AMERICAN CHEESE SOCIETY

2020 State of the U.S. Artisan/Specialty Cheese Industry

Benchmarking Report

The American Cheese Society commissioned the University of Missouri to conduct this study.

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Acknowledgements

This project would not have been possible without the participation of cheesemakers. For each of the three surveys conducted to date (2016, 2018, and 2020), an average of 204 cheesemaker-respondents have taken the time to respond to survey questions. Their participation benefits the entire artisan, farmstead, and specialty cheese industry in that the data provided by these cheesemaker-respondents (hereinafter referred to as “cheesemakers”) can then be used to identify trends and insights for use by industry advocates.

The project was also made possible through the support of the American Cheese Foundation.

We hope that industry members will find the information presented in this report to be useful, and that it can provide some support in operating cheese businesses sustainably and profitably.

Researchers from the University of Missouri collected and analyzed the 2018 and 2020 survey data and developed this benchmarking report. University of Connecticut researchers developed and conducted the 2016 survey and analyzed the data.

Executive Summary

This report presents a summary of the findings from the production, marketing, demographic, and industry participation data generously provided by U.S. artisan, farmstead, and specialty cheesemakers via the 2016, 2018, and 2020 surveys.

Key findings include:

- Comparative to the 2018 survey, there was an increase in the number of cheesemakers who reported using cow milk and a decrease in the number of cheesemakers using goat milk in the West and Midwest regions.
- There was a decrease in the numbers of cheesemakers using unpasteurized milk with no heat treatment in all regions compared to the 2018 survey, with the biggest decreases seen in the West and South regions. However, those cheesemakers using this type of milk report they are using more of it in their cheesemaking in all regions, most noticeably in the South.
- More cheesemakers reported participating in government or government-sponsored programs in the previous three years than they did in the 2018 survey. Over half (55%) of cheesemaker-respondents in the Midwest reported participating. The average production volume of cheesemakers participating in these programs was 65,380 pounds, slightly over the 63,000 pounds figure reported in the 2018 survey.
- The share of cheesemakers who reported membership of a state, regional, or local cheese guild or council grew in every region except for in the West where it stayed stable. Cheesemakers in the West and Northeast were again more likely to be members of a state, regional, or local cheese guild or council than those located in the South and Midwest regions.
- Cheesemakers producing less than 50,000 pounds of cheese per year were more likely to be focused on gaining recognition for products and performing work they were passionate about than those producing more than 50,000 pounds of cheese per year.
- Selling products at farmers markets was less likely to be used as a distribution strategy as production volume increased, whereas using a third-party website to sell products became more likely as production volume increased.

Introduction

Survey Background

The inaugural State of the U.S. Artisan/Specialty Cheese Industry survey was conducted in 2016 to provide much-needed information about the artisan, farmstead, and specialty cheese industry in order to support cheesemakers and their businesses. The 2020 survey is the third survey and shares the latest insights about this unique segment of the cheese industry. The American Cheese Education Foundation has supported all three surveys. Using the information presented in this report, cheesemakers may be able to assess how their businesses have performed relative to the businesses of other producers making artisan, farmstead, and specialty cheese.

Who We Are

The American Cheese Society (ACS) is the leader in promoting and supporting American cheeses, providing the cheese industry with educational resources and networking opportunities, while encouraging the highest standards of cheesemaking focused on safety and sustainability.

Definitions

There are no legal or regulatory distinctions of “artisan,” “farmstead,” or “specialty” cheeses. The following definitions are used by the American Cheese Society:

Artisan Cheese

The cheese is produced primarily by hand, in small batches, with particular attention paid to the tradition of the cheesemaker’s art, and thus using as little mechanization as possible in the production of the cheese.

Farmstead Cheese

The cheese must be primarily made by hand with milk from the farmer’s own herd, or flock, on the farm where the animals are raised. Milk used in the production of farmstead cheeses may not be obtained from any outside source. Care and attention must be paid to the purity, quality, and flavor of the milk. The cheese must be ripened naturally, with emphasis on the development of characteristic flavor and texture and without the use of shortcuts and techniques to increase yield and shelf life at the expense of quality. Respect for the traditions and history of cheesemaking are expected regardless of the size of the production.

Specialty Cheese

Specialty cheese is defined as a cheese of limited production, with particular attention paid to natural flavor and texture profiles.

Commodity Cheese

Cheese produced in large volume using industrial manufacturing techniques such as milk standardization, mechanization, and automation and often used in private labeling, food service, mass retail, or institutional settings. Responses from commodity cheesemakers were included in the data analysis if those cheesemakers also produced artisan, farmstead, or specialty cheese.

Cheesemaker

Any producer of cheese in the United States whose production meets the above definition(s).

Economic Factors Affecting Industry

Annual cheese consumption in the U.S. continues to rise, with the USDA Economic Research Service reporting that the average American consumed 40 pounds of cheese in 2018. However processed cheese is losing ground to other natural cheese types. USDA reports show a decrease in the consumption of processed cheese in 2019 by an average of 0.59 pounds per person, while the consumption of Italian, Hispanic, and American cheeses other than cheddar, all increased. Factors responsible for the shift towards specialty, artisan and farmstead cheeses include: an increase in the demand for convenient, high-protein, snackable cheeses; social media influencers highlighting cheese in new and inventive ways; increased access to new varieties of cheese with products available at multiple locations – not just the dairy case at the supermarket; more consumers wanting to explore new flavors and textures in food; and consumers demanding more sustainable products (Canning, 2019).

The closure of restaurants and event cancellations due to the global pandemic has meant some cheesemakers have seen sales decline by up to 58% (American Cheese Society, 2020). While this 2020 survey doesn't reflect that decline due to financial information being reported from the 2019 year, maintaining profitability was reported as an area of concern for 91% of survey respondents. With food service sales plummeting, 57.5% of cheesemakers reported identifying new distribution methods in the American Cheese Society 2020 COVID-19 Pandemic Impact survey and 52% saw an increase in overall e-commerce sales (American Cheese Society, 2020). This survey shows a marked increase in the number of cheesemakers selling cheese through their own websites, with 64% of cheesemakers using this strategy in 2019 compared to 49% in 2017.

Section 1 - Survey Description

About the Survey

The first artisan, farmstead, and specialty cheese industry survey was conducted for ACS in 2016 by researchers at the University of Connecticut. A total of 897 cheesemakers were invited to participate, and 216 participant responses were analyzed. The results of this first study were published in 2017 and emphasized the value of gathering operational data in order to better describe the scope and scale of the growing American artisan, farmstead, and specialty cheese industry.

The American Cheese Society engaged researchers at the University of Missouri to conduct a second study in 2018. For the survey conducted in 2018, an attempt was made by researchers at the University of Missouri to create an exhaustive list of all artisan, farmstead, and specialty cheesemakers within the U.S. who were in business in 2017. Google searches resulted in 978 U.S. artisan, farmstead, and specialty cheesemakers who were invited to participate in the survey by postal mail. Responses from 209 participants were received. Responses from five participants were excluded from the analysis as those five producers exclusively made commodity cheese. Thus, the final sample included 204 participants. The response rate was deemed statistically reliable with 95.5% confidence. In 2018, participation requests were made by university researchers; ACS; state and local cheese guilds; and during the ACS Annual Conference in July 2018, where ACS and University of Missouri personnel promoted the survey.

Researchers at the University of Missouri have again conducted this third study in 2020. The 2020 survey did not involve sending out invites by post, and the list was updated with careful attention paid to eliminating both those cheesemakers who had advised they were no longer operating, and cheesemakers without a valid e-mail address. As a result, for the 2020 survey, 762 U.S. artisan, farmstead, and specialty cheesemakers were invited to participate in the survey. Responses from 191 participants were received. The response rate was deemed statistically reliable with 95.5% confidence. In 2020, participation requests were made by university researchers; ACS; and state and local cheese guilds. The ACS Annual Conference was not held in 2020 due to COVID-19.

Participation in all three studies was voluntary.

The 2020 survey consisted of 65 questions about the following topics:

- Production (14 questions),
- Marketing (6 questions),

- Food safety (19 questions),
- Demographics (15 questions),
- Industry participation (9 questions), and
- Outlook and attitudes (2 questions).

Not all questions were answered by all participants. In some cases, questions weren't relevant for a particular participant based on his or her previous answers to a question, or participants may have chosen not to answer some questions.

In some cases, this report shares multiyear data collected in the 2016, 2018, and 2020 surveys. To answer some survey questions, cheesemakers recorded information about their operations in the 2015, 2017, and 2019 calendar years, while to answer other questions, cheesemakers provided responses to reflect their current attitudes and experiences. As a result, the multiyear data presented in the report may be labeled as "2015, 2017, and 2019," or "2016, 2018, and 2020," depending on the structure of the question and time period that the data represent.

Benefits of Participation

Cheesemakers who participated in the 2020 survey will be provided with electronic copies of this benchmarking report, the food safety report, and the key findings report. In addition, all respondents were entered into a drawing in which five cheesemakers received their choice of a complimentary American Cheese Society conference registration or a Small Business Level 1 American Cheese Society membership (valued at $225).

Benchmarking Goals and Processes

The U.S. artisan, farmstead, and specialty cheese industry is growing, and consumers have increasing interest in these unique cheese products. However, challenges such as maintaining profitability in light of rising costs are also present.

This report provides insights into management practices that may provide opportunities for cheesemakers to achieve higher margins. Examples include reducing the number of products sold or the number of distribution channels employed.

Statistical significance was an essential part of this study. Only relationships between variables that were found to be statistically significant — and not due to chance — are included in this report.

Allowing Fair Comparisons

Due to the differences among the businesses that participated in this study, it is important to discuss how data were compared. Throughout this report, cheesemakers who produced no more than 750,000 pounds of cheese in 2019 may be referenced in order to compare their characteristics. Cheesemakers who produced more than 750,000 pounds accounted for 10% of all respondents. In comparison, 68% of respondents produced 50,000 pounds or less in 2019. In some cases, including the cheesemakers who produced more than 750,000 pounds in comparisons resulted in high averages which did not provide a true picture of the majority (90%) of cheesemakers. This report denotes instances where averages for all cheesemakers may have skewed the analysis, and in such cases, the discussion focuses on cheesemakers who produced no more than 750,000 pounds of cheese.

Confidentiality

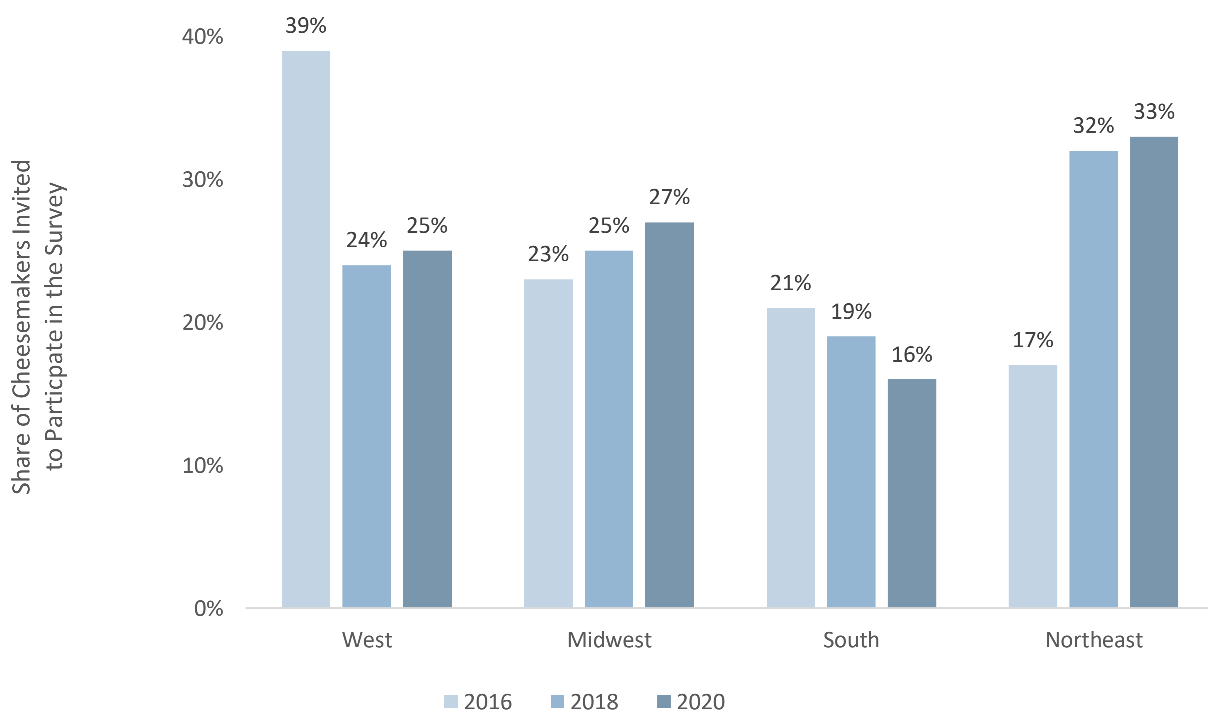
This benchmarking report contains results obtained from aggregated data. Thereby, it protects the confidentiality of all cheesemakers participating in the surveys. All raw data provided to ACS lack any information that could be used to identify a single producer.

Section 2 - Geography

This section describes cheesemaker survey data by region. To conduct this analysis, U.S. states were divided into four regions: West, Midwest, South, and Northeast. In order to maintain comparability with the 2016 and 2018 reports, states were assigned to regions in the same order as they were in previous years.

762 cheesemakers were invited to participate in the 2020 survey. Of those producers, 33% were from the Northeast, 27% were located in the Midwest, 25% in the West, and 16% in the South. See Exhibit 2.1.

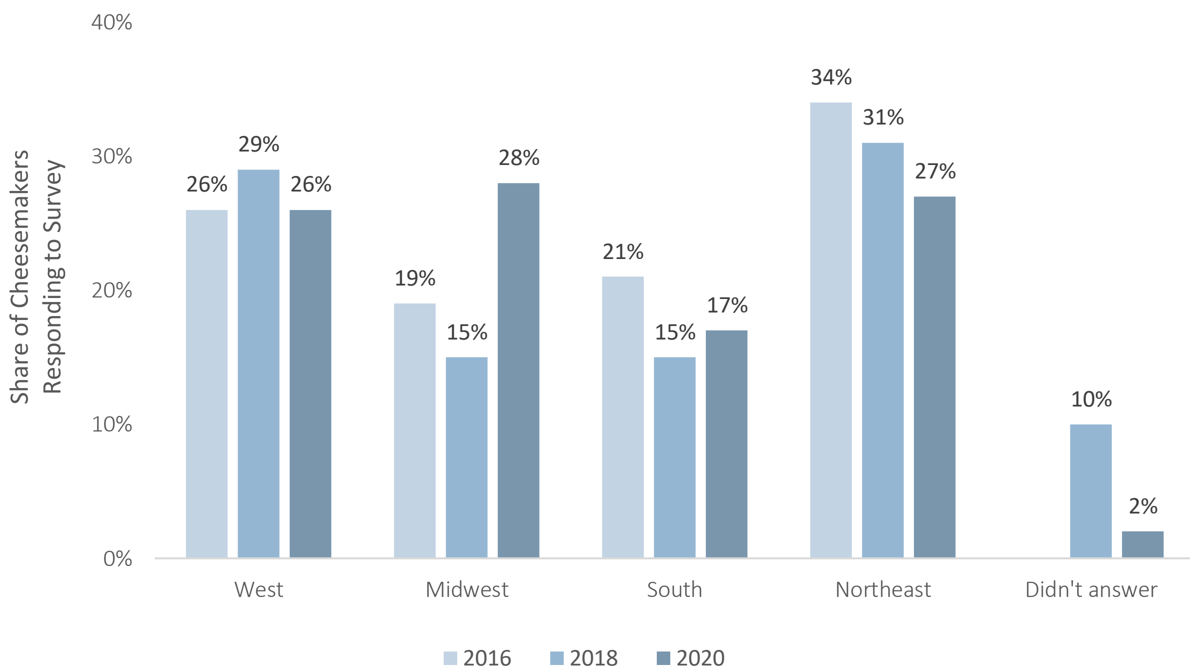
Exhibit 2.1 — Share of Cheesemakers Invited to Participate in Surveys by Region



Despite the lower number of invited participants in 2020 (762, compared to 978 in 2016 and 897 in 2018), the regions were represented in similar proportions as they were for the 2018 survey.

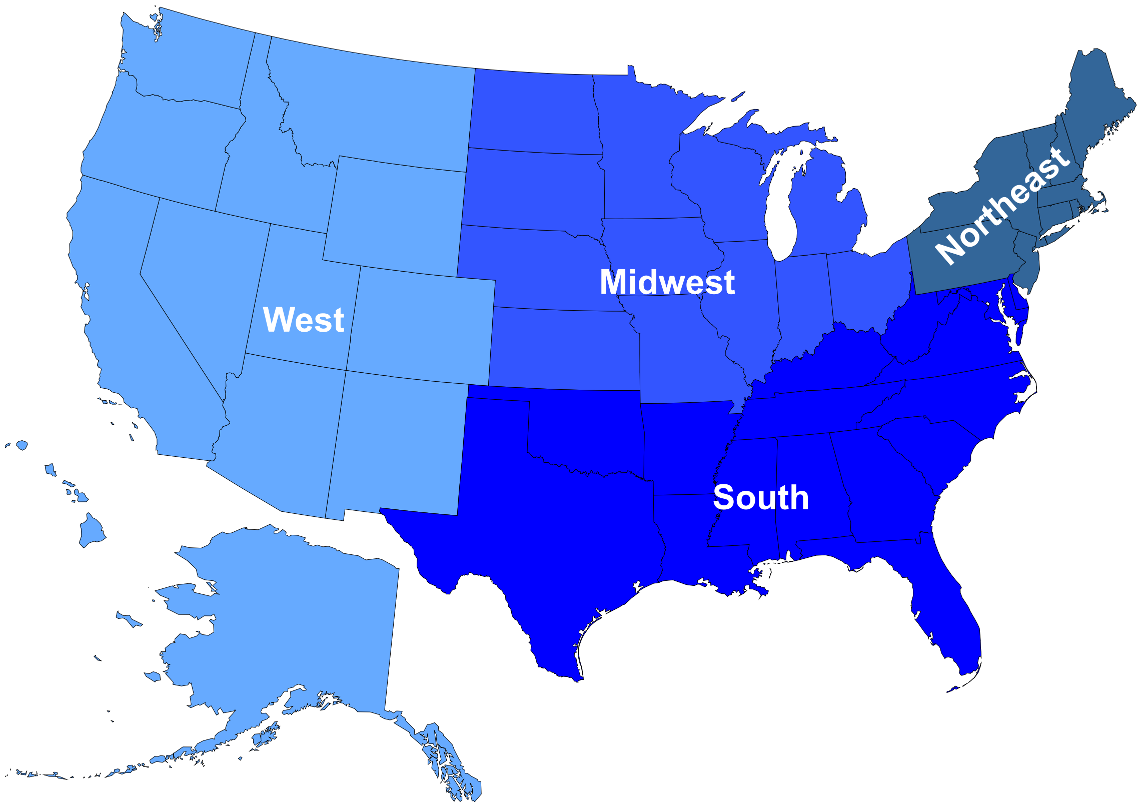
In 2020, 27% of survey respondents were from the Northeast region. See Exhibit 2.2. This is not surprising given that the largest share of cheesemakers invited to participate were from this region. What is noticeable however is that there was a substantial increase in the number of responses received from Midwest cheesemakers with 28% of responses received from this region compared to 19% in 2016 and 15% in 2018. Of the rest of the cheesemakers responding to the 2020 survey, 26% produced cheese in the West region, and 17% in the South region. The total does not add to 100% as 2% of respondents did not answer this particular question: 187 respondents answered this question, whereas 191 cheesemakers were included in the final survey sample. In the 2018 survey 31% of the respondents were from the Northeast region, compared with 29% from the West, 15% from the Midwest, and 15% from the South.

Exhibit 2.2 — Share of Cheesemakers Participating in Surveys by Region



The map in Exhibit 2.3 shades states according to their respective regions.

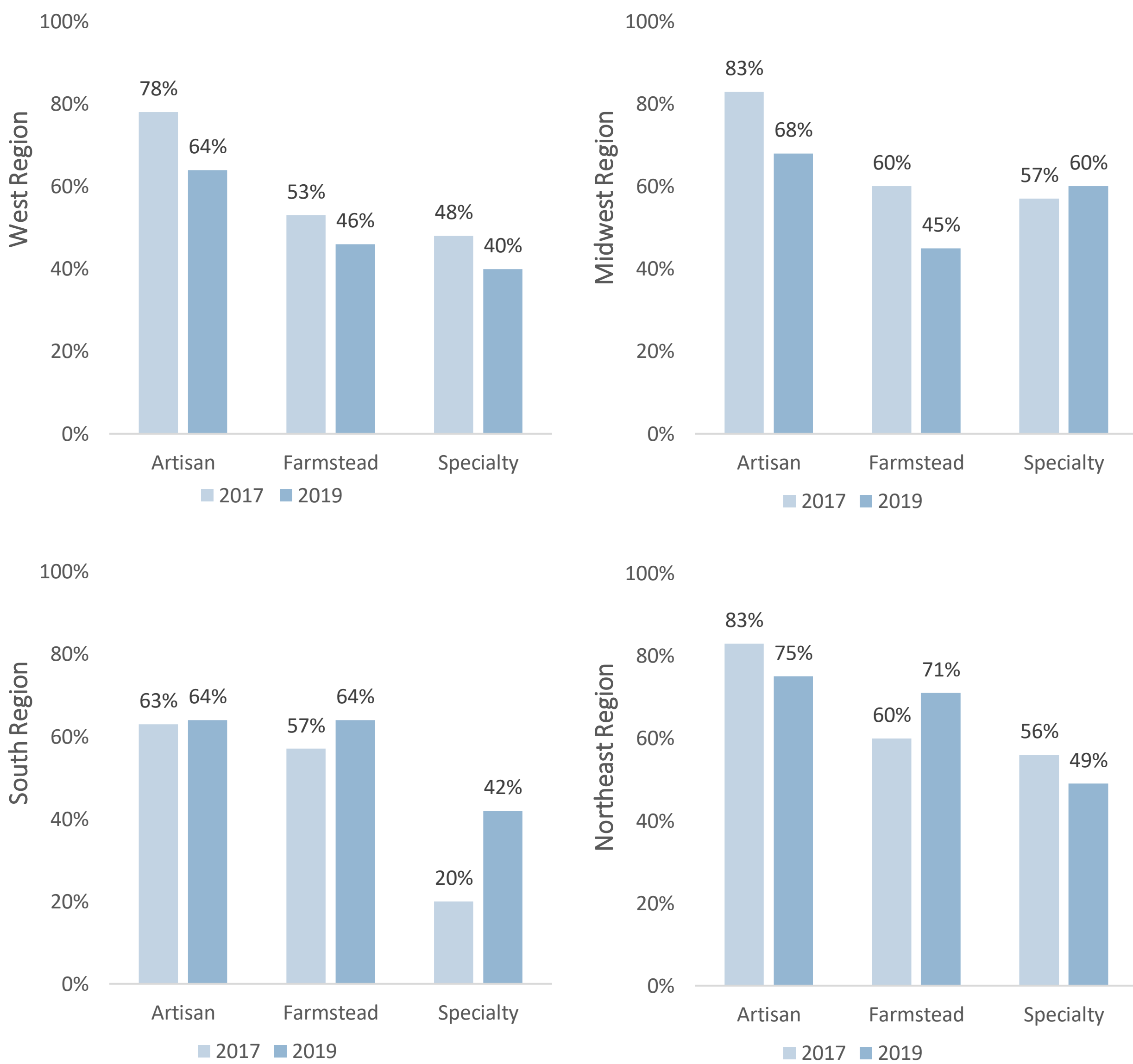
Exhibit 2.3 — Geographic Regions Used in Survey Analysis



Analysis 1: Production & Milk Types

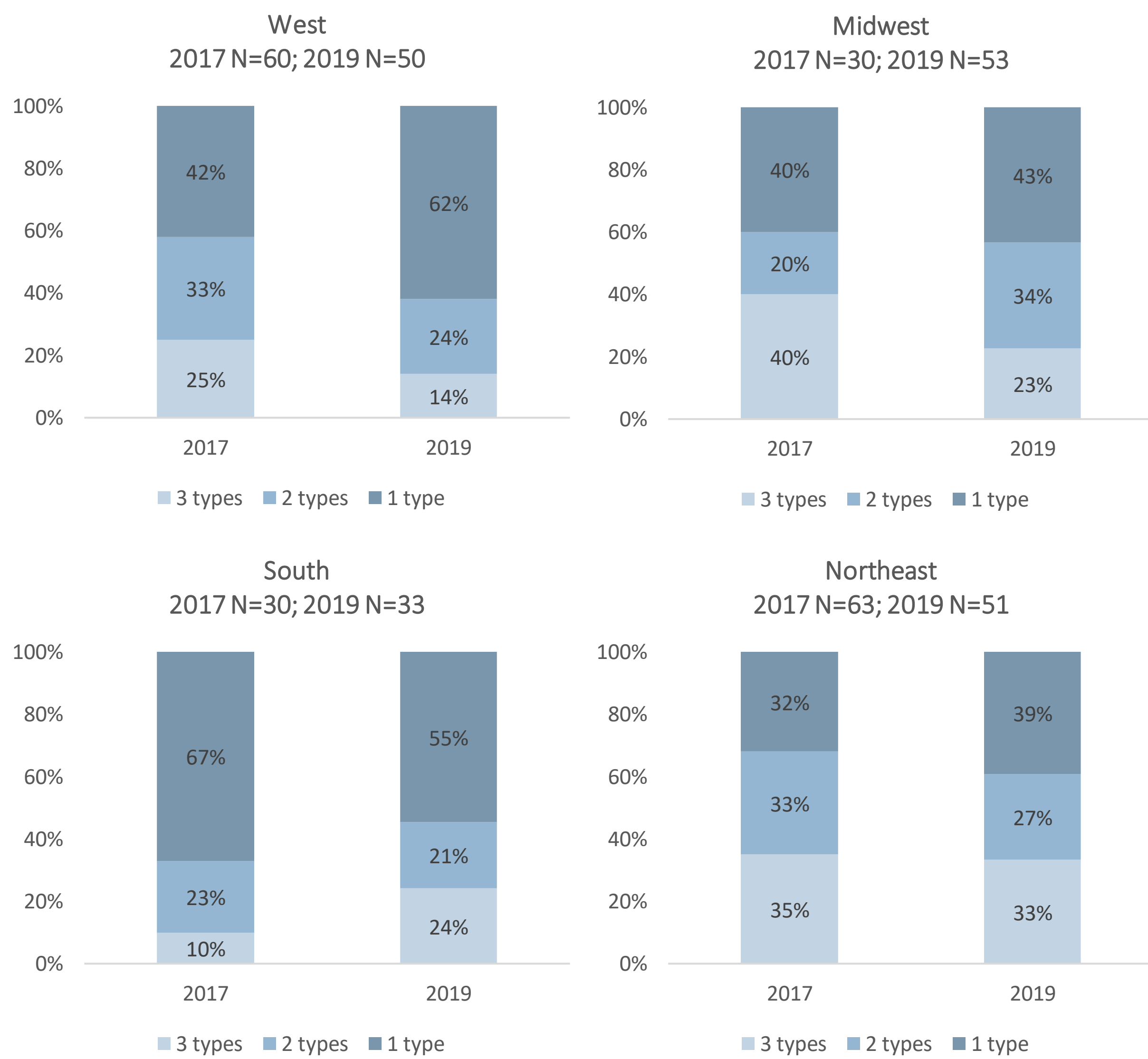
Production type ("type") refers to whether a cheesemaker produces cheese that fits artisan, farmstead, or specialty definitions. In three of the four regions, the greatest share of cheesemakers in 2019 produced artisan cheese. In the South Region both artisan and farmstead cheese were produced by 64% of respondents. In 2017 artisan cheese was the most produced in each region followed by farmstead, and then specialty. In 2019 more respondents from the Midwest region reported producing specialty cheese than farmstead cheese. Exhibit 2.4 shows a drop in the percentage of cheesemakers who reported making artisan cheese in each region except for in the South where there was a slight increase bringing this region in line with the West region and slightly behind the Midwest region for 2019. In 2019 the greatest share of respondents producing Artisan cheese was from the Northeast region. With respect to farmstead cheese production, there was a drop in the share of respondents reporting that they produced farmstead cheese in the West and Midwest regions, and an increase in the South and Northeast regions. The South also had an increase in the number of respondents producing specialty cheese compared to 2017, again bringing this region in line with the West region for 2019.

Exhibit 2.4 — Share of Cheesemakers Producing Cheese by Type, 2017 (N=199) and 2019 (N=187)



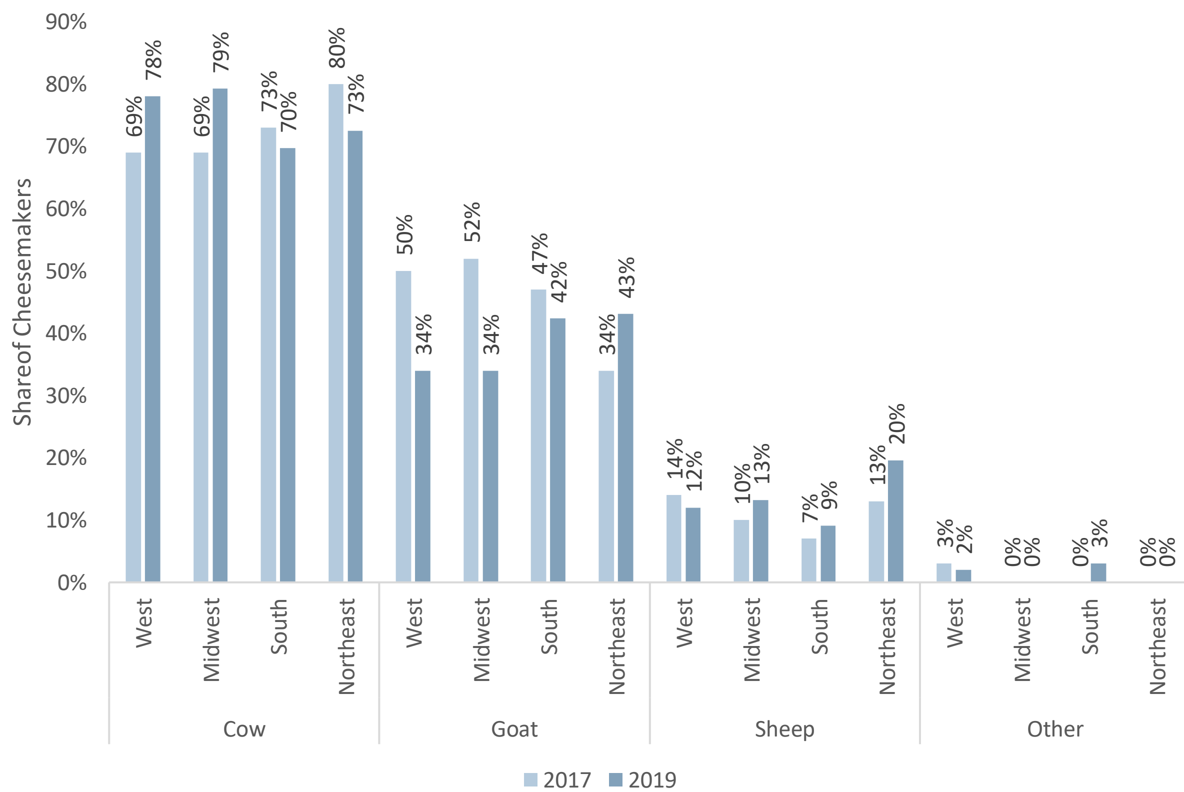
Some cheesemakers reported making artisan, farmstead, and specialty cheese in 2019. Exhibit 2.5 illustrates that in 2019, the share of respondents making all three cheese types decreased in each region, with the exception of the South region, where 24% of cheesemakers indicated that they made all three — up from 10% in 2017. Cheesemakers in the West predominantly made one type of cheese, with 38% making two or more types. In the Midwest region, 77% of cheesemakers made one or two types, with the share of cheesemakers reporting they made three types decreasing from 40% in 2017 to 23% in 2019. In line with the West and Midwest regions, the share of Northeast cheesemakers reporting one type of cheese being made increased with just a slight decrease in the number of cheesemakers making all three types of cheese.

Exhibit 2.5 — Number of Cheese Production Types Implemented by Cheesemakers by Region (Types = Artisan, Farmstead, Specialty)



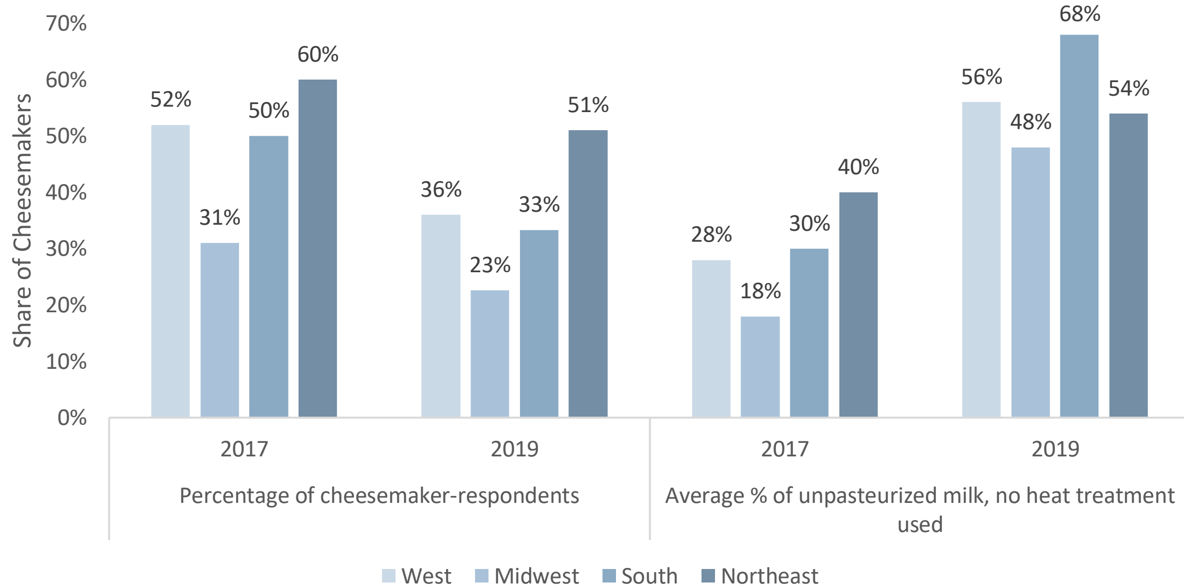
Similar to 2017, in 2019 in all four regions, the greatest share of cheesemakers produced cheese from milk sourced from cows however there is a slight decrease in the share of cheesemakers using sheep milk in 2019 in the South and Northeast regions. As is shown in Exhibit 2.6, more respondents from the Northeast reported using goat milk and sheep milk than in 2017 making this the largest region representing cheesemakers using these types of milk in this year's survey. In the West and Midwest regions the share of cow milk cheesemakers increased for 2019 while the share of cheesemakers using goat milk decreased.

Exhibit 2.6 — Milk Types Used by Cheesemakers by Region



As shown in Exhibit 2.7, cheesemakers using unpasteurized milk with no heat treatment were more likely to be located in the Northeast than any other region in both 2017 and 2019. In 2017, cheesemakers in the Northeast used a higher percentage of unpasteurized milk with no heat treatment in their cheesemaking than cheesemakers in any other region, however for 2019 the greatest proportion was reported by cheesemakers in the South. The Midwest had the lowest shared of cheesemaker-respondents using unpasteurized milk in both 2017 and 2019, and the lowest percentage of unpasteurized milk with no heat treatment in their cheesemaking in both years.

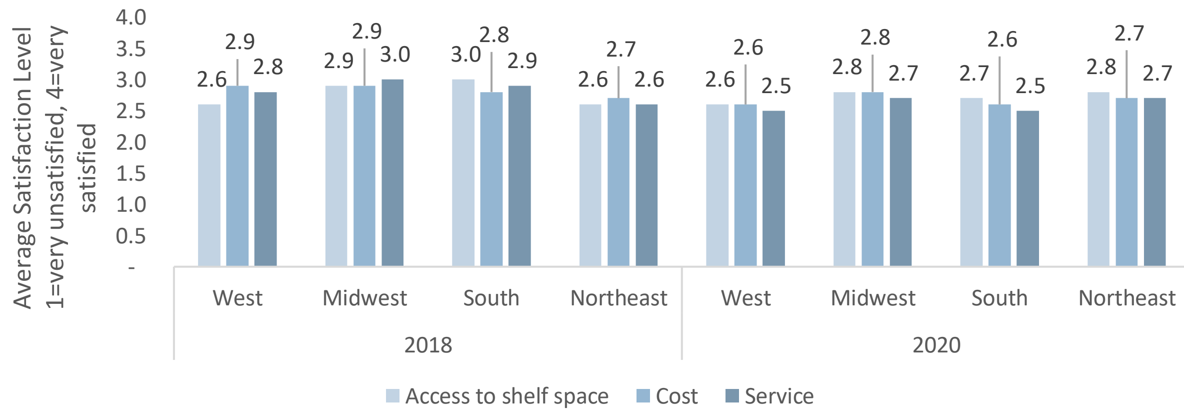
Exhibit 2.7 — Cheesemakers Using Unpasteurized Milk, No Heat Treatment, by Region



Analysis 2: Satisfaction with Distributor/Wholesaler

In 2020, cheesemakers in the Midwest and Northeast reported higher average satisfaction with access to shelf space obtained via a distributor or wholesaler than those in the West and South. There was a decrease between 2018 and 2020 in the average satisfaction score reported by cheesemakers in the South in terms of access to shelf space. In 2018, cheesemakers in the Northeast reported being least satisfied with their distributors or wholesalers, reporting lower average satisfaction levels for access to shelf space, cost, and service. In the 2020 survey, cheesemakers in the West and South reported lower average satisfaction levels across these three categories. See Exhibit 2.8.

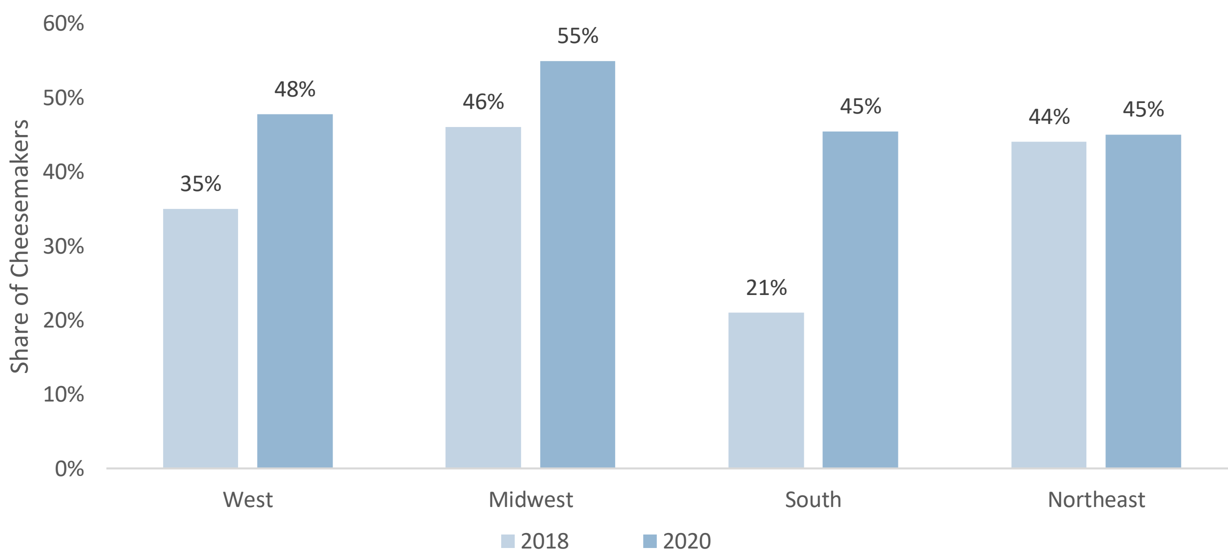
Exhibit 2.8 — Cheesemaker Average Satisfaction with Distributor or Wholesaler by Region, 2018 (N=128) and 2020 (N=123)



Analysis 4: Participation in Government or Government-Sponsored Programs

In every region apart from the Northeast, there was a relatively large increase in the share of cheesemakers reporting participation in government or government-sponsored programs during the previous three years. There was a slight increase in the Northeast region with 45% of cheesemakers who responded to this question indicating they had participated compared to 44% in 2018. The greatest increase was reported by cheesemakers in the South, from 21% in 2018 to 45% in 2020. Exhibit 2.9 reports the share of cheesemakers participating in such programs by region. In 2018 and 2020, the Midwest had the highest share of cheesemakers reporting participation with 46% and 55% respectively. For 2020, participation reported by cheesemakers in the other regions increased closer to that of the Midwest with nearly 50% taking advantage of such programs. The average size of cheesemakers reporting participation in Government or Government-Sponsored Programs continues to be small. Among cheesemakers producing less than 750,001 pounds of cheese per year, those participating in government or government-sponsored programs in the previous three years had an average production volume of 63,000 pounds in 2017 and 65,380 pounds in 2019.

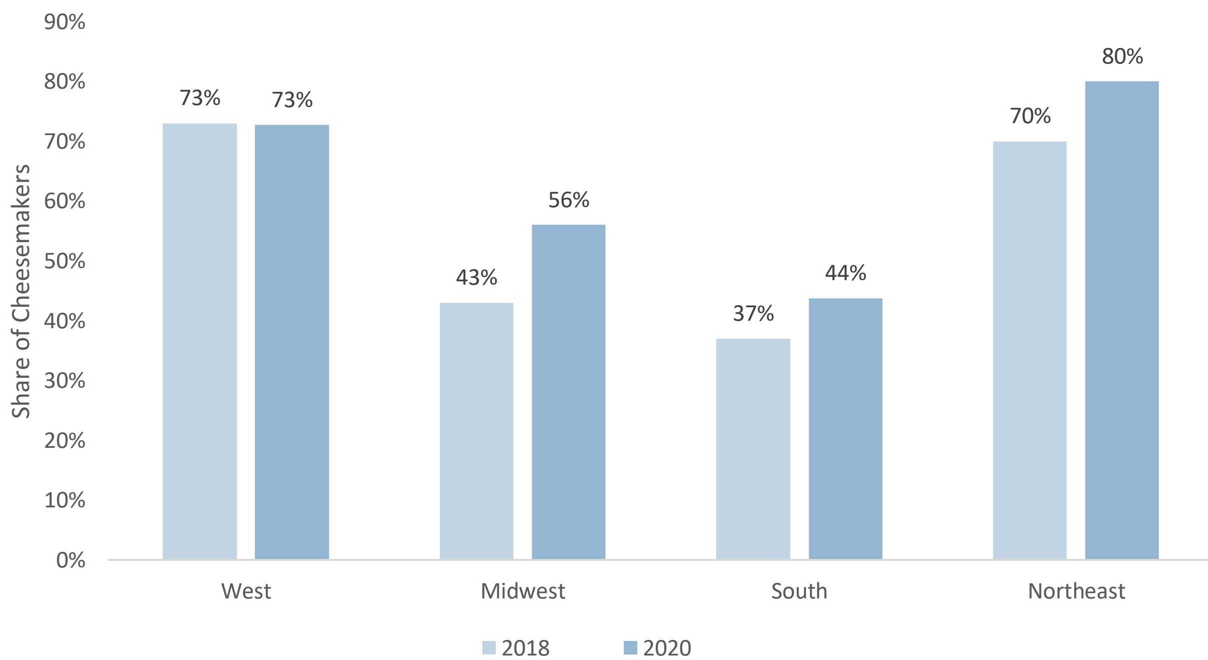
Exhibit 2.9 — Cheesemaker Participation in Government or Government-Sponsored Programs in the Three Years Preceding the Survey by Region, 2018 (N=180) and 2020 (N=171)



Analysis 5: Industry Participation

In 2020, West and Northeast cheesemakers were again most likely to report that they were members of state, regional, or local cheese guilds or councils with an increase in the share of Northeast cheesemakers reporting membership. Of the total respondents in these regions, 73% in the West and 80% in the Northeast indicated being state, regional, or local cheese guild or council members, as illustrated in Exhibit 2.10. There was also an increase in cheesemakers reporting membership of state, regional, or local cheese guilds or councils in the Midwest and South regions in 2020. The Midwest increased from 43% in 2018 to 56% in 2020 and the South from 37% to 44%.

Exhibit 2.10 — Cheesemaker Membership in State, Regional, or Local Guilds or Councils by Region, 2018 (N=178) and 2020 (N=167)



Section 3 – Production Volume

This section describes cheesemaker survey data by annual cheese production volume. To conduct this analysis, cheesemakers were divided into eight categories based on their annual cheese production in 2019. In order to maintain comparability, the production level categories used in both previous survey analyses were also used in this analysis.

Exhibit 3.1 — Annual Cheese Produced by Cheesemakers

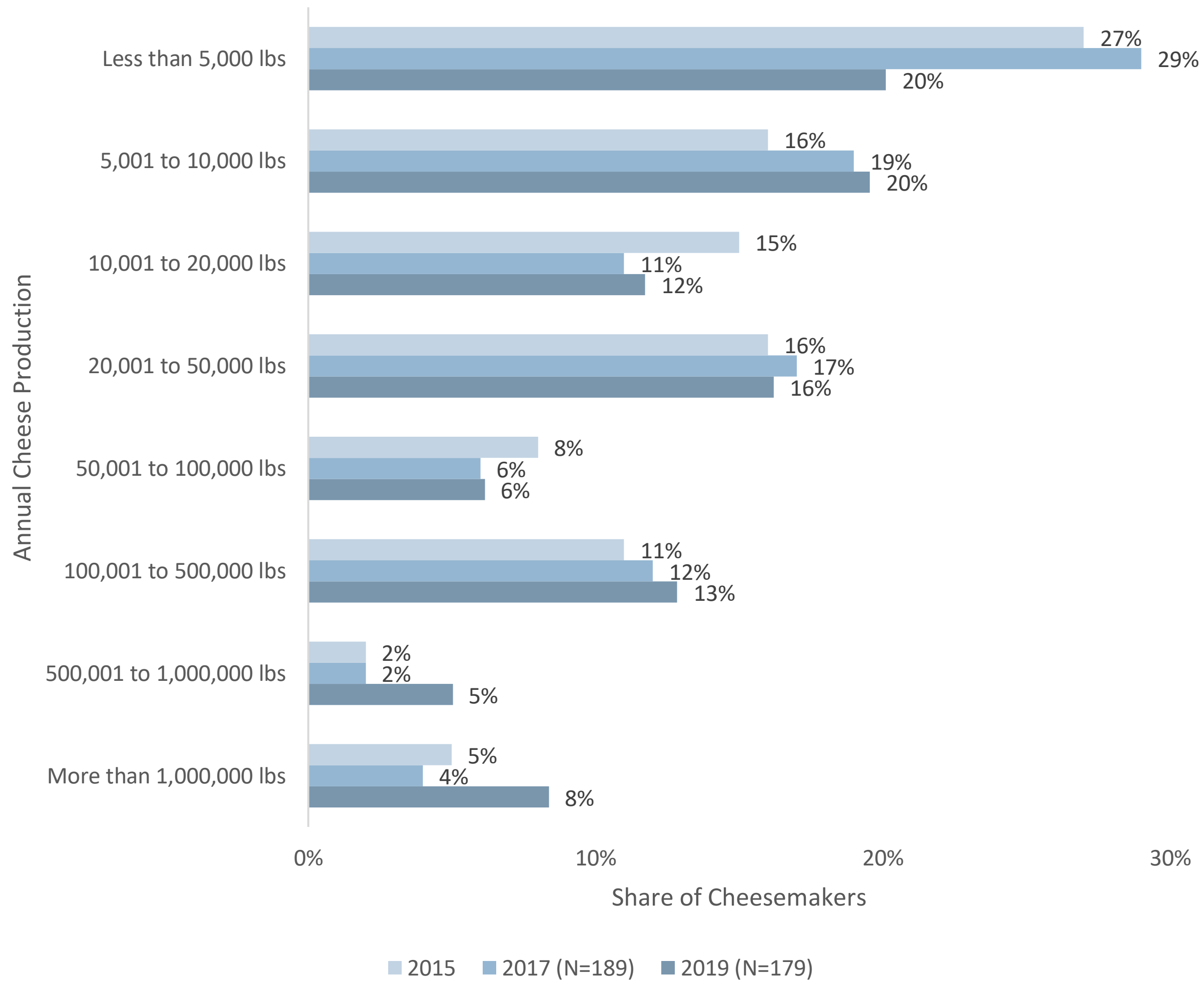


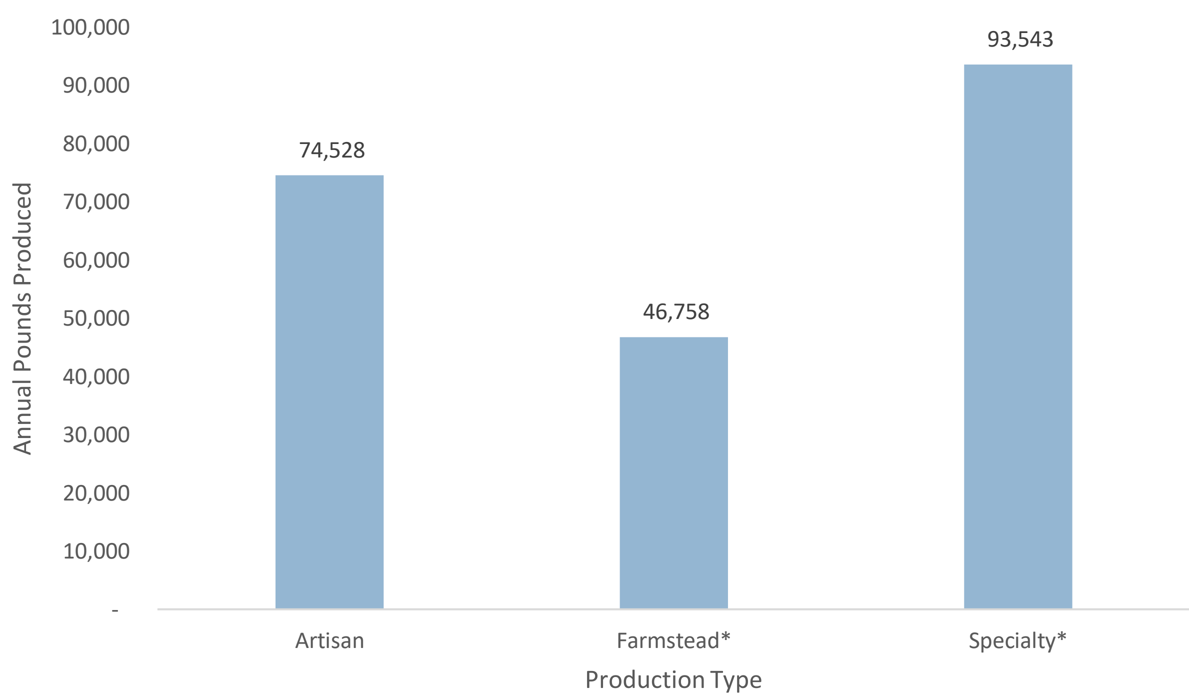
Exhibit 3.1 compares annual cheese production of cheesemakers in 2015, 2017 and 2019. In 2015 and 2017, nearly six in 10 cheesemakers reported producing no more than 20,000 pounds of cheese. In 2019, this share decreased to just over five in 10. During both 2015 and 2017, 18% of cheesemakers produced at least 100,000 pounds of cheese annually. In the 2020 survey, 26% of cheesemakers reported producing at least 100,000 pounds of cheese annually,

indicating that this group of cheesemakers is more strongly represented in the 2020 survey than in previous years. In 2017, 95% of cheesemakers produced less than 750,001 pounds of cheese. In 2019, this figure was 90%.

Analysis 1: Production Type

A statistically significant relationship was identified between the production type a cheesemaker uses and that cheesemaker's average production volume. Among cheesemakers producing less than 750,001 pounds per year, on average, cheesemakers producing farmstead cheese produced 51,760 less pounds per year than cheesemakers not producing this type of cheese. Conversely, cheesemakers producing specialty cheese produced an average 49,478 more pounds per year than cheesemakers not producing this type of cheese. Exhibit 3.2 shows that cheesemakers producing farmstead cheese produced an average of 46,758 pounds per year. In contrast, those producing specialty cheese tended to be larger with an average annual production volume of 93,543 pounds.

Exhibit 3.2 — Average Production Volume Associated with Cheese Production Types, 2019, N=159

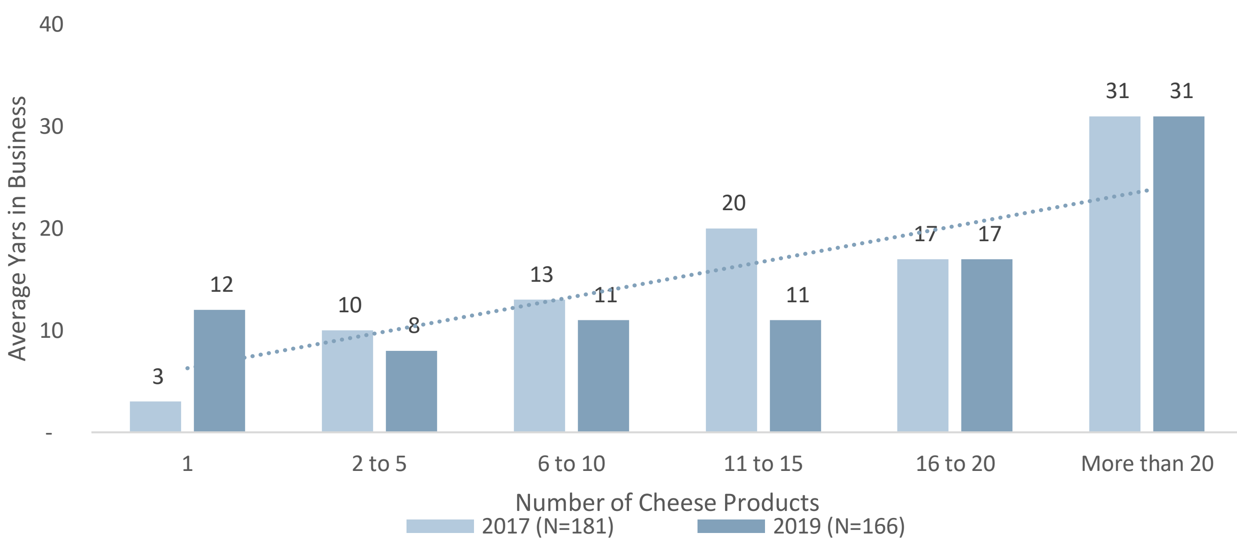


*Statistically significant

Analysis 2: Number of Products

In line with the 2018 survey, years of experience in the cheesemaking business and the number of cheese products offered again showed a statistically significant and positive relationship, which the trend line notes in Exhibit 3.3. Among cheesemakers who offered 16 to 20 cheese products, the number of years they had been operating averaged 17 years, consistent with the 2018 survey. This was the same for cheesemakers offering more than 20 products, with average years in business remaining constant at 31. The statistical analysis suggests that on average, cheesemakers add an additional product every five years.

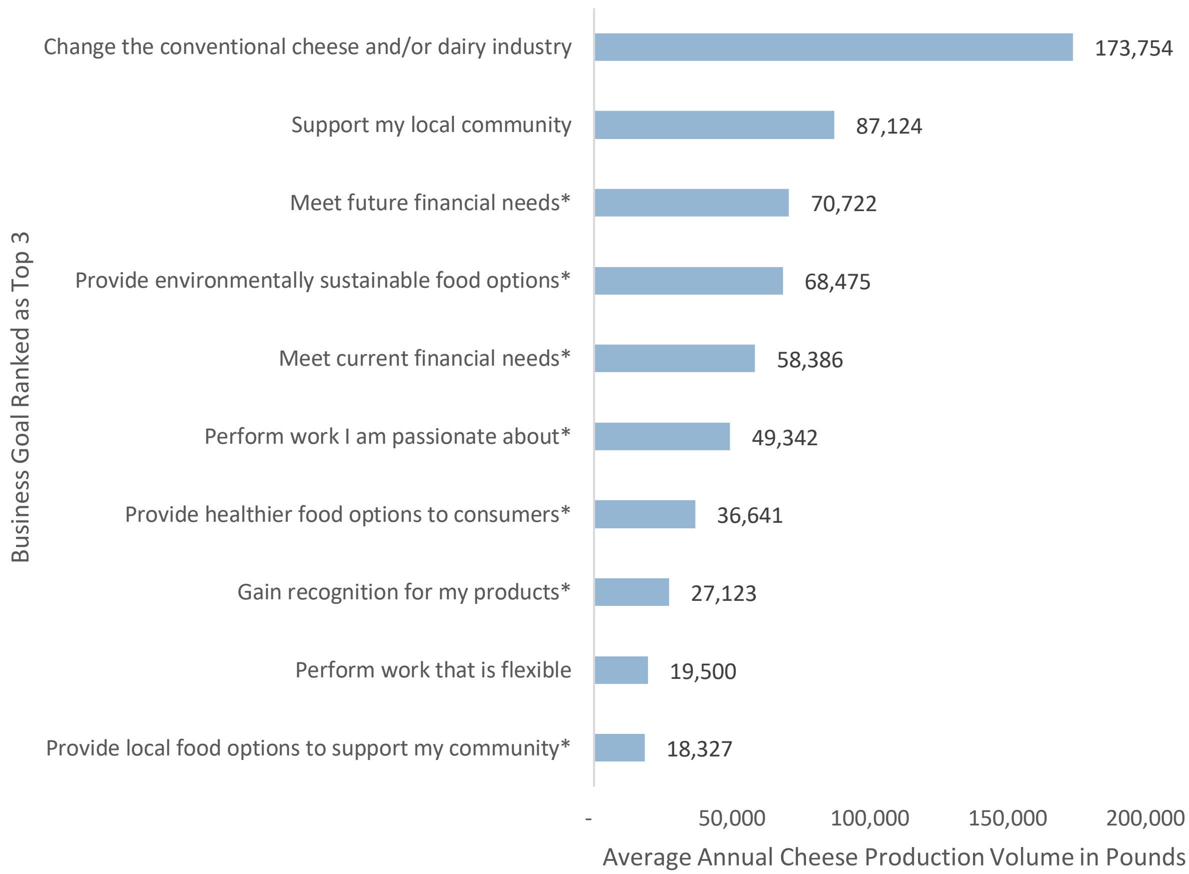
Exhibit 3.3 — Relationship between Number of Cheese Products Offered and Average Years in Business



Analysis 3: Business Goals

Among cheesemakers producing no more than 500,000 pounds per year, a statistically significant relationship was identified between business goals cheesemakers selected as their top three priorities and their size in terms of annual cheese production volume. Exhibit 3.4 charts the relationship between business goals and annual cheese production. As illustrated, cheesemakers that reported “Perform work I am passionate about”, “Provide healthier food options to consumers”, “Gain recognition for my products”, “Perform work that is flexible”, or “Provide local food options to support my community” as a top three business goal tended to be smaller than those cheesemakers who were more motivated to “Change the conventional cheese and/or dairy industry", "Support my local community", "Meet future (and current) financial needs", and "Provide environmentally sustainable food options".

Exhibit 3.4 — Relationship between Business Goals and Annual Cheese Production Volume, 2019, N=96

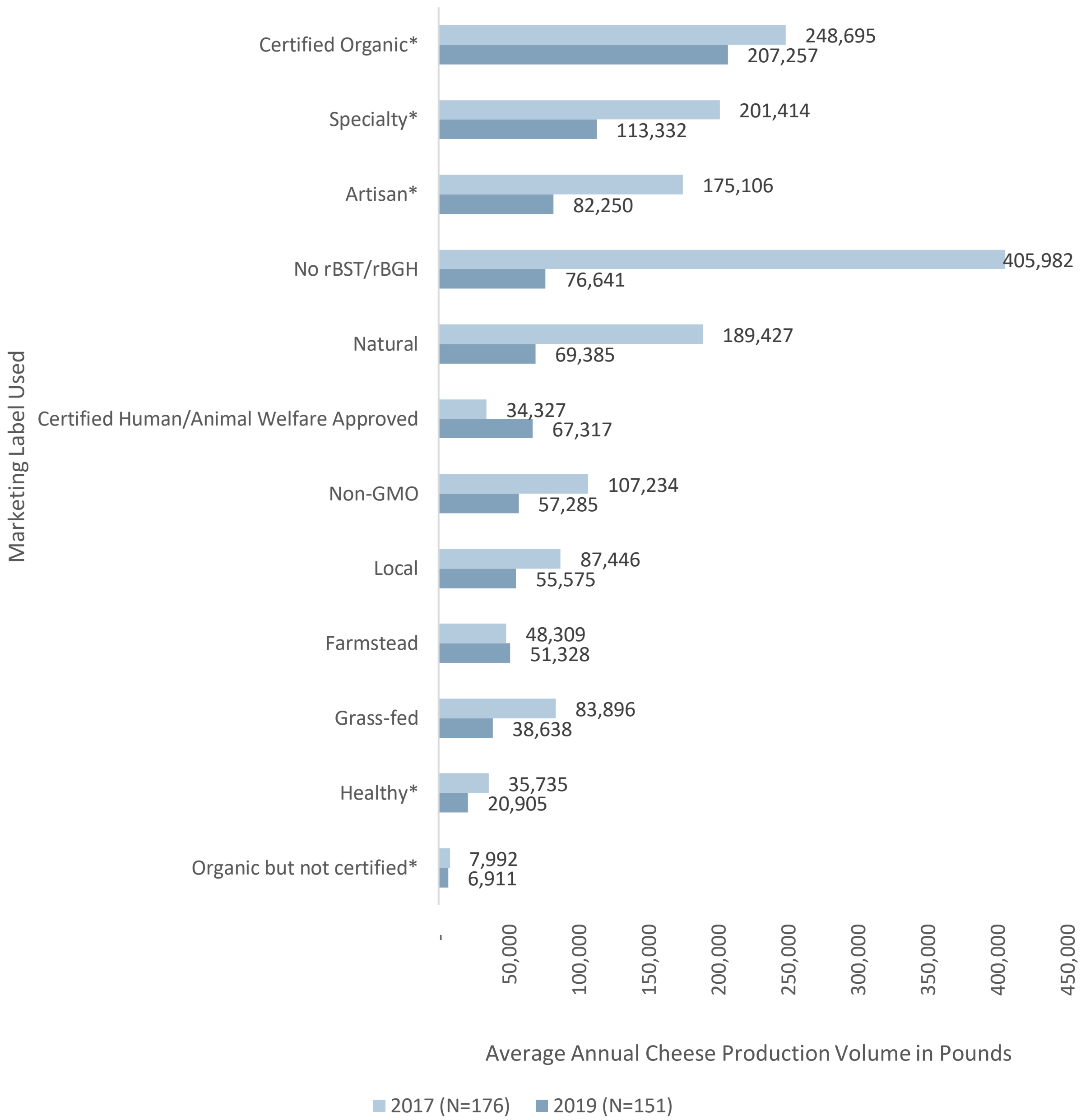


*Statistically significant

Analysis 4: Marketing Labels Used

Among cheesemakers producing less than 750,001 pounds of cheese per year, a statistically significant relationship was identified between the marketing labels used by cheesemakers and their size, in terms of annual cheese production volume. Labels favored by producers producing more than an average 75,000 pounds of cheese were "no rBST/rBGH," "artisan," "specialty," and "certified organic." "Organic but not certified," "healthy," and "grass-fed" were labels most commonly used by cheesemakers who made on average less than 50,000 pounds of cheese per year relative to those producing more than 50,000 pounds of cheese per year.

Exhibit 3.5 — Relationship between Marketing Labels Used by Cheesemakers and Annual Cheese



*Statistically significant

Analysis 3: Distribution Channels

Exhibit 3.6 reports the share of cheesemakers who used various channels to distribute their cheese according to their 2019 annual cheese production volume. Direct-to-retailer was a channel pursued by at least seven out of ten cheesemakers regardless of annual cheese production volume. Direct to restaurants was a distribution channel used by at least six out of ten cheesemakers regardless of production volume. These channels were reported as being used by more cheesemakers producing less than 5,000 pounds per year in 2019 than were in 2017 with the share of these very small cheesemakers selling direct to restaurants increasing from 67% to 77%. In comparison, the percentage of cheesemakers producing between 500,001 and 1,000,000 pounds per year selling direct to restaurants decreased from 100% in 2017 to 78% in 2019. Selling products through their own website was more frequently reported as a distribution strategy by all cheesemakers, regardless of volume, in 2019. 47% of cheesemakers producing less than 5,000 pounds per year reported using their own website in 2019 compared to 36% in 2017. Similarly, 54% of cheesemakers producing 5,001 to 10,000 pounds per year were using their own website compared to 34% in 2017, and 76% of cheesemakers producing 10,0001 to 20,000 pounds compared to 52% in 2017.

Exhibit 3.6 — Distribution Channels Used by Cheesemakers According to Annual Cheese Production Volume, 2019, N=163

	Annual Cheese Production Volume						
	Less than 5,000 lbs	5,001 to 10,000 lbs	10,001 to 20,000 lbs	20,001 to 50,000 lbs	50,001 to 100,000 lbs	100,001 to 500,000 lbs	500,001 to 1,000,000 lbs
Direct to retailers	71%	74%	86%	86%	91%	78%	100%
Direct to restaurants	76%	74%	62%	86%	100%	87%	78%
Distributors & wholesalers*	29%	51%	57%	97%	100%	100%	89%
Meal kit delivery service*	0%	0%	5%	7%	0%	4%	0%
Farmers markets*	65%	71%	67%	62%	45%	61%	33%
Own brick-and-mortar store	44%	51%	48%	48%	55%	61%	78%
Own website	47%	54%	76%	59%	55%	83%	89%
Third-party website*	3%	0%	14%	10%	9%	26%	67%
Festivals & shows	21%	43%	33%	48%	27%	57%	67%
Community Supported Agriculture (CSA)	24%	43%	43%	31%	45%	30%	44%
Brick-and-mortar cheese stores operated by other businesses	24%	57%	71%	66%	64%	52%	78%
Direct to institutional buyers such as schools and hospitals	0%	3%	14%	7%	9%	13%	11%

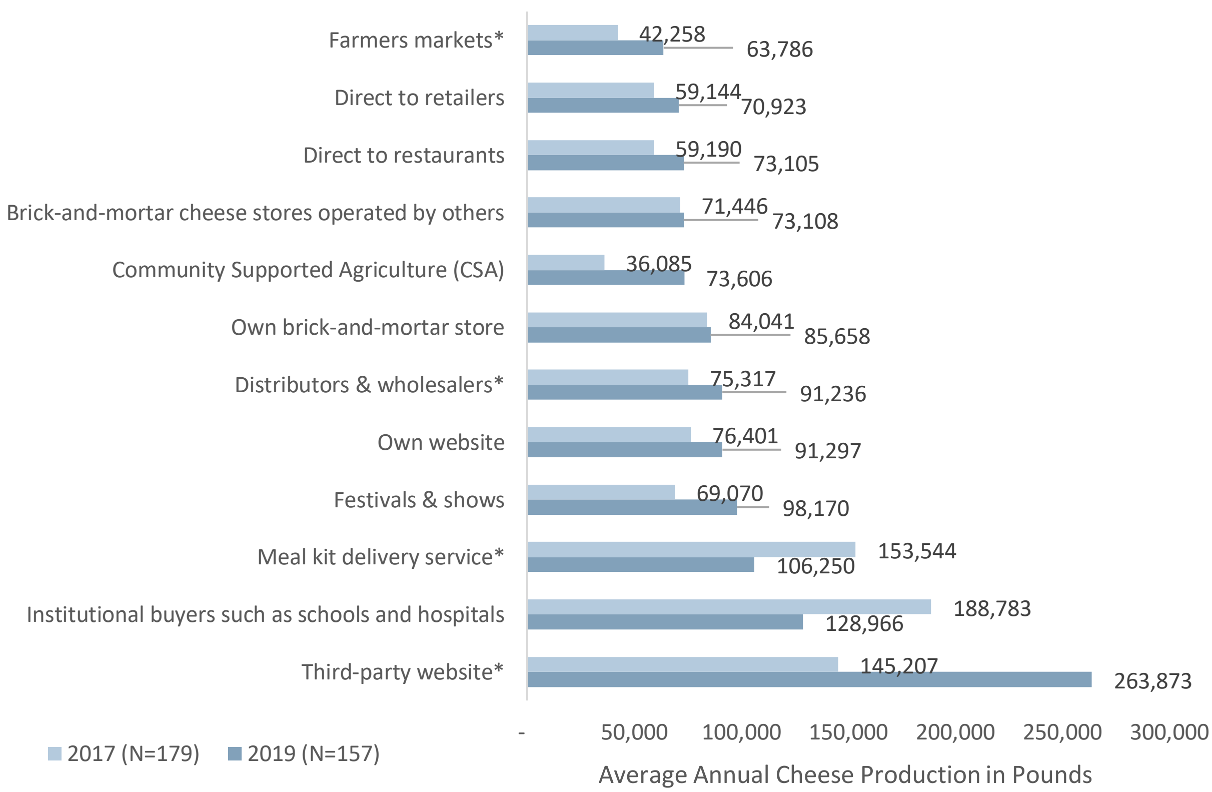
*Statistically significant

In 2019, distributing products through community supported agriculture was reported by a greater share of cheesemakers regardless of volume, except for those cheesemakers producing between 20,0001 and 50,000 pounds per year. In comparison, festivals and shows were a less commonly used channel for all cheesemakers, except for those producing between 500,001 and 1,000,000 pounds per year.

A statistically significant relationship was found between distribution channels and production volume. At least 89% of cheesemakers who produced more than 20,000 pounds of cheese engaged distributors and wholesalers. This practice was less common among cheesemakers who produced no more than 20,000 pounds of cheese. For cheesemakers, selling products at farmers markets tended to be a distribution strategy used more frequently as production volume decreased. In comparison, using a third-party website to sell products was more likely to be adopted as a distribution strategy as production volume increased.

As shown in Exhibit 3.7, in 2019, large-scale cheesemakers were more likely to distribute their cheese through third-party websites, institutional buyers such as schools and hospitals, and meal kit services. For smaller scale cheesemakers — those who produced an average of no more than 75,000 pounds of cheese annually — CSAs, brick-and-mortar cheese stores operated by other businesses, direct to restaurants, direct to retailers, and farmers markets were all relatively popular distribution strategies.

Exhibit 3.7 — Average Annual Cheese Production Volume of Cheesemakers Producing No More Than 750,000 Pounds by Distribution Channels



*Statistically significant

Analysis 4: Employees

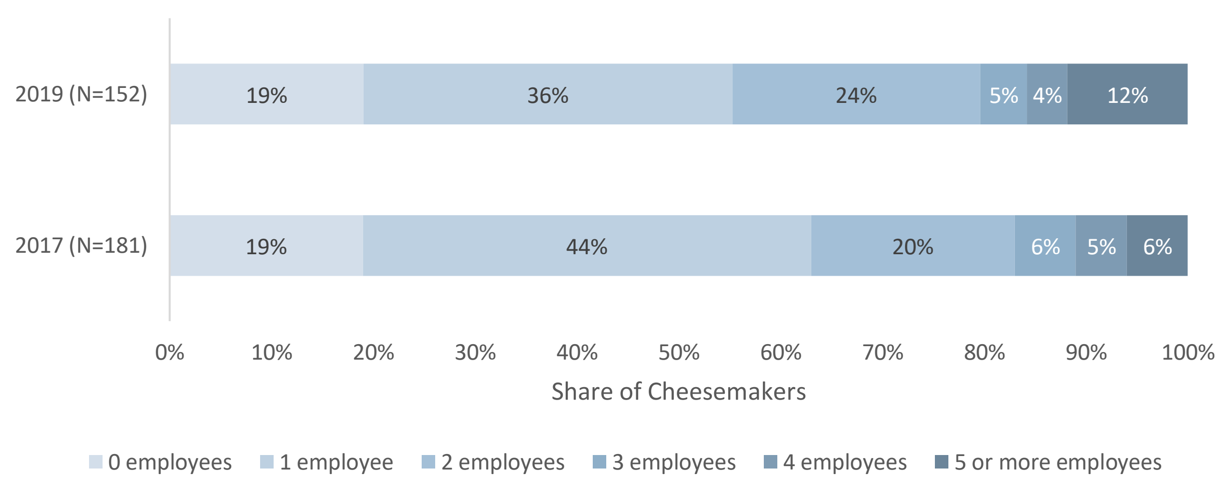
Cheesemakers who made more than 100,001 pounds of cheese in 2019 tended to rely more on part-time and seasonal employees to complement their full-time staff than was reported in 2017. Exhibit 3.8 reports the average number of full-time, part-time, and seasonal employees according to cheesemakers' annual cheese production. Cheesemakers who made between 100,001 and 500,000 pounds in 2019 reported more full-time, part-time, and seasonal employees than they did in 2017. In comparison, cheesemakers who made less than 5,000 pounds in 2019 reported less full-time, part-time, and seasonal employees than they did in 2017.

Exhibit 3.8 — Average Number of Full-Time, Part-Time and Seasonal Employees Working for Cheesemakers According to Annual Cheese Production, 2017 (N=183) and 2019 (N=162)

	Full-time		Part-time		Seasonal	
	2017	2019	2017	2019	2017	2019
Less than 5,000 lbs	2.6	1.6	2.7	0.7	1.7	0.4
5,001 to 10,000 lbs	1.9	2.0	1.3	2.5	0.7	1.0
10,001 to 20,000 lbs	3.1	2.6	2.4	2.9	0.8	0.7
20,001 to 50,000 lbs	3.4	4.4	3.0	2.3	1.0	1.0
50,001 to 100,000 lbs	16.0	8.5	1.7	2.4	6.1	1.5
100,001 to 500,000 lbs	13.6	19.0	2.2	4.3	1.4	2.9
500,001 to 750,000 lbs	22.4	19.6	4.0	8.9	1.4	3.1

In both 2017 and 2019, 19% of cheesemakers reported having zero employees with formal cheesemaking training. In 2019, 45% of cheesemakers reporting having at least two employees with formal cheesemaking training, compared to 37% in 2017. See Exhibit 3.9.

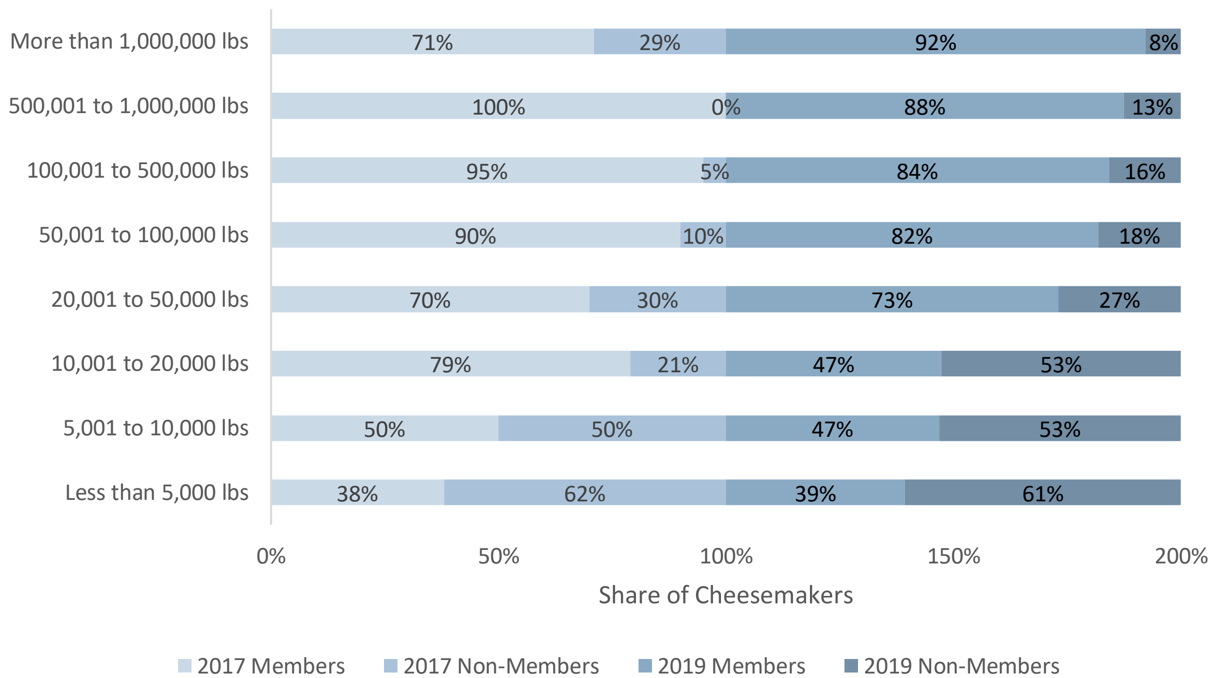
Exhibit 3.9 — Percentage of Cheesemakers with Employees Formally Trained in Cheesemaking



Analysis 5: Industry Participation

While there was no statistically significant relationship between the likelihood of a cheesemaker being a member of ACS and the size of the cheesemaker in terms of production volume, Exhibit 3.10 presents the percentage of 2017- and 2019-produced cheese in each volume category that was made by ACS members and non-members, according to their membership status in 2018 and 2020. 92% of respondents producing more than 1,000,000 pounds of cheese each year reported being members of ACS in 2019, compared with 39% of cheesemakers producing less than 5,000 pounds per year.

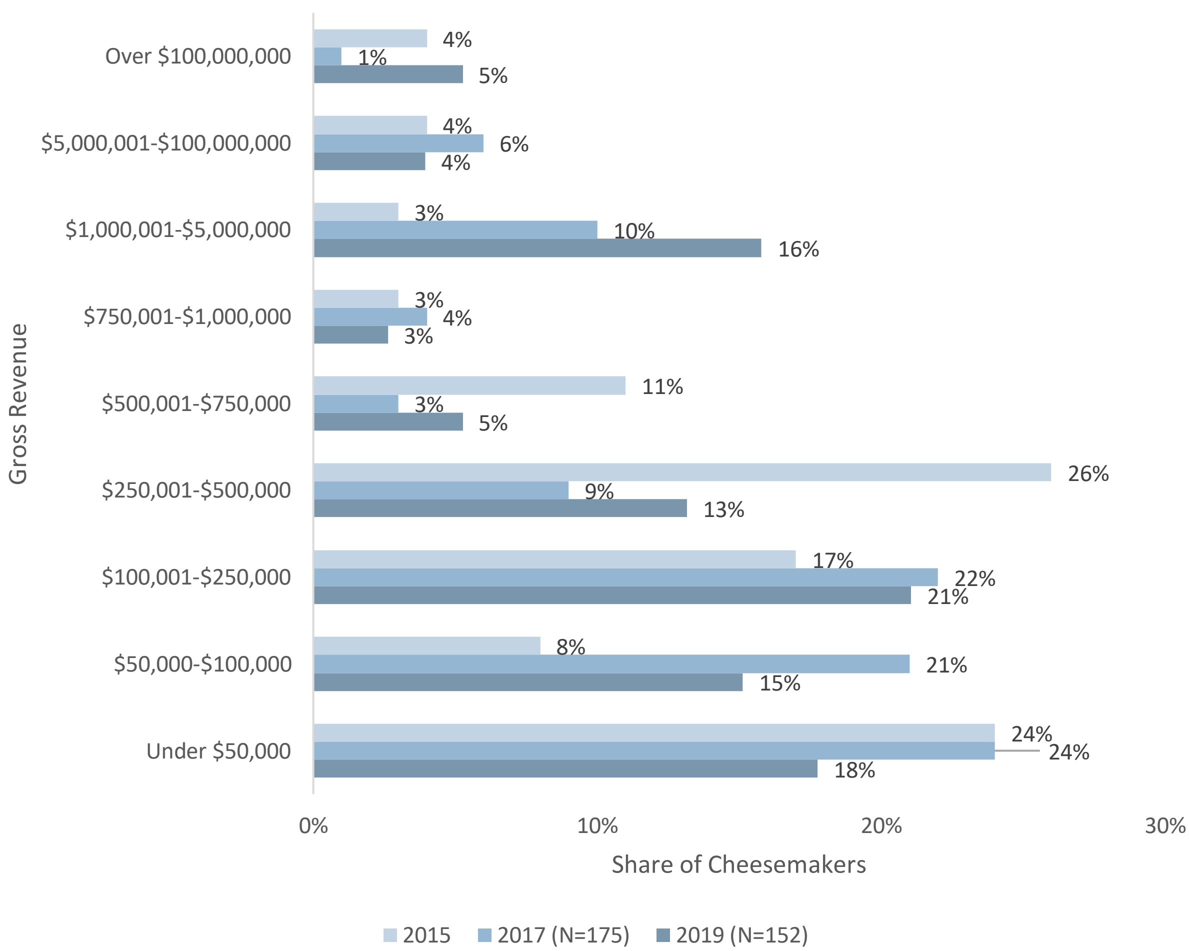
Exhibit 3.10 — Annual Cheese Production Volume for ACS Members and Non-Members, 2017 (N=177) and 2019 (N=161)



Section 4 - Profitability

54% of cheesemakers collected no more than $250,000 in gross revenue from cheese sales in 2019 compared to 67% in 2017. Exhibit 4.1 shows the percentage reporting revenues of less than $50,000 decreased from 24% in 2015 and 2017 to 18% in 2019. On the high end, the percentage of cheesemakers reporting gross revenue exceeding $100,000,000 increased back in line with the share of cheesemakers reporting this level of gross income in 2015 at 5% of cheesemakers.

Exhibit 4.1 — Gross Revenue of Cheesemakers



Gross revenue does not necessarily reflect profit. Maintaining profitability was noted as an area of concern for 91% of cheesemakers. Almost 25% of cheesemakers indicated they didn't operate profitably in 2015. This figure dropped slightly to 20% in 2017 and stayed stable for 2019. Among the cheesemakers who were profitable in 2019, the average profit margin was 25% — an increase over the 21% average profit margin for 2017 and the 23% average profit margin calculated for 2015.

It is important to note that the survey asked cheesemakers to self-report profit margin as “gross revenue less expenses divided by gross revenue.” It was not computed by the authors of this survey.

Reference

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Canning, K. (2019, November 8). *2019 State of the Industry report: Cheese has a favorable deck.* Retrieved from Dairy Foods: https://www.dairyfoods.com/articles/93937-state-of-the-industry-report-cheese-has-a-favorable-deck