

**The American Beverage Licensees
Economic Impact Study**

**Methodology and Documentation
Prepared for:**



American Beverage Licensees

By



**JOHNDUNHAM
& ASSOCIATES**
The Winning Side of Economics

John Dunham & Associates

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Executive Summary:

The American Beverage Licensees Economic Impact Study estimates the economic contributions made by the retail beverage alcohol industry to the U.S. economy in 2018. John Dunham & Associates conducted this research, which was funded by the American Beverage Licensees (ABL). This work used standard econometric models first developed by the U.S. Forest Service, and now maintained by IMPLAN Inc. Data came from industry sources, government publications and Infogroup.

The study examines the beverage alcohol retailing industry two ways.

- The “Alcohol Jobs Model” defines the beverage alcohol retailing industry as on and off premise retail alcohol beverage jobs related to just the sale of alcohol.
- The “All Jobs Model” defines the industry as on and off premise retail alcohol beverage jobs related to just the sale of alcohol in addition to all jobs in full-service restaurants, drinking places, and package stores. These businesses are included since they depend on the sale of alcohol for a substantial portion of their revenues and profits.

The study measures the number of jobs in the beverage alcohol retailing industry; the wages paid to employees, the value added and total output. In addition, it measures the economic impact of the suppliers that support the beverage alcohol retailing industry, as well as those industries supported by the induced spending of direct and supplier industries.

Industries are linked to each other when one industry buys from another to produce its own products. Each industry in turn makes purchases from a different mix of other industries, and so on. Employees in all industries extend the economic impact when they spend their earnings. Thus, economic activity started by the beverage alcohol retailing industry generates output (and jobs) in hundreds of other industries, often in states far removed from the original economic activity. The impact of supplier firms, and the “Induced Impact” of the re-spending by employees of industry and supplier firms, is calculated using an input/output model of the United States. The study calculates the impact on a national basis, by state and by Congressional, State House, and State Senate Districts.

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 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. The analysis does not include excise and sales taxes paid by consumers.¹

The beverage alcohol retailing industry is a dynamic part of the U.S. economy. Based on the Alcohol Jobs Model, the industry accounts for about \$330.16 billion in output which is equivalent to about 1.65 percent of GDP. It employs approximately 3.19 million Americans who earned wages and benefits of about \$120.95 billion.

Based on the All Jobs Model, the industry is responsible for output equivalent to about 5.68 percent of GDP or \$1,133.15 billion in economic activity. Under this assumption, the industry employs about 11.47 million Americans who received about \$414.55 billion in wages and benefits.

¹ This data will become available at a later date.

Members of the industry and their employees who were just involved in the sale of alcohol paid \$47.90 billion in federal, state and local taxes, while the broader industry (the All Jobs Model) generated about \$159.41 billion in taxes. In both cases this does not include tax payments made by consumers who purchased beverage alcohol products.

Summary Results:

Retailing is one of the traditional three tiers of the beverage alcohol industry, with production, and wholesaling the other two. Generally, the production process, be it for beer, wine or spirits, begins in one of two ways. First, brewers, wineries or distillers use water and raw materials, such as grapes, barley, corn, rice and hops and other supplies to create a range of beverage alcohol products, in local manufacturing facilities. Alternatively, beverage alcohol can enter the country as an imported finished product. Once the products have been produced or imported, they enter the second tier of the industry – the wholesaling tier. Wholesalers are involved in the transportation and distribution of products from the producers or a bonded warehouse operated by importers, to both on- and off-premise retailers located throughout the country.

Beverage alcohol retailing varies by state. For example, in some states, only liquor stores sell alcoholic beverages, in some, grocery stores can, and in others bars sell products for off-premise consumption. For this analysis, the retail tier is assumed to consist of firms in the following industries: Restaurants and taverns, retail stores, state or local government owned ABC stores, hotels, fraternal associations, and amusement locales. While there are obviously other venues that may sell alcoholic beverages to the public – airlines, street vendors, cruise lines, non-profit groups, etc. they are not included in the analysis due to limited data availability and the small amount of product that they handle.²

Other firms are related to beverage alcohol retailing as suppliers. These firms produce and sell a broad range of items including fuel, packaging materials, sales displays or machinery. In addition, supplier firms provide a broad range of services, including personnel services, financial services, advertising services, and consulting services. Finally, a number of people are employed in government enterprises responsible for the regulation of the alcohol beverage retailing industry. Further, an economic analysis of the beverage alcohol retailing industry takes additional linkages into account. While it is inappropriate to claim that suppliers to the supplier firms are part of the industry being analyzed,³ the spending by employees of the industry, and those of supplier firms, whose jobs are directly dependent on beverage retail sales, 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 multiplier effect of the industry. In other words, this spending, and the jobs it creates, is induced by the retail sale of alcoholic beverages.

Table 1 below presents a summary of the total economic impact of the industry in the United States for the Alcohol Jobs Model. In other words, these are the impacts of alcohol sales only. Summary tables for each state are included in the Output Model, which is discussed in the following section.

Table 1
Economic Contribution of the Beverage Alcohol Retailing Industry (Alcohol Jobs Model)

	Direct	Supplier	Induced	Total
Jobs (FTE)	2,031,573	402,167	752,045	3,185,785
Wages	\$57,450,570,300	\$24,683,217,900	\$38,813,980,100	\$120,947,768,300

² The analysis does not include tasting rooms or tap-rooms that are part of a brewery, distillery or winery.

³ These firms would more appropriately be considered as part of the supplier firms’ industries.

Economic Impact	\$122,632,857,100	\$84,153,593,700	\$123,371,192,900	\$330,157,643,700
Taxes				\$47,896,143,300

As Table 1 shows, the industry accounts for about \$330.16 billion in output which is equal to about 1.65 percent of GDP. Retailers directly or indirectly employed approximately 3.19 million Americans in 2016 just due to beverage alcohol sales. These workers earned \$120.95 billion in wages and benefits.

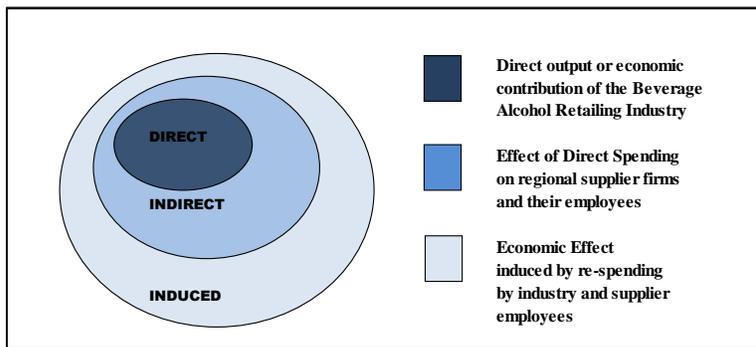
If all jobs in full-service restaurants, drinking places and package stores were included, the impact of the industry would be significantly higher at \$1,133.15 billion in output, equal to about 5.68 of GDP. Under this assumption almost 11.47 million Americans are employed by the industry and receive \$414.55 billion in wages and benefits. Table 2 below outlines these results.

Members of the industry and their employees paid \$47.90 billion in federal, state and local taxes according to the “Alcohol Jobs Model,” and \$159.41 billion according to the “All Jobs Model.”

Table 2
Economic Contribution of the Beverage Alcohol Retailing Industry (All Jobs Model)

	Direct	Supplier	Induced	Total
Jobs (FTE)	7,525,016	1,368,763	2,578,851	11,472,642
Wages	\$195,366,688,500	\$86,076,372,000	\$133,109,464,500	\$414,552,525,800
Economic Impact	\$406,936,169,000	\$303,115,301,100	\$423,100,164,400	\$1,133,151,635,300
Taxes				\$159,410,344,500

Economic Impact Analysis Methodology:



The Economic Impact Study begins with an accounting of the direct employment in the beverage alcohol retail sector including on- and off-premise retailers. The data come from both Infogroup and a variety of government sources.

It is sometimes mistakenly thought that initial spending

accounts for all of the impact of an economic activity or a product. For example, at first glance it may appear that consumer expenditures for a 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 sell or serve a beverage alcohol product generate the direct effects on the economy.

Regional (or indirect) impacts occur when these activities require purchases of goods and services such as electricity, real estate or security from local or regional suppliers. Additional, induced impacts occur when workers involved in direct and indirect activities spend their wages. The ratio between induced

economic and direct impact is termed the multiplier. The framework in the chart above illustrates these linkages.

This method of analysis allows the impact of local economic 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 model 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 ABL model, only the most conservative estimate of the Induced Impact has been used.

Model Description and Data:

Every economic impact analysis begins with a description of the industry being examined. In the case of this model, the beverage alcohol industry is defined as firms involved in both the on-premises and off-premises sale of beverage alcohol products. This sector includes restaurants, bars, hotels, retail establishments (e.g. grocery stores, package shops, convenience stores, and liquor stores), amusement places (e.g. amusement parks, beer gardens, bowling alleys) and fraternal associations. Model limitations preclude the inclusion of military stores, colleges, or other institutional outlets as part of the retailing sector. In addition, tasting rooms and tap-rooms located inside of breweries, distilleries or wineries are not included.

Employment data were gathered at the zip code level from Infogroup as of March 2018. Infogroup data is recognized nationally as a premier source of micro industry data. The Infogroup database contains information on over 44 million businesses in the United States.⁴ It is used extensively for credit reporting, and according to the vendor, encompasses about 98 percent of all business enterprises in the country. This data is gathered at the facility level; therefore, a company with 5 stores would have five facilities, each with separate employment counts.

Retail data were adjusted to take into account dry counties, and state regulations pertaining to sales in grocery and food stores.⁵ This removes restaurants, hotels, and off-premise type retailers in those areas where alcohol sales are not allowed.

Once the initial direct employment figures have been established, they are entered into a database linked to the IMPLAN input/output model. The model adopts an accounting framework through which the relationships between different inputs and outputs across industries and sectors are computed. It is based on the national income accounts generated by the US Department of Commerce, Bureau of Economic Analysis (BEA).⁶

⁴ 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.

⁵ John Dunham & Associates generated these data based on information posted in on state alcohol beverage control agency websites, state revenue department websites, and telephone discussions with dozens of local authorities.

⁶ RIMS II is a product developed by the U.S. Department of Commerce, Bureau of Economic Analysis as a policy and economic decision analysis tool. 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 and is today maintained by IMPLAN, Inc.

In the case of the Alcohol Jobs Model, raw employment data were adjusted based on beer, wine or spirits sales as a percentage of total retail sales in each establishment type.⁷ 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 alcoholic beverage sales. In the All Jobs model, on-premise restaurants and full-service restaurants, as well as off-premise liquor stores, are assumed to rely heavily on beverage alcohol sales, so all employment in these industries are included.

The IMPLAN data are used to generate estimates of direct wages and output in each of the segments of the beverage alcohol retailing industry. 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, 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 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, and 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; Licenses and Fees and certain Payroll Taxes.⁸

While IMPLAN is used to calculate the state level impacts, Infogroup data provide the basis for district level estimates. Publicly available data at the county and congressional district level is limited by disclosure restrictions, especially for smaller sectors of the economy. The model therefore uses actual physical location data provided by Infogroup in order to allocate jobs – and the resulting economic activity – by zip code. For zip code areas entirely contained in a single congressional district, jobs are allocated based on the percentage of total physical areas of the zip in the district. All supplier and indirect jobs are allocated based on the percentage of a state's employment in that sector in each of the counties. Again, these percentages are based on Infogroup data.

Retail jobs are restricted to only those communities that allow the retail sale of alcohol beverages. There are hundreds of jurisdictions in the United States that are either wholly dry or partly dry.⁹ The district breakdowns exclude retailing jobs from these counties. In addition, grocery/convenience store jobs are included in those states that allow for such sales.

⁷ A number of different sources were used to calculate the percentage of overall sales due to beverage alcohol purchases. In most cases these sales represent a small part of the overall business. In the case of on-premise establishments, the Economic Census of Accommodations and Food Services and the Economic Census of Arts, Entertainment and Recreation were used to determine the percentage of sales coming from alcohol. On-premise alcohol was then split into beer, wine, and spirits based on data from Personal Consumption Expenditure surveys, see: *Table 2.4.5U. Personal Consumption Expenditures by Type of Product*, US Department of Commerce, Bureau of Economic Analysis, Revised November 8, 2013. Off-premise sales of beer, wine, and spirits data comes from the Economic Census of Retail Trade.

⁸ Excise taxes and sales taxes paid by consumers are not included in this analysis; however, they will be available in a later release.

⁹ Sales banned either on- or off-premise.

The base economic impact of the industry is a snapshot in time and assumes that the current regulatory and tax environment remains unchanged. Like any product, beverage alcohol is what economists call a “normal good” in that sales will fall as prices rise or as it becomes more or less difficult to obtain or consume the product. This would impact the number of jobs or other statistics outlined in the model.