House District 28	16	\$1,386,900	\$3,844,500	17
Michigan House District 108	14	\$1,209,000	\$3,351,100	18
Michigan House District 19	13	\$1,178,900	\$3,267,800	19
Michigan House District 20	13	\$1,178,900	\$3,267,800	19
Michigan House District 24	13	\$1,178,900	\$3,267,800	19
Michigan House District 29	13	\$1,178,900	\$3,267,800	19
Michigan House District 31	13	\$1,178,900	\$3,267,800	19
Michigan House District 38	13	\$1,178,900	\$3,267,800	19
Michigan House District 41	13	\$1,178,900	\$3,267,800	19
Michigan House District 43	13	\$1,178,900	\$3,267,800	19
Michigan House District 45	13	\$1,178,900	\$3,267,800	19
Michigan House District 46	13	\$1,178,900	\$3,267,800	19
Michigan House District 47	13	\$1,178,900	\$3,267,800	19
Michigan House District 75	13	\$1,178,900	\$3,267,800	19
Michigan House District 77	13	\$1,178,900	\$3,267,800	19
Michigan House District 89	13	\$1,178,900	\$3,267,800	19
Michigan House District 79	10	\$878,400	\$2,434,900	33
Michigan House District 56	9	\$783,900	\$2,173,000	34
Michigan House District 1	0	\$0	\$0	35
Michigan House District 3	0	\$0	\$0	35
Michigan House District 4	0	\$0	\$0	35
Michigan House District 5	0	\$0	\$0	35
Michigan House District 6	0	\$0	\$0	35
Michigan House District 8	0	\$0	\$0	35

Michigan House District 9	0	\$0	\$0	35
Michigan House District 10	0	\$0	\$0	35
Michigan House District 11	0	\$0	\$0	35
Michigan House District 12	0	\$0	\$0	35
Michigan House District 13	0	\$0	\$0	35
Michigan House District 14	0	\$0	\$0	35
Michigan House District 16	0	\$0	\$0	35
Michigan House District 17	0	\$0	\$0	35
Michigan House District 18	0	\$0	\$0	35
Michigan House District 21	0	\$0	\$0	35
Michigan House District 25	0	\$0	\$0	35
Michigan House District 27	0	\$0	\$0	35
Michigan House District 30	0	\$0	\$0	35
Michigan House District 32	0	\$0	\$0	35
Michigan House District 33	0	\$0	\$0	35
Michigan House District 34	0	\$0	\$0	35
Michigan House District 35	0	\$0	\$0	35
Michigan House District 36	0	\$0	\$0	35
Michigan House District 39	0	\$0	\$0	35
Michigan House District 42	0	\$0	\$0	35
Michigan House District 44	0	\$0	\$0	35
Michigan House District 48	0	\$0	\$0	35
Michigan House District 49	0	\$0	\$0	35
Michigan House District 50	0	\$0	\$0	35
Michigan House District 51	0	\$0	\$0	35
Michigan House District 52	0	\$0	\$0	35
Michigan House District 54	0	\$0	\$0	35
Michigan House District 55	0	\$0	\$0	35
Michigan House District 57	0	\$0	\$0	35
Michigan House District 58	0	\$0	\$0	35
Michigan House District 59	0	\$0	\$0	35
Michigan House District 61	0	\$0	\$0	35
Michigan House District 62	0	\$0	\$0	35
Michigan House District 63	0	\$0	\$0	35
Michigan House District 64	0	\$0	\$0	35
Michigan House District 65	0	\$0	\$0	35
Michigan House District 66	0	\$0	\$0	35
Michigan House District 67	0	\$0	\$0	35
Michigan House District 68	0	\$0	\$0	35
Michigan House District 69	0	\$0	\$0	35
Michigan House District 70	0	\$0	\$0	35
Michigan House District 71	0	\$0	\$0	35
Michigan House District 73	0	\$0	\$0	35
Michigan House District 74	0	\$0	\$0	35
Michigan House District 76	0	\$0	\$0	35

Michigan House District 78	0	\$0	\$0	35
Michigan House District 80	0	\$0	\$0	35
Michigan House District 81	0	\$0	\$0	35
Michigan House District 82	0	\$0	\$0	35
Michigan House District 83	0	\$0	\$0	35
Michigan House District 84	0	\$0	\$0	35
Michigan House District 85	0	\$0	\$0	35
Michigan House District 86	0	\$0	\$0	35
Michigan House District 87	0	\$0	\$0	35
Michigan House District 88	0	\$0	\$0	35
Michigan House District 91	0	\$0	\$0	35
Michigan House District 92	0	\$0	\$0	35
Michigan House District 93	0	\$0	\$0	35
Michigan House District 94	0	\$0	\$0	35
Michigan House District 95	0	\$0	\$0	35
Michigan House District 97	0	\$0	\$0	35
Michigan House District 98	0	\$0	\$0	35
Michigan House District 99	0	\$0	\$0	35
Michigan House District 100	0	\$0	\$0	35
Michigan House District 101	0	\$0	\$0	35
Michigan House District 102	0	\$0	\$0	35
Michigan House District 103	0	\$0	\$0	35
Michigan House District 105	0	\$0	\$0	35
Michigan House District 106	0	\$0	\$0	35
Michigan House District 110	0	\$0	\$0	35

District	Retail Jobs	Retail Wages	Retail Output	Rank
Michigan House District 52	669	\$14,947,500	\$33,917,300	1
Michigan House District 33	613	\$14,128,700	\$31,055,300	2
Michigan House District 51	583	\$13,288,700	\$29,697,800	3
Michigan House District 46	565	\$12,731,200	\$28,619,600	4
Michigan House District 63	522	\$12,354,300	\$28,342,500	5
Michigan House District 44	488	\$10,993,800	\$24,714,000	6
Michigan House District 86	475	\$10,999,800	\$24,035,300	7
Michigan House District 67	457	\$10,814,700	\$23,917,400	8
Michigan House District 107	376	\$8,586,100	\$23,244,300	9
Michigan House District 23	415	\$9,699,800	\$21,726,200	10
Michigan House District 73	431	\$9,958,800	\$21,711,500	11
Michigan House District 99	328	\$7,649,300	\$20,920,600	12
Michigan House District 101	390	\$9,220,800	\$20,685,000	13
Michigan House District 74	396	\$9,168,400	\$19,988,500	14
Michigan House District 91	309	\$7,296,000	\$16,909,300	15
Michigan House District 36	334	\$7,691,200	\$16,905,400	16
Michigan House District 12	321	\$7,501,300	\$16,801,900	17
Michigan House District 17	316	\$7,353,300	\$16,542,400	18
Michigan House District 66	250	\$6,085,900	\$16,239,400	19
Michigan House District 78	261	\$6,176,600	\$15,617,500	20
Michigan House District 110	301	\$7,363,800	\$15,429,900	21
Michigan House District 21	289	\$6,740,200	\$15,097,000	22
Michigan House District 47	290	\$6,559,800	\$15,089,200	23
Michigan House District 105	283	\$6,376,000	\$14,441,900	24
Michigan House District 48	273	\$6,322,100	\$14,008,000	25
Michigan House District 104	254	\$5,881,600	\$13,837,600	26
Michigan House District 71	243	\$6,169,300	\$13,691,600	27
Michigan House District 93	258	\$6,049,700	\$13,401,900	28
Michigan House District 80	226	\$5,248,400	\$11,964,700	29
Michigan House District 65	222	\$5,295,900	\$11,770,300	30
Michigan House District 61	226	\$5,330,600	\$11,456,200	31
Michigan House District 85	222	\$5,106,600	\$11,449,100	32
Michigan House District 38	226	\$5,085,700	\$11,432,600	33
Michigan House District 20	215	\$5,015,300	\$11,233,600	34
Michigan House District 106	211	\$5,008,300	\$10,893,800	35
Michigan House District 43	215	\$4,840,000	\$10,880,300	36
Michigan House District 98	214	\$5,005,500	\$10,863,300	37
Michigan House District 89	195	\$4,532,400	\$10,398,200	38
Michigan House District 32	197	\$4,567,200	\$10,147,900	39
Michigan House District 108	179	\$4,213,500	\$10,078,600	40

Michigan House District 39	185	\$4,176,000	\$9,387,600	41
Michigan House District 88	170	\$3,949,700	\$9,061,400	42
Michigan House District 109	174	\$4,066,100	\$9,006,100	43
Michigan House District 103	168	\$3,902,800	\$8,973,200	44
Michigan House District 19	170	\$3,975,300	\$8,904,200	45
Michigan House District 81	165	\$3,848,700	\$8,661,300	46
Michigan House District 56	165	\$3,793,700	\$8,632,600	47
Michigan House District 102	158	\$3,743,900	\$8,535,200	48
Michigan House District 55	166	\$3,720,300	\$8,441,700	49
Michigan House District 40	156	\$3,525,600	\$7,925,500	50
Michigan House District 94	143	\$3,281,100	\$7,549,300	51
Michigan House District 79	124	\$2,948,200	\$7,515,800	52
Michigan House District 100	144	\$3,410,000	\$7,367,900	53
Michigan House District 59	139	\$3,263,700	\$7,357,700	54
Michigan House District 57	140	\$3,229,700	\$7,263,600	55
Michigan House District 72	136	\$3,150,400	\$6,945,300	56
Michigan House District 29	136	\$3,071,200	\$6,903,900	57
Michigan House District 42	132	\$2,989,200	\$6,876,000	58
Michigan House District 45	133	\$3,006,800	\$6,759,200	59
Michigan House District 62	106	\$2,516,700	\$6,610,400	60
Michigan House District 87	126	\$3,002,700	\$6,588,200	61
Michigan House District 84	129	\$2,982,500	\$6,543,400	62
Michigan House District 58	118	\$2,845,800	\$6,499,000	63
Michigan House District 97	118	\$2,770,800	\$6,420,000	64
Michigan House District 96	128	\$3,013,800	\$6,353,100	65
Michigan House District 16	119	\$2,772,100	\$6,209,200	66
Michigan House District 69	116	\$2,754,100	\$6,091,000	67
Michigan House District 15	116	\$2,707,000	\$6,063,200	68
Michigan House District 82	121	\$2,805,400	\$6,018,800	69
Michigan House District 6	115	\$2,677,000	\$5,996,000	70
Michigan House District 37	115	\$2,604,300	\$5,854,500	71
Michigan House District 35	115	\$2,595,000	\$5,833,600	72
Michigan House District 41	115	\$2,595,000	\$5,833,400	73
Michigan House District 77	111	\$2,557,500	\$5,575,700	74
Michigan House District 64	107	\$2,497,800	\$5,551,600	75
Michigan House District 50	107	\$2,485,300	\$5,506,800	76
Michigan House District 24	106	\$2,451,800	\$5,389,100	77
Michigan House District 11	101	\$2,365,500	\$5,298,400	78
Michigan House District 4	99	\$2,302,400	\$5,157,200	79
Michigan House District 13	99	\$2,301,000	\$5,154,000	80
Michigan House District 30	99	\$2,277,500	\$5,006,100	81
Michigan House District 2	95	\$2,213,100	\$4,957,100	82
Michigan House District 54	95	\$2,126,100	\$4,824,400	83
Michigan House District 92	88	\$2,076,100	\$4,811,700	84
Michigan House District 90	89	\$2,080,300	\$4,772,600	85

Michigan House District 14	90	\$2,098,800	\$4,701,000	86
Michigan House District 10	85	\$1,983,600	\$4,443,000	87
Michigan House District 3	84	\$1,960,600	\$4,391,400	88
Michigan House District 9	80	\$1,869,400	\$4,187,100	89
Michigan House District 49	81	\$1,876,300	\$4,157,400	90
Michigan House District 70	79	\$1,877,700	\$4,131,000	91
Michigan House District 31	81	\$1,865,300	\$4,099,900	92
Michigan House District 8	77	\$1,809,600	\$4,053,200	93
Michigan House District 5	76	\$1,784,900	\$3,998,000	94
Michigan House District 28	77	\$1,777,000	\$3,905,800	95
Michigan House District 95	72	\$1,646,100	\$3,787,400	96
Michigan House District 1	70	\$1,644,900	\$3,684,400	97
Michigan House District 7	70	\$1,640,800	\$3,675,300	98
Michigan House District 25	70	\$1,610,900	\$3,540,900	99
Michigan House District 83	63	\$1,485,500	\$3,309,000	100
Michigan House District 22	64	\$1,479,800	\$3,252,500	101
Michigan House District 26	61	\$1,366,400	\$3,071,700	102
Michigan House District 18	57	\$1,305,100	\$2,868,700	103
Michigan House District 27	55	\$1,235,700	\$2,777,800	104
Michigan House District 76	51	\$1,176,500	\$2,564,900	105
Michigan House District 60	45	\$1,061,100	\$2,280,400	106
Michigan House District 68	34	\$797,700	\$1,764,100	107
Michigan House District 75	31	\$720,800	\$1,571,600	108
Michigan House District 34	28	\$658,500	\$1,459,200	109
Michigan House District 53	27	\$594,500	\$1,349,000	110

District	Association Jobs	Association Wages	Association Output	Rank
Michigan House District 68	5	\$301,100	\$828,600	1
Michigan House District 78	5	\$301,100	\$828,600	1
Michigan House District 1	0	\$0	\$0	3
Michigan House District 2	0	\$0	\$0	3
Michigan House District 3	0	\$0	\$0	3
Michigan House District 4	0	\$0	\$0	3
Michigan House District 5	0	\$0	\$0	3
Michigan House District 6	0	\$0	\$0	3
Michigan House District 7	0	\$0	\$0	3
Michigan House District 8	0	\$0	\$0	3
Michigan House District 9	0	\$0	\$0	3
Michigan House District 10	0	\$0	\$0	3
Michigan House District 11	0	\$0	\$0	3
Michigan House District 12	0	\$0	\$0	3
Michigan House District 13	0	\$0	\$0	3
Michigan House District 14	0	\$0	\$0	3
Michigan House District 15	0	\$0	\$0	3
Michigan House District 16	0	\$0	\$0	3
Michigan House District 17	0	\$0	\$0	3
Michigan House District 18	0	\$0	\$0	3
Michigan House District 19	0	\$0	\$0	3
Michigan House District 20	0	\$0	\$0	3
Michigan House District 21	0	\$0	\$0	3
Michigan House District 22	0	\$0	\$0	3
Michigan House District 23	0	\$0	\$0	3
Michigan House District 24	0	\$0	\$0	3
Michigan House District 25	0	\$0	\$0	3
Michigan House District 26	0	\$0	\$0	3
Michigan House District 27	0	\$0	\$0	3
Michigan House District 28	0	\$0	\$0	3
Michigan House District 29	0	\$0	\$0	3
Michigan House District 30	0	\$0	\$0	3
Michigan House District 31	0	\$0	\$0	3
Michigan House District 32	0	\$0	\$0	3
Michigan House District 33	0	\$0	\$0	3
Michigan House District 34	0	\$0	\$0	3
Michigan House District 35	0	\$0	\$0	3
Michigan House District 36	0	\$0	\$0	3
Michigan House District 37	0	\$0	\$0	3
Michigan House District 38	0	\$0	\$0	3

Michigan House District 39	0	\$0	\$0	3
Michigan House District 40	0	\$0	\$0	3
Michigan House District 41	0	\$0	\$0	3
Michigan House District 42	0	\$0	\$0	3
Michigan House District 43	0	\$0	\$0	3
Michigan House District 44	0	\$0	\$0	3
Michigan House District 45	0	\$0	\$0	3
Michigan House District 46	0	\$0	\$0	3
Michigan House District 47	0	\$0	\$0	3
Michigan House District 48	0	\$0	\$0	3
Michigan House District 49	0	\$0	\$0	3
Michigan House District 50	0	\$0	\$0	3
Michigan House District 51	0	\$0	\$0	3
Michigan House District 52	0	\$0	\$0	3
Michigan House District 53	0	\$0	\$0	3
Michigan House District 54	0	\$0	\$0	3
Michigan House District 55	0	\$0	\$0	3
Michigan House District 56	0	\$0	\$0	3
Michigan House District 57	0	\$0	\$0	3
Michigan House District 58	0	\$0	\$0	3
Michigan House District 59	0	\$0	\$0	3
Michigan House District 60	0	\$0	\$0	3
Michigan House District 61	0	\$0	\$0	3
Michigan House District 62	0	\$0	\$0	3
Michigan House District 63	0	\$0	\$0	3
Michigan House District 64	0	\$0	\$0	3
Michigan House District 65	0	\$0	\$0	3
Michigan House District 66	0	\$0	\$0	3
Michigan House District 67	0	\$0	\$0	3
Michigan House District 69	0	\$0	\$0	3
Michigan House District 70	0	\$0	\$0	3
Michigan House District 71	0	\$0	\$0	3
Michigan House District 72	0	\$0	\$0	3
Michigan House District 73	0	\$0	\$0	3
Michigan House District 74	0	\$0	\$0	3
Michigan House District 75	0	\$0	\$0	3
Michigan House District 76	0	\$0	\$0	3
Michigan House District 77	0	\$0	\$0	3
Michigan House District 79	0	\$0	\$0	3
Michigan House District 80	0	\$0	\$0	3
Michigan House District 81	0	\$0	\$0	3
Michigan House District 82	0	\$0	\$0	3
Michigan House District 83	0	\$0	\$0	3
Michigan House District 84	0	\$0	\$0	3
Michigan House District 85	0	\$0	\$0	3

Michigan House District 86	0	\$0	\$0	3
Michigan House District 87	0	\$0	\$0	3
Michigan House District 88	0	\$0	\$0	3
Michigan House District 89	0	\$0	\$0	3
Michigan House District 90	0	\$0	\$0	3
Michigan House District 91	0	\$0	\$0	3
Michigan House District 92	0	\$0	\$0	3
Michigan House District 93	0	\$0	\$0	3
Michigan House District 94	0	\$0	\$0	3
Michigan House District 95	0	\$0	\$0	3
Michigan House District 96	0	\$0	\$0	3
Michigan House District 97	0	\$0	\$0	3
Michigan House District 98	0	\$0	\$0	3
Michigan House District 99	0	\$0	\$0	3
Michigan House District 100	0	\$0	\$0	3
Michigan House District 101	0	\$0	\$0	3
Michigan House District 102	0	\$0	\$0	3
Michigan House District 103	0	\$0	\$0	3
Michigan House District 104	0	\$0	\$0	3
Michigan House District 105	0	\$0	\$0	3
Michigan House District 106	0	\$0	\$0	3
Michigan House District 107	0	\$0	\$0	3
Michigan House District 108	0	\$0	\$0	3
Michigan House District 109	0	\$0	\$0	3
Michigan House District 110	0	\$0	\$0	3

District	Research and Education Jobs	Research and Education Wages	Research and Education Output	Rank
Michigan House District 69	52	\$4,892,900	\$12,971,900	1
Michigan House District 79	6	\$564,600	\$1,496,800	2
Michigan House District 1	0	\$0	\$0	3
Michigan House District 2	0	\$0	\$0	3
Michigan House District 3	0	\$0	\$0	3
Michigan House District 4	0	\$0	\$0	3
Michigan House District 5	0	\$0	\$0	3
Michigan House District 6	0	\$0	\$0	3
Michigan House District 7	0	\$0	\$0	3
Michigan House District 8	0	\$0	\$0	3
Michigan House District 9	0	\$0	\$0	3
Michigan House District 10	0	\$0	\$0	3
Michigan House District 11	0	\$0	\$0	3
Michigan House District 12	0	\$0	\$0	3
Michigan House District 13	0	\$0	\$0	3
Michigan House District 14	0	\$0	\$0	3
Michigan House District 15	0	\$0	\$0	3
Michigan House District 16	0	\$0	\$0	3
Michigan House District 17	0	\$0	\$0	3
Michigan House District 18	0	\$0	\$0	3
Michigan House District 19	0	\$0	\$0	3
Michigan House District 20	0	\$0	\$0	3
Michigan House District 21	0	\$0	\$0	3
Michigan House District 22	0	\$0	\$0	3
Michigan House District 23	0	\$0	\$0	3
Michigan House District 24	0	\$0	\$0	3
Michigan House District 25	0	\$0	\$0	3
Michigan House District 26	0	\$0	\$0	3
Michigan House District 27	0	\$0	\$0	3
Michigan House District 28	0	\$0	\$0	3
Michigan House District 29	0	\$0	\$0	3
Michigan House District 30	0	\$0	\$0	3
Michigan House District 31	0	\$0	\$0	3
Michigan House District 32	0	\$0	\$0	3
Michigan House District 33	0	\$0	\$0	3
Michigan House District 34	0	\$0	\$0	3
Michigan House District 35	0	\$0	\$0	3
Michigan House District 36	0	\$0	\$0	3
Michigan House District 37	0	\$0	\$0	3
Michigan House District 38	0	\$0	\$0	3

Michigan House District 39	0	\$0	\$0	3
Michigan House District 40	0	\$0	\$0	3
Michigan House District 41	0	\$0	\$0	3
Michigan House District 42	0	\$0	\$0	3
Michigan House District 43	0	\$0	\$0	3
Michigan House District 44	0	\$0	\$0	3
Michigan House District 45	0	\$0	\$0	3
Michigan House District 46	0	\$0	\$0	3
Michigan House District 47	0	\$0	\$0	3
Michigan House District 48	0	\$0	\$0	3
Michigan House District 49	0	\$0	\$0	3
Michigan House District 50	0	\$0	\$0	3
Michigan House District 51	0	\$0	\$0	3
Michigan House District 52	0	\$0	\$0	3
Michigan House District 53	0	\$0	\$0	3
Michigan House District 54	0	\$0	\$0	3
Michigan House District 55	0	\$0	\$0	3
Michigan House District 56	0	\$0	\$0	3
Michigan House District 57	0	\$0	\$0	3
Michigan House District 58	0	\$0	\$0	3
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Michigan House District 61	0	\$0	\$0	3
Michigan House District 62	0	\$0	\$0	3
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Michigan House District 64	0	\$0	\$0	3
Michigan House District 65	0	\$0	\$0	3
Michigan House District 66	0	\$0	\$0	3
Michigan House District 67	0	\$0	\$0	3
Michigan House District 68	0	\$0	\$0	3
Michigan House District 70	0	\$0	\$0	3
Michigan House District 71	0	\$0	\$0	3
Michigan House District 72	0	\$0	\$0	3
Michigan House District 73	0	\$0	\$0	3
Michigan House District 74	0	\$0	\$0	3
Michigan House District 75	0	\$0	\$0	3
Michigan House District 76	0	\$0	\$0	3
Michigan House District 77	0	\$0	\$0	3
Michigan House District 78	0	\$0	\$0	3
Michigan House District 80	0	\$0	\$0	3
Michigan House District 81	0	\$0	\$0	3
Michigan House District 82	0	\$0	\$0	3
Michigan House District 83	0	\$0	\$0	3
Michigan House District 84	0	\$0	\$0	3
Michigan House District 85	0	\$0	\$0	3

Michigan House District 86	0	\$0	\$0	3
Michigan House District 87	0	\$0	\$0	3
Michigan House District 88	0	\$0	\$0	3
Michigan House District 89	0	\$0	\$0	3
Michigan House District 90	0	\$0	\$0	3
Michigan House District 91	0	\$0	\$0	3
Michigan House District 92	0	\$0	\$0	3
Michigan House District 93	0	\$0	\$0	3
Michigan House District 94	0	\$0	\$0	3
Michigan House District 95	0	\$0	\$0	3
Michigan House District 96	0	\$0	\$0	3
Michigan House District 97	0	\$0	\$0	3
Michigan House District 98	0	\$0	\$0	3
Michigan House District 99	0	\$0	\$0	3
Michigan House District 100	0	\$0	\$0	3
Michigan House District 101	0	\$0	\$0	3
Michigan House District 102	0	\$0	\$0	3
Michigan House District 103	0	\$0	\$0	3
Michigan House District 104	0	\$0	\$0	3
Michigan House District 105	0	\$0	\$0	3
Michigan House District 106	0	\$0	\$0	3
Michigan House District 107	0	\$0	\$0	3
Michigan House District 108	0	\$0	\$0	3
Michigan House District 109	0	\$0	\$0	3
Michigan House District 110	0	\$0	\$0	3

District	Tourism Jobs	Tourism Wages	Tourism Output	Rank
Michigan House District 101	548	\$11,276,000	\$30,753,900	1
Michigan House District 78	359	\$7,381,300	\$20,127,000	2
Michigan House District 104	353	\$7,304,400	\$19,974,900	3
Michigan House District 66	124	\$2,587,100	\$7,054,100	4
Michigan House District 71	121	\$2,522,000	\$6,877,600	5
Michigan House District 94	117	\$2,429,900	\$6,647,500	6
Michigan House District 107	112	\$2,360,500	\$6,455,900	7
Michigan House District 56	107	\$2,209,400	\$6,025,500	8
Michigan House District 65	85	\$1,802,500	\$4,913,000	9
Michigan House District 80	78	\$1,631,000	\$4,455,600	10
Michigan House District 79	76	\$1,614,600	\$4,403,900	11
Michigan House District 55	73	\$1,562,800	\$4,303,300	12
Michigan House District 81	66	\$1,360,300	\$3,712,200	13
Michigan House District 51	64	\$1,341,300	\$3,657,000	14
Michigan House District 12	18	\$1,018,100	\$3,551,600	15
Michigan House District 105	58	\$1,272,400	\$3,525,700	16
Michigan House District 90	57	\$1,191,900	\$3,250,800	17
Michigan House District 38	52	\$1,180,200	\$3,209,100	18
Michigan House District 109	43	\$1,072,700	\$3,113,500	19
Michigan House District 106	45	\$1,032,700	\$2,888,000	20
Michigan House District 83	46	\$1,009,200	\$2,748,700	21
Michigan House District 57	44	\$937,300	\$2,555,400	22
Michigan House District 108	40	\$912,700	\$2,529,500	23
Michigan House District 100	42	\$888,300	\$2,422,700	24
Michigan House District 110	37	\$852,200	\$2,364,900	25
Michigan House District 73	41	\$864,100	\$2,359,400	26
Michigan House District 74	35	\$775,900	\$2,112,700	27
Michigan House District 27	37	\$772,500	\$2,107,600	28
Michigan House District 84	36	\$769,400	\$2,100,100	29
Michigan House District 61	32	\$747,800	\$2,070,200	30
Michigan House District 52	35	\$753,700	\$2,060,500	31
Michigan House District 91	31	\$696,900	\$1,911,600	32
Michigan House District 59	31	\$674,900	\$1,841,500	33
Michigan House District 49	22	\$589,900	\$1,712,600	34
Michigan House District 72	25	\$577,100	\$1,572,000	35
Michigan House District 24	26	\$563,100	\$1,539,100	36
Michigan House District 23	21	\$524,100	\$1,493,600	37
Michigan House District 36	25	\$542,800	\$1,478,700	38
Michigan House District 103	24	\$540,500	\$1,477,400	39
Michigan House District 98	25	\$536,800	\$1,466,500	40

Michigan House District 32	24	\$537,300	\$1,465,200	41
Michigan House District 47	23	\$527,600	\$1,438,700	42
Michigan House District 86	22	\$517,100	\$1,409,300	43
Michigan House District 19	20	\$507,800	\$1,378,000	44
Michigan House District 20	23	\$499,800	\$1,362,400	45
Michigan House District 69	22	\$498,700	\$1,357,800	46
Michigan House District 41	19	\$495,500	\$1,344,500	47
Michigan House District 97	23	\$488,200	\$1,335,000	48
Michigan House District 50	17	\$461,100	\$1,303,000	49
Michigan House District 63	20	\$468,300	\$1,286,200	50
Michigan House District 58	20	\$446,300	\$1,219,500	51
Michigan House District 22	18	\$431,800	\$1,174,500	52
Michigan House District 95	17	\$429,000	\$1,168,700	53
Michigan House District 102	19	\$426,800	\$1,166,500	54
Michigan House District 99	18	\$421,300	\$1,157,900	55
Michigan House District 82	17	\$379,600	\$1,036,000	56
Michigan House District 29	16	\$374,700	\$1,022,200	57
Michigan House District 25	15	\$374,900	\$1,016,800	58
Michigan House District 26	17	\$372,100	\$1,014,500	59
Michigan House District 30	17	\$371,900	\$1,013,500	60
Michigan House District 62	16	\$369,700	\$1,013,200	61
Michigan House District 45	16	\$365,400	\$995,200	62
Michigan House District 87	16	\$362,400	\$990,900	63
Michigan House District 92	16	\$356,300	\$978,600	64
Michigan House District 11	15	\$343,100	\$935,900	65
Michigan House District 93	13	\$326,100	\$932,600	66
Michigan House District 9	15	\$326,300	\$893,500	67
Michigan House District 60	15	\$324,900	\$888,400	68
Michigan House District 44	8	\$280,400	\$887,800	69
Michigan House District 21	12	\$305,300	\$835,800	70
Michigan House District 53	14	\$304,400	\$833,300	71
Michigan House District 89	12	\$290,000	\$791,100	72
Michigan House District 33	13	\$286,600	\$783,700	73
Michigan House District 43	6	\$238,700	\$776,200	74
Michigan House District 16	10	\$264,000	\$736,600	75
Michigan House District 15	10	\$257,700	\$734,400	76
Michigan House District 77	11	\$268,400	\$732,300	77
Michigan House District 96	11	\$260,100	\$713,100	78
Michigan House District 13	10	\$260,400	\$709,900	79
Michigan House District 68	10	\$252,400	\$695,600	80
Michigan House District 46	12	\$249,300	\$679,800	81
Michigan House District 17	10	\$237,700	\$655,400	82
Michigan House District 35	10	\$238,500	\$653,300	83
Michigan House District 31	11	\$237,300	\$649,000	84
Michigan House District 34	5	\$197,500	\$638,500	85

Michigan House District 42	10	\$231,000	\$632,300	86
Michigan House District 28	9	\$215,700	\$589,200	87
Michigan House District 70	9	\$212,900	\$583,100	88
Michigan House District 64	8	\$202,100	\$553,200	89
Michigan House District 37	8	\$197,300	\$538,000	90
Michigan House District 39	8	\$196,800	\$536,800	91
Michigan House District 48	8	\$192,300	\$526,500	92
Michigan House District 54	6	\$172,700	\$515,900	93
Michigan House District 1	7	\$186,200	\$506,700	94
Michigan House District 85	7	\$162,400	\$446,300	95
Michigan House District 88	6	\$144,700	\$397,100	96
Michigan House District 6	6	\$142,100	\$391,000	97
Michigan House District 7	6	\$141,800	\$389,000	98
Michigan House District 75	6	\$139,800	\$382,200	99
Michigan House District 40	6	\$136,000	\$370,800	100
Michigan House District 67	5	\$121,900	\$332,400	101
Michigan House District 76	5	\$119,200	\$327,800	102
Michigan House District 4	5	\$116,600	\$320,800	103
Michigan House District 10	5	\$110,900	\$304,600	104
Michigan House District 18	4	\$100,200	\$274,500	105
Michigan House District 5	4	\$99,200	\$273,100	106
Michigan House District 14	4	\$98,700	\$271,300	107
Michigan House District 3	4	\$93,100	\$255,400	108
Michigan House District 8	4	\$89,500	\$246,500	109
Michigan House District 2	4	\$88,600	\$243,800	110

District	Total Direct Jobs	Total Direct Wages	Total Direct Output	Rank
Michigan House District 101	1,210	\$33,149,100	\$121,699,800	1
Michigan House District 104	817	\$24,208,200	\$86,829,400	2
Michigan House District 78	853	\$23,515,900	\$84,719,300	3
Michigan House District 72	363	\$21,352,700	\$58,184,300	4
Michigan House District 107	594	\$18,334,600	\$56,548,700	5
Michigan House District 23	529	\$18,272,600	\$46,074,500	6
Michigan House District 96	296	\$17,143,600	\$45,511,700	7
Michigan House District 51	675	\$15,975,700	\$40,949,800	8
Michigan House District 66	477	\$12,594,900	\$40,041,600	9
Michigan House District 52	715	\$16,217,300	\$38,886,700	10
Michigan House District 7	207	\$13,432,900	\$36,358,200	11
Michigan House District 71	417	\$11,199,600	\$34,731,700	12
Michigan House District 46	594	\$14,349,000	\$33,636,700	13
Michigan House District 33	630	\$14,604,900	\$32,908,400	14
Michigan House District 60	179	\$11,769,400	\$32,495,100	15
Michigan House District 56	330	\$9,104,600	\$29,910,400	16
Michigan House District 63	543	\$12,872,600	\$29,900,300	17
Michigan House District 94	314	\$8,258,600	\$28,578,100	18
Michigan House District 73	488	\$11,558,400	\$28,223,600	19
Michigan House District 86	501	\$11,706,400	\$26,513,900	20
Michigan House District 65	341	\$8,715,000	\$25,805,600	21
Michigan House District 44	496	\$11,274,500	\$25,602,300	22
Michigan House District 79	275	\$8,230,600	\$25,278,900	23
Michigan House District 74	442	\$10,477,000	\$25,109,200	24
Michigan House District 80	335	\$8,329,300	\$24,486,400	25
Michigan House District 67	463	\$10,971,300	\$24,307,000	26
Michigan House District 105	362	\$8,609,800	\$23,336,500	27
Michigan House District 99	348	\$8,189,200	\$22,747,000	28
Michigan House District 69	197	\$8,493,700	\$22,350,400	29
Michigan House District 38	305	\$8,129,800	\$21,776,500	30
Michigan House District 47	332	\$8,550,300	\$21,399,000	31
Michigan House District 55	270	\$6,741,300	\$20,977,300	32
Michigan House District 91	348	\$8,372,900	\$20,960,900	33
Michigan House District 36	367	\$8,612,800	\$20,522,100	34
Michigan House District 12	339	\$8,519,500	\$20,353,600	35
Michigan House District 81	260	\$6,560,800	\$20,001,800	36
Michigan House District 110	346	\$8,576,700	\$19,816,000	37
Michigan House District 109	246	\$7,150,300	\$19,423,700	38
Michigan House District 90	190	\$6,184,400	\$19,389,500	39
Michigan House District 108	244	\$6,851,000	\$18,867,700	40

Michigan House District 20	260	\$7,120,000	\$18,268,900	41
Michigan House District 106	269	\$6,666,200	\$17,271,900	42
Michigan House District 17	326	\$7,591,900	\$17,199,300	43
Michigan House District 37	165	\$6,528,000	\$16,721,500	44
Michigan House District 21	301	\$7,045,600	\$15,932,900	45
Michigan House District 61	266	\$6,468,200	\$15,724,200	46
Michigan House District 93	274	\$6,518,100	\$15,136,700	47
Michigan House District 43	234	\$6,257,700	\$14,924,500	48
Michigan House District 40	189	\$6,019,500	\$14,832,200	49
Michigan House District 98	248	\$5,946,800	\$14,612,400	50
Michigan House District 48	281	\$6,515,000	\$14,535,400	51
Michigan House District 89	220	\$6,001,700	\$14,457,700	52
Michigan House District 100	203	\$5,100,800	\$14,306,000	53
Michigan House District 57	200	\$4,934,500	\$14,151,400	54
Michigan House District 26	117	\$4,979,200	\$13,687,000	55
Michigan House District 19	203	\$5,662,000	\$13,550,100	56
Michigan House District 32	228	\$5,436,500	\$13,484,700	57
Michigan House District 15	153	\$5,322,500	\$13,333,300	58
Michigan House District 24	154	\$4,598,100	\$12,478,200	59
Michigan House District 59	188	\$4,619,300	\$12,213,200	60
Michigan House District 45	166	\$4,740,500	\$12,091,200	61
Michigan House District 29	168	\$4,766,900	\$11,995,700	62
Michigan House District 84	177	\$4,332,800	\$11,913,300	63
Michigan House District 85	229	\$5,270,300	\$11,897,500	64
Michigan House District 103	197	\$4,684,600	\$11,794,400	65
Michigan House District 2	126	\$4,659,500	\$11,736,600	66
Michigan House District 22	110	\$4,324,800	\$11,388,200	67
Michigan House District 102	181	\$4,346,000	\$10,688,800	68
Michigan House District 83	126	\$3,294,800	\$10,569,900	69
Michigan House District 41	147	\$4,269,500	\$10,445,800	70
Michigan House District 39	193	\$4,372,900	\$9,924,600	71
Michigan House District 97	148	\$3,606,300	\$9,714,900	72
Michigan House District 77	135	\$4,004,800	\$9,575,800	73
Michigan House District 88	176	\$4,094,700	\$9,459,000	74
Michigan House District 27	109	\$2,793,500	\$9,319,400	75
Michigan House District 58	142	\$3,481,400	\$8,787,400	76
Michigan House District 31	107	\$3,376,200	\$8,551,200	77
Michigan House District 53	67	\$2,960,800	\$8,515,300	78
Michigan House District 87	145	\$3,507,800	\$8,381,900	79
Michigan House District 28	102	\$3,379,600	\$8,339,600	80
Michigan House District 82	142	\$3,376,900	\$8,128,000	81
Michigan House District 62	122	\$2,887,400	\$7,625,300	82
Michigan House District 42	142	\$3,220,200	\$7,508,300	83
Michigan House District 11	120	\$2,897,900	\$7,303,200	84
Michigan House District 30	121	\$2,864,400	\$7,233,000	85

Michigan House District 92	109	\$2,647,700	\$7,004,300	86
Michigan House District 16	129	\$3,036,100	\$6,945,800	87
Michigan House District 49	107	\$2,655,700	\$6,939,200	88
Michigan House District 50	124	\$2,946,600	\$6,810,200	89
Michigan House District 35	125	\$2,833,600	\$6,487,000	90
Michigan House District 6	121	\$2,819,100	\$6,387,000	91
Michigan House District 9	100	\$2,410,600	\$6,293,900	92
Michigan House District 64	115	\$2,700,800	\$6,106,200	93
Michigan House District 13	109	\$2,561,400	\$5,863,900	94
Michigan House District 4	104	\$2,423,100	\$5,501,300	95
Michigan House District 75	51	\$2,086,800	\$5,488,800	96
Michigan House District 54	101	\$2,299,000	\$5,340,600	97
Michigan House District 14	94	\$2,197,500	\$4,972,300	98
Michigan House District 95	89	\$2,075,500	\$4,956,700	99
Michigan House District 10	90	\$2,094,500	\$4,747,600	100
Michigan House District 70	88	\$2,090,600	\$4,714,100	101
Michigan House District 3	88	\$2,053,700	\$4,646,800	102
Michigan House District 25	85	\$1,985,800	\$4,557,800	103
Michigan House District 8	81	\$1,899,100	\$4,299,700	104
Michigan House District 5	80	\$1,884,100	\$4,271,100	105
Michigan House District 1	77	\$1,831,100	\$4,191,100	106
Michigan House District 68	49	\$1,353,800	\$3,292,500	107
Michigan House District 18	61	\$1,405,300	\$3,143,300	108
Michigan House District 76	56	\$1,295,700	\$2,892,700	109
Michigan House District 34	33	\$856,100	\$2,097,800	110

Appendix C – Economic Impact Rankings by Michigan State Senate District

District	Winery Jobs	Winery Wages	Winery Output	Rank
Michigan Senate District 35	299	\$14,118,300	\$79,918,300	1
Michigan Senate District 37	255	\$12,022,600	\$68,064,200	2
Michigan Senate District 21	222	\$10,460,600	\$59,146,300	3
Michigan Senate District 26	106	\$4,978,000	\$28,228,000	4
Michigan Senate District 32	84	\$3,940,400	\$22,326,700	5
Michigan Senate District 25	77	\$3,615,800	\$20,479,100	6
Michigan Senate District 30	73	\$3,342,100	\$19,249,700	7
Michigan Senate District 17	68	\$3,233,700	\$18,284,500	8
Michigan Senate District 7	69	\$3,142,800	\$18,214,400	9
Michigan Senate District 24	68	\$3,203,200	\$18,147,500	10
Michigan Senate District 34	60	\$2,765,000	\$15,881,500	11
Michigan Senate District 22	52	\$2,354,800	\$13,589,200	12
Michigan Senate District 16	45	\$2,121,600	\$12,033,400	13
Michigan Senate District 29	43	\$1,993,400	\$11,501,600	14
Michigan Senate District 18	41	\$1,928,000	\$10,905,400	15
Michigan Senate District 36	38	\$1,793,500	\$10,182,800	16
Michigan Senate District 8	36	\$1,676,900	\$9,585,400	17
Michigan Senate District 38	32	\$1,518,400	\$8,580,700	18
Michigan Senate District 28	23	\$1,050,700	\$5,952,300	19
Michigan Senate District 11	17	\$785,300	\$4,433,900	20
Michigan Senate District 15	14	\$684,900	\$3,866,800	21
Michigan Senate District 20	13	\$625,700	\$3,532,600	22
Michigan Senate District 13	13	\$585,300	\$3,336,100	23
Michigan Senate District 14	9	\$404,200	\$2,282,100	24
Michigan Senate District 33	8	\$345,700	\$1,957,200	25
Michigan Senate District 12	7	\$331,300	\$1,870,500	26
Michigan Senate District 1	4	\$215,000	\$1,217,700	27
Michigan Senate District 3	5	\$214,900	\$1,213,300	28
Michigan Senate District 6	4	\$189,300	\$1,068,900	29
Michigan Senate District 27	4	\$189,300	\$1,068,900	29
Michigan Senate District 31	4	\$189,300	\$1,068,900	29
Michigan Senate District 19	3	\$142,000	\$801,700	32
Michigan Senate District 9	2	\$94,700	\$534,400	33
Michigan Senate District 10	2	\$94,700	\$534,400	33
Michigan Senate District 2	0	\$0	\$0	35
Michigan Senate District 4	0	\$0	\$0	35
Michigan Senate District 5	0	\$0	\$0	35
Michigan Senate District 23	0	\$0	\$0	35

District	Vineyard Jobs	Vineyard Wages	Vineyard Output	Rank
Michigan Senate District 21	94	\$2,586,700	\$4,263,100	1
Michigan Senate District 26	50	\$1,383,700	\$2,280,500	2
Michigan Senate District 37	13	\$352,900	\$581,600	3
Michigan Senate District 35	11	\$299,800	\$494,100	4
Michigan Senate District 23	1	\$35,300	\$58,200	5
Michigan Senate District 24	0	\$11,700	\$19,200	6
Michigan Senate District 34	0	\$5,700	\$9,400	7
Michigan Senate District 25	0	\$5,300	\$8,700	8
Michigan Senate District 38	0	\$4,800	\$7,900	9
Michigan Senate District 36	0	\$3,800	\$6,300	10
Michigan Senate District 31	0	\$3,500	\$5,800	11
Michigan Senate District 19	0	\$3,400	\$5,600	12
Michigan Senate District 17	0	\$2,800	\$4,600	13
Michigan Senate District 20	0	\$2,400	\$3,900	14
Michigan Senate District 32	0	\$2,200	\$3,700	15
Michigan Senate District 16	0	\$2,200	\$3,600	16
Michigan Senate District 22	0	\$1,200	\$1,900	17
Michigan Senate District 14	0	\$800	\$1,400	18
Michigan Senate District 30	0	\$900	\$1,400	18
Michigan Senate District 18	0	\$600	\$1,100	20
Michigan Senate District 27	0	\$700	\$1,100	20
Michigan Senate District 12	0	\$500	\$800	22
Michigan Senate District 8	0	\$400	\$700	23
Michigan Senate District 15	0	\$400	\$700	23
Michigan Senate District 33	0	\$300	\$500	25
Michigan Senate District 6	0	\$300	\$400	26
Michigan Senate District 10	0	\$200	\$300	27
Michigan Senate District 11	0	\$200	\$300	27
Michigan Senate District 13	0	\$200	\$300	27
Michigan Senate District 1	0	\$100	\$200	30
Michigan Senate District 7	0	\$100	\$200	30
Michigan Senate District 9	0	\$100	\$200	30
Michigan Senate District 2	0	\$100	\$100	33
Michigan Senate District 3	0	\$100	\$100	33
Michigan Senate District 4	0	\$100	\$100	33
Michigan Senate District 5	0	\$100	\$100	33
Michigan Senate District 28	0	\$0	\$0	37
Michigan Senate District 29	0	\$0	\$0	37

District	Wholesale Jobs	Wholesale Wages	Wholesale Output	Rank
Michigan Senate District 26	196	\$17,336,800	\$48,056,400	1
Michigan Senate District 2	158	\$14,008,100	\$38,829,600	2
Michigan Senate District 31	157	\$13,869,400	\$38,445,100	3
Michigan Senate District 20	115	\$10,194,000	\$28,257,200	4
Michigan Senate District 37	89	\$7,917,100	\$21,945,800	5
Michigan Senate District 6	89	\$7,859,300	\$21,785,600	6
Michigan Senate District 11	76	\$6,752,100	\$18,716,400	7
Michigan Senate District 12	67	\$5,894,500	\$16,339,200	8
Michigan Senate District 9	55	\$4,884,300	\$13,539,100	9
Michigan Senate District 30	33	\$2,944,900	\$8,163,200	10
Michigan Senate District 38	30	\$2,619,000	\$7,259,700	11
Michigan Senate District 3	27	\$2,357,800	\$6,535,700	12
Michigan Senate District 7	27	\$2,357,800	\$6,535,700	12
Michigan Senate District 13	27	\$2,357,800	\$6,535,700	12
Michigan Senate District 18	21	\$1,846,900	\$5,119,600	15
Michigan Senate District 10	13	\$1,178,900	\$3,267,800	16
Michigan Senate District 15	13	\$1,178,900	\$3,267,800	16
Michigan Senate District 22	13	\$1,178,900	\$3,267,800	16
Michigan Senate District 28	13	\$1,178,900	\$3,267,800	16
Michigan Senate District 29	13	\$1,178,900	\$3,267,800	16
Michigan Senate District 21	10	\$878,400	\$2,434,900	21
Michigan Senate District 17	9	\$783,900	\$2,173,000	22
Michigan Senate District 1	0	\$0	\$0	23
Michigan Senate District 4	0	\$0	\$0	23
Michigan Senate District 5	0	\$0	\$0	23
Michigan Senate District 8	0	\$0	\$0	23
Michigan Senate District 14	0	\$0	\$0	23
Michigan Senate District 16	0	\$0	\$0	23
Michigan Senate District 19	0	\$0	\$0	23
Michigan Senate District 23	0	\$0	\$0	23
Michigan Senate District 24	0	\$0	\$0	23
Michigan Senate District 25	0	\$0	\$0	23
Michigan Senate District 27	0	\$0	\$0	23
Michigan Senate District 32	0	\$0	\$0	23
Michigan Senate District 33	0	\$0	\$0	23
Michigan Senate District 34	0	\$0	\$0	23
Michigan Senate District 35	0	\$0	\$0	23
Michigan Senate District 36	0	\$0	\$0	23

District	Retail Jobs	Retail Wages	Retail Output	Rank
Michigan Senate District 6	1,076	\$25,130,500	\$56,288,800	1
Michigan Senate District 22	1,040	\$23,349,800	\$53,280,700	2
Michigan Senate District 28	1,034	\$23,921,500	\$52,152,400	3
Michigan Senate District 14	985	\$22,310,700	\$50,028,300	4
Michigan Senate District 37	865	\$19,895,000	\$48,743,400	5
Michigan Senate District 12	815	\$18,376,900	\$41,311,000	6
Michigan Senate District 8	815	\$18,775,100	\$41,268,200	7
Michigan Senate District 24	743	\$17,949,700	\$39,639,900	8
Michigan Senate District 20	728	\$17,185,400	\$36,934,100	9
Michigan Senate District 35	680	\$16,078,300	\$36,209,400	10
Michigan Senate District 15	697	\$15,721,300	\$35,341,200	11
Michigan Senate District 25	652	\$15,117,200	\$33,518,700	12
Michigan Senate District 38	633	\$15,114,400	\$33,513,900	13
Michigan Senate District 21	524	\$12,388,500	\$30,491,000	14
Michigan Senate District 26	519	\$12,294,200	\$30,441,800	15
Michigan Senate District 32	581	\$13,409,300	\$30,398,500	16
Michigan Senate District 7	556	\$12,987,800	\$29,091,000	17
Michigan Senate District 34	521	\$12,267,000	\$27,989,400	18
Michigan Senate District 33	461	\$10,877,100	\$27,988,700	19
Michigan Senate District 36	497	\$11,462,900	\$26,414,800	20
Michigan Senate District 23	465	\$11,003,000	\$24,333,800	21
Michigan Senate District 30	454	\$10,562,500	\$24,232,300	22
Michigan Senate District 19	406	\$9,692,000	\$24,024,800	23
Michigan Senate District 31	474	\$11,120,900	\$23,740,100	24
Michigan Senate District 29	443	\$10,238,600	\$22,321,600	25
Michigan Senate District 17	399	\$9,200,600	\$20,846,200	26
Michigan Senate District 1	397	\$9,281,300	\$20,788,800	27
Michigan Senate District 16	384	\$9,091,300	\$20,380,300	28
Michigan Senate District 18	339	\$7,587,500	\$17,216,800	29
Michigan Senate District 27	325	\$7,524,600	\$16,672,500	30
Michigan Senate District 13	311	\$7,009,900	\$15,758,300	31
Michigan Senate District 10	308	\$7,105,600	\$15,618,400	32
Michigan Senate District 3	269	\$6,294,300	\$14,098,400	33
Michigan Senate District 11	274	\$6,175,200	\$13,881,900	34
Michigan Senate District 5	251	\$5,857,800	\$13,120,800	35
Michigan Senate District 2	233	\$5,442,900	\$12,191,300	36
Michigan Senate District 4	231	\$5,401,800	\$12,099,300	37
Michigan Senate District 9	213	\$4,912,300	\$10,797,400	38

District	Association Jobs	Association Wages	Association Output	Rank
Michigan Senate District 21	5	\$301,100	\$828,600	1
Michigan Senate District 23	5	\$301,100	\$828,600	1
Michigan Senate District 1	0	\$0	\$0	3
Michigan Senate District 2	0	\$0	\$0	3
Michigan Senate District 3	0	\$0	\$0	3
Michigan Senate District 4	0	\$0	\$0	3
Michigan Senate District 5	0	\$0	\$0	3
Michigan Senate District 6	0	\$0	\$0	3
Michigan Senate District 7	0	\$0	\$0	3
Michigan Senate District 8	0	\$0	\$0	3
Michigan Senate District 9	0	\$0	\$0	3
Michigan Senate District 10	0	\$0	\$0	3
Michigan Senate District 11	0	\$0	\$0	3
Michigan Senate District 12	0	\$0	\$0	3
Michigan Senate District 13	0	\$0	\$0	3
Michigan Senate District 14	0	\$0	\$0	3
Michigan Senate District 15	0	\$0	\$0	3
Michigan Senate District 16	0	\$0	\$0	3
Michigan Senate District 17	0	\$0	\$0	3
Michigan Senate District 18	0	\$0	\$0	3
Michigan Senate District 19	0	\$0	\$0	3
Michigan Senate District 20	0	\$0	\$0	3
Michigan Senate District 22	0	\$0	\$0	3
Michigan Senate District 24	0	\$0	\$0	3
Michigan Senate District 25	0	\$0	\$0	3
Michigan Senate District 26	0	\$0	\$0	3
Michigan Senate District 27	0	\$0	\$0	3
Michigan Senate District 28	0	\$0	\$0	3
Michigan Senate District 29	0	\$0	\$0	3
Michigan Senate District 30	0	\$0	\$0	3
Michigan Senate District 31	0	\$0	\$0	3
Michigan Senate District 32	0	\$0	\$0	3
Michigan Senate District 33	0	\$0	\$0	3
Michigan Senate District 34	0	\$0	\$0	3
Michigan Senate District 35	0	\$0	\$0	3
Michigan Senate District 36	0	\$0	\$0	3
Michigan Senate District 37	0	\$0	\$0	3
Michigan Senate District 38	0	\$0	\$0	3

District	Research and Education Jobs	Research and Education Wages	Research and Education Output	Rank
Michigan Senate District 23	52	\$4,892,900	\$12,971,900	1
Michigan Senate District 21	6	\$564,600	\$1,496,800	2
Michigan Senate District 1	0	\$0	\$0	3
Michigan Senate District 2	0	\$0	\$0	3
Michigan Senate District 3	0	\$0	\$0	3
Michigan Senate District 4	0	\$0	\$0	3
Michigan Senate District 5	0	\$0	\$0	3
Michigan Senate District 6	0	\$0	\$0	3
Michigan Senate District 7	0	\$0	\$0	3
Michigan Senate District 8	0	\$0	\$0	3
Michigan Senate District 9	0	\$0	\$0	3
Michigan Senate District 10	0	\$0	\$0	3
Michigan Senate District 11	0	\$0	\$0	3
Michigan Senate District 12	0	\$0	\$0	3
Michigan Senate District 13	0	\$0	\$0	3
Michigan Senate District 14	0	\$0	\$0	3
Michigan Senate District 15	0	\$0	\$0	3
Michigan Senate District 16	0	\$0	\$0	3
Michigan Senate District 17	0	\$0	\$0	3
Michigan Senate District 18	0	\$0	\$0	3
Michigan Senate District 19	0	\$0	\$0	3
Michigan Senate District 20	0	\$0	\$0	3
Michigan Senate District 22	0	\$0	\$0	3
Michigan Senate District 24	0	\$0	\$0	3
Michigan Senate District 25	0	\$0	\$0	3
Michigan Senate District 26	0	\$0	\$0	3
Michigan Senate District 27	0	\$0	\$0	3
Michigan Senate District 28	0	\$0	\$0	3
Michigan Senate District 29	0	\$0	\$0	3
Michigan Senate District 30	0	\$0	\$0	3
Michigan Senate District 31	0	\$0	\$0	3
Michigan Senate District 32	0	\$0	\$0	3
Michigan Senate District 33	0	\$0	\$0	3
Michigan Senate District 34	0	\$0	\$0	3
Michigan Senate District 35	0	\$0	\$0	3
Michigan Senate District 36	0	\$0	\$0	3
Michigan Senate District 37	0	\$0	\$0	3
Michigan Senate District 38	0	\$0	\$0	3

District	Tourism Jobs	Tourism Wages	Tourism Output	Rank
Michigan Senate District 35	595	\$12,301,300	\$33,554,800	1
Michigan Senate District 37	509	\$10,630,700	\$29,115,900	2
Michigan Senate District 21	467	\$9,670,800	\$26,372,400	3
Michigan Senate District 26	224	\$4,712,000	\$12,855,100	4
Michigan Senate District 32	179	\$3,787,400	\$10,348,500	5
Michigan Senate District 25	171	\$3,604,400	\$9,832,900	6
Michigan Senate District 17	157	\$3,301,800	\$9,005,900	7
Michigan Senate District 24	148	\$3,154,900	\$8,649,600	8
Michigan Senate District 38	119	\$2,823,200	\$7,968,400	9
Michigan Senate District 16	112	\$2,428,800	\$6,624,900	10
Michigan Senate District 36	102	\$2,282,200	\$6,311,200	11
Michigan Senate District 18	100	\$2,200,700	\$6,091,400	12
Michigan Senate District 6	48	\$1,768,300	\$5,656,000	13
Michigan Senate District 34	80	\$1,753,600	\$4,800,200	14
Michigan Senate District 30	75	\$1,626,700	\$4,439,000	15
Michigan Senate District 28	69	\$1,547,000	\$4,217,000	16
Michigan Senate District 15	66	\$1,524,800	\$4,147,500	17
Michigan Senate District 8	66	\$1,449,100	\$3,955,400	18
Michigan Senate District 22	60	\$1,351,500	\$3,692,600	19
Michigan Senate District 11	60	\$1,328,300	\$3,624,700	20
Michigan Senate District 20	55	\$1,289,700	\$3,551,500	21
Michigan Senate District 14	42	\$1,184,500	\$3,526,500	22
Michigan Senate District 7	54	\$1,283,700	\$3,490,600	23
Michigan Senate District 27	38	\$1,073,500	\$3,132,200	24
Michigan Senate District 19	48	\$1,124,100	\$3,081,700	25
Michigan Senate District 13	47	\$1,115,500	\$3,035,800	26
Michigan Senate District 29	48	\$1,080,000	\$2,949,000	27
Michigan Senate District 33	43	\$983,000	\$2,686,500	28
Michigan Senate District 10	34	\$846,700	\$2,302,900	29
Michigan Senate District 9	33	\$804,400	\$2,192,600	30
Michigan Senate District 31	34	\$791,800	\$2,166,500	31
Michigan Senate District 12	33	\$743,000	\$2,026,300	32
Michigan Senate District 3	29	\$691,300	\$1,922,700	33
Michigan Senate District 1	28	\$656,200	\$1,829,500	34
Michigan Senate District 23	21	\$547,700	\$1,498,500	35
Michigan Senate District 4	18	\$447,200	\$1,223,300	36
Michigan Senate District 2	16	\$374,200	\$1,023,900	37
Michigan Senate District 5	14	\$340,700	\$934,300	38

District	Total Direct Jobs	Total Direct Wages	Total Direct Output	Rank
Michigan Senate District 37	1,731	\$50,818,300	\$168,450,900	1
Michigan Senate District 35	1,585	\$42,797,700	\$150,176,600	2
Michigan Senate District 21	1,328	\$36,850,700	\$125,033,100	3
Michigan Senate District 26	1,095	\$40,704,700	\$121,861,800	4
Michigan Senate District 6	1,217	\$34,947,700	\$84,799,700	5
Michigan Senate District 22	1,165	\$28,236,200	\$73,832,200	6
Michigan Senate District 20	911	\$29,297,200	\$72,279,300	7
Michigan Senate District 24	959	\$24,319,500	\$66,456,200	8
Michigan Senate District 28	1,139	\$27,698,100	\$65,589,500	9
Michigan Senate District 31	669	\$25,974,900	\$65,426,400	10
Michigan Senate District 25	900	\$22,342,700	\$63,839,400	11
Michigan Senate District 32	844	\$21,139,300	\$63,077,400	12
Michigan Senate District 12	922	\$25,346,200	\$61,547,800	13
Michigan Senate District 7	706	\$19,772,200	\$57,331,900	14
Michigan Senate District 38	814	\$22,079,800	\$57,330,600	15
Michigan Senate District 30	635	\$18,477,100	\$56,085,600	16
Michigan Senate District 14	1,036	\$23,900,200	\$55,838,300	17
Michigan Senate District 8	917	\$21,901,500	\$54,809,700	18
Michigan Senate District 2	407	\$19,825,300	\$52,044,900	19
Michigan Senate District 17	633	\$16,522,800	\$50,314,200	20
Michigan Senate District 34	661	\$16,791,300	\$48,680,500	21
Michigan Senate District 15	790	\$19,110,300	\$46,624,000	22
Michigan Senate District 36	637	\$15,542,400	\$42,915,100	23
Michigan Senate District 11	427	\$15,041,100	\$40,657,200	24
Michigan Senate District 29	547	\$14,490,900	\$40,040,000	25
Michigan Senate District 23	544	\$16,780,000	\$39,691,000	26
Michigan Senate District 18	501	\$13,563,700	\$39,334,300	27
Michigan Senate District 16	541	\$13,643,900	\$39,042,200	28
Michigan Senate District 33	512	\$12,206,100	\$32,632,900	29
Michigan Senate District 13	398	\$11,068,700	\$28,666,200	30
Michigan Senate District 19	457	\$10,961,500	\$27,913,800	31
Michigan Senate District 9	303	\$10,695,800	\$27,063,700	32
Michigan Senate District 1	429	\$10,152,600	\$23,836,200	33
Michigan Senate District 3	330	\$9,558,400	\$23,770,200	34
Michigan Senate District 10	357	\$9,226,100	\$21,723,800	35
Michigan Senate District 27	367	\$8,788,100	\$20,874,700	36
Michigan Senate District 5	265	\$6,198,600	\$14,055,200	37
Michigan Senate District 4	249	\$5,849,100	\$13,322,700	38

Appendix D – Economic Impact Rankings by County

County	Winery Jobs	Winery Wages	Winery Output	Rank
Leelanau County	241	\$11,356,700	\$64,276,900	1
Berrien County	204	\$9,651,200	\$54,517,900	2
Grand Traverse County	185	\$8,712,500	\$49,326,500	3
Washtenaw County	83	\$3,863,000	\$22,100,900	4
Wayne County	82	\$3,762,000	\$21,714,200	5
Ottawa County	73	\$3,342,100	\$19,249,700	6
Kent County	72	\$3,328,100	\$19,057,200	7
Van Buren County	59	\$2,776,200	\$15,709,700	8
Macomb County	56	\$2,607,100	\$14,900,100	9
Oakland County	55	\$2,576,000	\$14,576,300	10
Saginaw County	54	\$2,546,900	\$14,380,100	11
Eaton County	53	\$2,508,300	\$14,162,500	12
Monroe County	52	\$2,466,500	\$13,952,600	13
Emmet County	44	\$2,079,500	\$11,765,000	14
Allegan County	41	\$1,917,900	\$10,914,900	15
Genesee County	38	\$1,797,800	\$10,228,800	16
Newaygo County	39	\$1,751,500	\$10,159,300	17
St. Clair County	37	\$1,729,300	\$9,764,200	18
Jackson County	34	\$1,615,300	\$9,120,100	19
Benzie County	19	\$890,200	\$5,052,400	20
Manistee County	18	\$823,100	\$4,667,000	21
St. Joseph County	17	\$809,500	\$4,628,400	22
Lenawee County	16	\$767,200	\$4,331,900	23
Midland County	16	\$726,300	\$4,135,900	24
Kalamazoo County	13	\$625,700	\$3,532,600	25
Muskegon County	13	\$593,500	\$3,351,000	26
Huron County	12	\$583,500	\$3,295,300	27
Alpena County	12	\$567,900	\$3,206,600	28
Sanilac County	12	\$562,100	\$3,174,000	29
Antrim County	11	\$520,700	\$2,964,400	30
Hillsdale County	11	\$506,300	\$2,913,300	31
Mason County	9	\$449,600	\$2,538,600	32
Livingston County	9	\$419,800	\$2,393,800	33
Oceana County	9	\$420,000	\$2,371,200	34
Schoolcraft County	8	\$386,500	\$2,182,300	35
Charlevoix County	8	\$378,600	\$2,137,700	36
Clinton County	8	\$355,700	\$2,069,900	37
Ontonagon County	8	\$356,900	\$2,014,900	38
Ingham County	7	\$339,200	\$1,915,100	39
Menominee County	7	\$325,500	\$1,837,900	40

Ogemaw County	5	\$236,600	\$1,336,100	41
Marquette County	5	\$214,900	\$1,213,300	42
Mecosta County	5	\$203,700	\$1,155,500	43
Arenac County	4	\$189,300	\$1,068,900	44
Cheboygan County	4	\$189,300	\$1,068,900	44
Delta County	4	\$189,300	\$1,068,900	44
Lake County	4	\$189,300	\$1,068,900	44
Lapeer County	4	\$189,300	\$1,068,900	44
Otsego County	4	\$189,300	\$1,068,900	44
Osceola County	3	\$172,900	\$978,500	50
Barry County	3	\$142,000	\$801,700	51
Chippewa County	3	\$142,000	\$801,700	51
Gratiot County	3	\$142,000	\$801,700	51
Gladwin County	3	\$120,700	\$702,600	54
Houghton County	1	\$45,300	\$263,500	55
Alcona County	0	\$0	\$0	56
Alger County	0	\$0	\$0	56
Baraga County	0	\$0	\$0	56
Bay County	0	\$0	\$0	56
Branch County	0	\$0	\$0	56
Calhoun County	0	\$0	\$0	56
Cass County	0	\$0	\$0	56
Clare County	0	\$0	\$0	56
Crawford County	0	\$0	\$0	56
Dickinson County	0	\$0	\$0	56
Gogebic County	0	\$0	\$0	56
Ionia County	0	\$0	\$0	56
Iosco County	0	\$0	\$0	56
Iron County	0	\$0	\$0	56
Isabella County	0	\$0	\$0	56
Kalkaska County	0	\$0	\$0	56
Keweenaw County	0	\$0	\$0	56
Luce County	0	\$0	\$0	56
Mackinac County	0	\$0	\$0	56
Missaukee County	0	\$0	\$0	56
Montcalm County	0	\$0	\$0	56
Montmorency County	0	\$0	\$0	56
Oscoda County	0	\$0	\$0	56
Presque Isle County	0	\$0	\$0	56
Roscommon County	0	\$0	\$0	56
Shiawassee County	0	\$0	\$0	56
Tuscola County	0	\$0	\$0	56
Wexford County	0	\$0	\$0	56

County	Vineyard Jobs	Vineyard Wages	Vineyard Output	Rank
Berrien County	84	\$2,320,700	\$3,824,700	1
Van Buren County	49	\$1,349,200	\$2,223,700	2
Grand Traverse County	11	\$309,400	\$510,000	3
Leelanau County	10	\$287,800	\$474,400	4
Cass County	10	\$264,800	\$436,400	5
Ingham County	2	\$46,100	\$76,000	6
Allegan County	1	\$34,500	\$56,900	7
Emmet County	1	\$19,800	\$32,600	8
Cheboygan County	0	\$9,400	\$15,400	9
Charlevoix County	0	\$7,600	\$12,500	10
Antrim County	0	\$6,500	\$10,700	11
Benzie County	0	\$5,000	\$8,300	12
Roscommon County	0	\$4,100	\$6,700	13
Oceana County	0	\$3,200	\$5,300	14
Iron County	0	\$2,600	\$4,300	15
Lapeer County	0	\$2,600	\$4,300	15
Calhoun County	0	\$2,500	\$4,200	17
Monroe County	0	\$2,500	\$4,200	17
Iosco County	0	\$2,300	\$3,800	19
Kalamazoo County	0	\$2,300	\$3,800	19
Huron County	0	\$2,200	\$3,600	21
Jackson County	0	\$2,200	\$3,600	21
Muskegon County	0	\$1,800	\$3,000	23
Oakland County	0	\$1,800	\$3,000	23
St. Clair County	0	\$1,800	\$3,000	23
Washtenaw County	0	\$1,800	\$3,000	23
Saginaw County	0	\$1,800	\$2,900	27
Genesee County	0	\$1,500	\$2,400	28
Houghton County	0	\$1,200	\$1,900	29
Sanilac County	0	\$1,200	\$1,900	29
St. Joseph County	0	\$1,200	\$1,900	29
Manistee County	0	\$1,100	\$1,800	32
Ionia County	0	\$900	\$1,400	33
Macomb County	0	\$900	\$1,400	33
Montmorency County	0	\$900	\$1,400	33
Ottawa County	0	\$900	\$1,400	33
Menominee County	0	\$700	\$1,200	37
Newaygo County	0	\$700	\$1,200	37
Wayne County	0	\$700	\$1,200	37
Alpena County	0	\$600	\$1,000	40
Bay County	0	\$600	\$1,000	40

Ogemaw County	0	\$600	\$1,000	40
Shiawassee County	0	\$600	\$1,000	40
Wexford County	0	\$600	\$1,000	40
Chippewa County	0	\$300	\$500	45
Clinton County	0	\$300	\$500	45
Delta County	0	\$300	\$500	45
Isabella County	0	\$300	\$500	45
Lenawee County	0	\$300	\$500	45
Mason County	0	\$300	\$500	45
Osceola County	0	\$300	\$500	45
Tuscola County	0	\$300	\$500	45
Alcona County	0	\$0	\$0	53
Alger County	0	\$0	\$0	53
Arenac County	0	\$0	\$0	53
Baraga County	0	\$0	\$0	53
Barry County	0	\$0	\$0	53
Branch County	0	\$0	\$0	53
Clare County	0	\$0	\$0	53
Crawford County	0	\$0	\$0	53
Dickinson County	0	\$0	\$0	53
Eaton County	0	\$0	\$0	53
Gladwin County	0	\$0	\$0	53
Gogebic County	0	\$0	\$0	53
Gratiot County	0	\$0	\$0	53
Hillsdale County	0	\$0	\$0	53
Kalkaska County	0	\$0	\$0	53
Kent County	0	\$0	\$0	53
Keweenaw County	0	\$0	\$0	53
Lake County	0	\$0	\$0	53
Livingston County	0	\$0	\$0	53
Luce County	0	\$0	\$0	53
Mackinac County	0	\$0	\$0	53
Marquette County	0	\$0	\$0	53
Mecosta County	0	\$0	\$0	53
Midland County	0	\$0	\$0	53
Missaukee County	0	\$0	\$0	53
Montcalm County	0	\$0	\$0	53
Ontonagon County	0	\$0	\$0	53
Oscoda County	0	\$0	\$0	53
Otsego County	0	\$0	\$0	53
Presque Isle County	0	\$0	\$0	53
Schoolcraft County	0	\$0	\$0	53

County	Wholesale Jobs	Wholesale Wages	Wholesale Output	Rank
Wayne County	300	\$26,583,100	\$73,686,500	1
Kent County	222	\$19,694,600	\$54,592,100	2
Oakland County	183	\$16,183,300	\$44,859,000	3
Bay County	157	\$13,869,400	\$38,445,100	4
Kalamazoo County	115	\$10,194,000	\$28,257,200	5
Macomb County	68	\$6,063,300	\$16,806,900	6
Emmet County	52	\$4,623,100	\$12,815,000	7
Ottawa County	33	\$2,944,900	\$8,163,200	8
Grand Traverse County	31	\$2,776,200	\$7,695,400	9
Washtenaw County	21	\$1,846,900	\$5,119,600	10
Marquette County	16	\$1,410,100	\$3,908,600	11
Delta County	14	\$1,209,000	\$3,351,100	12
Livingston County	13	\$1,178,900	\$3,267,800	13
Berrien County	10	\$878,400	\$2,434,900	14
Monroe County	9	\$783,900	\$2,173,000	15
Mackinac County	6	\$517,800	\$1,435,300	16
Wexford County	0	\$0	\$0	17
Van Buren County	0	\$0	\$0	17
Tuscola County	0	\$0	\$0	17
St. Joseph County	0	\$0	\$0	17
St. Clair County	0	\$0	\$0	17
Shiawassee County	0	\$0	\$0	17
Schoolcraft County	0	\$0	\$0	17
Sanilac County	0	\$0	\$0	17
Saginaw County	0	\$0	\$0	17
Roscommon County	0	\$0	\$0	17
Presque Isle County	0	\$0	\$0	17
Otsego County	0	\$0	\$0	17
Oscoda County	0	\$0	\$0	17
Osceola County	0	\$0	\$0	17
Ontonagon County	0	\$0	\$0	17
Ogemaw County	0	\$0	\$0	17
Oceana County	0	\$0	\$0	17
Newaygo County	0	\$0	\$0	17
Muskegon County	0	\$0	\$0	17
Montmorency County	0	\$0	\$0	17
Montcalm County	0	\$0	\$0	17
Missaukee County	0	\$0	\$0	17
Midland County	0	\$0	\$0	17
Menominee County	0	\$0	\$0	17
Mecosta County	0	\$0	\$0	17

Mason County	0	\$0	\$0	17
Manistee County	0	\$0	\$0	17
Luce County	0	\$0	\$0	17
Lenawee County	0	\$0	\$0	17
Leelanau County	0	\$0	\$0	17
Lapeer County	0	\$0	\$0	17
Lake County	0	\$0	\$0	17
Keweenaw County	0	\$0	\$0	17
Kalkaska County	0	\$0	\$0	17
Jackson County	0	\$0	\$0	17
Isabella County	0	\$0	\$0	17
Iron County	0	\$0	\$0	17
Iosco County	0	\$0	\$0	17
Ionia County	0	\$0	\$0	17
Ingham County	0	\$0	\$0	17
Huron County	0	\$0	\$0	17
Houghton County	0	\$0	\$0	17
Hillsdale County	0	\$0	\$0	17
Gratiot County	0	\$0	\$0	17
Gogebic County	0	\$0	\$0	17
Gladwin County	0	\$0	\$0	17
Genesee County	0	\$0	\$0	17
Eaton County	0	\$0	\$0	17
Dickinson County	0	\$0	\$0	17
Crawford County	0	\$0	\$0	17
Clinton County	0	\$0	\$0	17
Clare County	0	\$0	\$0	17
Chippewa County	0	\$0	\$0	17
Cheboygan County	0	\$0	\$0	17
Charlevoix County	0	\$0	\$0	17
Cass County	0	\$0	\$0	17
Calhoun County	0	\$0	\$0	17
Branch County	0	\$0	\$0	17
Benzie County	0	\$0	\$0	17
Barry County	0	\$0	\$0	17
Baraga County	0	\$0	\$0	17
Arenac County	0	\$0	\$0	17
Antrim County	0	\$0	\$0	17
Alpena County	0	\$0	\$0	17
Allegan County	0	\$0	\$0	17
Alger County	0	\$0	\$0	17
Alcona County	0	\$0	\$0	17

County	Retail Jobs	Retail Wages	Retail Output	Rank
Wayne County	3,014	\$70,398,200	\$157,682,300	1
Oakland County	2,913	\$65,689,000	\$147,667,900	2
Macomb County	1,609	\$37,072,500	\$81,486,400	3
Kent County	1,580	\$36,539,400	\$79,661,100	4
Washtenaw County	957	\$21,388,400	\$48,532,400	5
Genesee County	724	\$16,769,200	\$37,155,900	6
Kalamazoo County	728	\$17,186,100	\$36,935,300	7
Ingham County	607	\$14,367,100	\$31,773,800	8
Ottawa County	454	\$10,562,400	\$24,232,200	9
Berrien County	368	\$8,728,300	\$22,251,300	10
Livingston County	423	\$9,549,100	\$21,965,400	11
Muskegon County	397	\$9,371,400	\$21,719,600	12
Saginaw County	351	\$8,070,300	\$18,568,700	13
Eaton County	298	\$7,559,500	\$16,776,800	14
Calhoun County	263	\$6,267,700	\$16,463,300	15
Isabella County	231	\$5,438,500	\$15,715,800	16
Bay County	286	\$6,755,400	\$14,240,500	17
St. Clair County	270	\$6,276,000	\$14,123,600	18
Jackson County	266	\$6,245,000	\$13,880,200	19
Grand Traverse County	254	\$5,882,000	\$13,838,400	20
Allegan County	259	\$6,021,800	\$13,727,800	21
Monroe County	252	\$5,812,300	\$13,225,900	22
Van Buren County	158	\$3,895,300	\$11,531,700	23
Clinton County	217	\$5,063,000	\$11,206,800	24
Emmet County	194	\$4,296,000	\$11,060,400	25
Leelanau County	194	\$4,494,100	\$10,181,900	26
Midland County	153	\$3,475,300	\$8,182,300	27
Lenawee County	147	\$3,387,100	\$7,617,700	28
Chippewa County	99	\$2,365,700	\$7,335,100	29
Marquette County	133	\$3,067,800	\$6,776,400	30
Lapeer County	120	\$2,804,600	\$6,017,000	31
Charlevoix County	94	\$2,137,700	\$4,592,700	32
Otsego County	87	\$1,859,600	\$4,483,900	33
Wexford County	82	\$1,975,300	\$4,387,000	34
St. Joseph County	80	\$1,867,300	\$4,251,200	35
Shiawassee County	85	\$1,963,200	\$4,216,500	36
Mason County	78	\$1,871,500	\$4,156,600	37
Branch County	74	\$1,825,800	\$4,155,500	38
Menominee County	60	\$1,453,700	\$4,153,400	39
Ionia County	71	\$1,734,700	\$4,004,800	40
Cass County	76	\$1,792,700	\$3,988,100	41

Mackinac County	66	\$1,525,300	\$3,962,400	42
Alpena County	70	\$1,760,700	\$3,721,300	43
Mecosta County	68	\$1,567,200	\$3,686,300	44
Baraga County	83	\$2,147,800	\$3,662,100	45
Newaygo County	71	\$1,695,000	\$3,654,600	46
Barry County	72	\$1,688,700	\$3,554,800	47
Cheboygan County	71	\$1,587,000	\$3,523,900	48
Tuscola County	67	\$1,560,900	\$3,482,500	49
Delta County	68	\$1,554,500	\$3,469,600	50
Antrim County	67	\$1,572,700	\$3,430,500	51
Montcalm County	65	\$1,541,500	\$3,383,200	52
Manistee County	59	\$1,495,800	\$3,301,600	53
Huron County	62	\$1,421,500	\$3,060,600	54
Benzie County	58	\$1,359,300	\$3,044,600	55
Keweenaw County	64	\$1,511,600	\$2,968,300	56
Gratiot County	55	\$1,322,400	\$2,941,800	57
Gogebic County	40	\$978,100	\$2,855,000	58
Iosco County	51	\$1,203,600	\$2,691,100	59
Oceana County	52	\$1,199,300	\$2,612,600	60
Sanilac County	49	\$1,140,700	\$2,533,100	61
Dickinson County	51	\$1,205,400	\$2,455,800	62
Roscommon County	47	\$1,049,100	\$2,353,600	63
Hillsdale County	45	\$1,020,000	\$2,343,400	64
Clare County	43	\$1,007,100	\$2,260,900	65
Houghton County	48	\$1,117,500	\$2,243,200	66
Ogemaw County	38	\$884,700	\$2,067,000	67
Kalkaska County	36	\$903,500	\$2,057,500	68
Arenac County	30	\$730,700	\$1,904,000	69
Gladwin County	34	\$769,600	\$1,651,000	70
Crawford County	29	\$634,700	\$1,563,200	71
Ontonagon County	21	\$536,500	\$1,397,600	72
Iron County	27	\$656,400	\$1,385,000	73
Oscoda County	21	\$487,800	\$1,124,500	74
Schoolcraft County	19	\$461,000	\$1,112,200	75
Lake County	21	\$515,100	\$1,099,400	76
Osceola County	19	\$464,200	\$1,064,600	77
Alger County	18	\$424,200	\$1,035,500	78
Luce County	21	\$529,100	\$1,000,600	79
Presque Isle County	20	\$487,100	\$986,100	80
Missaukee County	18	\$430,600	\$931,200	81
Alcona County	17	\$369,300	\$857,800	82
Montmorency County	14	\$318,300	\$810,200	83

County	Association Jobs	Association Wages	Association Output	Rank
Berrien County	5	\$301,100	\$828,600	1
Ingham County	5	\$301,100	\$828,600	1
Alcona County	0	\$0	\$0	3
Alger County	0	\$0	\$0	3
Allegan County	0	\$0	\$0	3
Alpena County	0	\$0	\$0	3
Antrim County	0	\$0	\$0	3
Arenac County	0	\$0	\$0	3
Baraga County	0	\$0	\$0	3
Barry County	0	\$0	\$0	3
Bay County	0	\$0	\$0	3
Benzie County	0	\$0	\$0	3
Branch County	0	\$0	\$0	3
Calhoun County	0	\$0	\$0	3
Cass County	0	\$0	\$0	3
Charlevoix County	0	\$0	\$0	3
Cheboygan County	0	\$0	\$0	3
Chippewa County	0	\$0	\$0	3
Clare County	0	\$0	\$0	3
Clinton County	0	\$0	\$0	3
Crawford County	0	\$0	\$0	3
Delta County	0	\$0	\$0	3
Dickinson County	0	\$0	\$0	3
Eaton County	0	\$0	\$0	3
Emmet County	0	\$0	\$0	3
Genesee County	0	\$0	\$0	3
Gladwin County	0	\$0	\$0	3
Gogebic County	0	\$0	\$0	3
Grand Traverse County	0	\$0	\$0	3
Gratiot County	0	\$0	\$0	3
Hillsdale County	0	\$0	\$0	3
Houghton County	0	\$0	\$0	3
Huron County	0	\$0	\$0	3
Ionia County	0	\$0	\$0	3
Iosco County	0	\$0	\$0	3
Iron County	0	\$0	\$0	3
Isabella County	0	\$0	\$0	3
Jackson County	0	\$0	\$0	3
Kalamazoo County	0	\$0	\$0	3
Kalkaska County	0	\$0	\$0	3
Kent County	0	\$0	\$0	3

Keweenaw County	0	\$0	\$0	3
Lake County	0	\$0	\$0	3
Lapeer County	0	\$0	\$0	3
Leelanau County	0	\$0	\$0	3
Lenawee County	0	\$0	\$0	3
Livingston County	0	\$0	\$0	3
Luce County	0	\$0	\$0	3
Mackinac County	0	\$0	\$0	3
Macomb County	0	\$0	\$0	3
Manistee County	0	\$0	\$0	3
Marquette County	0	\$0	\$0	3
Mason County	0	\$0	\$0	3
Mecosta County	0	\$0	\$0	3
Menominee County	0	\$0	\$0	3
Midland County	0	\$0	\$0	3
Missaukee County	0	\$0	\$0	3
Monroe County	0	\$0	\$0	3
Montcalm County	0	\$0	\$0	3
Montmorency County	0	\$0	\$0	3
Muskegon County	0	\$0	\$0	3
Newaygo County	0	\$0	\$0	3
Oakland County	0	\$0	\$0	3
Oceana County	0	\$0	\$0	3
Ogemaw County	0	\$0	\$0	3
Ontonagon County	0	\$0	\$0	3
Osceola County	0	\$0	\$0	3
Oscoda County	0	\$0	\$0	3
Otsego County	0	\$0	\$0	3
Ottawa County	0	\$0	\$0	3
Presque Isle County	0	\$0	\$0	3
Roscommon County	0	\$0	\$0	3
Saginaw County	0	\$0	\$0	3
Sanilac County	0	\$0	\$0	3
Schoolcraft County	0	\$0	\$0	3
Shiawassee County	0	\$0	\$0	3
St. Clair County	0	\$0	\$0	3
St. Joseph County	0	\$0	\$0	3
Tuscola County	0	\$0	\$0	3
Van Buren County	0	\$0	\$0	3
Washtenaw County	0	\$0	\$0	3
Wayne County	0	\$0	\$0	3
Wexford County	0	\$0	\$0	3

County	Research and Education Jobs	Research and Education Wages	Research and Education Output	Rank
Ingham County	52	\$4,892,900	\$12,971,900	1
Berrien County	6	\$564,600	\$1,496,800	2
Alcona County	0	\$0	\$0	3
Alger County	0	\$0	\$0	3
Allegan County	0	\$0	\$0	3
Alpena County	0	\$0	\$0	3
Antrim County	0	\$0	\$0	3
Arenac County	0	\$0	\$0	3
Baraga County	0	\$0	\$0	3
Barry County	0	\$0	\$0	3
Bay County	0	\$0	\$0	3
Benzie County	0	\$0	\$0	3
Branch County	0	\$0	\$0	3
Calhoun County	0	\$0	\$0	3
Cass County	0	\$0	\$0	3
Charlevoix County	0	\$0	\$0	3
Cheboygan County	0	\$0	\$0	3
Chippewa County	0	\$0	\$0	3
Clare County	0	\$0	\$0	3
Clinton County	0	\$0	\$0	3
Crawford County	0	\$0	\$0	3
Delta County	0	\$0	\$0	3
Dickinson County	0	\$0	\$0	3
Eaton County	0	\$0	\$0	3
Emmet County	0	\$0	\$0	3
Genesee County	0	\$0	\$0	3
Gladwin County	0	\$0	\$0	3
Gogebic County	0	\$0	\$0	3
Grand Traverse County	0	\$0	\$0	3
Gratiot County	0	\$0	\$0	3
Hillsdale County	0	\$0	\$0	3
Houghton County	0	\$0	\$0	3
Huron County	0	\$0	\$0	3
Ionia County	0	\$0	\$0	3
Iosco County	0	\$0	\$0	3
Iron County	0	\$0	\$0	3
Isabella County	0	\$0	\$0	3
Jackson County	0	\$0	\$0	3
Kalamazoo County	0	\$0	\$0	3
Kalkaska County	0	\$0	\$0	3
Kent County	0	\$0	\$0	3

Keweenaw County	0	\$0	\$0	3
Lake County	0	\$0	\$0	3
Lapeer County	0	\$0	\$0	3
Leelanau County	0	\$0	\$0	3
Lenawee County	0	\$0	\$0	3
Livingston County	0	\$0	\$0	3
Luce County	0	\$0	\$0	3
Mackinac County	0	\$0	\$0	3
Macomb County	0	\$0	\$0	3
Manistee County	0	\$0	\$0	3
Marquette County	0	\$0	\$0	3
Mason County	0	\$0	\$0	3
Mecosta County	0	\$0	\$0	3
Menominee County	0	\$0	\$0	3
Midland County	0	\$0	\$0	3
Missaukee County	0	\$0	\$0	3
Monroe County	0	\$0	\$0	3
Montcalm County	0	\$0	\$0	3
Montmorency County	0	\$0	\$0	3
Muskegon County	0	\$0	\$0	3
Newaygo County	0	\$0	\$0	3
Oakland County	0	\$0	\$0	3
Oceana County	0	\$0	\$0	3
Ogemaw County	0	\$0	\$0	3
Ontonagon County	0	\$0	\$0	3
Osceola County	0	\$0	\$0	3
Oscoda County	0	\$0	\$0	3
Otsego County	0	\$0	\$0	3
Ottawa County	0	\$0	\$0	3
Presque Isle County	0	\$0	\$0	3
Roscommon County	0	\$0	\$0	3
Saginaw County	0	\$0	\$0	3
Sanilac County	0	\$0	\$0	3
Schoolcraft County	0	\$0	\$0	3
Shiawassee County	0	\$0	\$0	3
St. Clair County	0	\$0	\$0	3
St. Joseph County	0	\$0	\$0	3
Tuscola County	0	\$0	\$0	3
Van Buren County	0	\$0	\$0	3
Washtenaw County	0	\$0	\$0	3
Wayne County	0	\$0	\$0	3
Wexford County	0	\$0	\$0	3

County	Tourism Jobs	Tourism Wages	Tourism Output	Rank
Leelanau County	459	\$9,412,900	\$25,660,600	1
Berrien County	434	\$8,945,800	\$24,394,000	2
Grand Traverse County	353	\$7,304,400	\$19,974,900	3
Wayne County	207	\$5,561,300	\$16,079,200	4
Oakland County	224	\$5,301,700	\$14,693,900	5
Macomb County	151	\$3,475,900	\$9,475,900	6
Kent County	141	\$3,161,700	\$8,621,400	7
Saginaw County	135	\$2,877,700	\$7,868,100	8
Washtenaw County	127	\$2,793,600	\$7,712,900	9
Genesee County	106	\$2,577,700	\$7,280,000	10
Eaton County	121	\$2,538,400	\$6,922,300	11
Van Buren County	121	\$2,504,000	\$6,827,600	12
Monroe County	113	\$2,358,700	\$6,434,600	13
Jackson County	92	\$1,982,400	\$5,405,400	14
St. Clair County	92	\$1,954,900	\$5,333,200	15
Emmet County	90	\$1,869,200	\$5,096,200	16
Allegan County	79	\$1,673,400	\$4,572,300	17
Ottawa County	75	\$1,626,700	\$4,439,100	18
Kalamazoo County	55	\$1,289,700	\$3,551,500	19
Muskegon County	47	\$1,053,300	\$2,890,300	20
Lenawee County	44	\$943,100	\$2,571,300	21
Ingham County	37	\$873,000	\$2,386,000	22
Marquette County	27	\$767,300	\$2,279,900	23
Livingston County	33	\$758,600	\$2,071,100	24
Alpena County	32	\$732,500	\$2,065,100	25
Manistee County	34	\$712,900	\$1,955,600	26
Calhoun County	30	\$704,100	\$1,933,100	27
Benzie County	34	\$701,600	\$1,913,400	28
Huron County	32	\$673,400	\$1,838,500	29
Midland County	30	\$652,000	\$1,786,800	30
St. Joseph County	29	\$623,500	\$1,700,400	31
Sanilac County	28	\$600,100	\$1,635,600	32
Charlevoix County	19	\$436,700	\$1,240,100	33
Mason County	21	\$448,600	\$1,224,200	34
Oceana County	19	\$400,300	\$1,091,700	35
Otsego County	17	\$387,800	\$1,060,300	36
Antrim County	18	\$384,200	\$1,049,600	37
Schoolcraft County	18	\$380,000	\$1,036,800	38
Lapeer County	17	\$379,600	\$1,036,100	39
Delta County	15	\$358,300	\$1,013,600	40
Menominee County	17	\$361,000	\$985,600	41

Ogemaw County	16	\$338,700	\$924,100	42
Ontonagon County	16	\$329,800	\$899,600	43
Bay County	13	\$316,200	\$868,800	44
Hillsdale County	14	\$307,200	\$838,800	45
Newaygo County	14	\$300,000	\$818,100	46
Cheboygan County	13	\$295,700	\$806,300	47
Chippewa County	12	\$281,900	\$787,000	48
Mecosta County	13	\$283,100	\$773,600	49
Barry County	12	\$277,400	\$757,700	50
Isabella County	10	\$250,100	\$682,000	51
Gratiot County	10	\$228,400	\$623,500	52
Arenac County	11	\$220,700	\$603,200	53
Keweenaw County	9	\$203,100	\$556,400	54
Dickinson County	8	\$193,300	\$530,300	55
Lake County	9	\$187,900	\$512,800	56
Osceola County	8	\$165,300	\$451,300	57
Montcalm County	7	\$163,000	\$446,900	58
Clinton County	5	\$147,600	\$445,500	59
Shiawassee County	6	\$143,600	\$394,400	60
Ionia County	6	\$142,600	\$390,900	61
Branch County	6	\$139,200	\$380,700	62
Wexford County	5	\$131,600	\$359,600	63
Gogebic County	4	\$112,400	\$342,000	64
Cass County	4	\$101,500	\$278,100	65
Iosco County	4	\$101,500	\$277,200	66
Roscommon County	4	\$96,300	\$263,300	67
Tuscola County	4	\$96,000	\$261,600	68
Clare County	3	\$58,400	\$160,600	69
Gladwin County	2	\$55,900	\$153,300	70
Kalkaska County	2	\$48,500	\$133,600	71
Houghton County	2	\$46,000	\$126,000	72
Mackinac County	2	\$44,300	\$122,200	73
Oscoda County	2	\$39,100	\$107,800	74
Presque Isle County	1	\$35,600	\$100,000	75
Alcona County	1	\$32,600	\$90,000	76
Baraga County	1	\$32,100	\$88,700	77
Crawford County	1	\$29,800	\$81,900	78
Missaukee County	1	\$27,200	\$74,400	79
Montmorency County	1	\$24,600	\$67,800	80
Iron County	1	\$22,500	\$61,800	81
Alger County	1	\$17,300	\$47,800	82
Luce County	1	\$14,300	\$39,500	83

County	Total Direct Jobs	Total Direct Wages	Total Direct Output	Rank
Wayne County	3,603	\$106,305,300	\$269,163,400	1
Oakland County	3,375	\$89,751,800	\$221,800,100	2
Kent County	2,015	\$62,723,800	\$161,931,800	3
Macomb County	1,884	\$49,219,700	\$122,670,700	4
Berrien County	1,111	\$31,390,100	\$109,748,200	5
Leelanau County	904	\$25,551,500	\$100,593,800	6
Grand Traverse County	834	\$24,984,500	\$91,345,200	7
Washtenaw County	1,188	\$29,893,700	\$83,468,800	8
Kalamazoo County	911	\$29,297,800	\$72,280,400	9
Ottawa County	635	\$18,477,000	\$56,085,600	10
Genesee County	868	\$21,146,200	\$54,667,100	11
Bay County	456	\$20,941,600	\$53,555,400	12
Ingham County	710	\$20,819,400	\$49,951,400	13
Saginaw County	540	\$13,496,700	\$40,819,800	14
Emmet County	381	\$12,887,600	\$40,769,200	15
Eaton County	472	\$12,606,200	\$37,861,600	16
Van Buren County	387	\$10,524,700	\$36,292,700	17
Monroe County	426	\$11,423,900	\$35,790,300	18
Livingston County	478	\$11,906,400	\$29,698,100	19
Allegan County	380	\$9,647,600	\$29,271,900	20
St. Clair County	399	\$9,962,000	\$29,224,000	21
Jackson County	392	\$9,844,900	\$28,409,300	22
Muskegon County	457	\$11,020,000	\$27,963,900	23
Calhoun County	293	\$6,974,300	\$18,400,600	24
Isabella County	241	\$5,688,900	\$16,398,300	25
Newaygo County	124	\$3,747,200	\$14,633,200	26
Lenawee County	207	\$5,097,700	\$14,521,400	27
Marquette County	181	\$5,460,100	\$14,178,200	28
Midland County	199	\$4,853,600	\$14,105,000	29
Clinton County	230	\$5,566,600	\$13,722,700	30
St. Joseph County	126	\$3,301,500	\$10,581,900	31
Benzie County	111	\$2,956,100	\$10,018,700	32
Manistee County	111	\$3,032,900	\$9,926,000	33
Alpena County	114	\$3,061,700	\$8,994,000	34
Chippewa County	114	\$2,789,900	\$8,924,300	35
Delta County	101	\$3,311,400	\$8,903,700	36
Huron County	106	\$2,680,600	\$8,198,000	37
Lapeer County	141	\$3,376,100	\$8,126,300	38
Charlevoix County	121	\$2,960,600	\$7,983,000	39
Mason County	108	\$2,770,000	\$7,919,900	40
Antrim County	96	\$2,484,100	\$7,455,200	41

Sanilac County	89	\$2,304,100	\$7,344,600	42
Menominee County	84	\$2,140,900	\$6,978,100	43
Otsego County	108	\$2,436,700	\$6,613,100	44
Hillsdale County	70	\$1,833,500	\$6,095,500	45
Oceana County	80	\$2,022,800	\$6,080,800	46
Mecosta County	86	\$2,054,000	\$5,615,400	47
Mackinac County	74	\$2,087,400	\$5,519,900	48
Cheboygan County	88	\$2,081,400	\$5,414,500	49
Barry County	87	\$2,108,100	\$5,114,200	50
Wexford County	87	\$2,107,500	\$4,747,600	51
Cass County	90	\$2,159,000	\$4,702,600	52
Shiawassee County	91	\$2,107,400	\$4,611,900	53
Branch County	80	\$1,965,000	\$4,536,200	54
Ionia County	77	\$1,878,200	\$4,397,100	55
Gratiot County	68	\$1,692,800	\$4,367,000	56
Schoolcraft County	45	\$1,227,500	\$4,331,300	57
Ogemaw County	59	\$1,460,600	\$4,328,200	58
Ontonagon County	45	\$1,223,200	\$4,312,100	59
Montcalm County	72	\$1,704,500	\$3,830,100	60
Baraga County	84	\$2,179,900	\$3,750,800	61
Tuscola County	71	\$1,657,200	\$3,744,600	62
Arenac County	45	\$1,140,700	\$3,576,100	63
Keweenaw County	73	\$1,714,700	\$3,524,700	64
Gogebic County	44	\$1,090,500	\$3,197,000	65
Dickinson County	59	\$1,398,700	\$2,986,100	66
Iosco County	55	\$1,307,400	\$2,972,100	67
Lake County	34	\$892,300	\$2,681,100	68
Houghton County	51	\$1,210,000	\$2,634,600	69
Roscommon County	51	\$1,149,500	\$2,623,600	70
Gladwin County	39	\$946,200	\$2,506,900	71
Osceola County	30	\$802,700	\$2,494,900	72
Clare County	46	\$1,065,500	\$2,421,500	73
Kalkaska County	38	\$952,000	\$2,191,100	74
Crawford County	30	\$664,500	\$1,645,100	75
Iron County	28	\$681,500	\$1,451,100	76
Oscoda County	23	\$526,900	\$1,232,300	77
Presque Isle County	21	\$522,700	\$1,086,100	78
Alger County	19	\$441,500	\$1,083,300	79
Luce County	22	\$543,400	\$1,040,100	80
Missaukee County	19	\$457,800	\$1,005,600	81
Alcona County	18	\$401,900	\$947,800	82
Montmorency County	15	\$343,800	\$879,400	83

Appendix E – Top Supplier Impacts by Economic Sector

Supplier Sector	Supplier Jobs	Supplier Wages	Supplier Output
Real estate	483	\$9,861,875	\$95,027,926
Employment services	279	\$10,451,778	\$17,390,848
Fruit farming	264	\$8,637,009	\$14,668,623
Management of companies and enterprises	240	\$34,094,159	\$61,809,757
Wholesale trade	227	\$20,141,351	\$55,707,143
Services to buildings	160	\$3,877,249	\$6,377,618
Warehousing and storage	142	\$7,804,014	\$17,032,032
Accounting, tax preparation, bookkeeping, and payroll services	134	\$8,429,197	\$13,835,833
Truck transportation	123	\$7,483,567	\$20,437,790
Business support services	116	\$4,245,322	\$6,728,879
Independent artists, writers, and performers	111	\$833,117	\$2,759,558
Advertising, public relations, and related services	106	\$7,902,682	\$26,702,729

Appendix F – Survey Form

2017 Michigan Wine Industry/Hard Cider Census Survey

(untitled)

2017 Michigan Wine Industry/Hard Cider Census Survey

1. Please choose which of the following best describes your company/organization (if you are a winery with a vineyard, choose winery):

- ☐ Winery
- ☐ Virtual Winery (Licensed as a winery but product is manufactured by a different licensee)
- ☐ Cidery
- ☐ Other - Write In

2. Do you engage in any of the following wine related activities?

- ☐ Maintain a Custom Crush Facility
- ☐ Wine/Hard Cider-related tourism
- ☐ Wine/Hard Cider Distribution
- ☐ Retail (On/Off Premise)
- ☐ On-site restaurant
- ☐ None of the above

3. Does your business include any of the following production? List total annual production for all that apply (include any and all gallons produced on your premises):

Grape Wine	<input type="text"/>
Hard Cider	<input type="text"/>
Beer	<input type="text"/>
Distilled Spirits	<input type="text"/>
Non-grape Fruit Wine	<input type="text"/>
Make Your Own	<input type="text"/>
None of the above	<input type="text"/>

4. Do you import any wine grapes or cider apples from outside of Michigan? *

- ☐ Yes
- ☐ No

5. How much volume do you import and from what states?

	Volume	States
Grapes	<input type="text"/>	<input type="text"/>
Grape Juice (Gallons)	<input type="text"/>	<input type="text"/>
Apples	<input type="text"/>	<input type="text"/>
Cider (Gallons)	<input type="text"/>	<input type="text"/>

6. What part of the state of Michigan do you operate in? (Determine your region either by checking your winery listing on michiganwines.com or from sections listed in the Touring Guide in the 2017 Michigan Wine Country magazine)

- ☐ Northwest
- ☐ Southwest
- ☐ Northeast
- ☐ Southeast
- ☐ Upper Peninsula

7. How many people do you employ? *

Full Time	<input type="text"/>
Part Time	<input type="text"/>
Seasonal	<input type="text"/>

8. How many work in the winery/cidery vs the vineyard/orchard?

	Vineyard/Orchard	Winery/Cidery
Full Time	<input type="text"/>	<input type="text"/>
Part Time	<input type="text"/>	<input type="text"/>
Seasonal	<input type="text"/>	<input type="text"/>

9. What is the **total** annual payroll for your winery/cidery employees?

Full Time

Part time/ Seasonal

10. What is the **total** annual payroll for your vineyard/orchard employees?

Full Time

Part time/ Seasonal

11. How many **tasting rooms** do you operate under your license in the **state of Michigan**?

12. How many **acres of wine-grape vineyards and orchards** do you **maintain or pay to have maintained**?

Vineyards

Orchards

13. Does your winery receive **tourists**?

☐ Yes

☐ No

14. How many **total tourism** visits per year (estimate)

15. Do you **maintain a hotel, bed and breakfast** or any similar lodging accommodations?

- ☐ Yes
- ☐ No

16. Does your winery serve **food**?

- ☐ Yes
- ☐ No

17. Do you have any **infrastructure related winery or tourism related** expenses?(parking, zoning permits, etc.?) *

- ☐ Yes
- ☐ No

18. Please estimate an annual **total dollar amount** spent on infrastructure related expenses.

19. Please estimate your **total**, annual marketing related expenses that are related to your winery?

20. Please rank your preferred marketing tools, the 1st being your "most-preferred."

Drag items from the left hand list into the right hand list to order them.

Social Media	↗
Television	↗
Print Ads	↗
Billboards	↗
Radio, including internet radio	↗
Web Ads	↗

21. Does your winery contribute to the community through charitable contributions or actions? Please provide annual estimated value (including in-kind and/or financial charitable contributions)

22. Please list the top 3 hindrances to your economic growth.

1

2

3

23. Do you plan to increase wine/hard cider production next year? *

☐ Yes

☐ No

24. Do you plan to increase wine-grape vineyard acreage next year?

☐ Yes

☐ No

25. If yes how many estimated acres.

26. Do you use migrant labor workers?

☐ Yes

☐ No

27. What amount of your total production is sold through wholesale distribution (amount is preferred; percentage ok, if no amount can be given)

Wine

Cider

In-State

Out-of-State

28. What amount of your total production is sold out of your tasting room(s), including through your wine clubs, and direct to consumer shipping (amount is preferred; percentage ok, if no amount can be given)

Wine

Cider

Thank You!

Thank you for taking our survey. Your response is very important to us.