The American Beverage Licensees Economic Impact Study

Methodology and Documentation Prepared for:

American Beverage Licensees

By

John Dunham & Associates

May 15, 2025

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 2024. 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 Data Axle.

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 driven by the re-spending of wages earned by employees in direct and supplier industries, 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 beverage alcohol retailing industry is a dynamic part of the U.S. economy. Based on the Alcohol Jobs Model, the industry accounts for about $544.4 billion in output which is equivalent to about 1.8 percent of GDP. It employs approximately 3.6 million Americans who earned wages and benefits of about $184.1 billion.

Based on the All Jobs Model, the industry is responsible for output equivalent to about 7.2 percent of GDP or $2.1 trillion in economic activity. Under this assumption, the industry employs about 14.0 million Americans who received about $703.1 billion in wages and benefits.

Members of the industry and their employees who were just involved in the sale of alcohol paid $105.8 billion in federal, state and local taxes, while the broader industry (the All Jobs Model) generated about $325.5 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.[1]

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,[2] 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)	2,149,729	597,394	884,449	3,631,572
Wages	$80,792,433,200	$45,377,235,400	$57,892,813,600	$184,062,482,200
Economic Impact	$206,557,930,400	$150,511,947,500	$187,284,644,500	$544,354,522,400
Taxes				$105,804,546,600

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

[2] These firms would more appropriately be considered as part of the supplier firms' industries.

As Table 1 shows, the industry accounts for about $544.4 billion in output which is equal to about 1.8 percent of GDP. Retailers directly or indirectly employed approximately 3.6 million Americans in 2024 just due to beverage alcohol sales. These workers earned $184.1 billion in wages and benefits.

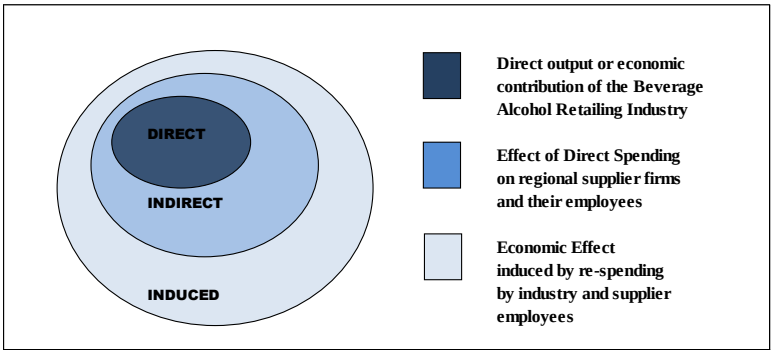
If all jobs in full-service restaurants, drinking places and package stores were included, the impact of the industry would be significantly higher at $2.1 trillion in output, equal to about 7.2 of GDP. Under this assumption almost 14.0 million Americans are employed by the industry and receive $703.1 billion in wages and benefits. Table 2 below outlines these results.

Members of the industry and their employees paid $105.8 billion in federal, state and local taxes according to the "Alcohol Jobs Model," and $325.5 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)	8,263,987	2,396,043	3,376,392	14,036,422
Wages	$296,520,782,500	$185,594,780,400	$221,002,221,000	$703,117,783,900
Economic Impact	$795,730,940,700	$630,342,442,400	$714,921,917,800	$2,140,995,300,900
Taxes				$325,530,943,300

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 Data Axle 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 Data Axle as of January 2024. Data Axle data is recognized nationally as a premier source of micro industry data.[3] It is used extensively for credit reporting and, according to the vendor, encompasses nearly all business enterprises in the country.

Retail data were adjusted to take into account dry counties, and state regulations pertaining to sales in grocery and food stores.[4] 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.[5] 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]

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-

---

3 Job numbers are from Data Axle (formerly Infogroup), 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.

4 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.

5 IMPLAN® model, 2022 Data, using inputs provided by the user and IMPLAN Group LLC, IMPLAN System (2024), 16905 Northcross Dr., Suite 120, Huntersville, NC 28078, www.IMPLAN.com.

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.

7 Economic Census data is used to estimate the percent of sales attributable to alcohol products for both on- and off-premise venues. *Economic Census| All Sectors: Industry by Products for the U.S. and States: 2017.* US Department of Commerce, Bureau of the Census,Available online at: https://data.census.gov/table?q=ECNNAPCSIND2017.EC1700NAPCSINDPRD

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.

While IMPLAN is used to calculate the state level impacts, Data Axle 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 Data Axle 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 Data Axle 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.[8] 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.

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.

8 Sales banned either on- or off-premise.

IMPLAN Methodology:[9]

Francoise Quesnay, one of the fathers of modern economics, first developed the analytical concept of inter-industry relationships in 1758. The concept was actualized into input-output analysis by Wassily Leontief during the Second World War, an accomplishment for which he received the 1973 Nobel Prize in Economics.

Input-output analysis is an econometric technique used to examine 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 is available at the county level, and as such 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 by estimating those variables that are not found from any of them. The data is then converted into national input-output matrices (Use, Make, By-products, Absorption, and Market Shares) as well as national tables for deflators, regional purchase coefficients, and margins.

The IMPLAN Make matrix represents the production of commodities by industry. The Bureau of Economic Analysis (BEA) Benchmark I/O Study of the US Make Table forms the 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 is converted using margins which are derived from the BEA Input-Output model. Margins represent the difference between producer and consumer prices. As such, the margins for any good add to one. If, for example, 10 percent of the consumer price of cheese is from the purchase of electricity, then the electricity margin would be 0.1.

Deflators, which account for relative price changes during different time periods, are derived from the Bureau of Labor Statistics (BLS) Growth Model. The 263 sector BLS model is mapped to the 528 sectors of the IMPLAN model. Where data are missing, deflators from BEA's Survey of Current Businesses are used.

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

---

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

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 before extensive testing takes place.

About John Dunham & Associates

John Dunham & Associates (JDA) is a leading economic consultancy firm specializing in the economics of fast-moving issues. JDA is an expert at translating complex economic concepts into clear, easily understandable messages for a wide range of audiences. JDA's clients have included a wide variety of businesses and organizations, including some of the largest Fortune 500 companies in America, such as:

- Altria
- Diageo
- Feld Entertainment
- Forbes Media
- MolsonCoors
- Verizon
- Wegmans Stores

John Dunham is a professional economist with nearly 40 years of experience. He holds a Master of Arts degree in Economics from the New School for Social Research as well as a Master of Business Administration from Columbia University. He also has a professional certificate in Logistics from New York University. Mr. Dunham has worked as a manager and an analyst in both the public and private sectors. He has experience in conducting cost-benefit modeling, industry analysis, transportation analysis, economic research, and tax and fiscal analysis. As a senior economist for Philip Morris, he developed tax analysis programs, increased cost-center productivity, and created economic research operations. He has presented testimony on economic and technical issues in federal court and before federal and state agencies.

Prior to Phillip Morris John was an economist with the Port Authority of New York and New Jersey, the Philadelphia Regional Port Authority, and the City of New York's Department of Ports & Trade.