

The Wine and Spirits Industry Economic Impact Study: 2022

Summary Results:

The Wine and Spirits Industry Economic Impact Study measures the combined impact of the wine and distilled spirits industry, as defined by its traditional three tiers of production (vintners and distillers), wholesaling, and retailing, on the entire economy of the United States in 2022. The industry contributes about \$401.8 billion in output, or the equivalent of just under 1.87 percent of GDP and, through its production and distribution linkages, impacts firms in all 546 sectors of the US economy.¹ The production process (as defined in this study) begins in one of three ways. In the case of spirits, agricultural products – such as barley, corn, rye and wheat – are purchased from farmers and agricultural supply companies throughout the country and distilled into various types of products. Vintners purchase grapes and other fruits from farmers and growers, and using a fermentation process, convert these into wine. Alternatively, wine and spirits can enter the country as an imported finished product. The 12,491 firms that use agricultural products to produce wine and spirits or directly import the product into the United States are denoted as producers.² These firms employ almost 96,162 people in production or importing operations, sales, packaging, and direct distribution.

Once wine and spirits have been produced or imported, they enter the second tier of the industry – the wholesaling tier. We estimate that there are about 3,917 firms involved in the wholesale supply of wine and spirits throughout the country (not including wholesaling operations directly owned and operated by the major distillers and vintners).³ Wholesalers are involved in the transportation of wine and spirits from the distillers and vintners, or from a bonded warehouse operated by importers, and the storage of products for a limited period of time. The wholesaling tier of the industry directly employs around 86,474 individuals and is present in every state in the country.

Finally, the third tier of the industry directly sells products to the consumer. This can either be through on-premises sales (as in the case of a restaurant or tavern), or for off-premises consumption (grocery stores, package stores, etc.) The nature of beverage alcohol retailing varies by state. In some states, liquor stores sell wine, in some grocery stores. For this analysis, the retail tier is assumed to consist of firms in the following industries: Restaurants and taverns, retail stores, hotels, airlines, and amusement locales. While there are obviously other venues that may sell wine and spirits to the public – street vendors, cruise lines, non-profit groups, etc. - they are not included in the analysis due to limited data availability or the small amount of product that they handle. The model estimates that there are approximately 1,144,215 employees whose jobs depend on the sale of wine and spirits to the public.⁴

Other firms are related to the three tiers of the beverage alcohol industry as suppliers. These firms produce and sell a broad range of items including ingredients for the production process, fuel, packaging materials, sales displays or machinery. In addition, supplier firms provide a broad range of services, including personnel services, financial services, advertising services, consulting services or even transportation services. Finally, a number of people are employed in government enterprises responsible for the regulation of the wine and spirits industry. All told, the wine and spirits industry is responsible for 516,839 supplier jobs with these firms generating over \$114.4 billion in economic activity.

An economic analysis of the wine and spirits industry will take additional linkages into account. While it is inappropriate to claim that suppliers to the supplier firms are part of the industry being analyzed,⁵ the

¹ Based on 2022 current-dollar GDP of \$26.1 trillion. *National Income and Product Accounts, Gross Domestic Product, Fourth Quarter and Year 2022 (Advance Estimate)*, US Department of Commerce, Bureau of Economic Analysis, February 1, 2023.

² Throughout this study, the term “firms” actually refers to physical locations. One distiller, for example, may have facilities in 5 or 6 locations throughout the country. Each of these facilities is included in the count.

³ Physical locations.

⁴ Retail jobs directly associated with wine and spirits sales. For example, if a restaurant has \$100,000 in sales and \$10,000 of these were wine and spirits products, then 10 percent of the restaurant’s jobs would be counted in on-premise retail.

⁵ These firms would more appropriately be considered as part of the supplier firms’ industries.

spending by employees of the industry and those of supplier firms whose jobs are directly dependent on wine and spirits sales and production should surely be included. This spending on everything from housing, to food, to educational services and medical care makes up what is traditionally called the “induced impact” or the multiplier effect of the industry. In other words, this spending, and the jobs it creates is induced by the production, distribution and sale of wine and spirits. JDA estimates that the induced impact of the industry is about \$123.1 billion, and generates 656,626 jobs, for a multiplier of about 0.75.⁶

An important part of an impact analysis is the calculation of the contribution of the industry to the public finances of the community. In the case of the wine and spirits industry, this contribution comes in two forms. First, the traditional direct taxes paid by the firms and their employees provide nearly \$40.6 billion in revenues to the federal, state and local governments. In addition, the consumption of wine and spirits generates approximately \$9.3 billion in federal and state excise taxes and an estimated \$14.5 billion in other state consumption taxes.⁷

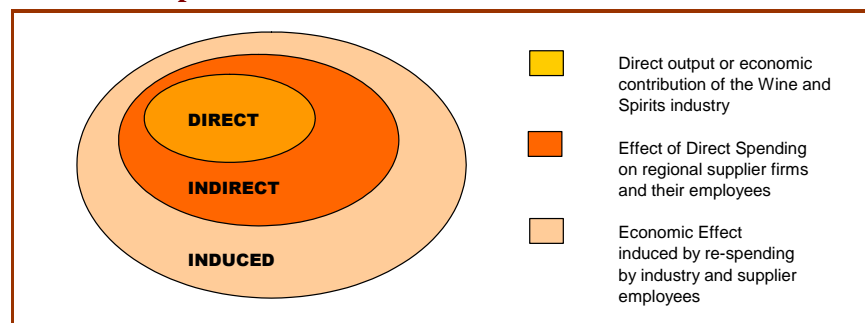
Table 1 below presents a summary of the total economic impact of the industry in the United States in 2022.

Table 1: Economic Impact of the Wine and Spirits Industry: 2022

(\$ In Billions)	Direct	Supplier	Induced
Output	\$164.2	\$114.4	\$123.1
Jobs	1,326,851	516,839	656,626
Wages	\$53.7	\$38.3	\$40.9
Business Taxes			\$40.6
Consumption Taxes			\$23.7

Methodology

Model Description and Data



This Wine and Spirits Industry Economic Impact Model (Model) was developed by John Dunham & Associates based on data provided Data-Axle,⁸ the Wine and Spirits Wholesalers Association, the National Beer Wholesalers Association, and federal &

state governments. The analysis utilizes the IMPLAN Model in order to quantify the economic impact of the wine and spirits industry on the economy of the United States.⁹ The model adopts an accounting framework through which the relationships between different inputs and outputs across industries and sectors are computed. This model can show the impact of a given economic decision – such as a winery opening or operating wholesaling facility – on a pre-defined, geographic region. It is based on the

⁶ Often economic impact studies present results with very large multipliers – as high as 4 or 5. These studies invariably include the firms supplying the supplier industries as part of the induced impact. John Dunham & Associates believes that this is not an appropriate definition of the induced impact and as such limits this calculation to only the effect of spending by direct and supplier employees.

⁷ Federal excise taxes are paid by the vintner or distiller and included in the price of the product. In this analysis they are included as part of consumption taxes (but redistributed based on the location where the product was consumed).

⁸ Job numbers are from Data-Axle the leading provider of business and consumer data for the top search engines and leading in-car navigation systems in North America. Data-Axle gathers data from a variety of sources, by sourcing, refining, matching, appending, filtering, and delivering the best quality data. Data-Axle verifies its data at the rate of almost 100,000 phone calls per day to ensure absolute accuracy.

⁹ IMPLAN® model, 2020 Data, using inputs provided by the user and IMPLAN Group LLC, IMPLAN System (2023), 16905 Northcross Dr., Suite 120, Huntersville, NC 28078, www.IMPLAN.com

national income accounts generated by the US Department of Commerce, Bureau of Economic Analysis (BEA).¹⁰

It is sometimes mistakenly thought that initial spending accounts for all of the impact of an economic activity or a product. For example, at first glance it may appear that consumer expenditures for a product are the sum total of the impact on the local economy. However, one economic activity always leads to a ripple effect whereby other sectors and industries benefit from this initial spending. This inter-industry effect of an economic activity can be assessed using multipliers from regional input-output modeling.

The economic activities of events are linked to other industries in the state and national economies. The activities required to produce a case of wine from crushing grapes, to packaging, to shipping generate the direct effects on the economy. Regional (or indirect) impacts occur when these activities require purchases of goods and services such as barrels from local or regional suppliers. Additional, induced impacts occur when workers involved in direct and indirect activities spend their wages in the region. The ratio between total economic and direct impact is termed the multiplier. The framework in the chart on the prior page illustrates these linkages.

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

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

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- ❖ Producer employment is based on employment at specific locations reported to Data-Axle by the companies as of December 2022. The data are modified to add in company-owned operations that may be reported as wholesaling or supplier (e.g. vineyards or packaging) production. Finally, data from major importers – as reported by Data-Axle – are added to the production sector.
- ❖ Wholesale employment is employment at specific locations reported to Data-Axle by the companies as of December 2022. These data are adjusted to reflect company employment by location provided by major wholesalers, the National Beer Wholesalers Association, and the Wine and Spirits Wholesalers Association.
- ❖ Data on the retail sectors are all based on sales of wine and spirits in each of the 50 states and the District of Columbia. These amounts are multiplied by either the wine and spirits multipliers and

¹⁰ The IMPLAN model is based on a series of national input-output accounts known as RIMS II. These data are developed and maintained by the U.S. Department of Commerce, Bureau of Economic Analysis as a policy and economic decision analysis tool.

¹¹ For restaurants, bars and food stores. See: Table 2.4.5U. Personal Consumption Expenditures by Type of Product, US Department of Commerce, Bureau of Economic Analysis, Revised March 25 2021. Data are for four quarters through 2020 Q4.

output per employee ratios included in the IMPLAN model for the retail components of the industry in order to estimate total employment in each sector, or a calculation based on wine and spirits sales as a percentage of total alcohol sales. These results were cross-checked against a wide variety of establishment data by state and were found to present a reasonable estimate of the employment in each sector generated solely by beverage alcohol sales. Retail data are adjusted to take into account dry counties, and state regulations pertaining to sales in grocery and food stores.

- ❖ All data on the number of establishments for the production and wholesaling sectors come from the Data-Axle data, augmented by data from the Alcohol and Tobacco Tax and Trade Bureau of the US Department of Treasury (TTB), the National Beer Wholesalers Association and the Wine and Spirits Wholesalers Association.

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 in each of the three sectors: Winemaking/distilling, wholesaling and retailing. IMPLAN was originally developed by the US Forest Service, the Federal Emergency Management Agency and the Bureau of Land Management. It was converted to a user-friendly model by the Minnesota IMPLAN Group in 1993. The IMPLAN data and model closely follow the conventions used in the “Input-Output Study of the US Economy,” which was developed by the BEA.

- ❖ Wages: Data from the US Department of Labor’s ES-202 reports are used to provide annual average wage and salary establishment counts, employment counts and payrolls at the county level. Since this data only covers payroll employees, it is modified to add information on independent workers, agricultural employees, construction employees, and certain government employees. Data are then adjusted to account for counties where non-disclosure rules apply. Wage data include not only cash wages, but health and life insurance payments, retirement payments and other non-cash compensation. It includes all income paid to workers by employees. Further details are available from the IMPLAN at <http://www.implan.com>.
- ❖ Output: 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.
- ❖ Taxes: The model includes information on income received by the federal, state and local Governments. The model produces estimates for the following taxes at the federal level: Corporate Income, Payroll, Personal Income, Estate, Gift, and Excise Taxes; Customs Duties; and Fines, Fees, etc. State and local tax revenues include estimates of: Corporate Profits, Property, Sales, Severance, Estate, Gift and Personal Income Taxes; Licenses; Fees; and certain Payroll Taxes.
- ❖ Consumer Taxes paid due to the purchase of wine and spirits beverages in each state are also included in the analysis. These data are calculated based off of tax revenues and volumes reported by the TTB and by state revenue agencies. These figures – while mostly separate from the reported taxes paid – contain very small double counts. This is because individuals employed by the industry, or its suppliers, purchase wine and spirits, and the sales taxes on beverage alcohol as well as state and federal excise taxes paid by these people are already included in the direct taxes section. In addition, estimates of state level sales taxes are included based on the calculated sales of wine and spirits in each state.

Frequently Asked Questions

Explanation of Economic Impact Terms

Data

The data gathered for this model came from Wine & Spirits Wholesalers of America, Data Axle, federal and state government data, and IMPLAN12. Data Axle is the leading provider of business and consumer data, which includes addresses, business titles and job totals. Since the Data Axle data are adjusted on a continual basis, staff from John Dunham & Associates (JDA) scanned the data for discrepancies, verifying individual facilities using Google Maps and web searches. Each facility has its own employee count. For facilities for which there were no employment data, median job figures are used. This is how the direct employment totals are calculated.

Model

These employment totals are entered into the IMPLAN Model. The IMPLAN model is based on the input-output accounts published by the US Department of Commerce, Bureau of Economic Analysis and is one of the standard models used to calculate economic impact figures. Input-Output tables representing the economy in 2020 were used in this analysis. The IMPLAN model is designed to run based on the input of specific direct economic factors, like direct jobs or production value, and generates estimates of direct jobs, wages, and outputs.

What is Meant By the Term Direct?

Direct Impacts are those jobs, wages, or economic output solely attributable to the industry defined for the study. In the Wine & Spirits Wholesalers of America study this includes the distribution and retail of wine and spirits beverage alcohol. We like to say that they are the jobs that one can count. If one goes to a distribution facility and counts the number of people working there, that would be the direct employment. Jobs in this study are defined as full time equivalents. JDA uses direct employment at these facilities that are defined to be part of the industry to calculate all of the other effects presented in the study.

What is Meant By the Term Supplier?

Supplier is the term used in economic impact studies to define those effects that result from firms in the Direct industry purchasing goods and services from other industries. JDA defines these as Supplier Impacts in its models. For example, when a distributing company pays rent on their property to their landlord, or when they hire advisors or consultants to provide their expertise in managing their business, they are creating indirect effects in the real estate sector or business and personal services sector. In the case of wine and spirits wholesalers that handle products through a supply chain, the value of the goods being stocked are not counted as supplier impacts; only those goods and services used to provide the wholesaling service are included.

What is Meant By the Term Induced?

Induced effects are the response by the economy that occur through re-spending of income received by employees and business owners measured in the direct and supplier parts of the economy. When people work in the industry or for firms that supply goods and services to the industry, they receive wages and

¹² IMPLAN® model, 2022 Data, using inputs provided by the user and IMPLAN Group LLC, IMPLAN System (2023), 16905 Northcross Dr., Suite 120, Huntersville, NC 28078, www.IMPLAN.com.

other payments. This money is recirculated through their household spending inducing further local economic activity. Economists call these induced impacts the multiplier effect of an activity or industry.

Examples of induced effects are the jobs created in a diner located outside of a wholesaling facility where people purchase sandwiches for lunch, or at the gas station where they purchase fuel for their commute, or even in neighborhoods, where workers purchase houses, go to restaurants or visit the movie theater.

What Specifically Do You Mean When You Say a Job?

Jobs are a measure of the annual average of monthly jobs in each industry as defined by the Quarterly Census of Employment and Wages put out by the BLS. Jobs in our models are derived independently and do not match jobs reported by government entities. JDA often defines industries differently, and generally include more firms and facilities than are surveyed by the government. Jobs are measured in full-time equivalent units.

What is Meant by Wages?

Wages as calculated in this analysis include all cash payments for labor including normal payroll, social security contributions, bonuses, stipends, etc. Wages also include cash payments to partners of LLC's and business owners that would generally be considered to be distributions or profits. Wages will be larger than hourly or annual wages as reported by the Bureau of Labor Statistics.

What is Meant by The Term Economic Output or Economic Impact?

JDA uses output in its models as a general measurement of economic impact because this is the broadest and most comparative measure. In general, output represents the value of industry production for the year calculated in terms of producer prices. Output differs depending on the industry being measured. In the case of the manufacturing industry, output is similar to gross sales for manufacturers. For wholesalers and retailers, output does not represent sales, but rather is similar to the accounting measure of gross margin. The value of the products being stocked or sold by these firms are not included as part of output, even if they are transformed in some way. One way to look at it is the wholesale and retail output is total sales revenue minus its cost of goods sold. This is similar to the wholesale or retail markup on a product.

What are Retailers – There are more Retailers than Retail Accounts?

In conducting this analysis, JDA did not have any access to wholesaler account information, nor did it have access to all state licenses. In addition, state license data are not always accurate as they can contain active licenses for firms that may not be in business. Retailers as listed in this analysis are all firms and facilities that are capable of selling alcoholic beverages in a state, whether licensed or not. These counts come from Data-Axle, one of the nation's leading suppliers of business information. Note that these retailer figures are not included in the numbers from the economic impact analysis itself.