



UNIVERSITY OF MINNESOTA EXTENSION

CENTER FOR COMMUNITY VITALITY

Economic Contribution of Minnesota's Craft Brewing Industry and the Impact of COVID-19

A Report of the Economic Impact Analysis Program

Presented by Brigid Tuck and John Bennett



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March 2021

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Table of contents

Executive Summary	1
Introduction	3
Survey of Craft Brewers	3
Minnesota’s Craft Brewing Industry	4
Economic Contribution 2019	5
Direct Effect	6
Total Economic Contribution	9
Impact of COVID-19 on the Industry	9
Economic Impact	9
Margins	11
Events	11
Community and Charitable Support	12
Supporting Minnesota’s Craft Brewing Industry in 2021	12
Notes on the Analysis	13
Appendix 1: Definitions of Terms	14
Appendix 2: Craft Brewer Questionnaire	16





EXECUTIVE SUMMARY

Minnesota's craft brewing industry has grown during the past decade. In 2012, there were 39 breweries in Minnesota. By 2019, that number grew to 183, and the state now has newer and smaller craft brewers. Many of these breweries open taprooms or brewpubs that attract customers to the brewery for beer, conversation, games, and often food. This business model allows new customers to sample beers, form connections with other beer lovers, and enjoy a community social setting.

COVID-19, along with Minnesota's restrictions on taprooms and breweries, has made this type of business model more challenging for craft breweries. For brewers that market much of their beer through the taproom or brewpub, COVID-19 caused a drop in sales and margins.

The Minnesota Craft Brewers Guild was interested in better understanding the economic impact of the brewery industry and COVID-19's effect on it. Thus, the Guild partnered with Extension to measure the economic contribution of the industry in 2019 (prior to the pandemic), as well as estimate the impact of COVID-19 on it. Extension's findings, based partially on a survey of brewers, are briefly summarized below.

Craft Brewers in Minnesota: Craft breweries are located across Minnesota. Slightly more than half of survey respondents reported they were located in the Twin Cities metro. Twenty-eight percent were in regional centers (defined as having a population of more than 10,000, but not in the metro).

Craft breweries rely heavily on on-site sales, with survey respondents reporting 73 percent of sales made via their physical location. The second most common marketing channel was wholesale, with breweries selling 13 percent of their beer this way.

Craft breweries reported conducting a variety of activities in 2019. Responses revealed the role breweries play in their local communities—84 percent supported local charities/community organizations in 2019. They were also key in providing places to gather and celebrate, with 79 percent hosting events. Responses also showed continued growth in the industry. Seventy-five percent of responding breweries made a capital investment (building or equipment), 49 percent moved into a new market or expanded distribution, and 9 percent reported starting distribution. Food trucks remained more common than on-site restaurants.

Economic Contribution 2019: In total, Minnesota's craft brewing industry generated \$1.0 billion of economic activity in Minnesota during 2019. Of this, \$383.9 million was labor income. The industry supported 8,435 workers in the state. These figures include impacts generated from beer production, food service, and capital investments.

Impact of COVID-19: Overall, survey results indicated an 18 percent drop in sales across all breweries. Survey respondents also reported a 10 percent decrease in employment. Sales, however, varied significantly by quarter, depending on current COVID-19 restrictions.

Based on Extension's assumptions and craft brewer survey results, Minnesota's economy lost \$186.6 million in economic activity from brewers due to COVID-19. Pandemic-related effects led to 1,050 jobs being affected.

Survey respondents also indicated COVID-19 had a chilling effect on capital expenditures. More than one-third (37 percent) of breweries did not make investments in 2020 due to COVID-19. While a handful of breweries did, their investments focused on responding to COVID-19. A few breweries also reported issues with financing, ranging from banks backing out of deals to the inability to make loan payments due to decreases in revenue.

COVID-19 also dramatically decreased the ability of breweries to support charities and community organizations. The number of organizations supported in 2020 by responding breweries fell to 763, a 75 percent decrease. Total value of donations also fell to less than half at \$336,770.

Events: The inability to host events was also a challenge for breweries in 2020. Minnesota's craft breweries attracted an estimated 3.6 million people to events last year. Survey respondents reported these events came to a near stop in mid-March of 2020. Of the 65 breweries that responded to the survey question regarding the effect of COVID-19 on events, 66 percent reported hosting no events in 2020 or a complete end to events after March.

Supporting the Craft Brewing Industry in 2021: Both the federal and state government authorized COVID-19 relief packages for businesses struggling during the pandemic. To qualify for aid, many of these programs required businesses to demonstrate significant losses. Two trends specific to craft breweries—and reported by survey respondents—are leaving many Minnesota breweries without access to these programs.

- In many ways, Minnesota's craft brewing industry is relatively young and still in high growth mode. This means many brewers simply did not have enough of a financial track record to prove the impact of COVID-19 on their business. Others took on new debt to expand. While these expansions were done prior to pandemic-related closures and restrictions, the loss in revenues made it more difficult to repay debt.
- The pandemic's impact on the industry was not uniform across marketing channels and time of year. For many, when restrictions eased and people were outdoors more during the summer, sales were strong. A relief program comparing sales from summer 2019 to summer 2020 might look favorable for a brewery. However, sales in the second and fourth quarters of 2020 were much lower, leading to an overall loss in revenue for the year.

The final survey question asked breweries to provide any final comments. For many, responses centered on the structure of future relief programs. Extension grouped comments into five major categories.

- While many new breweries did not have a long history of business data to present for relief programs, they were also not generating the income needed to repay start-up costs.
- Breweries carried out expansion plans and are carrying debt that is hard to repay due to COVID-19 revenue loss.
- As some breweries face unique financial and operational situations, it would be valuable to have a source for one-on-one advice.
- Financial performance varied based on the quarter of the year, and relief programs should account for this situation.
- Most breweries adjusted their operational model. Since these changes were expensive, a relief program that reimburses breweries for these costs would be valuable.

INTRODUCTION

Minnesota's craft brewing industry has grown during the past decade. In 2011, the legislature passed the "Surly Bill," which created a taproom license and allowed small breweries to make and sell their own beer on-site. The bill resulted in more growth in an industry that was already starting to rise.

Nationally, craft brewing has grown in popularity. From 2010 to 2019, the Brewers Association reported a 370 percent increase in the number of craft brewers. Minnesota saw similar growth.¹ In 2012, there were 39 breweries. By 2019, that number rose to 183.²

For brewery owners, their passion extends beyond a tasty beverage. They also operate businesses. For newer and smaller craft brewers, a successful business model often requires more than selling beer in a retail store or through a tap at a restaurant or bar. These markets can be difficult to penetrate, especially given the explosive rise in the number of competitors.³

Thus, many craft brewery owners open taprooms or brewpubs, enticing customers to the brewery for beer, conversation, games, and often food. This approach allows new customers to sample various beers, form connections with other beer lovers, and enjoy a community social setting.

COVID-19, along with Minnesota's related restrictions on taprooms and breweries, made this business model more challenging for craft breweries. For brewers that market much of their beer through a taproom or brewpub, COVID-19 caused a drop in sales and margins.

The Minnesota Craft Brewers Guild was interested in better understanding the economic impact of the industry. First, the Guild wanted to quantify the industry's baseline—what was the economic contribution of the craft brewing industry in Minnesota in 2019? Second, how did COVID-19 affect the industry's economic value? The Minnesota Craft Brewers Guild partnered with Extension to measure the economic contribution of the industry in 2019 (prior to the pandemic), as well as estimate the impact of COVID-19 on it.

Survey of Craft Brewers

To gather data on the industry, Extension and the Minnesota Craft Brewers Guild conducted a survey of the Guild's membership. The Guild deployed the online survey via email on December 18, 2020. The Guild also sent multiple group and individual reminders during the survey period before it closed on January 5, 2021. Appendix 2 contains a copy of the questionnaire sent to craft brewers.

Extension received 95 survey responses. According to Minnesota's Department of Public Safety, which tracks alcohol licenses, there were 183 breweries in Minnesota in 2019. Thus, the responses represent more than half (52 percent) of Minnesota's breweries. This is a robust survey response. When comparing survey responses to known brewery statistics (for example, number of breweries, age of brewery, and size of brewery), it appears the sample is representative of the industry as a whole. Survey respondents included small breweries (just starting production) to larger, more established breweries. Results presented here represent the average across all respondents.

¹ <https://www.brewersassociation.org/statistics-and-data/national-beer-stats/#:~:text=Summary,grew%20the%20most%20for%20taprooms>

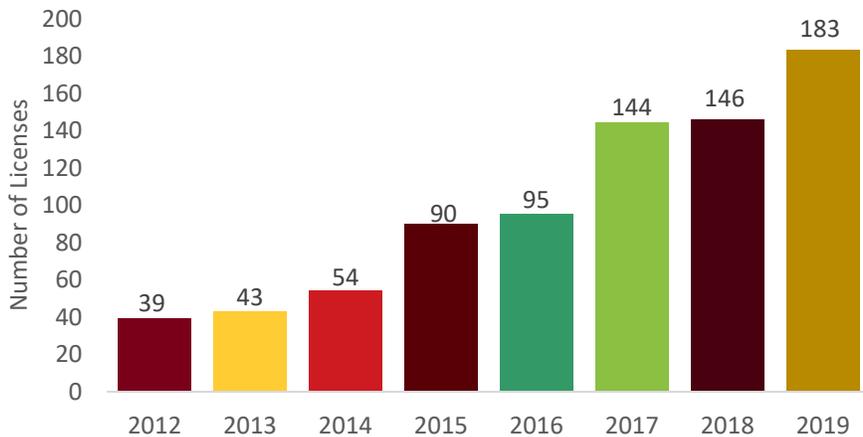
² Minnesota Department of Public Safety. <https://dps.mn.gov/divisions/age/alcohol/Pages/default.aspx>

³ <https://www.minnpost.com/economy/2019/11/taprooms-are-tapped-out-2019-was-the-year-of-the-brewpub-in-minnesota/>

MINNESOTA'S CRAFT BREWING INDUSTRY

In 2019, Minnesota reported 183 licensed breweries (Chart 1). This represents significant growth from 2012 when the state had 39 breweries.

Chart 1: Number of Licensed Breweries, Minnesota

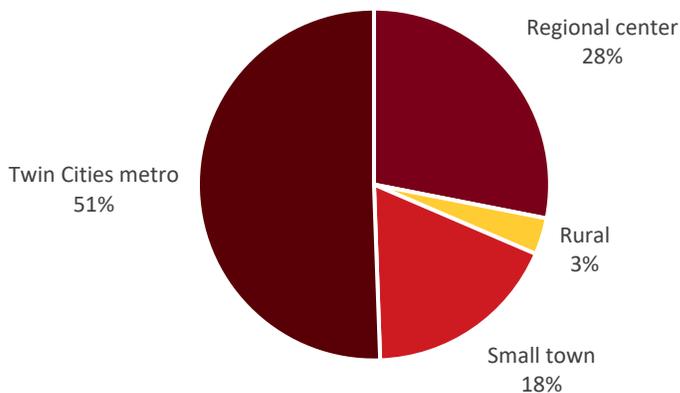


Source: Minnesota Department of Public Safety

Survey results reflect the industry's growth trend in the 2010s, as 73 of the 95 respondents (77 percent) reported establishing their brewery during that decade. Survey responses also included those from Minnesota's more established craft brewers, as six reported establishment prior to 2000.

Craft breweries are located in a variety of Minnesota locations. Slightly more than half of survey respondents reported being in the Twin Cities metro (Chart 2). Twenty-eight percent were in regional centers (defined as having a population of more than 10,000, but not located in the metro).

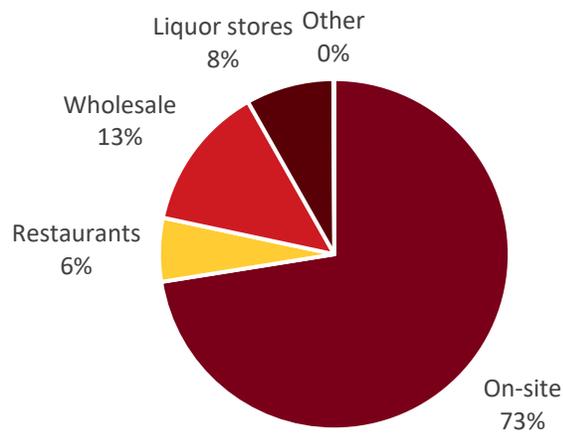
Chart 2: Craft Brewery Respondents, Brewery Location



Source: Craft Brewery Survey

Craft breweries rely heavily on on-site sales—survey respondents reported 73 percent of sales were made at their physical location (Chart 3). The second most common marketing channel was wholesale, with breweries reporting selling 13 percent of their beer this way.

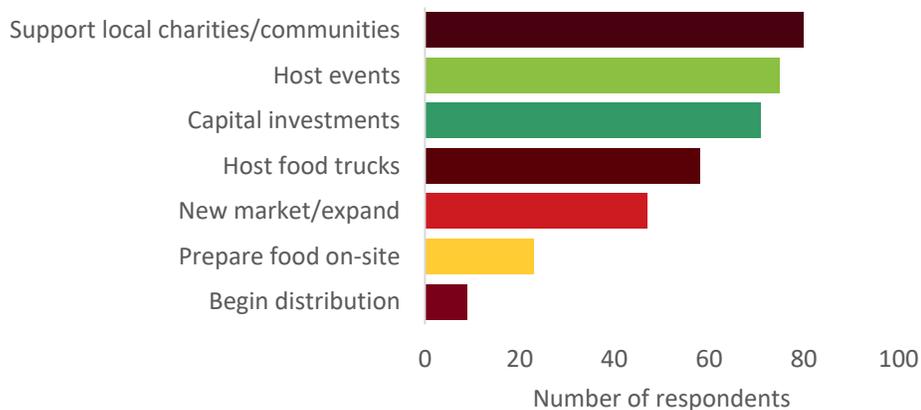
Chart 3: Craft Brewery Respondents, Percent of Beer Sales by Marketing Channel



Source: Craft Brewery Survey

Craft breweries reported conducting a variety of activities in 2019 (Chart 4). Responses revealed the role breweries play in their local communities—80 (84 percent) supported local charities/community organizations in 2019. They were also key in providing places to gather and celebrate, with 75 hosting events. Responses also showed continued growth in the industry. In 2019, 71 breweries made a capital investment (building or equipment), 47 moved into a new market or expanded distribution, and nine reported starting distribution. Food trucks remained more common than on-site restaurants.

Chart 4: Craft Brewery Respondents, Activities in 2019



Source: Craft Brewery Survey

ECONOMIC CONTRIBUTION 2019

Economic contribution is comprised of direct, indirect, and induced effects. Direct effects are the initial activity generated in an economy. In this analysis, the direct effect is spending by Minnesota’s craft breweries. To quantify the direct effect of craft brewing, Extension combined collected survey data with published statistics on production. The next part of this report will detail the analysis process.

Indirect and induced effects are the multiplier, or ripple effects, generated by the direct spending. Indirect effects are those tied to the supply chain. For example, when a craft brewer purchases supplies such as bottles, labels, and advertising, this spurs the suppliers of those items to produce more, triggering activity on those supply chains. Induced effects, on the other hand, are effects tied to spending by households derived from income earned primarily by brewery employees. For example, when a craft brewer pays its employees, they use their paychecks to purchase groceries and pay rent.

Extension used the input-output model IMPLAN to calculate the indirect and induced effects in this analysis. Input-output models quantify the flow of goods and services within an economy. Once the flow is established, the model can estimate how a change in one area of the economy will affect other areas. For more on the methods and terminology of economic impact analysis, please see Appendix 1. Input-output models are the most appropriate and accepted models for measuring economic impact.

Economic contribution is measured in output (total sales), labor income (wages, salaries, and benefits), and employment. Labor income is a component of total sales since the cost of labor is incorporated into the cost of production.

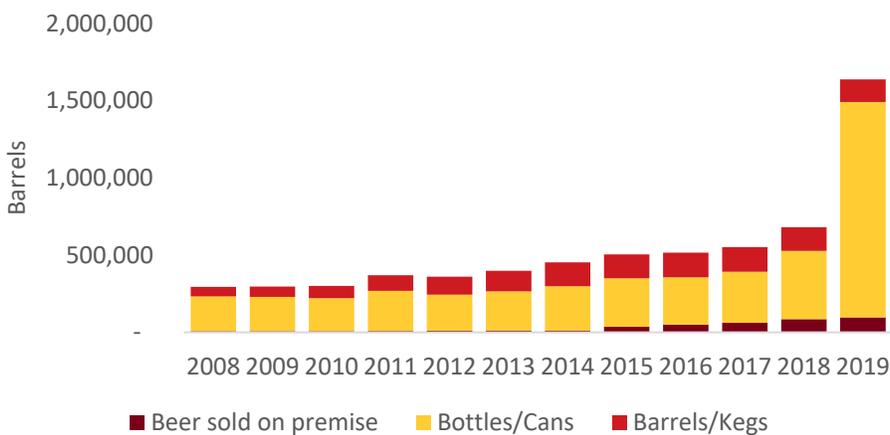
Direct Effect

Craft brewers’ direct effect includes spending to produce beer, provide services (such as food), and invest in the future growth and development of the brewery. Extension quantified each of these components.

Beer Production

In 2019, Minnesota breweries produced 1,639,398 barrels of beer. Growth in the number of breweries corresponded with growth in the volume of beer produced (Chart 5). In 2008, Minnesota breweries produced 296,592 barrels of taxable beer. By 2019, this number jumped to 1.6 million barrels. The majority of Minnesota’s beer is bottled or canned.

Chart 5: Taxable Volumes of Beer Produced, Minnesota, 2019

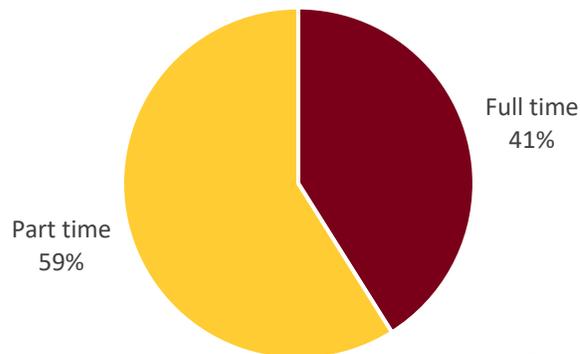


Source: Alcohol and Tobacco Tax and Trade Bureau

Industry experts indicate a barrel can sell from \$220 to \$300, depending on the type of beer produced and the final market (retail versus wholesale). Assuming an average sale price of \$230 per barrel, Minnesota breweries generated \$426.2 million in direct output (sales) in 2019.⁴ Breweries paid an estimated \$183.3 million in labor income.⁵

Employment is also a major component of direct effect. Survey respondents reported employing 2,279 workers. Approximately 60 percent of these employees were part-time and 40 percent full-time in 2019. Since survey respondents represented 45 percent of breweries, Extension estimates total brewery employment to be 5,430 employees.

Chart 6: Craft Brewery Respondents, Type of Employment



Source: Craft Brewery Survey

Brewery Food Service

Of the survey respondents, 23 (24 percent), reported offering their own food service at the brewery (other than food trucks). On average, respondents reported spending \$177,300 to provide this service. Assuming 24 percent of all Minnesota breweries offer food service, breweries spent \$7.9 million on food service operations in 2019. Of this, \$1.8 million was labor income (Table 1).⁶

The survey asked for total employment and did not distinguish between brewery production and food service. Thus, food service employment is included in the production estimate of 5,430.

Capital Investments

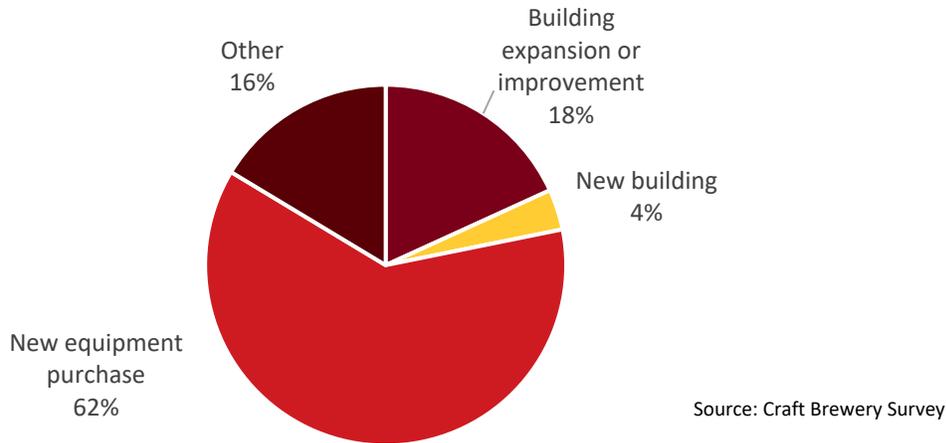
Of the survey respondents, 71 reported making a capital investment in 2019. The most common investment was in new equipment, as reported by 62 percent of breweries (Chart 7).

⁴ Extension used the sale price of \$230 per barrel for two reasons. 1) Typically, beers with higher production tend to benefit from economies of scale and brewers can decrease costs. Special brews tend to cost more but are also less of overall production. 2) Using a lower figure on the range provides for a more conservative estimate of the industry impact.

⁵ Industry sources indicate the breakout of labor to raw inputs is 43 percent labor to 57 percent raw inputs.

⁶ Based on IMPLAN's estimate of labor income per the level of output in the limited-service restaurants industry.

Chart 7: Craft Brewery Respondents, Type of Capital Investment



On average, each brewery that made a capital investment spent \$345,750. Thus, across all 183 Minnesota breweries, the total capital investment was an estimated \$47.3 million. Of this, \$15.1 million was labor income.⁷ The IMPLAN model estimates 95 people were directly employed during the process of completing the capital investment projects. (For example, these workers performed construction work or helped manufacture brewery equipment.)

Total Impact

Minnesota’s brewers spent \$481.4 on brewery-related operations and investments in 2019. Of this, \$200.2 million was labor income paid to workers. Directly, breweries employed 5,525 workers (Table 1).

Table 1: Direct Effect of Craft Brewers: Minnesota, 2019

Category	Output (Sales)	Labor Income	Employment
Beer production	\$426,243,400	\$183,284,700	5,430
Brewery food service	\$7,855,270	\$1,786,385	Included in production
Capital investments	\$47,287,700	\$15,136,900	95
Total	\$481,386,370	\$200,207,985	5,525

Source: Extension estimates

⁷ Based on IMPLAN’s estimate of labor income per the level of output in the construction and equipment industries.

Total Economic Contribution

In total, Minnesota’s craft brewing industry generated \$1.0 billion of economic activity in Minnesota in 2019 (Table 2). Of this, \$383.9 million was labor income. The industry supported 8,435 workers in the state.

Table 2: Total Economic Contribution of Craft Brewers: Minnesota, 2019

Category	Output (Sales)	Labor Income	Employment
Direct	\$481,386,370	\$200,207,985	5,525
Indirect	\$281,418,400	\$86,064,918	1,040
Induced	\$282,099,320	\$97,645,982	1,870
Total	\$1,044,904,090	\$383,918,885	8,435

Source: Extension estimates

IMPACT OF COVID-19 ON THE INDUSTRY

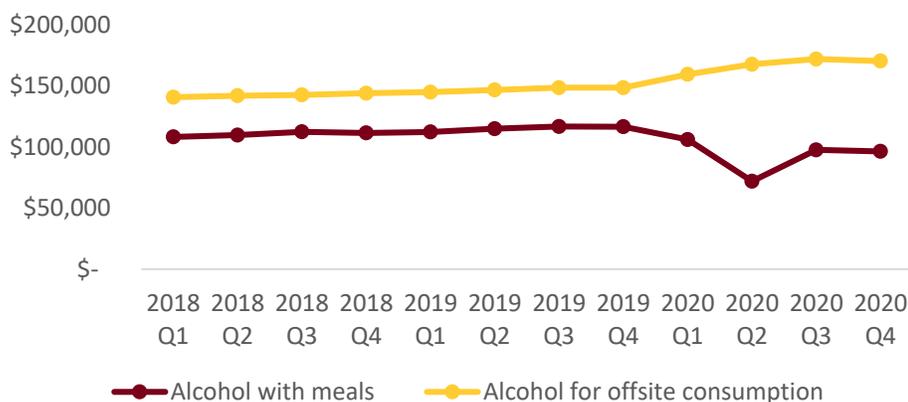
COVID-19 created a number of challenges for the craft brewery industry in Minnesota.

Economic Impact

One challenge faced by brewers was a rapid change in consumer demand and marketing channels. During 2018 and 2019, expenditures for alcohol grew at a modest pace around 1 percent per quarter (Chart 8). Expenditures for off-site consumption are measured separately from expenditures at bars and restaurants (labeled as alcohol sold with meals).

Mandatory closures of bars and restaurants, along with personal decisions to stay home, drastically changed personal expenditures for alcohol. Alcohol sold for off-site consumption spiked by 7 percent between fourth quarter 2019 and first quarter 2020. Personal expenditures during third quarter 2020 were 16 percent higher than third quarter 2019.

Chart 8: Personal Consumption Expenditures, United States, Alcohol-Related (Millions)



Source: Bureau of Labor Statistics

Meanwhile, personal expenditures at bars and restaurants dropped dramatically (by 38 percent) from fourth quarter 2019 to second quarter 2020. While personal expenditures have moderated since then, they are still significantly lower than prior to COVID-19.

The above data is for the United States, as Minnesota data is not yet available. However, Minnesota's COVID-19 experience largely followed that of the rest of the country. Given the second round of pandemic-related restrictions in November and December 2020, one would expect further declines in Minnesota's expenditures for alcohol sold at bars and restaurants in the fourth quarter.

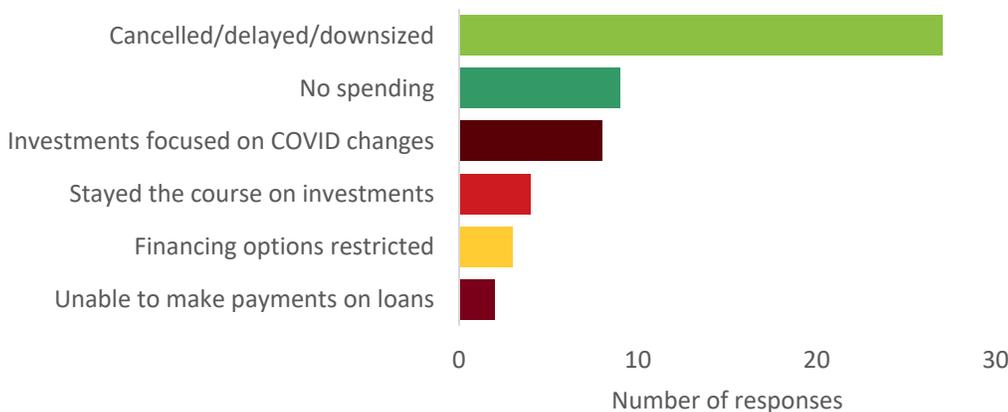
These changes in consumer spending patterns affected Minnesota's brewers in two ways. First, many brewers (like Minnesota's microbreweries) depend heavily on sales through their breweries and taprooms. Survey respondents reported significant drops in sales through their direct-to-consumer channels, which was consistent with the national drop. However, they also had sales via wholesale and retail channels, which increased during the pandemic.

Further, sales varied fairly dramatically by quarter, depending on the restrictions in place during that particular quarter. For example, one brewery reported sales were up in the second and third quarters (5 percent and 14 percent, respectively), but were down significantly during the fourth quarter (-28 percent).

Overall, survey results indicated a drop in sales of 18 percent across all breweries. Survey respondents also reported a decrease in employment of 10 percent.

COVID-19 had a chilling effect on capital expenditures and business investments (Chart 9). Twenty-seven respondents indicated they cancelled, delayed, or downsized their capital investment plans. An additional nine reported they made no expenditures in 2020. In total, 37 percent of breweries did not make investments due to COVID-19. While eight breweries did make investments, they were investments focused on responding to COVID-19. For example, one brewery reported building a patio area to increase outdoor space. Five breweries reported issues with financing, ranging from banks backing out of deals to the inability to make loan payments due to decreases in revenue.

Chart 9: Craft Brewery Respondents, Capital Investment Adjustments in 2020



Source: Craft Brewery Survey

To measure the impact of COVID-19 on Minnesota’s brewing industry, Extension modeled an 18 percent decrease in beer production, an 18 percent decrease in food sales, and a 10 percent decrease in brewery employment. Further, Extension modeled a 37 percent decrease in capital investments.

Based on Extension’s assumptions and the craft brewer survey, Minnesota’s economy lost \$186.6 million in economic activity from brewers due to COVID-19. These pandemic-related effects impacted 1,050 jobs (Table 3).

Table 3: Economic Impact of COVID-10 on Craft Brewers: Minnesota, 2019

Category	Output (Sales)	Labor Income	Employment
Direct	-\$95,005,779	-\$28,634,397	-595
Indirect	-\$52,084,638	-\$1,606,3524	-195
Induced	-\$39,484,973	-\$1,366,7351	-260
Total	-\$186,575,390	-\$58,365,272	-1,050

Source: Extension estimates

Margins

Beyond a drop in sales, breweries also faced declining margins. In the face of decreasing on-site sales and increasing demand for off-site sales, many breweries changed their operational model. These changes, however, came at a cost. Many breweries absorbed the costs into their margins. While they could potentially weather a short-term decline in margins, these decreases may not be sustainable.

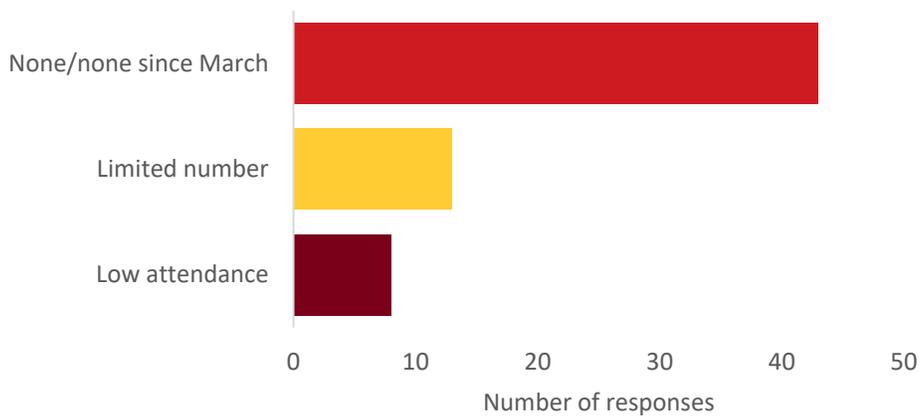
One survey respondent wrote, “My sales may be slightly up, but my costs have increased by 18 percent and my gross profit is down 20 percent over 2019. So, knowing sales numbers doesn’t tell the full story—which is that switching to packaged products (cans and crowlers) has more cost and lower margin than selling kegs and tap beers.”

Events

The inability to host events was also a challenge for breweries in 2020. To draw people into taprooms, breweries host events. In 2020, Minnesota’s craft breweries attracted an estimated 3.6 million people to events. In mid-March 2020, however, survey respondents reported these events came to a near stop.

Of the 65 breweries that responded to the question about COVID-19’s effect on events, 66 percent reported no events in 2020 or a full end to events after March (Chart 10). For the handful of breweries that did host events, they reported an extremely limited number of both events and attendees.

Chart 10: Craft Brewery Respondents, Effect of COVID-19 on Events



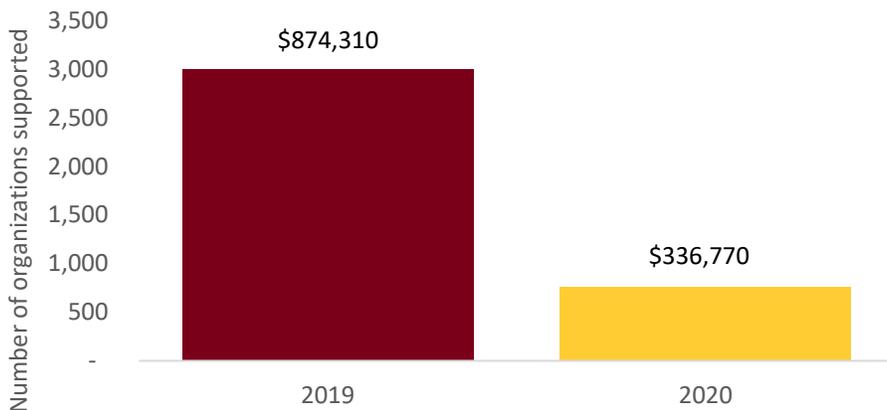
Source: Craft Brewery Survey

Community and Charitable Support

Breweries are strong supporters of their communities and charities. Responding breweries reported supporting 3,000 community and charitable organizations in 2019 (Chart 11). Their donations totaled \$874,310.

COVID-19, however, dramatically decreased the ability of breweries to support their charities and community organizations. The number of organizations supported fell to 763, a 75 percent decrease. Total value of donations also fell to less than half at \$336,770.

Chart 11: Craft Brewery Respondents, Number of Charitable and Community Organizations Supported and Value of Donations



Source: Craft Brewery Survey

SUPPORTING MINNESOTA’S CRAFT BREWING INDUSTRY IN 2021

Both the federal and state government have authorized COVID-19 relief packages for businesses struggling during the pandemic. Many of these programs require businesses to demonstrate significant losses to qualify for relief funds. Two trends specific to craft breweries—and reported in

survey responses—are leaving many Minnesota breweries without access to these programs. These two trends include the following:

- In many ways, Minnesota’s craft brewing industry is relatively young and still in high growth mode. Thus, many brewers simply did not have enough of a financial track record to prove the impact of COVID-19 on their business. Others had taken on new debt to expand. While these expansions were done prior to pandemic-related closures, the loss in revenues made it more difficult for them to make loan payments.
- COVID-19’s impact on the industry was not uniform across marketing channels and time of year. For many, when restrictions eased and people were outdoors more during the summer, sales were strong. This means a relief program comparing sales from summer 2019 to summer 2020 might look favorable for a brewery. However, sales in the second and fourth quarter of 2020 were much lower, leading to an overall loss in revenue for the year.

The survey’s final question asked breweries to provide any additional comments. For many, responses centered on the structure of any future relief programs. Extension grouped comments into five major categories.

- While many new breweries did not have a long history of business data to present for relief programs, they were also not generating the income needed to repay start-up costs.
- Breweries carried out pre-pandemic expansion plans and are carrying debt that is hard to repay due to COVID-19 revenue loss.
- As some breweries face unique financial and operational situations, it would be valuable to have a source for one-on-one advice.
- Financial performance varied based on the quarter of the year, and relief programs should take this into account.
- Most breweries had to pivot and adjust their operational model. These changes were expensive; having a relief program that reimburses breweries for these costs would be valuable.

NOTES ON THE ANALYSIS

This analysis focuses on the impact of brewery production, as its goal is to demonstrate the impact of COVID-19 on craft brewers. Minnesota’s craft brewers are, however, a critical part of a three-tier system. Brewers manufacture the beer, distributors store, sell, and deliver the beer, and retailers sell to the final customer.⁸ Some studies measuring the impact of the industry also include impacts at wholesale and retail levels.

This analysis also does not include a measure of tourism-related spending. As noted, Extension estimates 3.6 million visits to brewery events in 2019. Certainly, these visitors are also having an impact on brewery communities through their additional spending. Given the parameters and timing of this study, these impacts are not included here.

⁸ <https://www.house.leg.state.mn.us/hrd/pubs/ss/ss3tier.pdf>

APPENDIX 1: DEFINITIONS OF TERMS

Special models, called input-output models, exist to conduct economic impact analysis. There are several input-output models available, and IMPLAN is one such model. Many economists use IMPLAN for economic contribution analysis because it can measure output and employment impacts, is available on a county-by-county basis, and is flexible for the user. While IMPLAN has some limitations and qualifications, it is one of the best tools available to economists. Understanding the IMPLAN tool's capabilities and limitations helps ensure the best results from the model.

One of the most critical aspects of understanding economic impact analysis is the distinction between the "local" and "non-local" economy. The model-building process identifies the local economy. Either the group requesting the study or the analyst defines the local area. Typically, the study area (the local economy) is a county or a group of counties that share economic linkages. In this report, the study area is the entire state of Minnesota.

A few definitions are essential to properly interpret the results of an IMPLAN analysis. These terms and their definitions are provided below.

Output

Output is measured in dollars and is equivalent to total sales. The output measure can include significant "double counting." Think of hops, for example. The value of hops is counted when it is sold to the brewer, again when the beer is sold to the retailer, and yet again when the customer buys the beer in the store. The value of the hops is built into the price of each of these items, and then the sale of each item is added to determine total sales (or output).

Employment

IMPLAN includes total wage and salaried employees, as well as the self-employed, in employment estimates. Because employment is measured in jobs and not in dollar values, it tends to be a very stable metric.

Labor Income

Labor income measures the value added to the product by the labor component. So, in the hops example, when the hops is sold to the brewer, a certain percentage of the sale is for the labor to grow and harvest the hops. Then when the beer is sold to the retailer, the brewer includes some markup for its labor costs in the price. When the retailer charges the final customer, he/she includes a value for the labor. These individual value increments for labor can be measured, which amounts to labor income. Labor income does *not* include double counting.

Labor income includes both employee compensation and proprietor income. It is measured as wages, salaries, and benefits.

Direct Impact

Direct impact is equivalent to the initial activity in the economy. In this study, it is spending by Minnesota's craft brewers as defined in the report.

Indirect Impact

Indirect impact is the summation of changes in the local economy that occur due to spending for inputs (goods and services) by the industry or industries directly impacted. For instance, if employment in a manufacturing plant increases by 100 jobs, this implies a corresponding increase in output by the plant. As the plant increases output, it must also purchase more inputs, such as electricity, steel, and equipment. As the plant increases purchases of these items, its suppliers must also increase production, and so forth. As these ripples move through the economy, they can be captured and measured. Ripples related to the purchase of goods and services are indirect impacts. In this study, indirect impacts are those associated with spending by the craft brewers to purchase raw inputs (e.g., hops and bottles) and related services (e.g., advertising and legal).

Induced Impact

The induced impact is the summation of changes in the local economy that occur due to spending by labor—that is, spending by employees in the industry or industries directly impacted. For instance, if employment in a manufacturing plant increases by 100 jobs, the new employees will have more money to spend on housing, groceries, and going out to dinner. As they spend their new income, more activity occurs in the local economy. This can be quantified and is called the induced impact. Primarily, in this study, the induced impacts are economic changes related to spending by brewery employees.

Total Impact

The total impact is the summation of the direct, indirect, and induced impacts.

APPENDIX 2: CRAFT BREWER QUESTIONNAIRE

In what year was your brewery operation established?

Which best describes your brewery location?

- Rural (farm or township location)
- Small town (less than 10,000 people, outside of metro)
- Regional center (more than 10,000, but outside of metro)
- Twin Cities metro

In which region of the state are you located?

- Northwest
- North Central
- Northeast
- West Central
- Central
- East Central
- Southwest
- South Central
- Southeast

Which would you categorize yourself as (select all that apply)

- Production brewery
- Brewpub
- Taproom
- Contract brewed brand
- Alternating proprietorship
- Other, please describe

In 2019, did you...(select all that apply)

- Prepare food onsite to serve with your beer
- Host food trucks
- Host events
- Make capital investments
- Launch a new market/expand distribution
- Begin distribution for the first time
- Support local charities/communities

What was the highest number of full-time employees you had in 2019?

What was the highest number of part-time employees you had in 2019?

What was the highest number of employees (both part and full-time) you had in 2020?

What was your total barrelage in 2019?

How much did you spend to produce that barrelage?

What percentage of your ingredients did you purchase from local suppliers in 2019?

If you prepared food onsite, how much did you spend on that operation?

What percent of your beer sales were sold...

- Direct on-site
- To restaurants
- To wholesalers
- To liquor stores
- Other, please describe.

How did COVID-19 affect your sales in 2020?

Please report in percent - ex. if sales are up 10 percent, write +10%, if down, write -10%

Did you host events in 2019?

- Yes
- No

How many public events did you host in 2019?

What was your average attendance per event at your public events in 2019?

How did COVID-19 affect public events in 2020?

How many private events did you host in 2019?

What was your average attendance per event at your private events in 2019?

How did COVID-19 affect private events in 2020?

Which of the following have you used at events? (select all that apply)

- Local musicians
- Food trucks
- Local artists/merchants

Did you make any capital investments in 2019 (new building, renovate building, new equipment)?

- Yes
- No

What type of capital investment did you make?

- New building
- Current building expansion or improvement
- New equipment purchase
- Other (please describe)

How much did you invest (dollars)?

How did COVID-19 affect your investment plans in 2020?

How many charities and/or community groups did you support in 2019? (please include any groups you donated beer to)

What was the estimated value (both in-kind and monetary) of your total charitable contributions in 2019?

Did you and/or your employees volunteer for a charity event in 2019 on the behalf of your brewery?

- Yes
- No

How many charities and/or community groups did you support in 2020? (please include any groups you donated beer to)

What was the estimated value (both in-kind and monetary) of your total charitable contributions in 2020?

What is one action that could be taken to help the craft brewing industry in 2021?

We have asked you many questions, is there anything else you would like us to know?