



ASHEVILLE METRO AREA
BREWERIES CONTRIBUTION ANALYSIS
SEPTEMBER 2021



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Brewers Collective, the craft business unit of Anheuser-Busch

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Overview

Introduction

The Breweries Industry in the Asheville Metropolitan Statistical Area (MSA)¹ quickly and definitively established Asheville among national leaders in the manufacture and science of distinguished beer making. The longstanding, popular activity of brewing sustains enduring favorites while at the same time has evolved to include craft beers sought by locals and visitors alike. A growing range of products and ingredients effectively boosted interest from the casual drinker to the enthusiast with often high-tech manufacturing equipment and specialized development processes from ground to glass.

Purpose

The goal of the Breweries impact analysis is to provide a baseline snapshot of the economic contribution of this fast-growing industry in 2019. To create the baseline study, the report distinguishes the core Breweries Industry² and excludes add-on effects such as tourism or other partial industry presence, apart from Beer and Ale Merchant Wholesalers (see Appendix A for more detail). The analysis recognizes that by assessing what the industries purchase from the local community to run operations, as well as how associated payroll supports local households, we acquire a broader view of how these businesses interact with the greater framework of the Asheville economy.

To create the baseline study, this report distinguishes the core Breweries Industry and excludes add-on effects such as tourism or partial industry presence, apart from Beer and Ale Merchant Wholesalers.

Impacts are estimated by utilizing the well-established economic impact system, IMPLAN³, originally created for the U.S. Forest Service in the 1970s. As a result of the multiplier effect⁴, the industries contribute spin-off effects in far-reaching ways that are interwoven with other local business activity and that sustain overall economic benefits. Contribution in the local economy is estimated in the following areas (see Appendix B for terms and definitions):

- Jobs
- Labor Income
- Value Added (Gross Regional Product)
- Total Output

¹ Buncombe, Haywood, Henderson, and Madison counties comprise the Asheville Metropolitan Statistical Area (MSA, Metro).

² NAICS 312120, Breweries. Breweries are classified in the Manufacturing Sector.

³ IMPLAN GROUP, LLC. IMPLAN 2019. Huntersville, NC. IMPLAN.com.

⁴ Multipliers are a measure of an industry's connection to the wider local economy through purchases, payments of wages and taxes, and other transactions.



Local, State, and Federal taxes are also generated through certain types of economic transactions, and these have been estimated. This report also serves to gauge the industry prior to the COVID-19 pandemic, and by extension represents what would be a more normal year of activity.

It is reasonable to expect that the Breweries Industry has contributed to tourism activity in the Asheville Metro, however, to restate, this analysis is focused primarily on the core Breweries industry, without add-on effects. **Therefore, this contribution analysis may be considered conservative.** The study is also discrete, capturing inputs that were readily identifiable elements of industry employment and that could be accounted for (see End Notes for additional information).

Industry Position

Even before multiplied effects are applied, the industry is positioned as a leading manufacturer in the Asheville Metro. In 2019, Asheville made up roughly a third of the state's \$639 million direct Gross Regional Product produced by Breweries, as well as a third of the state's \$1.7 billion direct total output. Asheville also made up approximately a third of the state's 4,440 employed and 24 percent of the state's \$295 million labor income in this industry.⁵

According to EMSI⁶, Breweries made up 85 percent of overall Beverage Manufacturing in Asheville. The estimated 1,452 employed made Breweries the second largest manufacturing employer in Asheville. Compared to approximately 318 employed in 2014, the industry added the greatest number of employees (+1,134) of any manufacturing industry, representing 357 percent growth (2014-2019). This was second only to Full-Service Restaurants when compared across all industries. While the numbers are smaller, growth rate was faster when compared to the state's 135 percent and the nation's 116 percent. Employment change in the timeframe was three times expected growth in part due to regional assets that cannot be explained by economic effects occurring at the national level. The Asheville region has assembled skill in this field, with employment concentration, often referred to as location quotient, 12.5 times the national job concentration.

The industry generally attracts higher percentages of younger workers. 45 percent of workers in this industry are estimated to be between 25 and 34 years of age. Another 28 percent are 35 - 44. At a combined 73 percent between 25 and 44, retirement risk is potentially low overall. Additionally, the industry estimates a higher percentage of males at approximately 62 percent. Roughly one in four Breweries Industry workers were in a Production Occupation, which would be expected in manufacturing. Top skills sought, which often help point where an industry may be headed,

⁵ Source: IMPLAN 2019 data for model region Asheville MSA.

⁶ Economic Modeling Specialists Burning Glass, 2021.3.



included Packaging and Labeling | Restaurant Operation | Food Safety | Truck and Machinery | Warehousing | and Inventory and Merchandising.

Impact Results Summary

Contribution

To perform the baseline scenario, direct employment is initially accounted for in this study. Refer to Appendix C for Methodology. Breweries, as well as Malt Manufacturing, perform central activities; therefore, Malt Manufacturing is added to the impact analysis and all local area employment for both industries is included as an input. Partial employment estimates categorized in the Wholesale Trade sector capture the presence of Beer and Ale Merchant Wholesalers. As previously noted, add-on effects of tourism and other potential industry associations have not been included to distinguish this core business activity.

With an initial 1,770 jobs accounted for in the Asheville Metro, economic contribution is summarized in Table 1.

Table 1. Total Contribution Summary, 2019

Impact Type	Employment	Labor Income	Value Added	Output
Direct Effect	1,770	\$91,762,945	\$238,786,975	\$659,381,807
Indirect Effect	984	\$46,658,481	\$76,028,029	\$178,431,578
Induced Effect	717	\$29,937,727	\$54,107,543	\$97,151,605
Total Effect	3,471	\$168,359,153	\$368,922,547	\$934,964,990

Table 1 submits that because of the direct employment contribution of the combined industries in the Asheville Metro the following effects were estimated in the local economy in 2019:

- Total Output⁷, representing overall, total economic contribution was \$935 million.
- 3,471 workers were paid approximately \$168.4 million in Labor Income as part of companies' \$369 million contribution to Gross Regional Product (GRP), also referred to as Value Added.⁸
- For every 1 job in the core industries, approximately 1 additional job was created or supported through spinoff effects.
- Direct average earnings were \$51,844 per job.
- Indirect and induced average earnings combined were \$45,030 per job.

⁷ Total Output includes Value Added. Total Output may include some instances of duplicate counting of goods and services at different points in the production stage whereas Value Added does not. Each are valuable measures for the region's overall industry activity. Output may also be referred to as an industry's sales and revenues plus net inventory change. For definitions, refer to Appendix B.

⁸ Value Added (GRP) includes Labor Income.



Direct, Indirect, and Induced Contribution Summary

- ✓ **Direct Effects.** Direct effects represent the initial activity identified. 1,770 direct jobs were paid approximately \$92 million in Labor Income as part of these companies' \$239 million contribution to GRP. Overall, \$659.4 million worth of output or production was accounted for.
- ✓ **Indirect and Induced Effects.** Companies also have ties to local suppliers as the industries make purchases for goods and services. These are categorized as indirect effects and refer to supply chain activities or business-to-business transactions. For example, local breweries use a variety of ingredients to make beer and suppliers for these goods benefit from brewers' demand. Additionally, labor income from direct and indirect activities is spurred for households and supports spending on homes or rent, healthcare needs, and so on. These are categorized as induced effects. Indirect and induced effects combined represented an additional \$276 million total output. This included \$77 million in Labor Income as part of \$130 million contribution to Value Added (Gross Regional Product).

Tax Revenue Contribution Summary

Tax revenues are a component of Value Added (GRP). Tax revenues are generated by the operations of industries and households at all levels of the contribution analysis. These include payroll taxes, taxes on production and imports, corporate profits tax, and other types of taxable transactions. Total tax contribution in 2019 from the industries in Asheville was estimated at **\$115 million**. This is broken out as follows:

- Local: \$33.4 million
- State: \$40.4 million
- Federal: \$41.2 million

Tax revenues contribute support for public services such as public safety, streets, education, transportation, and other services.



Highlighted Detail

Employment Contribution: Top 15 Industries Benefitting

In addition to the contribution of direct employment, employment in other industries is created or supported because of local supply chain demand and household spending. Table 2 shows the top 15 industries with the greatest impacts to employment due to Breweries. Truck Transportation, Crop Farming, Wholesale Trade, and Warehousing and Storage are examples of industries where employment was created or supported largely because of indirect or supply chain activities. Whereas Restaurants, Hospitals, and Retail-Food such as grocery stores are examples where employment was created or supported largely because of the spending of additional labor income. The top 15 industries in the table made up approximately 71% of total employment created or supported by Breweries, Malt Manufacturing, and Beer and Ale Merchant Wholesalers.

Table 2. Top 15 Industries Most Impacted by Breweries (Direct, Indirect, and Induced Employment Effects)

Industry Description	Contribution Estimate
1. Breweries	1,442
2. Wholesale – Other nondurable goods merchant wholesalers	329
3. Other real estate	112
4. Truck transportation	94
5. Insurance agencies, brokerages, and related activities	65
6. Employment services	61
7. Full-service restaurants	60
8. Limited-service restaurants	47
9. All other crop farming	45
10. Hospitals	39
11. Warehousing and storage	37
12. Services to buildings	33
13. Wholesale – Machinery, equipment, and supplies	28
14. Retail – Food and beverage stores	28
15. Accounting, tax preparation, bookkeeping, and payroll services	27



Supplier Industry Contribution: Top 15 Industries Benefitting

As noted, the businesses that make up Breweries create and facilitate interactions with local suppliers and service providers. These indirect effects are associated with demand for goods and services that support Breweries' operations. Table 3 shows the top 15 industries where the contribution of Breweries had the greatest impact. For example, as companies in the three key industries conducted business, they contributed an estimated \$14 million in the local Truck Transportation industry as goods were moved from place to place.

Table 3: Top 15 Industries Most Impacted by Breweries' Business-to-Business Transactions (Indirect Effects)

Industry Description	Contribution Estimate
1. Insurance agencies, brokerages, and related activities	\$14,177,436
2. Truck transportation	\$14,128,191
3. Other real estate	\$13,164,308
4. Flour milling	\$11,036,331
5. Wholesale – Machinery, equipment, and supplies	\$7,215,837
6. Monetary authorities	\$6,891,682
7. Paperboard container manufacturing	\$6,058,702
8. Wholesale – Other nondurable goods merchant wholesalers	\$5,972,552
9. Electric power transmission	\$5,438,742
10. Wholesale – Other durable goods merchant wholesalers	\$5,324,601
11. Management of companies and enterprises	\$4,236,103
12. Lessors of nonfinancial intangible assets	\$3,300,068
13. Rail transportation	\$3,280,721
14. Employment services	\$3,138,121
15. Accounting, tax preparation, bookkeeping, and payroll services	\$2,831,396



Household Income Contribution: Top 15 Industries Benefitting

Labor income is generated or supported for employees because of direct and indirect activity of Breweries. Table 4 describes the top 15 industries most impacted by household spending of related labor income. Not surprisingly, housing tops the list. Workers also spend their income on healthcare needs and restaurants.

Table 4: Top 15 Industries Most Impacted by Household Spending (Induced Effects)

Industry Description	Contribution Estimate
1. Owner-occupied dwellings	\$12,257,383
2. Hospitals	\$7,342,181
3. Other real estate	\$5,284,198
4. Offices of physicians	\$4,352,975
5. Monetary authorities	\$3,268,414
6. Limited-service restaurants	\$3,151,973
7. Full-service restaurants	\$2,782,521
8. Tenant-occupied housing	\$2,582,492
9. Retail – Nonstore retailers	\$2,014,474
10. Retail- Food and beverage stores	\$1,805,213
11. Retail – General merchandise stores	\$1,442,591
12. Nursing and community care facilities	\$1,384,060
13. Employment services	\$1,274,552
14. Wholesale – Other nondurable goods merchant wholesalers	\$1,183,873
15. All other food and drinking places	\$1,172,797



Conclusion

The brewery industry has experienced considerable growth and created or supported thousands of jobs in the four-county Asheville Metro area. What this has meant for the region is that the industry contributed not only the jobs it created directly, but also through multiplied or spin-off economic effects, whereby additional economic activity occurred in the local economy due to the presence of these businesses. Residents saw additional job opportunities, labor income (earnings) and production were generated, and many other industries were involved in sustaining breweries as part of the supply chain. In addition to contribution estimates, the industry has expanded the area's manufacturing presence and workforce and remains closely linked to the craft and outdoor culture the region is known for.

Key Points: Breweries Contribution 2019, Asheville MSA

- 3,471 jobs created or supported
- \$168.4 million labor income
- \$369 million GRP
- \$935 million total output
- \$33.4 million local tax revenues generated | \$115 million total including state and federal levels
- For every 1 direct job in the industries, approximately 1 additional job was created or supported in the local economy
- Average earnings per direct job at \$51,844 | Average earnings for indirect and induced combined at \$45,030
- Direct contribution estimated at approximately 1/3 of the state's Breweries Industry total output, value added (GRP), and employment; as well as 24% of total labor income
- Made up 85 percent of the Asheville Metro Beverage Manufacturing sector
- Second largest manufacturing employer in the Asheville Metro, following Relay and Industrial Controls
- Added the most jobs among manufacturing industries (+1,134) with 357 percent growth 2014-2019
- Competitive due to regional assets; growth not simply attributed to national trends
- 12.5 times national employment concentration suggesting specialization
- Assembling talent and expanding manufacturing presence
- Potentially lower retirement risk manufacturing industry
- Presence spurred widespread activity across local sectors including Real Estate, Healthcare, Retail Trade, Financial, Agriculture, Transportation and Warehousing, Other Manufacturing, and more



Appendix A: Industries Included in Contribution Analysis

Description of Select Industries and Employment Portion Included in Contribution

Industry	Description	Total or Partial Industry	Direct Effect (Employment)	Source
NAICS 312120: Breweries	The industry comprises establishments primarily engaged in brewing beer, ale, lager, malt liquors, and nonalcoholic beer.	Total	1,442.27	IMPLAN 2019
NAICS 311213: Malt Manufacturing	The industry comprises establishments primarily engaged in manufacturing malt from barley, rye, or other grains.	Total	23.64	IMPLAN 2019
NAICS 424810: Beer and Ale Merchant Wholesalers	The industry comprises establishments primarily engaged in the merchant wholesale distribution of beer, ale, porter, and other fermented malt beverages.	Partial Wholesale Trade Sector	304	EMSI 2021.3; 2019



Appendix B: Terms and Definitions

Employment represents jobs. Employment may be full-time, part-time, temporary, or second jobs.

Direct Effects report initial contribution of an industry or industries. Refer to Appendix A.

Indirect Effects result from the stimulated purchase of goods and services that support the operation of the selected industries.

Induced Effects are the changes in household purchasing based on additional income or changes in compensation levels associated with direct and indirect activity.

Labor income is the total payroll value, including wages, benefits, and taxes paid to wage and salary employees, as well as Proprietor income or profits earned by self-employed individuals.

Value Added is the combination of labor income, other property income, and taxes on production and imports net of subsidies. Value Added represents Gross Regional Product (GRP), or a region's Gross Domestic Product.

Total Output represents total production or the total economic contribution of the study industries and the production activity and income they support throughout the region. Total Output includes Value Added. It is the value of production and is equal to Value Added plus monies spent purchasing goods and services to create an industry's production.

Appendix C: Methodology

Contribution analysis is used to help show what an existing industry contributes to the local economy. This study utilizes contribution for Breweries and Malt Manufacturing, as well as impact of Beer and Ale Merchant Wholesalers. It does not include costs that an industry may engender in an economy, however, it can shed light on how the industry is creating and supporting economic activity and what might happen if the selected industry activities were to be lost to the region. In the process, the model identifies backward linkages in the region to arrive at estimates. These insights offer additional information about the scale and extent an industry has in the local economy and the role played for the community, its residents, and workforce.

IMPLAN is a regional economic analysis software application that is designed to estimate the impact or ripple effect (as noted, specifically backward linkages) of a given economic activity within a specific geographic area through the implementation of its Input-Output model. Studies, results, and reports that rely on IMPLAN data or applications are subject to inputs selected by the analyst.

End Notes

The results represent this discrete study. The baseline contribution estimates are dependent on the industries selected in the four-county Asheville Metropolitan Statistical Area. All data reflects established quantities at a specific point in time. Margins of error may apply. Outputs and results of the analysis are estimates that provide supplemental information about an industry or industries and associated economic contribution that are identifiable in a region but do not claim to capture every aspect of activity.

For more information on this study, please contact Riverbird Research, a division of the Asheville Area Chamber of Commerce.

