
ECONOMIC IMPACT OF LEGALIZING RETAIL ALCOHOL SALES IN JOHNSON COUNTY

Produced for: Keep Our Dollars in Johnson County



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EXECUTIVE SUMMARY

Converting from a dry county to wet county status would have a number of tangible and intangible economic benefits for Johnson County. Legal retail alcohol sales are a signal of a contemporary economic development environment. Quantifying the value of that perception is quite difficult, but it is entirely possible to estimate sales effects, tax collections, and other economic impacts of becoming a wet county. This study was conducted by the Center for Business and Economic Research to assess the magnitude of those economic effects.

The table below demonstrates the potential economic benefits of converting from dry to wet status for Johnson County. This study used 2014-2015 data to estimate the actual sales of liquor, wine and beer to residents of the county and to project what the effects of those sales would have been if residents had been able to make the purchases in their home county. Two types of effects are presented: sales impacts and construction impacts. The sales impacts represent a good guide to the likely magnitude of ongoing annual impacts if the dry county were converted to a wet county. The construction impacts represent the cumulative one-time impacts that would accrue from possible construction of retail liquor stores.

- If Johnson County had been a wet county in 2015, residents would have spent \$2,547,253 in beer purchases and \$2,121,880 in liquor and wine sales in the county. The total packaged alcohol sales would have amounted to an estimated **\$4,669,133**.
- In 2015, those retail sales of alcohol would have generated an **additional 1.6 percent in sales tax revenues** for Johnson County or **\$46,691**.
- Total city sales taxes collected from the sales of retail liquor in Johnson County would have amounted to **\$74,706**.
- Property taxes on new construction of package liquor stores also generate ongoing revenue streams of **\$7,339**, split among cities, the county, and school districts.
- Using economic multipliers and inter-industry coefficients to estimate economic impact, the economic impact of allowing retail sales of alcohol was estimated at **\$1,752,867** for the year 2015.
- This economic activity in Johnson County in 2015 would have been associated with a total of **30.0 jobs** (across all industries) with a labor income of **\$608,951**.

- In addition to ongoing economic impact, if two new liquor stores were constructed, a one-time economic output of **\$894,133** would be generated and a total of **7.6** jobs would be created across all industries in Johnson County.

ESTIMATED ECONOMIC EFFECTS OF CHANGING FROM DRY TO WET COUNTY STATUS

	Johnson County
Sales Impacts	
Estimated 2015 Sales	\$4,669,133
County Sales Tax Revenues	\$46,691
City Sales Tax Revenues	\$74,706
Property Tax Revenues	\$7,339
Local Economic Impact	\$1,752,867
Local Jobs	30.0
Local Labor Income	\$608,951
Construction Impacts	
Local Economic Impact	\$894,133
Local Jobs	7.6

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INTRODUCTION

In Arkansas, a dry county is one in which the government forbids the sale of alcoholic beverages. According to information supplied by the Arkansas Department of Finance and Administration, there are currently 40 wet counties (counties where the government allows sales of alcoholic beverages) and 35 dry counties. However, some dry counties do allow sales of alcohol by the drink from establishments such as restaurants that have obtained a private club license.

As the state of Arkansas continues to grow, Johnson County plays an important part in the overall wellbeing of the state's economy. However, even as Johnson County competes in the 21st century economy and seeks to become attractive places to live, work, and play, it remains a dry county where the retail sale of alcohol is currently prohibited.

A group, organized under the name *Keep Our Dollars in Johnson County*, contacted the researchers at the Center for Business and Economic Research in the Sam M. Walton College of Business at the University of Arkansas with an interest in assessing the revenue and economic impacts of Johnson County becoming wet. Researchers from the Center for Business and Economic Research investigated available state and local data about alcohol related spending to arrive at an estimate of the revenue and economic impacts of legalizing retail alcohol sales in the county.

The report begins with a description of the Center's methodology in conducting the study and a description of the data used to arrive at the report's conclusions. The following sections of this report details the various conclusions about the revenue and economic impacts of converting Johnson County into a wet county.

METHODOLOGY

Several aspects of the local economy will change if Johnson County converts from dry to wet. Some of the effects of this conversion will result in a changed economic development perception of the county and an ability to recruit talented individuals who value modern amenities like retail alcohol purchases from across the nation and the world. These effects, though important, remain outside the scope of this study.

An important effect of Johnson County becoming wet will be the emergence of retail outlets that sell liquor to the community. Researchers from the Center for Business and Economic Research estimated the potential sales of alcohol and associated revenue, tax, and economic impacts. The sales of beer, wine and liquor are recorded at the Arkansas Department of Finance and Administration as retail establishments in existing wet counties remit taxes to the state on those sales. Sales of beer at retail establishments are charged a one percent excise tax, while sales of wine and liquor are charged a three percent excise tax. The tax totals were used to determine overall beer, wine, and liquor consumption in Arkansas. Dividing the total sales by population data from the U.S. Census Bureau allowed researchers to estimate consumption of alcohol beverage per person above the age of 21 in Arkansas. Consumer expenditure data from the Bureau of Labor Statistics was then used to adjust the estimates of per person alcohol expenditures for the county if necessary. Using this method, researchers were able to estimate the total value of retail liquor sales that would have occurred in the Johnson County had it been wet in 2015.

Under current law, full-service restaurants may choose not to locate in Johnson County, because of the added expense involved from having a private club license in order to serve alcohol. Restaurants with the private club license have to purchase liquor at higher costs from retailers in other wet counties as opposed to at wholesale prices directly from distributors. Researchers from the Center for Business and Economic Research used ESRI Retail Market Place Data to provide estimates of the unmet demand for full service restaurants that could be met if this county was wet. Researchers also presented the potential sales tax revenues associated with meeting some of the demand for full-service restaurants in these counties.

This study employs an input-output approach to evaluate the economic impact of legalizing retail liquor sales in the county. The study relies on estimating multiplier impacts from a widely used input-output model, the IMPLAN model. IMPLAN is a regional impact model that enables the evaluation of the economic impact of specific activities like retail sales within an economy. The basic data sources for the current edition of the IMPLAN database and the model used in this study are the Input-Output Accounts of the United States, developed by the U.S. Department of Commerce, Bureau of Economic Analysis (BEA), and county income and employment data published by BEA and the Bureau of Labor Statistics (BLS). The model reflects 2014 industrial

structure and technology, and 2015 prices (trade flows in the model are expressed in 2015 dollars). IMPLAN uses a 525-sector input/output model to measure the effects of three types of impacts: direct, indirect, and induced. Direct impacts consist of employment and purchases of goods and services in the region resulting from the activity being evaluated, in this case, Johnson County. Indirect (inter-industry) impacts consist of goods and services purchased by the firms, which supply inputs consumed in the direct activity. Induced impacts consist of increased household purchases of goods and services in the region by employees of direct and indirect employers. The model generates multipliers, which summarize the magnitude of the indirect and induced effects generated by a given direct change, to estimate changes in output, income, and employment. In other words, the multiplier is the ratio of total impact to direct impact. Using estimates provided by construction companies, researchers also assessed the economic impacts from the one-time construction of new establishments that will be retail alcohol outlets in Johnson County.

ESTIMATING THE EFFECTS OF A WET JOHNSON COUNTY

SPENDING PATTERNS ON RETAIL ALCOHOL

Gaining an understanding of the alcohol spending patterns of Arkansans and Johnson County residents requires data on the population of these areas and the population that is of drinking age (over the age of 21). The data used in this study come from the detailed statistics collected by the U.S. Census Bureau as part of the 2014 American Community Survey Five Year Estimates and the 2015 Population Estimates Program. The state of Arkansas had a population of 2,978,204 in 2015 and 2,132,394 people, or 71.6 percent of the state's population, were over the age of 21. The 2015 Population Estimates Program reported that Johnson County had a population of 26,141. 69.8 percent of the Johnson County population or 18,246 individuals were of drinking age.

TABLE 1: POPULATIONS OF ARKANSAS AND JOHNSON COUNTY

	Arkansas			Johnson County		
	Population	Over 21 Population	Percent Over 21	Population	Over 21 Population	Percent Over 21
2015	2,978,204	2,132,394	71.6%	26,141	18,246	69.8%

Source: U.S. Census Bureau Intercensal Population Estimates program and American Community Survey

Sales of alcohol made at retail establishments such as liquor stores, gas stations and supermarkets are subject to taxes that must be remitted by these establishments to the state. Beer sales at these establishments are subject to a one percent beer excise tax, while liquor and wine are subject to a three percent liquor excise tax. These taxes are collected by the Arkansas Department of Finance and Administration. Beer sales in Arkansas totaled \$414,461,200 (obtained by dividing the tax revenue by the one percent beer excise tax) in 2015, while liquor and wine sales totaled \$345,249,200 (obtained by dividing the tax revenue by the three percent liquor excise tax). Dividing these sales by the over-21 population in Arkansas, researchers estimate that in 2015, the average Arkansan over the age of 21 spent \$194 a year on beer purchases and \$162 in liquor and wine purchases.

Using data from the 2014 U.S. Bureau of Labor Statistics Consumer Expenditure Survey, annual alcoholic beverage consumption expenditures were compared by income grouping. These data indicated that households with average incomes between \$40,000 and \$49,999 spent 28.2 percent more on alcoholic beverages than households with average incomes between \$30,000 and \$39,999 and households with average incomes between \$50,000 and \$69,000 spent 19.2 percent more on alcoholic beverages than households with average incomes between \$40,000 and \$49,999. The 2014 median household income was \$41,264 in Arkansas and \$32,553 in

Johnson County, allowing researchers to assume that the alcohol consumption expenditures of Johnson County residents would be 28.2 percent less than the average Arkansan. This would mean that Johnson County residents over the age of 21 would have spent an average of \$140 a year on beer purchases and \$116 in liquor and wine purchases in 2015.

ESTIMATED 2015 RETAIL SALES OF ALCOHOL IN JOHNSON COUNTY

Utilizing the available data and the ratio of alcohol spending patterns of Johnson County residents calculated above, researchers from the Center for Business and Economic Research were able to estimate the beer and liquor expenditures in Johnson County. If Johnson County were a wet county in 2015, and the residents purchased alcohol from Johnson County liquor stores, gas stations and supermarkets, residents would have spent \$2,547,253 in beer purchases and \$2,121,880 in liquor and wine sales in the county.

TABLE 2: ESTIMATED BEER, LIQUOR AND WINE SALES IN ARKANSAS AND JOHNSON COUNTY

	Arkansas				Johnson County			
	Beer Sales	Liquor and Wine Sales	Beer sales per person	Liquor and Wine sales per person	Beer sales per person	Liquor and Wine sales per person	Beer Sales	Liquor and Wine Sales
2015	\$414,461,200	\$345,249,200	\$194	\$162	\$140	\$116	\$2,547,253	\$2,121,880

Source: Arkansas Department of Finance and Administration, U.S. Census Bureau and Center for Business and Economic Research Estimates

Assuming that Johnson County was a wet county in the year 2015, beer, liquor and wine sales estimated at \$4,669,133 would have occurred within the county. Johnson County currently charges a 1.00 percent county sales tax that would have also been collected on retail alcohol sales. This would have generated sales tax revenues of \$46,691 for the county. The amount would have provided an additional 1.6 percent in revenues for the county where total sales tax collections amounted to \$2,942,213 in 2015.

TABLE 3: ESTIMATED ADDITIONAL SALES TAX COLLECTIONS IN JOHNSON COUNTY

	Estimated Beer Sales	Estimated Liquor and Wine Sales	Total Estimated Alcohol Sales	Estimated County Sales Tax Revenue
Johnson County	\$2,547,253	\$2,121,880	\$4,669,133	\$46,691

Source: Arkansas Department of Finance and Administration and Center for Business and Economic Research Estimates

ESTIMATED CITY AND COUNTY LEVEL SALES AND PROPERTY TAXES

Should Johnson County residents decide to convert to wet status, individuals or groups wishing to open a liquor store or sell beer and wine in gas stations and supermarkets will be required to apply for and receive a permit to sell retail alcohol in Johnson County. The decision to grant a permit to sell retail liquor is governed by the Alcoholic Beverages Control Administration. There are several rules that affect the granting of a liquor permit in Arkansas and these are enlisted in Arkansas Code 3-4-201 through Arkansas Code 3-4-223. Among these rules are stipulations that the total number of permits in any county cannot exceed the number that represents one liquor store for every 5,000 county residents enumerated in the last decennial census (updated from 4,000 residents by Act 1068 of 2013). In Johnson County, with a population of 25,540 in the 2010 census, a maximum of five permits can be issued. Within the county, researchers assigned the liquor stores to cities with more than 1,000 residents, proportionally according to their population. Actual liquor permits may not follow this pattern and may not yield the conclusions presented in this section.

Total local sales taxes in these cities collected from the sales of retail liquor in Johnson County would have amounted to \$74,706 in 2015. The largest city, Clarksville, would have collected \$56,030 which would have represented 1.3 percent of the total sales tax collections in the city in 2015.

TABLE 4: ESTIMATED ADDITIONAL SALES TAX COLLECTIONS IN JOHNSON COUNTY CITIES

City	Local Tax Rate	Permits	Estimated Liquor Sales	Estimated Local Sales Taxes Collected	% of 2015 Local Sales Taxes Collected
Clarksville	2.00%	3	\$2,801,480	\$56,030	1.3%
Coal Hill	1.00%	1	\$933,827	\$9,338	13.9%
Lamar	1.00%	1	\$933,827	\$9,338	7.3%
Total		5	\$4,669,133	\$74,706	

Source: Arkansas Department of Finance and Administration and Center for Business and Economic Research Estimates

Another important economic effect of converting Johnson County from a dry county to a wet county will be seen in the property taxes that can be collected from the construction of new liquor stores. Researchers conservatively estimate that in cities with more than one liquor store, 50 percent of the new liquor stores will occupy existing commercial space while the other 50 percent will occupy new construction. This would mean that of the five new liquor stores in Johnson County, two will be new construction while three would occupy existing commercial space. These two stores will have a recurring impact as property taxes can be collected on these newly developed properties. Prior research shows that nationally, the average liquor store is

5,318 square feet in size¹ and researchers from the Center for Business and Economic Research were able to consult with commercial real estate brokers and developers to estimate a price per square foot of building space that includes the construction costs as well as the costs of acquiring 0.5 acres of land for the building and associated parking spaces. The consensus estimate reached was \$100 per square foot of building space. Using this figure, researchers from the Center calculated the appraised value of the newly constructed liquor stores in Johnson County and then calculated the property taxes that would be collected for the cities, counties and school districts from these newly constructed liquor stores. The table below shows that when two new liquor stores are constructed, total property taxes of \$7,339 would be collected every year by the various jurisdictions. Of that amount, the school district would receive \$5,504 on an annual basis from the total property taxes collected as a result of the development of two new liquor stores.

TABLE 5: PROPERTY TAXES IN JOHNSON COUNTY

City	Number of Newly Constructed Liquor Stores	Estimated Appraised Value	County Property Taxes	School District Property Taxes	City Property Taxes	Total Property Taxes
Clarksville	2	\$159,540	\$1,484	\$5,504	\$351	\$7,339

Source: Arkansas Assessment Coordination Department and Center for Business and Economic Research Estimates

FOOD AWAY FROM HOME RETAIL GAP OR UNMET DEMAND

Another consequence of Johnson County becoming a wet county would be the location of full-service restaurants in cities in the county as the added expense involved from having a private club license in order to serve alcohol will be removed. Researchers from the Center for Business and Economic Research used ESRI Retail Market Place Data to ascertain the current demand for full-service restaurants, the current supply of full-service restaurants and the unmet demand or retail gap in Johnson County. Researchers also estimated the potential sales tax revenues associated with meeting the potential demand for full-service restaurants in Johnson County.

According to data from ESRI, the annual retail gap or unmet demand for full-service restaurants was \$2,964,680 in 2015. Researchers from the Center for Business and Economic Research would add the caveat that some but not all of the unmet demand for full-service restaurants is likely to be met if Johnson County is wet. The retail gap in the county may not be fully closed due to competition from existing, nearby full-service restaurants that are in existing wet counties. If all the retail demand is met in Johnson County, the county would have received up to \$29,647 in additional tax revenues in 2015 or 1.0% of the total sales tax collections.

¹ <http://www.ci.lakeville.mn.us/departments/departmentspdf/LakevilleLiquorStudy.pdf>

TABLE 6: FOOD AWAY FROM HOME RETAIL GAP IN JOHNSON COUNTY

	Demand (Retail Potential)	Supply (Retail Sales)	Retail Gap	Estimated County Sales Tax Revenue
Johnson County	\$11,157,777	\$8,193,097	\$2,964,680	\$29,647

Source: ESRI Retail Market Place Data

ECONOMIC IMPACT

Researchers from the Center for Business and Economic Research used the IMPLAN input/output model to estimate the total economic impact of \$4,669,133 in annual retail alcohol sales. Using 2014 data, the model generated economic impacts of this hypothetical activity occurring in 2015 in Johnson County as seen in the table below. The direct effect of Johnson County becoming a wet county would have generated employment for 26.0 individuals with related labor income of \$471,940. When indirect and induced effects are added, the employment total reaches 30.0 and the labor income total reaches \$608,951. In all, the direct economic output of converting Johnson County from a dry county to a wet county was estimated at \$1,293,350, and the total economic impact was estimated at \$1,752,867 for the year 2015.²

TABLE 7: ECONOMIC IMPACT OF ALCOHOL SALES IN JOHNSON COUNTY

Economic Impacts of Alcohol Sales in Johnson County				
Impact Type	Employment	Labor Income	Total Value Added	Output
Direct Effect	26.0	\$471,940	\$738,315	\$1,293,350
Indirect Effect	2.2	\$76,750	\$124,482	\$240,426
Induced Effect	1.9	\$60,261	\$122,332	\$219,092
Total Effect	30.0	\$608,951	\$985,128	\$1,752,867

Source: IMPLAN Input/Output Model 2014, Center for Business and Economic Research Calculations

In addition to these ongoing, yearly economic impacts, there are also one-time construction effects associated with new liquor stores being constructed. Conversations with construction industry experts, developers, and commercial real estate brokers yielded an estimated price of \$87 per square foot in construction costs (not including land costs). Another assumption is that

² In the IMPLAN model, retail sales are treated somewhat differently from other industries in that only the retail margin is included in the direct economic impact. In this case, total retail sales of \$4,669,133 are margined at 27.7 percent, the effect of the sales that do not leak out of Johnson County.

half of all liquor stores will be new constructions and that half will be located in existing vacant retail space.

As seen in the table below, the construction of two new liquor stores will result in a direct economic impact of \$693,999 and a total economic impact of \$894,133. The construction of these stores will generate 5.8 jobs in the construction industry and a total of 7.6 jobs across all industries in Johnson County.

TABLE 8: CONSTRUCTION OF TWO NEW LIQUOR STORES IN JOHNSON COUNTY

Impact Type	Employment	Labor Income	Value Added	Output
Direct Effect	5.8	\$171,903	\$216,849	\$693,999
Indirect Effect	1.1	\$34,170	\$63,438	\$117,821
Induced Effect	0.7	\$22,631	\$45,964	\$82,314
Total Effect	7.6	\$228,703	\$326,252	\$894,133

Source: IMPLAN Input/Output Model 2014, Center for Business and Economic Research Calculations

In conclusion, the study estimates that by being a wet county, Johnson County would have had additional retail sales worth \$4,669,133 in 2015 and similar levels of retail sales in subsequent years. These sales would have generated a previously non-existent recurring economic impact of \$1,752,867, dollars that would remain in Johnson County. This economic impact is associated with 30.0 jobs (across all industries) and an annual labor income of \$608,951. Cities, the county and school districts will also benefit from the development of retail alcohol stores in the form of new sales tax revenues and property tax revenues. In addition to the above enumerated economic impacts, as Johnson County becomes a wet county there will be other economic development benefits that are outside the scope of this study. The perception that a wet Johnson County is a good place to live, work, and play will aid the recruitment and retention of talent for various industries in Johnson County. This awareness will contribute to the ongoing growth and economic vitality of the Johnson County region.

SOURCES

Arkansas Assessment Coordination Department
Arkansas Department of Finance and Administration
ESRI Retail Market Place Data
IMPLAN Group LLC
U.S. Census Bureau, American Community Survey
U.S. Census Bureau, Intercensal Population Estimates