

The Jacob
france
Institute



Economic Impact Study of the Maryland Wine Industry

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Contents

- I. Introduction 1
- II. About The Jacob France Institute..... 2
- III. Economic Impact..... 3
 - Table 1: Expenditures Attributable to Maryland Wine 4
 - Table 2: Economic Impact of Wineries on the State of Maryland 4
 - Table 3: Output Impact of Maryland Wineries on the State of Maryland 5
 - Table 4: Employment Impact of Maryland Wineries on State of Maryland..... 6
 - Table 5: Employee Compensation Impact of Maryland Wineries on the State of Maryland 7
- IV. Survey 8
- V. Methodology 12
- A. Appendix..... 14

[1] Introduction

The Maryland Wineries Association retained the Jacob France Institute of the University of Baltimore (JFI) to analyze the economic importance of Maryland wineries, and barriers to their growth. This analysis was based on data provided by the Maryland Wineries Association, from a survey of all Maryland wineries, as well as data from the State of Maryland Alcohol and Tobacco Tax Bureau. The economic impact estimates were generated using the IMPLAN model. The key findings of this analysis are as follows:

- Maryland wineries generate \$40.4 million in economic activity in the State of Maryland, support 348 jobs earning \$10.9 million in salaries, and generate \$3.3 million in State and local tax revenues.
- Maryland wineries had direct revenues from winemaking and associated activities of \$12.7 million in 2007. Based on the survey results, Maryland wineries employed an estimated 195 employees (including seasonal labor). The IMPLAN model estimates that Maryland wineries have regular (non-seasonal) employment of 37 full and part time workers.
- An estimated 293,390 persons visited Maryland wineries or wine festivals and 63,861 (22%) of these visitors are from out of state. All visitors to Maryland wineries and wine festivals spend an estimated \$20 million in Maryland, and out-of-State tourists attending Maryland wine festivals or visiting Maryland wineries account for 38% or \$7.5 million of visitor spending.
- The sale of Maryland wines generates \$7.4 million in distributor, retail, and restaurant business activity.

[2] About JFI

The Jacob France Institute (JFI) serves as a leading source of high quality statistical information and research covering the interaction of business, worker, and government investment decisions. Analysis of trends in the location and quality of employment along with continued education and training opportunities and outcomes are of particular importance in our current portfolio of research.

History

A descendant of nineteenth century German and English immigrants, Jacob France (1882-1962) attended Catonsville, MD public schools and the City College of Baltimore and received an LL.B. degree from the University of Maryland in 1903. He was founding director of The Equitable Trust Company and served as chairman of the Company's board from 1929 to his death. He also served as chairman of the board of Mid-Continent Petroleum Corporation, 1946-1955.

Mission

The Jacob France Institute (JFI) serves as a leading source of high quality statistical information and research covering the interaction of business, worker, and government investment decisions. Analysis of trends in the location and quality of employment along with continued education and training opportunities and outcomes are of particular importance in our current portfolio of research.

We manage and participate in alliances with research partners in other states to further discovery of new information that shapes important business and government policy decisions. In conducting our research we respect privacy, protect confidentiality, and shun partisanship.

[3] Economic Impact

This report estimates the economic contribution of Maryland wineries to the State of Maryland using the IMPLAN input output model. This analysis is based on estimates of three business activities related to Maryland wine production.

Maryland Winery Revenues were estimated based on data from the State of Maryland Alcohol and Tobacco Tax Bureau on the total number of bottles of wine produced and sold by Maryland wineries in 2007. The number of bottles produced and sold was multiplied by an estimated \$11 per bottle sales price based on information provided by the Maryland Wineries Association and the survey of all Maryland wineries.

Distributor, Retail and Restaurant Revenues were estimated based on data from the State of Maryland Alcohol and Tobacco Tax Bureau on the disposition of Maryland produced wine by sales channel and data developed by the JFI and the Maryland Wineries Association on estimated margins for: distributors, at 30%; for retailers, 27.5%; and restaurant mark-up, at 250%.

Festival and Tourism Business Revenues were estimated from several sources. Attendance and ticket sales for Maryland's major wine festivals—The Maryland Wine Festival, Wine in the Woods, Great Grapes, the Riverside Wine Festival, and the Autumn Wine Festival—were based on estimated ticket sales and costs provided by the Maryland Wineries Association. Visitors to Maryland wineries were estimated based on the wineries survey conducted. An estimated 239,690 persons visited Maryland wineries and 53,700 persons attended Maryland wine festivals. Per person spending for in State, out-of-State, and overnight visitors were estimated by the JFI, based on other tourism related research conducted, and on discussions

with the Maryland Wineries Association. These visitors spent a total of \$20 million in associated retail, restaurant, and transportation spending and out-of-State visitors spend an estimated \$7.5 million, or 38% of the total. Only expenditures by out-of-State visitors were included in the economic impact assessment.

As presented in Table 1, there is a total of \$40.1 million in business activity in Maryland attributable to Maryland wineries. Including only festival and tourism spending by out-of-State visitors, Maryland wineries generate \$27.7 million in direct Maryland economic activity.

Table 1: The Expenditures Attributable to Maryland Wineries (\$s)		
Item	Total Revenues	Contribution to State Economic Base
Winery Revenues	\$12,694,618	\$12,694,618
Distributor Revenues	\$2,050,655	\$2,050,655
Retail Revenues	\$2,077,143	\$2,077,143
Restaurant Revenues	\$3,332,315	\$3,332,315
Festivals & Tourism ¹	\$19,975,908	\$7,537,684
Total	\$40,130,639	\$27,692,415

(1) This analysis excludes spending by in-State residents
Source: Maryland Wineries Association and The JFI

The direct expenditures attributable to Maryland wineries and related distribution, retail and restaurant sales, and Maryland wine festival and tourism activity were entered into the IMPLAN model. As presented in Table 2, Maryland wineries and related activities generate \$40.4 million in business activity, support 348 jobs earning \$10.9 million, and generate \$3.3 million in State and local tax revenues.

Table 2: Economic Impact of Wineries on the State of Maryland				
Item	Direct Impact	Indirect Impact	Induced Impact	Total Impact
Output (\$s)	\$24,981,907	\$8,292,015	\$7,138,455	\$40,412,377
Employment (# of jobs)	233	54	60	348
Employee Compensation (\$s)	\$6,265,479	\$2,476,015	\$2,165,430	\$10,906,924
State and Local Fiscal Impact (\$)	—	—	—	\$3,295,000

(1) The direct effect is slightly lower than total spending because it included only the retail margin
Source: IMPLAN The JFI

1. Spending by Maryland residents to attend or at wine festivals or to visit wineries are excluded from this analysis because it is likely that this spending would occur at other Maryland venues if the wineries or festivals did not exist. Because Maryland has neighboring states with highly developed wine industries and festivals it is likely that in the absence of the in-State wine industry, some of this spending would occur out-of-State. Thus, this analysis can be viewed as conservative.

The economic output impacts of Maryland wineries are presented by sector in Table 3, the employment impacts by sector in Table 4, and the employment compensation impacts are presented in Table 5. As presented in these tables, the impacts of the Maryland wine industry and associated sales and distribution and tourism activities are concentrated in the manufacturing, accommodation and food service (hotels and restaurants), retail and wholesale trades sectors of the State's economy.

Table 3: Output Impact of Maryland Wineries on the State of Maryland				
(\$s)				
Item	Direct Impact	Indirect Impact	Induced Impact	Total Impact
Total	\$24,981,907	\$8,292,015	\$7,138,455	\$40,412,377
Natural Resources	\$0	\$95,345	\$32,975	\$128,320
Mining	\$0	\$3,246	\$2,458	\$5,704
Utilities	\$0	\$276,612	\$202,902	\$479,514
Construction	\$0	\$128,238	\$41,146	\$169,384
Manufacturing	\$12,694,614	\$888,182	\$471,647	\$14,054,442
Wholesale Trade	\$2,050,656	\$1,429,388	\$312,142	\$3,792,185
Transportation & Warehousing	\$0	\$643,477	\$172,402	\$815,879
Retail trade	\$3,486,485	\$161,024	\$837,617	\$4,485,127
Information	\$0	\$563,692	\$230,643	\$794,335
Finance & Insurance	\$0	\$483,301	\$600,840	\$1,084,141
Real Estate	\$0	\$1,158,519	\$413,438	\$1,571,957
Professional Scientific & Technical Services	\$0	\$1,017,496	\$323,571	\$1,341,066
Management of Companies	\$0	\$483,129	\$74,291	\$557,420
Administrative & Waste Services	\$0	\$440,923	\$164,048	\$604,972
Educational Services	\$0	\$10,710	\$170,229	\$180,939
Health & Social Services	\$0	\$695	\$1,225,649	\$1,226,344
Arts, Entertainment & Recreation	\$235,740	\$106,200	\$92,897	\$434,836
Accommodation & Food Services	\$6,508,994	\$184,658	\$428,544	\$7,122,196
Other Services	\$0	\$156,267	\$336,023	\$492,290
Government	\$5,419	\$60,914	\$1,004,995	\$1,071,328

Source: The Jacob France Institute and IMPLAN

**Table 4: Employment Impact of Maryland Wineries
on State of Maryland
(# of Jobs)**

Item	Direct Impact	Indirect Impact	Induced Impact	Total Impact
Totals	233	54	60	348
Natural Resources	0	1	0	2
Mining	0	0	0	0
Utilities	0	0	0	0
Construction	0	1	0	1
Manufacturing	37	3	1	42
Wholesale Trade	10	7	2	19
Transportation & Warehousing	0	6	2	8
Retail trade	63	2	12	77
Information	0	2	1	3
Finance & Insurance	0	2	3	5
Real Estate	0	4	2	6
Professional Scientific & Technical Services	0	7	3	9
Management of Companies	0	2	0	3
Administrative & Waste Services	0	7	3	9
Educational Services	0	0	3	3
Health & Social Services	0	0	14	14
Arts, Entertainment & Recreation	10	3	2	15
Accommodation & Food Services	112	3	7	122
Other Services	0	2	6	8
Government	0	0	1	1

Source: The Jacob France Institute and IMPLAN

**Table 5: Employee Compensation Impact of Maryland Wineries
on the State of Maryland
(\$s)**

Item	Direct Impact	Indirect Impact	Induced Impact	Total Impact
Total	\$6,265,479	\$2,476,015	\$2,165,430	\$10,906,924
Natural Resources	\$0	\$9,298	\$3,129	\$12,427
Mining	\$0	\$150	\$87	\$237
Utilities	\$0	\$25,044	\$18,531	\$43,575
Construction	\$0	\$44,958	\$14,870	\$59,828
Manufacturing	\$1,784,956	\$194,638	\$72,637	\$2,052,231
Wholesale Trade	\$734,952	\$512,290	\$111,871	\$1,359,113
Transportation & Warehousing	\$0	\$252,095	\$71,924	\$324,019
Retail trade	\$1,499,221	\$62,325	\$325,226	\$1,886,772
Information	\$0	\$126,115	\$41,719	\$167,834
Finance & Insurance	\$0	\$171,362	\$189,406	\$360,769
Real Estate	\$0	\$85,902	\$44,921	\$130,823
Professional Scientific & Technical Services	\$0	\$373,860	\$134,099	\$507,959
Management of Companies	\$0	\$235,280	\$36,179	\$271,459
Administrative & Waste Services	\$0	\$198,631	\$73,907	\$272,537
Educational Services	\$0	\$5,990	\$98,525	\$104,516
Health & Social Services	\$0	\$217	\$587,550	\$587,767
Arts, Entertainment & Recreation	\$62,877	\$35,231	\$32,931	\$131,039
Accommodation & Food Services	\$2,178,589	\$60,919	\$142,690	\$2,382,198
Other Services	\$0	\$63,803	\$139,345	\$203,148
Government	\$4,885	\$17,905	\$25,884	\$48,674

Source: The Jacob France Institute and IMPLAN

[4] Survey Results

Because the survey of Maryland wineries did not obtain full participation, this analysis is based on the responses from the responding surveys. A total of 22 of the 28 wineries licensed at the time completed all or part of the survey. These are listed in the Appendix to this report. All of Maryland's largest wineries provided at least partial responses to the survey, and these responses were used as critical inputs to the economic impact analysis presented above. Some of the key findings from the survey are:

- The total acreage under cultivation by the Maryland wineries that responded to the survey increased nearly 108% from FY2004 (130.9 acres) to FY2006 (271.9 acres).
- The total tonnage of grapes produced in Maryland by these wineries increased nearly 149% from FY2004 (119.2 tons) to FY2006 (296.2 tons).
- Total sales of responding Maryland wines grew from \$3.2 million in FY2004 to \$5.7 million in FY2006 for an increase of 75%.
- The total number of persons employed by Maryland wineries increased by 86 persons (80%) from FY2004 to FY2006.
- Maryland wineries are active charitable contributors. In FY2006, the 20 responding wineries provided over \$70,000 worth of wine, employee time, and direct contributions.

2. Not all wineries provided data for all years, thus, these numbers differ from the modeled visitor numbers used in the economic impact analysis.

- The number of visitors to the responding Maryland wineries experienced a 31% increase in total visitors from FY2004 (68,372 persons) to FY2006 (89,690 persons). The percentages of in-state visitors increased by 33% while the percentage of out-of-state visitors increased by 25%.
- Sixty percent (60%) of the responding wineries planned to increase their workforce within the next 12 to 18 months. The two most frequently cited positions wineries were seeking to increase were their sales/marketing staff and vineyard management.

A core goal of the survey was to obtain information on the key issues facing Maryland wineries as they operate and grow their businesses. The survey asked wineries to describe their opinion on the current issues impacting growth of the wine industry in Maryland. The survey specifically identified and asked for responses and opinions regarding direct shipping and the three-tier system of distribution in Maryland. Lastly, the wineries were asked to provide recommendations on how to further develop the Maryland wine industry.

When asked to *discuss specific issues impacting the growth and development of Maryland wine production* that could be addressed through legislation, the responses focused on direct shipping and distribution issues. The three-tier system was identified as an impediment to operations of many wineries. In addition, the implementation of direct shipping was strongly suggested by six wineries. Many wineries believe their customer base is limited by the inability to directly ship to consumers. Another issue posed by multiple wineries which they claim hinders the development of the wine industry is the limited promotional efforts and special events organized by the State. In addition, several wineries believe tax incentives for companies in the industry would stimulate growth and expansion.

When asked what barriers to the growth and development of Maryland wineries exist, the majority of the responding wineries focused on the poor legislative landscape and the antiquated state laws. Specifically, restrictive alcohol and zoning laws make it difficult for new wineries to open and existing wineries to grow. Other laws, viewed as restrictive by the wineries, involving wine festivals

and selling to the public were cited as barriers to the growth of this industry. In addition to the restrictive laws, another barrier mentioned by wineries was the lack of capital available to potential new entrants. The financial implications associated with the wine industry have restrained its growth and development. Lastly, a barrier stated by several wineries was the shortage of quality grapes and grape growers in Maryland. This has stifled new entrants while limiting the expansion of the current wineries.

Wineries were asked if Maryland's *direct shipping* regulations impacted their operations. Of the 19 valid respondents, 89% (17) believed that Maryland's direct shipping regulations were an issue that negatively impacted their operations. When asked how the regulations have impacted their operations, the responding wineries cited the following ways: loss of sales, dissatisfied customers, hampered growth, and prevention of a wine club for core customers. Based on the negative responses regarding direct shipping, many of the wineries provided potential solutions to improving the regulations. Every responding winery believed that the simple cure to this problem is to modify the law to allow direct shipping within Maryland. One winery suggested adopting the model of many other U.S. states, which enables small operations to benefit from the lower cost distribution model of the internet.

Of the 20 wineries that responded to whether or not Maryland's *three-tier system of distribution* impacted their operations, more than half (11) stated that the system negatively impacted their operations. There was a wide range of responses as to how the current system impacts the operations of wineries. One winery explained that their small production is of no interest to a distributor and believes they are locked out of any statewide distribution as a result. Another winery explained that the three-tier system impacts their operations by forcing them to hold manufacturing, wholesale, and retail licenses. Other responses included the inability to directly ship to consumers and the price fixing that is generated by the distributor-based system. In order to improve the distribution of Maryland wine, the common response of the wineries was to eliminate the problematic three-tier system and allow direct shipping to consumers within and outside of Maryland. Also, to rectify the current system, one winery suggested a dual distribution license that allows wineries to deliver their wines to areas that they know best. Another winery recommended going to a free market economy in which wineries are able to sell wine on the

Internet, in stores, and to distributors.

The final survey question asked the Maryland wineries what three things could be done to allow for greater growth and development in the industry. The central theme of these responses was to update and modify existing state laws. A significant number of wineries continued to explicitly state the necessity of allowing direct shipping to consumers. Existing wineries believe this adjustment to the law will eliminate a tremendous barrier, thus increasing the attractiveness of the industry. Another frequently cited response was to provide tax breaks and incentives to wineries. Specifically, these tax breaks were suggested for small wineries in their start-up phases and wineries that utilize farmland as a vineyard. Multiple wineries recommended increasing the involvement of the state and its universities in promoting the wine industry. Increasing the hiring of enologists throughout the state, as well as appointing an enologist to orchestrate a program at the University of Maryland was cited by responding wineries. Overall, the responding wineries stated the absolute need to remodel the foundation of the Maryland wine law by eliminating restrictions, thus making its growth and development more feasible.

[5] Methodology

This analysis used the IMPLAN model to estimate the contribution made to the State of Maryland economy by Maryland wineries.³ The primary input of this effort was data comprised of actual winery revenues; the distributor, retail and restaurant revenues associated with the sale of Maryland wines; and festival and visitor spending associated with Maryland wine-related tourism.

An economic impact analysis examines the effects of an economic activity using input-output analysis. Input-output analysis is based on the use of multipliers, which describe the response of an economy to a change in demand or production. Multiplier effects occur as an initial round of spending is spent and re-spent in the State's economy. For example, an industry pays a worker a salary, a portion of which is then spent on goods and services from other State companies, which in turn becomes income for other workers and supplier firms. Thus, each dollar of spending creates more than one dollar in economic impact, as that spending is earned and, in turn, spent by others in the State.

An input-output analysis examines the relationships among businesses and among businesses and final consumers. The IMPLAN model allows the estimation of three effects:

- Direct effects, which represent the changes in economic activity, in this case wine production and related tourism activities, in the industries to which a final demand change was made.

3. For a description of input-output analysis and the IMPLAN modeling process, please reference: The Minnesota IMPLAN Group, Inc., IMPLAN Pro Users Guide, (Stillwater, MN: MIG, Inc, 1997) pp. 77-104.

- Indirect effects, which represent the changes in inter-industry purchases, for example the purchase of raw materials from a local supplier, in response to the new demands from the directly affected industries.
- Induced effects that reflect changes in spending from households as income and population increases (or decreases) due to changes in production.

The total effects show the combined impact of the spending associated with the operation of Maryland wineries, plus the multiplier—indirect and induced—effects.

An input-output model allows the estimation of several different economic impacts. This analysis estimated the total, direct, indirect, and induced economic output, employment, and employee compensation effects of Maryland wineries.

- Economic output represents the value of production and related sales activities by a particular industry, in this case the winery and wine related tourism activity sectors, in an economy over a given period of time.
- Employment is the total number of wage and salary earning employees and self-employed individuals in a region.
- Employee compensation consists of wage and salary payments paid to employees by employers. Employee compensation includes all benefits and non-cash compensation paid to employees.

[A] Appendix

Maryland Wineries Participating in the Survey:

Basignani Winery
Berrywine Plantations/Linganore Winecellars
Black Ankle Vineyards
Boordy Vineyards
Bordeleau Winery
Cygnus Wine Cellars
Deep Creek Cellars
Elk Run Vineyards
Fiore Winery
Frederick Cellars
Fridays Creek Winery
Loew Vineyards
Penn Oaks Winery
Perigeaux Vineyards and Winery
Serpent Ridge Vineyard
Solomon's Island Winery
St. Michaels Winery*
Sugarloaf Mountain
Terrapin Station Winery
Tilmon's Island Winery
Woodhall Wine Cellars



For more information:

Maryland Wineries Association
22 W. Padonia Road • Suite C-236 • Timonium, MD 21093
800-237-9463 • info@marylandwine.com
www.marylandwine.com

