

2023 BC Farmers' Market Economic Impact Study FINAL REPORT

Armstrong Farmers' Market
Armstrong, British Columbia

This project was completed by:

BC Association of Farmers' Markets (BCAFM)

in collaboration with:

University of Northern British Columbia (UNBC)

December 23, 2023

Prepared by:

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PROJECT SUPPORTERS:



**Sustainable Canadian
Agricultural Partnership**
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SUMMARY

The BC Association of Farmers' Markets (BCAFM), in collaboration with Dr. David Connell of the University of Northern British Columbia (UNBC), completed a large, province-wide study in 2023 to measure the economic impacts¹ of farmers markets in BC. The results of this project show that farmers markets in BC have grown over the past decade, despite unprecedented social, political, and economic challenges, including the COVID-19 global pandemic.

Quantifying the economic contributions of farmers markets encourages long-term support for local BC agriculture and food sectors, along with the thousands of farm and food businesses who sell at farmers markets across BC. Furthermore, this study demonstrates the role of farmers markets as integral low-barrier, direct sales channels for local BC producers and shoppers to connect, while showing us their essential role in local food security and food systems.

The **2023 BC Farmers' Market Economic Impact Study** builds upon the success of similar projects completed in 2012 and 2006, which were also led by BCAFM and Dr. David Connell. By using comparable methods, we are able to assess changes over time. This study measures market spending and spending at neighbouring local businesses, both of which contribute to the economic impact of farmers markets in BC. In total, 70 farmers market assessments were completed across the province between May and September, 2023. This final report presents the findings from the assessment completed for the Armstrong Farmers' market on Saturday, July 8th, 2023. Additionally, this report includes partial results from the provincial analyses of BCAFM member markets. A full profile of provincial results is available in the BC final report.

2023 Study Highlights for the Armstrong Farmers' Market:

- **Annual economic impact² on the local economy: \$1.1 million**
- **Annual direct sales: \$735 thousand**
 - **Average shopper spending per market visit: \$34.42**
- **Over 27,600 visits and 20,700 shoppers annually**
- **6% of study participants self-identified as tourists or day-trippers**
- **84% of the survey respondents visit the farmers market either *regularly* (almost weekly) or *frequently* (2-3 times per month)**
- **Shopper spending at other local neighbouring businesses: \$747 thousand**
 - **100% of study participants said that they would spend \$36.01 each shopping or eating at other local neighbouring businesses**

¹ This study measures the economic benefits of farmers markets. The BC Association of Farmers' Markets chose to use the term "impacts" because of its common use in media communications and its greater recognition by members of the public.

² This is a measure of the "ripple effect" for every dollar spent at farmers markets, including monies vendors spend on inputs for the products sold.

The Armstrong Farmers' Market

Market Website: www.armstrongfarmersmarket.ca

One of BC's first outdoor markets, still operating four decades later.

The Armstrong Farmers' Market offers fresh fruits and veggies, as well as handcrafted and baked goods. Between 40 and 60 vendors come together and provide a place for locals to gather, shop, snack, enjoy the live entertainment, and chat over coffee. Don't miss the amazing locally grown apples and cherries when they're in season!

Held on the fairgrounds near this small town's arena, visitors can make use of tons of parking and heated washrooms onsite. Some vendors move indoors if it's raining, but most keep with tradition and set up their stalls outside — it's an Armstrong thing!

The Armstrong Farmers Market is held on the unceded Splatsin territory of the Secwepemcul'ecw Nation.

Availability:	April 29 to October 7, 2023 Saturdays, 8:30am – 12:30pm
# Vendors:	40+
Location:	<i>"Under the trees at the fairgrounds"</i> 3375 Pleasant Valley Road
Contact Info:	Mahina Rose, Market Manager Armstrong Farmers' Market Info@armstrongfarmersmarket.ca Hendrik Denoudsten, Board President Armstrong Farmers' Market henkden@shaw.ca

RESEARCH METHOD

Using methods based on the Rapid Market Assessment technique developed by Oregon State University³, individual market assessments included interactive dot surveys, crowd counts, and one-on-one interviews with both market shoppers and nearby businesses. These are the same methods used for the BC study in 2012 and 2006.

Dot Survey

The dot survey method engaged consumers in friendly interaction through multiple-choice questions posted in large print on paper pads at eye level. This approach has a high response rate, thereby increasing both validity and accuracy.

The colours of dot survey stickers were random, except for yellow stickers which were reserved for tourists and/or day-trippers to the market. Participants were asked: "Are you a tourist or day-tripper?". The following definitions were provided to research associates to assist in communicating with participants:

A tourist is someone who is doing overnight stays in the area or region. A day-tripper is someone from the area or region who made a special trip into town for the day. Special trip is not something they usually do.

Picture 1 is an example of an average dot survey set-up on-site at participating markets.

Picture 1.

Dot Survey Market Set-up



³ Brewer, L., Lev, L., & Stephenson, G. (2008). *Tools for Rapid Market Assessments*. Oregon State University. <https://catalog.extension.oregonstate.edu/sites/catalog/files/project/pdf/sr1088.pdf>

The set of questions used for the survey (Box 1) were developed in two parts. The first four questions were developed by the research team and were asked at all farmers markets participating in the project. The consistency provided by asking the same questions at all markets is necessary to complete the provincial analysis. Each participating market developed the fifth question to collect data that are relevant to making effective changes and improvements to the local market.

Box 1.

Dot Survey Questions

1. How much have you spent, or do you plan to spend, at the market today?
2. How often do you come to this farmers market?
3. If you plan to do additional shopping or eating while in this area of town today, how much do you plan to spend?
4. When did you start shopping at this market?
5. What is your favourite thing about the market?

Crowd Count

During a ten-minute period of each hour a market is open, members of the assessment team and market volunteers stood at each major entry point to the market and counted people entering. The total number of attendees is estimated from these systematic counts using an established formula of multiplying the actual counts by six to determine estimated hourly attendance.

Shopper Surveys

At each market, a small sample of customers was asked to participate in a short interview. People were asked about where they shop, factors they consider when buying food, how long they spend at the market, and how they spend their time when at the market. Customers were also asked if they shop at other businesses on the same day that they visit the farmers market.

Given the small sample size collected at each market, only results aggregated at the provincial level are shown. The information collected from shoppers builds upon the dot survey data, providing additional insights into market customers. Together, the dot survey and the more detailed shopper surveys improve our understanding of what makes farmers markets successful and how they contribute to the local area, in terms of both economic and social impacts.

Local Neighbouring Business Surveys

Neighbouring businesses located near assessed farmers markets were surveyed to assess the influence of the market on neighbouring businesses and to explore the nature of the relationship. Surveys were not completed at farmers markets that did not have other businesses located nearby. The business information helps to understand the relationship between farmers markets and local, neighbouring businesses generally. Given the small sample size collected at each market, only results aggregated at the provincial level are shown. Local neighbouring business survey results can be found in the provincial final report.

Tourist & Day-tripper Analysis

Tourist and day-tripper averages referenced in this report are based on markets, as opposed to shoppers. The regional averages in this report rely on the percentages of locals and tourists/day-trippers for each assessed market and markets are weighed equally. The results would differ if averages were calculated proportionate to the number of shoppers.

Research Associates

A team of six research associates, located in different regions, were hired to conduct on-site market assessments across the province. Research associates, along with Dr. David Connell, Project Lead, the Project Manager, and Project Coordinator met in-person for training and a trial market assessment at the start of the project. Research associates were then responsible for implementing study methods consistently to the best of their ability at 70 market assessments in BC, with ongoing remote support from the study team.

Limitations

The goal of all researchers is to be as accurate and precise as possible. Inevitably, there are trade-offs when these aims compete with other goals. In this study, the project team chose to prioritize engaging as many shoppers as possible in our five-question dot survey. This approach helped to support relations between shoppers and the farmers markets, and with over 11,000 shoppers participating in the dot survey, we gained accuracy. On the other hand, the simple questions reduced our level of precision. The quality of our results was also affected by the diversity among markets, including factors such as: size of the market, physical characteristics of the market (e.g., flow of customers), how busy the market was on the day of the assessment, and weather conditions.

Differences among our research associates also contributed to different outcomes. For example, the question *“Are you a tourist or day-tripper?”* was not asked consistently with all participants at all market assessments. These and other factors affected levels of participation in the dot survey and one-on-one surveys in different markets.

RESULTS

This section reviews the results of the crowd count estimates and dot surveys, as well as provincial-level results from the shopper and business surveys.

Market Assessment

The weather on the day of the assessment was very hot, with temperatures reaching 35°C by the afternoon. There were approximately 41 vendors present; although the market manager advised that five vendors were absent due to a local wildfire evacuation alert.

Crowd & Shopper Counts

The total estimated number of people attending the Armstrong Farmers' Market on July 8, 2023, was 1,140.

When asked, vendors at the market said market attendance was slower for that time in the season, as compared with past years. Some noted that the market has yet to completely recover from low crowd counts related to the COVID-19 pandemic, while others speculated that inflation has negatively impacted attendance and spending.

The actual and extended counts for the assessment are shown in Table 1. The total estimated counts are also shown in Chart 1.

Table 1.

Estimated Crowd Count

Time Period	Count Period	Actual Count	Extended Total
1 st hour (8:30-9:30)	9:00 – 9:10am	29	174
2 nd hour (9:30-10:30)	10:00 – 10:10am	48	288
3 rd hour (10:30-11:30)	11:00 – 11:10am	76	456
4 th hour (11:30-12:30)	12:00 – 12:10pm	37	222
Estimated total crowd count on July 8, 2023			1,140

Chart 1 (next page) shows the estimated crowd totals for each hour. Attendance is slowest at 8:30am, and steadily builds over the first two hours. Market attendance peaks between 10:30-11:30am.

Chart 1.

Crowd Counts by the Hour on Assessment Day

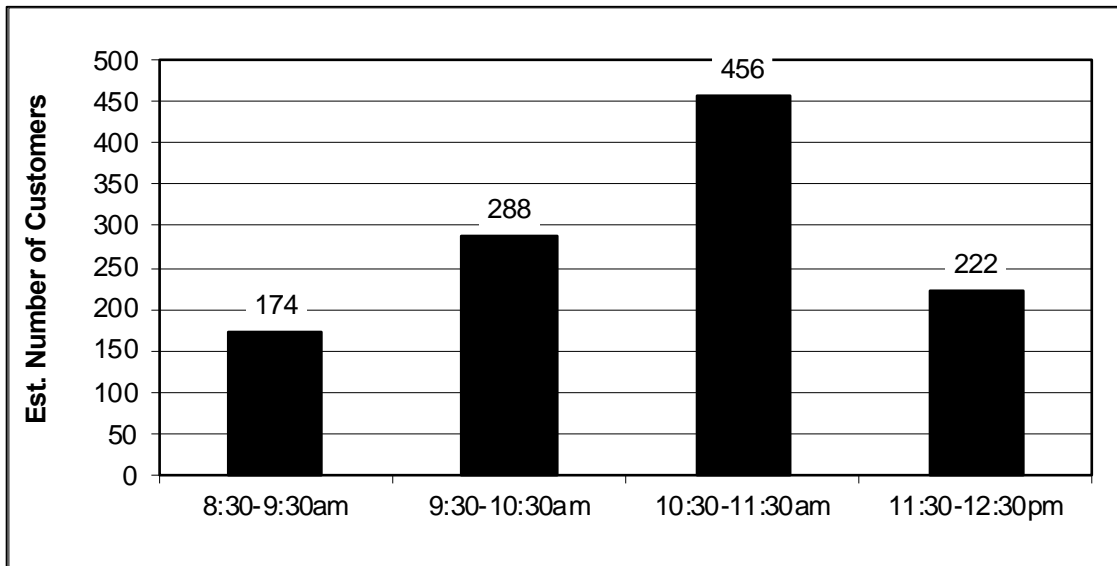
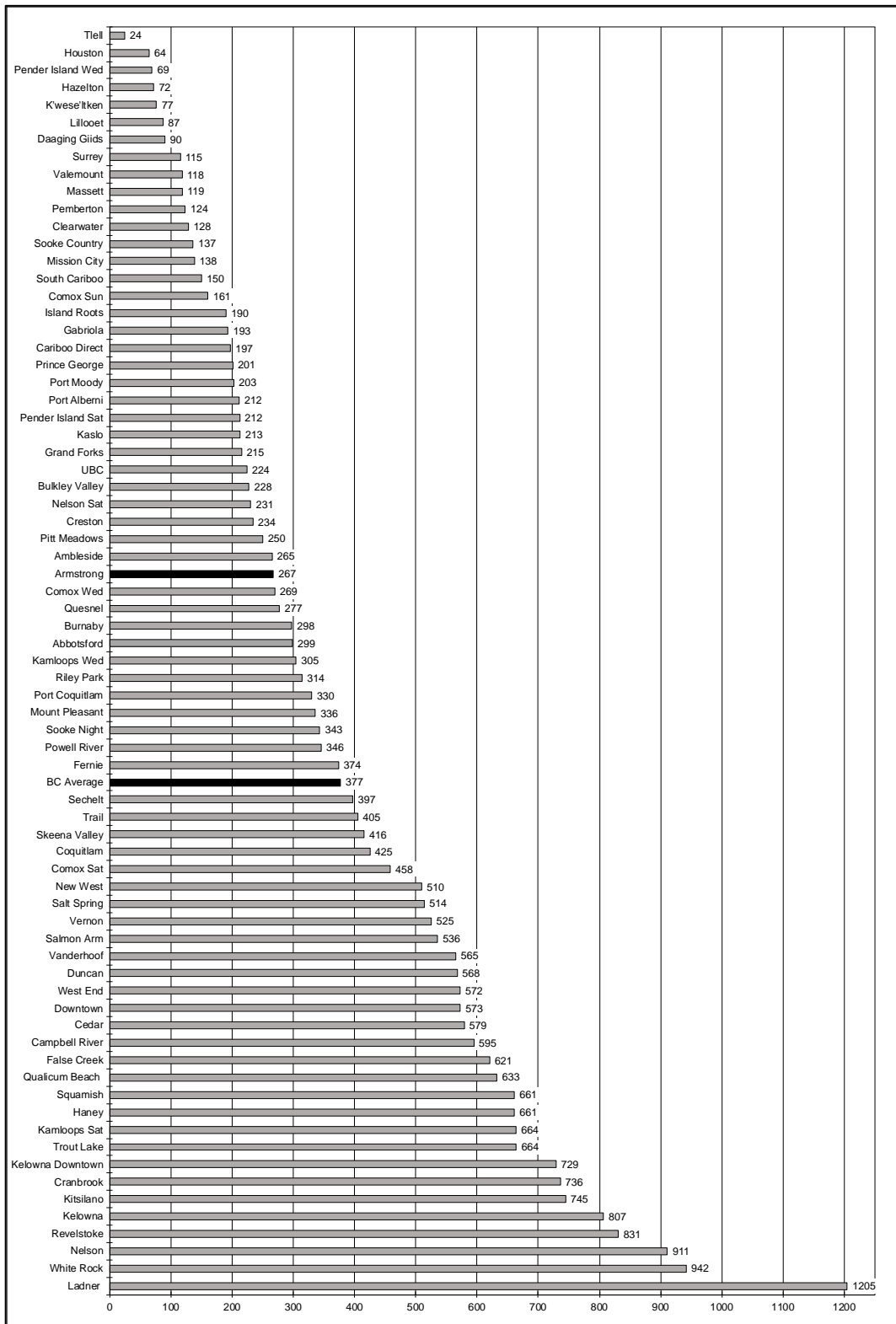


Chart 2 (next page) showcases the average number of shoppers per hour during peak market season at all assessed BCAFm member markets.

Chart 2.

Average Number of Shoppers per Hour in Peak Market Season



Dot Survey

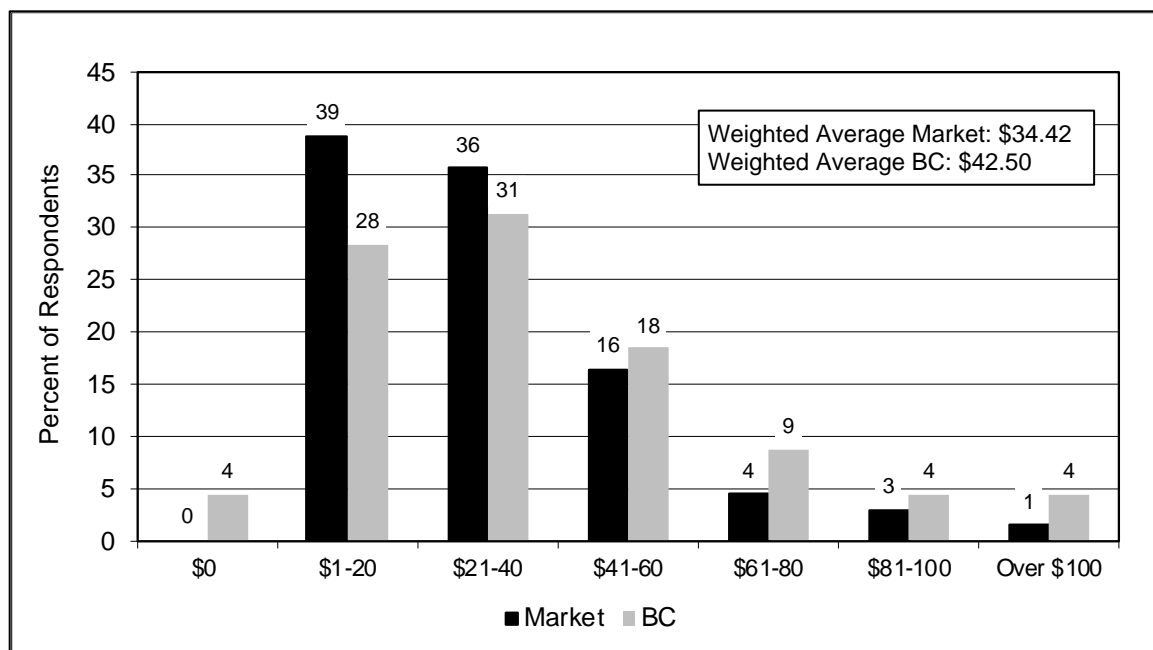
Approximately 69 people participated in the dot survey, which is about 6% of estimated total crowd counts for all of the market assessments. The following charts show the results for each of the dot survey questions. The results presented do not include local and tourist/day-tripper charts because the level of participation by tourists and day-trippers was too low (6%) to report.

Question 1. How much have you spent, or do you plan to spend, at the market today?

Overall, respondents spent an average⁴ of \$34.42 each on the day of assessment⁵, which is lower than the provincial spending average of \$42.50 per shopper per market visit.

Chart 3.

Average Market Spending (Armstrong Farmers' Market=67; BC=11,504)



⁴ Experience Renewal Solutions, & Connell, D.J. (2009). *National Farmers' Market Impact Study*. Farmers' Markets Canada. <https://www2.unbc.ca/sites/default/files/sections/david-connell/farmers-markets/nationalfarmersmarketimpactstudy2009.pdf>

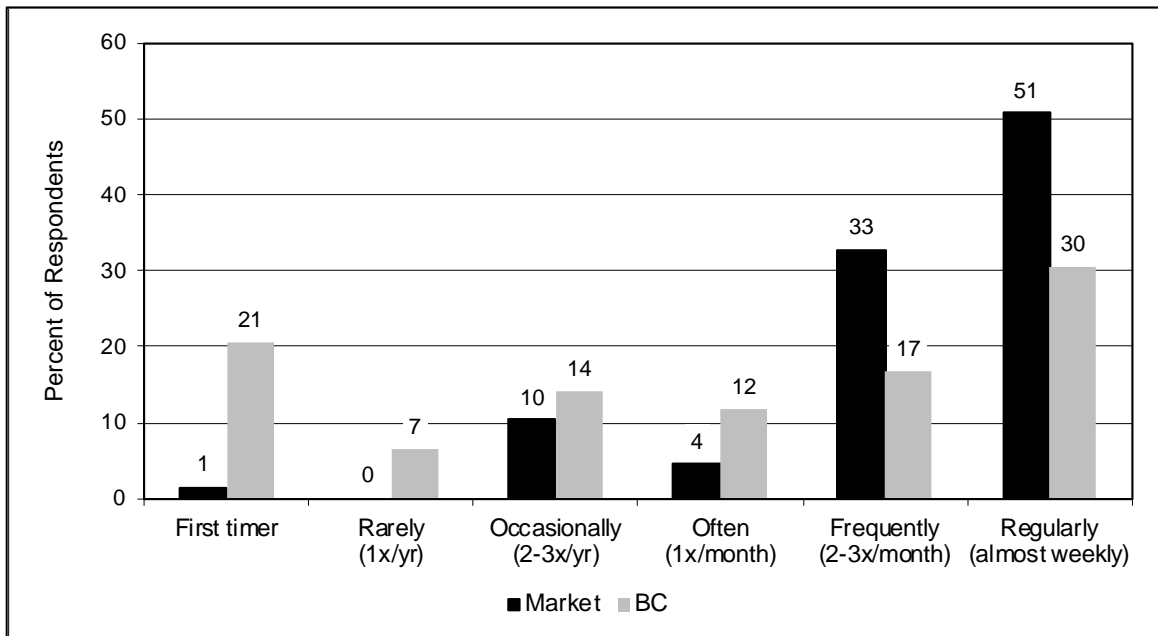
⁵ The average spent per customer both at markets and adjacent businesses is weighted by category based on results of a national study of farmers markets completed in 2008.

Question 2. How often do you come to this farmers market?

Chart 4 shows that 84% of survey respondents visit the market either frequently (2-3 times per month) or almost weekly, which is higher than the provincial average of 47%. First-time visitors to the Armstrong Farmers' Market only accounted for 1% of participants, compared to a first-time provincial average of 21%.

Chart 4.

Shopper Frequency (Armstrong Farmers' Market=67; BC=11,659)

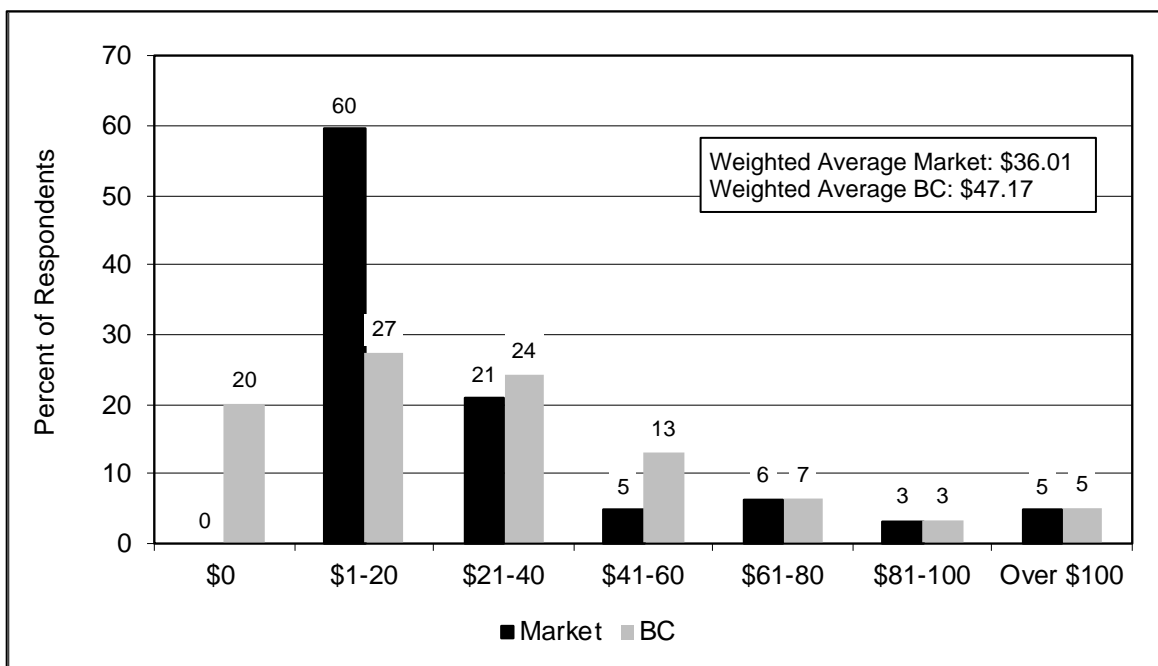


Question 3. If you plan to do additional shopping or eating while in this area of town today, how much do you plan to spend?

Chart 5 shows the range of additional spending by market customers on assessment day for the Armstrong Farmers' Market, with 100% of respondents saying they would do additional shopping at local neighbouring businesses⁶. The average amount spent by shoppers at other non-market businesses was \$36.01 per market visit.

Chart 5.

Local Neighbouring Business Spending (Armstrong Farmers' Market=72; BC=11,244)



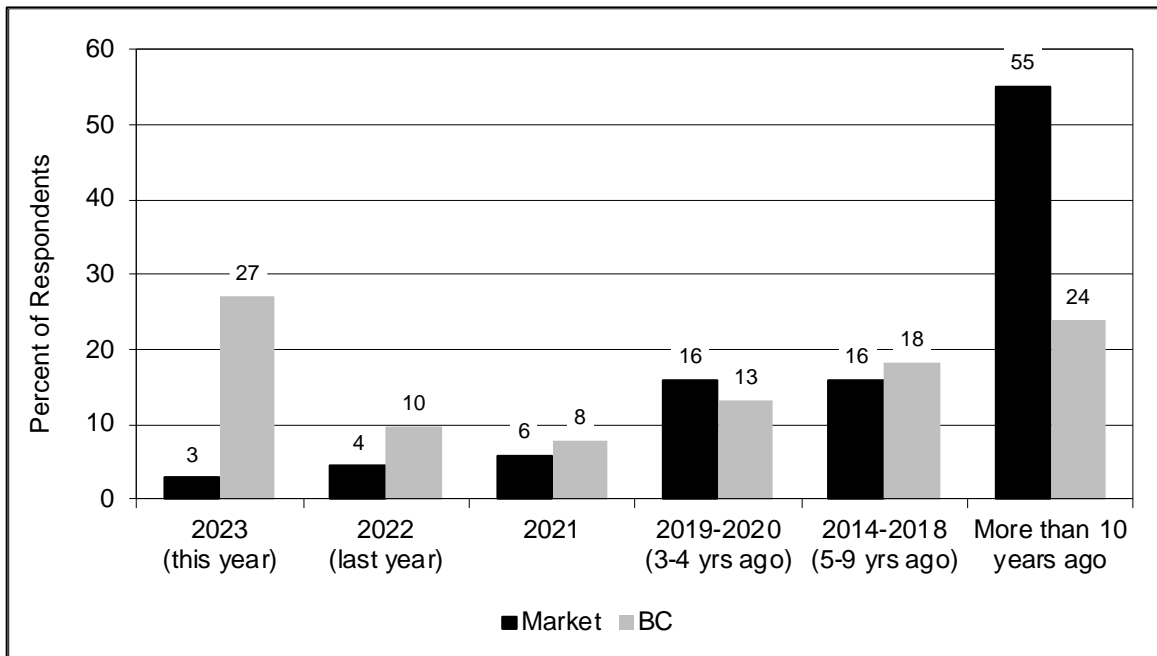
⁶ To some degree, study participants perspective influences the understanding of “neighbouring businesses”. However, participants were given the additional context of businesses they are stopping at because they were also shopping at the farmers’ market.

Question 4. When did you start shopping at this farmers market?

As shown in Chart 6, the Armstrong Farmers' Market has a good proportion of long-time, loyal customers. Nearly three-quarter of shoppers surveyed (71%) have been coming to this market for five years or more. Armstrong has significantly fewer first year visitors (3%) than the provincial average of 27%.

Chart 6.

Market Attendance (Armstrong Farmers' Market=69; BC=11,547)

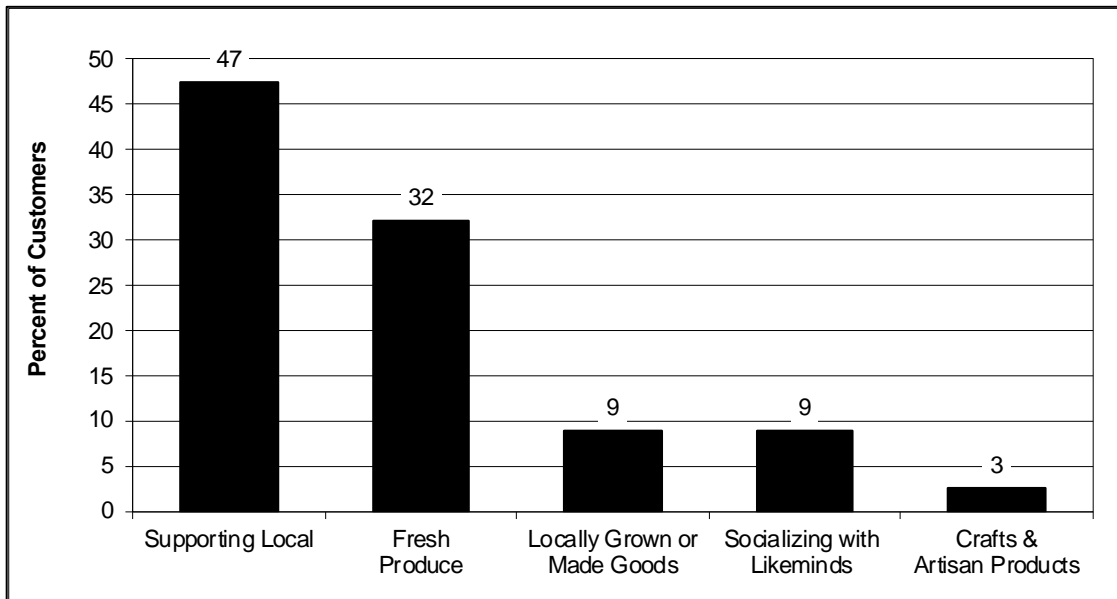


Question 5. What is your favourite thing about the market?

As shown in Chart 7, most visitors (79%) said that supporting local and purchasing fresh produce were their favourite things about the Armstrong Farmers' Market.

Chart 7.

Market Question – What is your favourite thing about the market? (n=78)



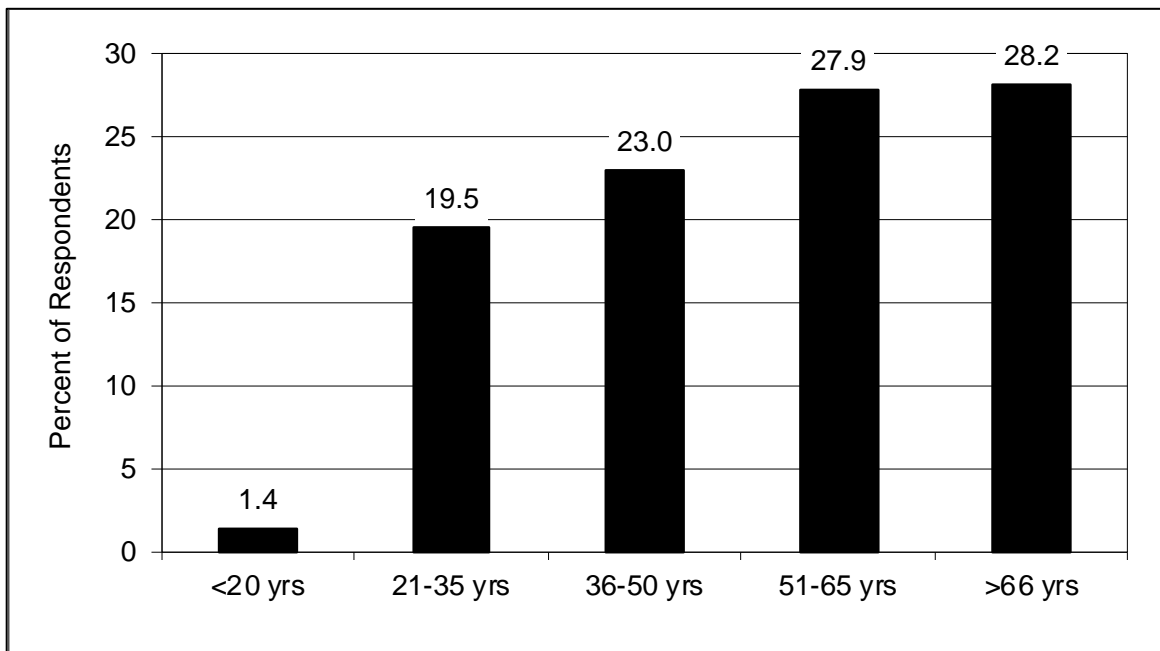
Shopper Surveys

A total of 373 interviews were completed at 70 markets in BC. The following charts show results of all the shoppers surveyed one-on-one across the province. When interpreting the results of these surveys, it should be noted that people who support the market most frequently are also more likely to agree to an interview. The over-representation of regular shoppers is demonstrated when we compare the respondents who reported shopping almost weekly, which was 30% of the dot survey participants, compared to 43% of shopper survey participants. It should be acknowledged that the following results represent only the market shoppers who were interviewed.

The results in Chart 8 show the age range of interview participants at assessed farmers market across BC. The majority of one-on-one interviews (56%) were conducted with market shoppers aged 51 and up.

Chart 8.

Age of Respondents. (n=348)



The household income of interview participants is shown in Chart 9. The results show that people from households with a range of incomes shop at BC's markets. However, one-quarter of participants fall within \$100,000-\$199,000 range.

Chart 9.

Household Income (2023=356)

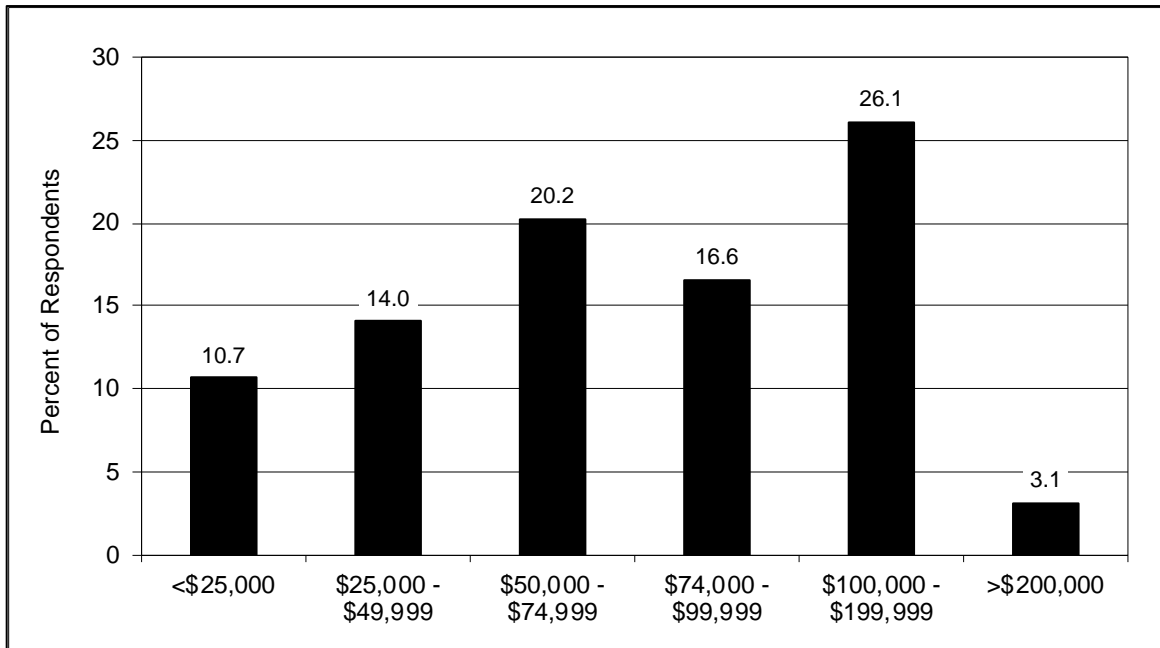
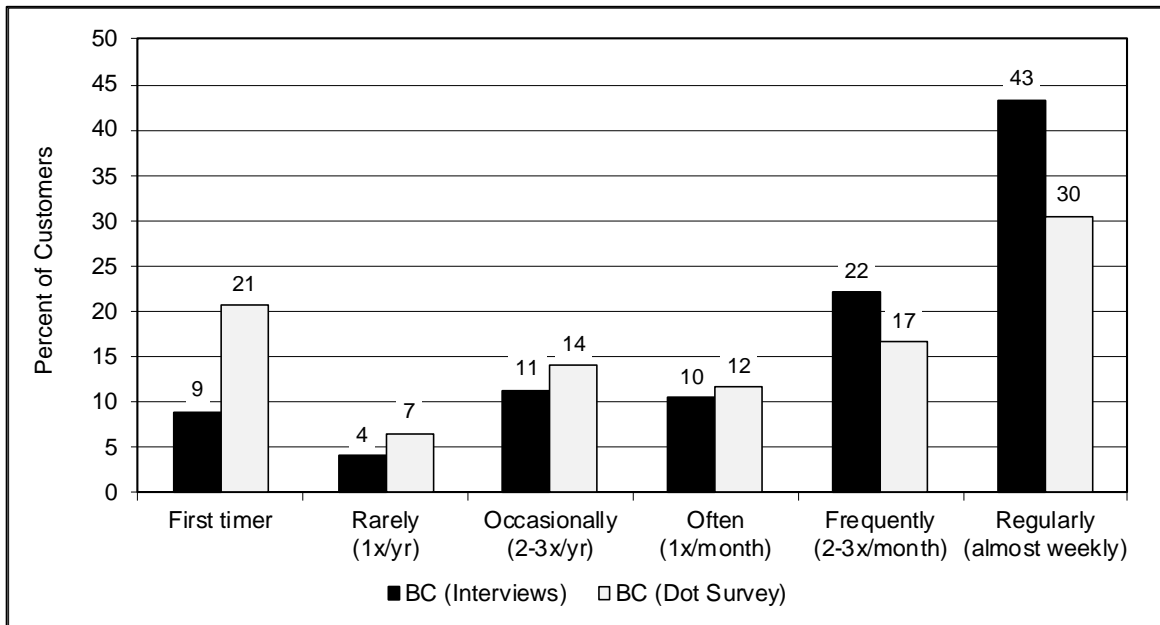


Chart 10 demonstrates the frequency of visits to farmers markets. As previously noted, the results do over-represent regular shoppers due to the nature of survey participation. The actual results are likely to reflect less frequent shopping behaviour, but are still relevant.

Chart 10.

Frequency of Visits to Farmers Markets (2023=372)



Shoppers were asked where and how often they buy groceries at other food retail outlets during the regular outdoor market season. Chart 11 shows where people bought their food in 2023.

Chart 11.

Where Shoppers Buy Groceries During the Outdoor Market Season (2023=347)

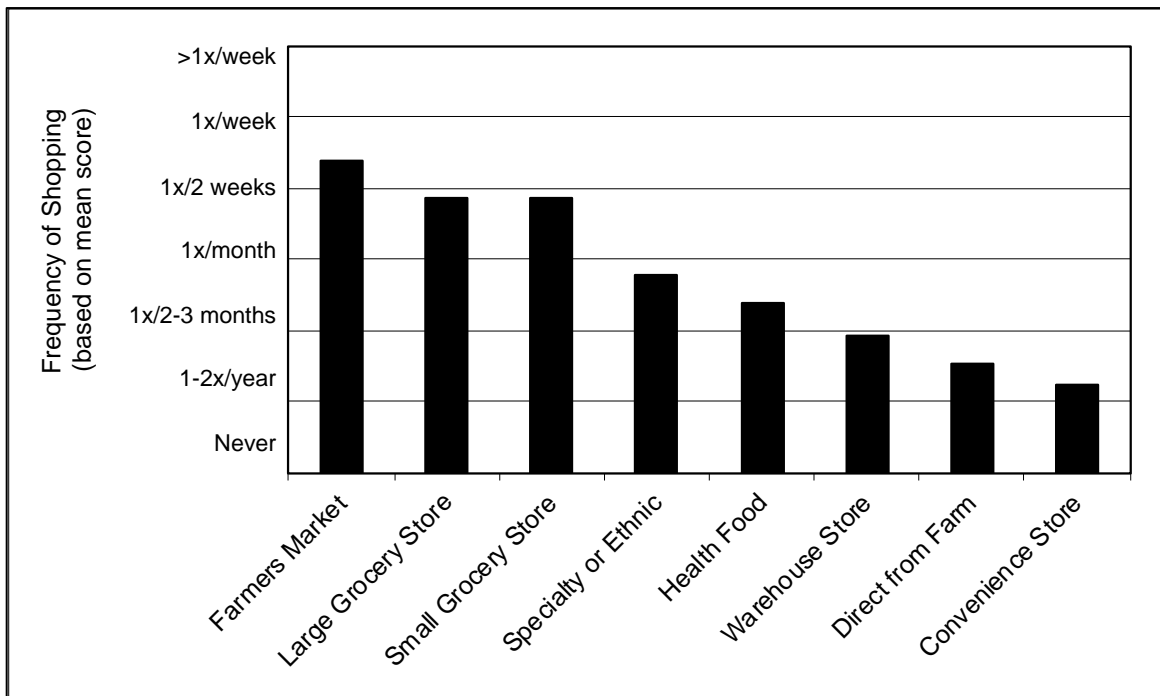
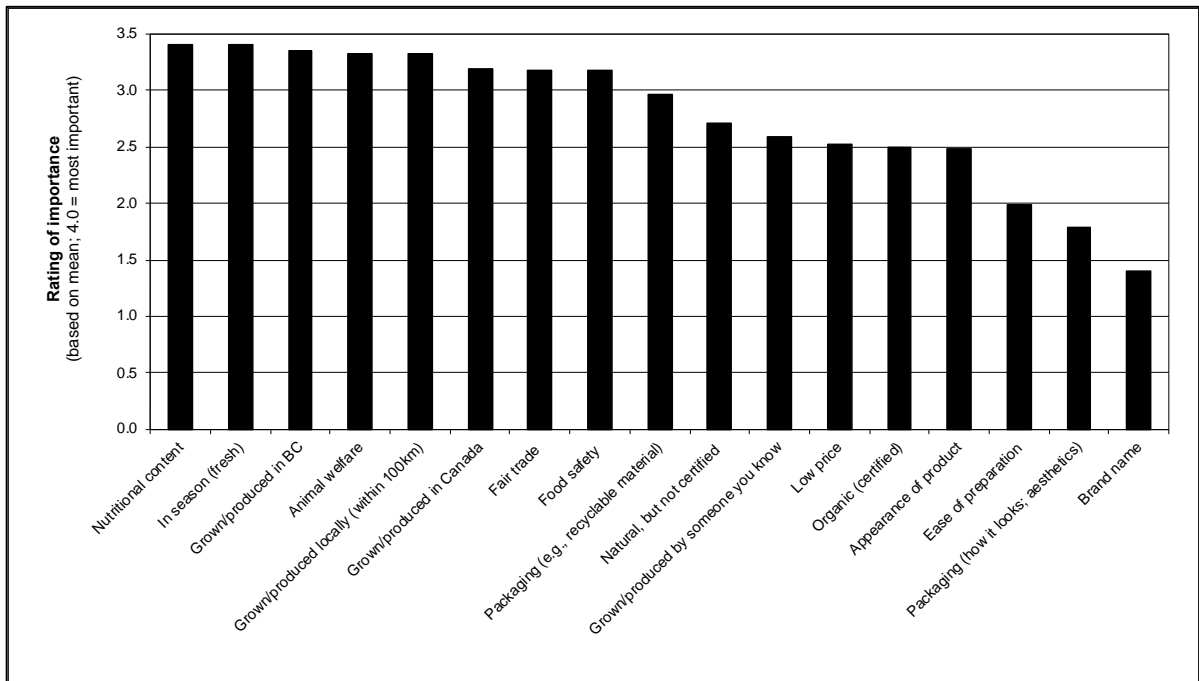


Chart 12 provides insight into shopping patterns and the factors customers consider when buying food. Generally, nutritional content and freshness are most important; however, local production and animal welfare are also important factors among interview participants.

Chart 12.

Factors People Consider when Buying Food (2012=286; 2023=363)



Shoppers were asked how much time they spend at the market during their visits and whether they spend any of that time talking with vendors and/or friends (Charts 13 and 14 respectively, next page)

Chart 13.

Length of Time Shoppers Spend at the Market (2023=370)

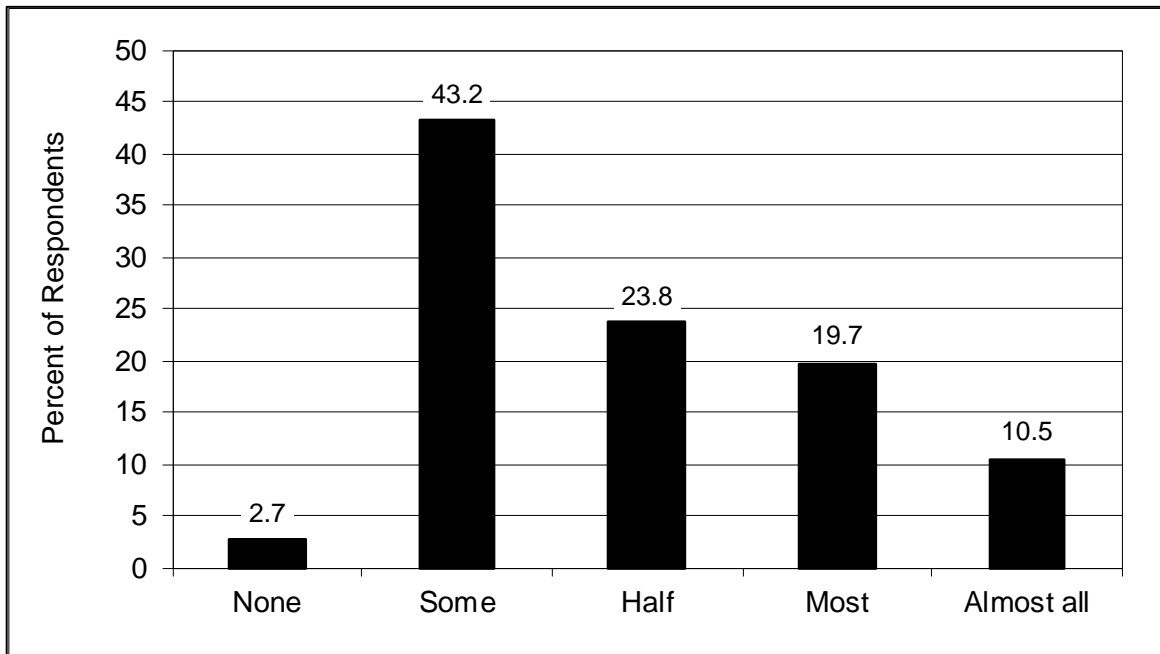
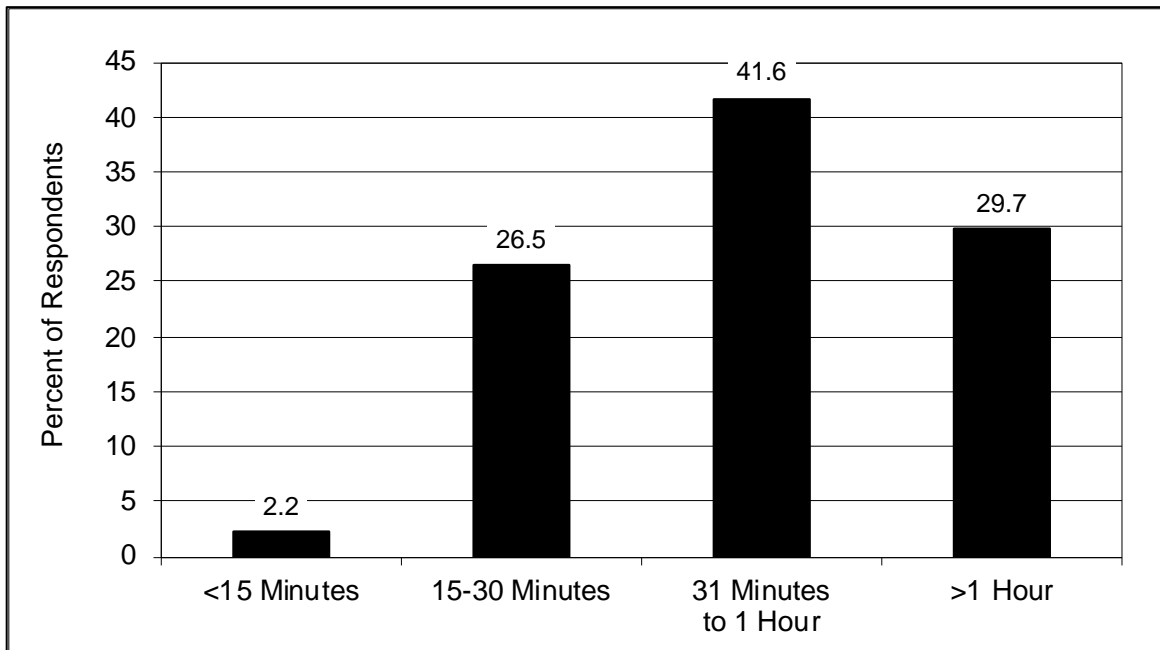


Chart 14.

Time Spent Talking with Others at the Market (2023=370)



The results of the above two questions are combined in Table 3 below. The shaded boxes highlight those people who spend at least half an hour at the market and at least half of that time talking with others (46%).

Table 3.

Time Spent at the Market Socializing (BC=370)

		How time is spent					Total
		None	Some	Half	Most	Almost All	
Time spent at market	<15 min.	1%	2%	0%	0%	0%	2%
	15-30 min.	1%	17%	5%	3%	1%	26%
	31 min. to 1 hr	1%	16%	15%	6%	3%	42%
	>1 hr	0%	8%	4%	11%	7%	30%
Total		3%	43%	24%	20%	11%	100%

Shoppers were asked to indicate the extent to which they agreed or disagreed with the following two statements: “*prices at farmers markets provide good value*” and “*farmers markets are too expensive*”. The overwhelming majority of respondents (84%) agreed that farmers markets provide good value, with 55% of respondents disagreeing that farmers markets are too expensive. Charts 15 and 16 (next page) showcase these results.

Chart 15.

Prices at Farmers Markets Provide Good Value. (n=365)

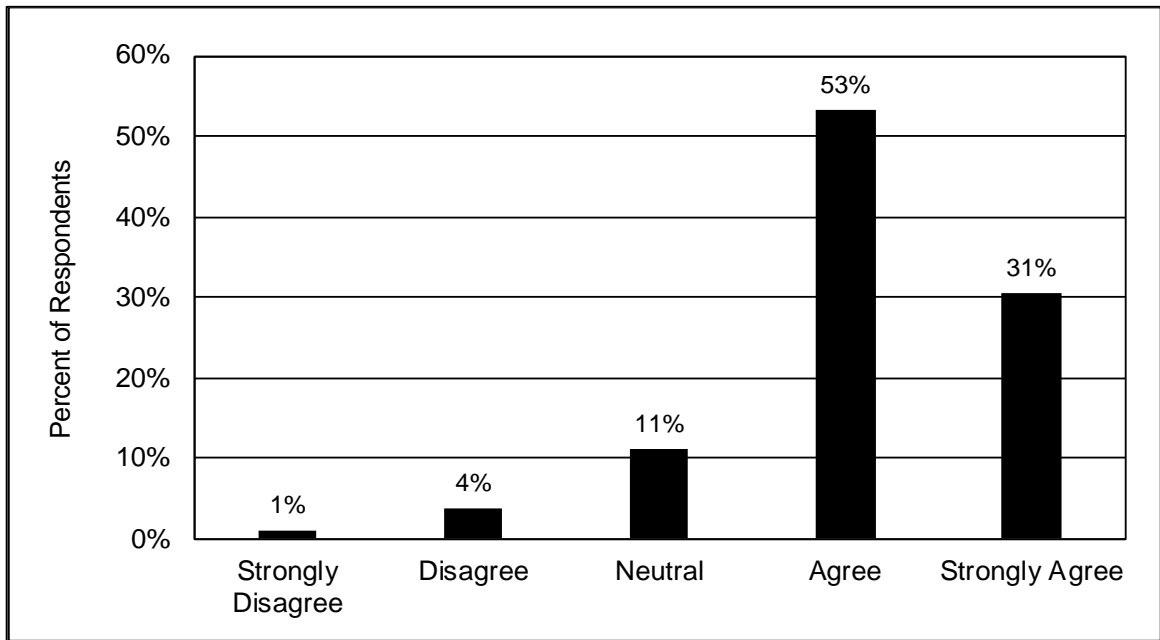
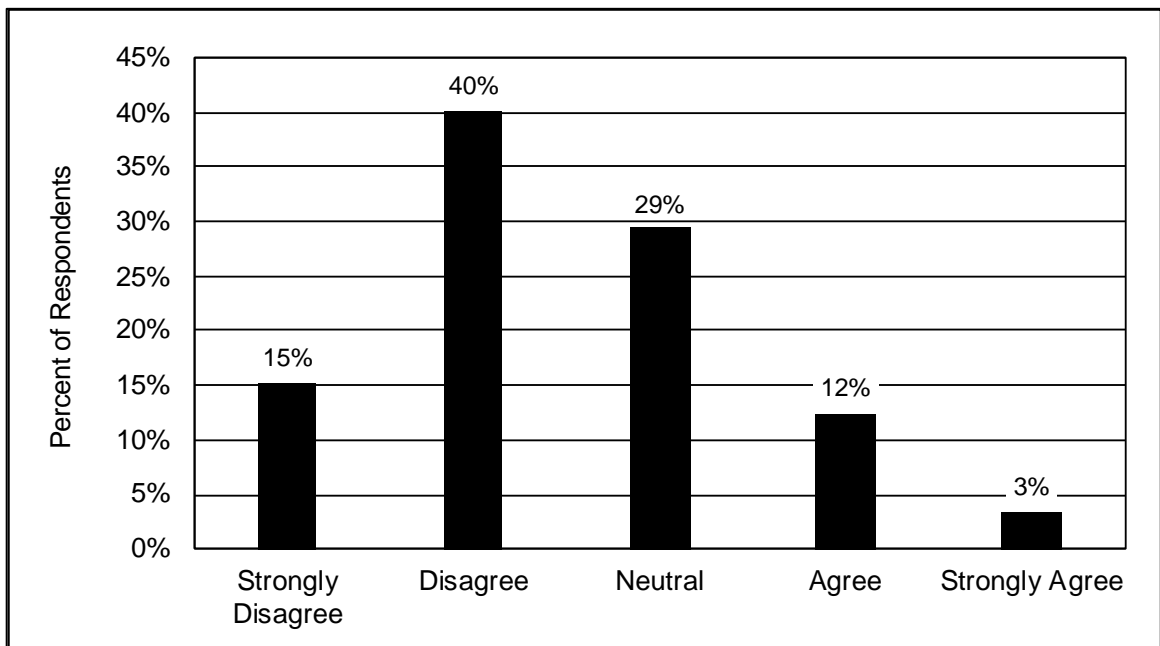


Chart 16.

Farmers Markets Are Too Expensive. (n=358)

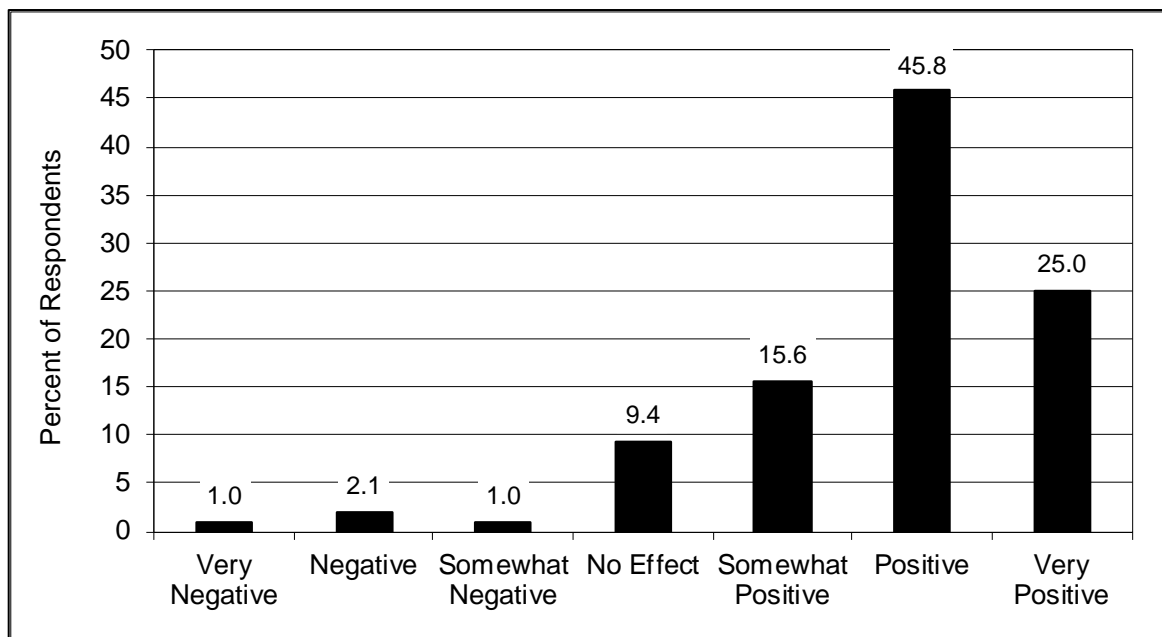


Business Surveys

Based on the availability of businesses for interviews, proximity to the market, and whether they are open on market days, we conducted 103 surveys with neighbouring businesses. Responses from adjacent businesses were overwhelmingly positive, as evident in Chart 17. Most respondents (86%) reported that their neighbouring farmers market has had a net positive effect on their businesses. One-quarter (25%) of businesses described the effect as “very positive”.

Chart 17.

Effect of Market on Neighboring Businesses (2023=103)



ECONOMIC IMPACTS ASSESSMENT – ARMSTRONG FARMERS' MARKET

The information collected in this assessment enables us to measure the economic impacts of the Armstrong Farmers' Market.

Annual Direct Sales

The amount of money spent by market shoppers (referred to as direct sales) is an effective way to measure economic impacts of a farmers market. This impact is the measure of total annual sales of a farmers market. Annual sales are calculated as follows:

$$\text{Average Expenditure by Shopper} \times \text{Number of Spending Shoppers per Market Day}^7 \times \text{Number of Market Days per Year}^8 \times \text{Seasonal Factor}^9$$

Armstrong Farmers' Market seasonally adjusted annual direct sales for 2023 are:

$$\$34.42 \text{ per shopper visit} \times 1069 \text{ spending customers} \times 23 \text{ (adjusted) sessions} =$$

\$735 thousand

Multiplier Effect

Another measure of economic impacts of farmers markets is to measure the ripple effect of people spending dollars at the market: "If I spend \$1 at the market then how does this dollar benefit the local economy?". The ripple effect includes both the profit to the market vendor and the monies the vendor spent on inputs for the products sold at the market, such as: seeds, feed, tools, and ingredients.

In this study we measure revenues and account for the ripple effect using a multiplier of 1.5^{10,11} to calculate the economic impact. This multiplier means that for every dollar spent at the market, another \$0.50 was spent in the local economy.

⁷ The number of spending customers is 75% of the seasonally adjusted estimated crowd count for a peak market day.

⁸ Market days account for comparable hours and multiple locations, including winter and special dates, such as holiday markets.

⁹ The seasonal factor accounts for varying sales and crowd levels during a market season and is based on data provided by the market manager and/or long-time vendors.

¹⁰ Hughes, D.W., Brown, C., Miller, S., & McConnell, T. (2008) Evaluating the economic impact of farmers' markets using an opportunity cost framework. *Journal of Agricultural and Applied Economics*, 40(1), 253-265. <https://www.cambridge.org/core/journals/journal-of-agricultural-and-applied-economics/article/abs/evaluating-the-economic-impact-of-farmers-markets-using-an-opportunity-cost-framework/E57B46247B82A049139B0FE6804234D8>

¹¹ Otto, D., & Varner, T. (2005). Consumers, vendors, and the economic importance of Iowa farmers' markets: An economic impact survey analysis. Ames, Iowa: Leopold Centre for Sustainable Agriculture. Retrieved from: <https://dr.lib.iastate.edu/entities/publication/45ba02a3-1938-464b-81f0-24f7a4bd8d02>

Using a multiplier of 1.5, the annual economic impact is approximately:

2023 Annual Economic Impact: \$1.1 million

This calculation means that the Armstrong Farmers' Market contributes an estimated \$1.1 million to the local economy each year. These monies benefit not only market vendors but also the local businesses that supply these vendors.

Community Impact

We can also assess the 'spillover' effect that the Armstrong Farmers' Market has on their neighbouring businesses. Based on dot survey results for question three, we can estimate the impact of market customers spending additional dollars at local, neighbouring businesses on the day of the market. Using the same formula for estimating sales, as above, the annual spending at neighbouring businesses is approximately:

2023 Annual Spending at Local Neighbouring Businesses: \$747 thousand

Acknowledgements

The BC Association of Farmers' Markets and the project team would like to thank the Armstrong Farmers' Market for participating in this study and for providing a team of volunteers to help conduct the assessment. The BCAFM gratefully acknowledges the financial assistance of BC Ministry of Agriculture and Food.

Finally, with the completion of this study, the BCAFM Membership and Communications team will ensure these important results and findings are shared far and wide with BCAFM members and a range of local, provincial, national, and global stakeholders.