# **Chapter 1**

# Missouri Producer Farm-to-Institution Survey Analysis

# **Authors:**

Alice Roach, Senior Research Associate, MU Division of Applied Social Sciences
Jill Moreland, Program Director, MU Division of Applied Social Sciences
Joe Parcell, Director, MU Division of Applied Social Sciences
Bill McKelvey, Senior Project Coordinator, MU Division of Applied Social Sciences
Hannah Anderson, Student Intern, MU Division of Applied Social Sciences

# **Table of Contents:**

1.1	Missouri Farm-to-Institution Survey	1
1.2	Top Takeaways	2
	Adopters	
	Abandoners	
1.5	Nonadopters	22
	Food Donations to Institutions	

#### 1.1 MISSOURI FARM-TO-INSTITUTION SURVEY

To collect producer perspectives about participating in farm-to-institution sales and donations, the project team surveyed Missouri producers. The Missouri Farm to Institution Survey launched in July 2021 and closed in October 2021. Strategies used to recruit producers to respond to the survey included announcing the survey at industry meetings, publicizing it in social media posts and marketing it in producer-oriented e-newsletters. The project team worked with the Missouri Grown program and University of Missouri Extension to share recruitment messages.

The survey collected 80 responses. This report summarizes data submitted by 28 respondents. Responses must have met the following three conditions to be included in the analysis.

- 1. The respondent's farm was primarily located in Missouri
- 2. The respondent's farm produced food products to sell in 2019 or 2020
- 3. The respondent participated in the survey questions that pertained to farm-to-institution experience, interest and perspectives

Each of the 28 responses was categorized into one of three segments based on a respondent's previous farm-to-institution sales experience: adopter, abandoner and nonadopter. The following definitions describe how respondents were split into the three categories.

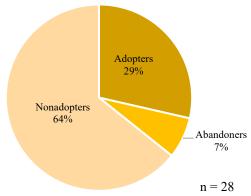
- Adopter: Farm sold food products to at least one institution in 2019 and/or 2020.
- **Abandoner**: Farm sold food products to at least one institution in the past but didn't sell to any institutions in 2019 or 2020.
- Nonadopter: Farm has never sold food products to an institution.

#### The survey referred to the following as institutions:

- K-12 private and public schools
- Colleges and universities
- Government agencies
- Military bases
- Food banks, food pantries and hunger relief organizations
- Childcare providers
- Correctional facilities and prisons
- Hospitals
- Workplace cafeterias
- Adult care facilities (e.g., nursing homes, long-term care)

Exhibit 1.1 reports nearly two-thirds of the 28 qualifying responses originated from nonadopters — individuals whose farms had never sold food to institutions. Adopters represented 29% of responses. Just two survey respondents were abandoners; they represented 7% of the responses analyzed.

**Exhibit 1.1 – Respondent Segmentation** 



## 1.2 TOP TAKEAWAYS

Sections 1.3. 1.4 and 1.5 of this chapter describe data for the three segments, their experience with farm-to-institution activities and their perspectives about farm-to-institution participation. Here, the discussion compares these segments and focuses on understanding the similarities and differences among adopters, abandoners and nonadopters. Exhibit 1.2.1 illustrates that nonadopters were most likely to sell meat, poultry and eggs in 2019 and 2020. Adopters and abandoners tended to have a more diversified portfolio of food products to sell.

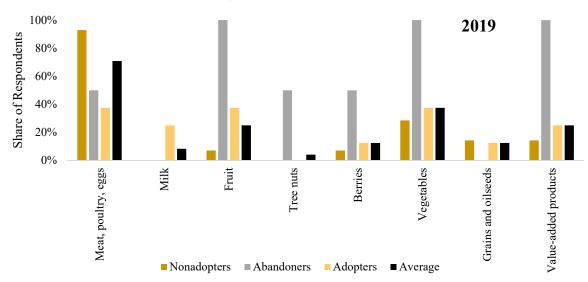
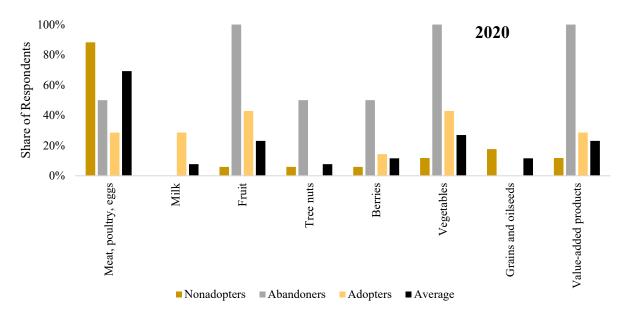


Exhibit 1.2.1 – Food Products Sold, 2019 and 2020

<sup>\*</sup> n = 14 for nonadopters; n = 2 for abandoners; n = 8 for adopters



<sup>\*</sup> n = 17 for nonadopters; n = 2 for abandoners; n = 7 for adopters

Question: What types of food products did your farm produce to sell to any market outlet in the year(s) noted? Source: Missouri Farm to Institution Survey (2021)

To an extent, nonadopters and abandoners expressed interest in selling to institutions in the next three years. Exhibit 1.2.2 presents the percentage of respondents in these segments who said they had such interest and the percentage of adopters who expressed interest in entering a given market or increasing sales to that market. On average, the institutions of greatest interest to all respondents on average were K-12 public or private schools, colleges or universities and workplace cafeterias. Of all individuals who responded to the question, 57% said they had interest in selling food products to these three types of institutions.

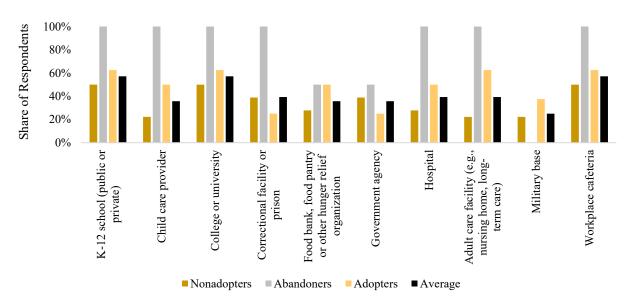


Exhibit 1.2.2 – Interest in Selling Food to Institutions in the Next Three Years

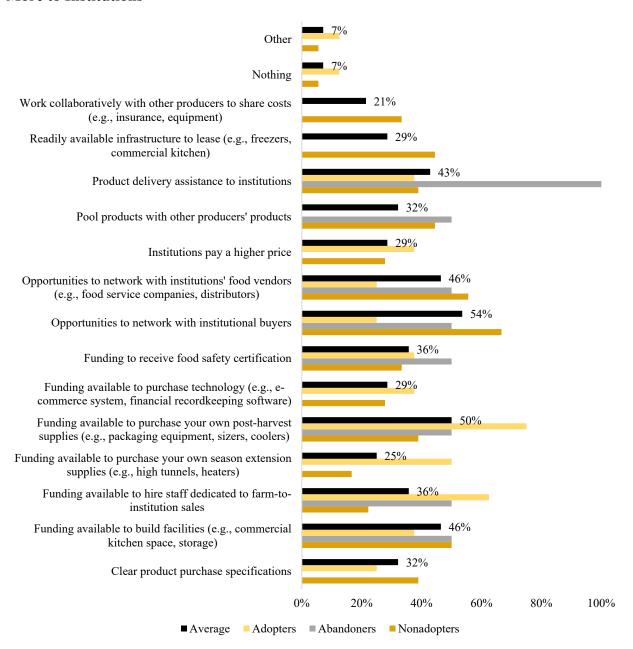
Question: To which of the following institutions is your farm interested in selling food products in the next three years? Please select all that apply. NOTE: Adopters data represent the sum of respondents who said they had interest in entering a market and those said they had interest in increasing sales in a market

Source: Missouri Farm to Institution Survey (2021)

To encourage farms to sell to institutions, the survey respondents provided ideas about what types of motivators may have the most meaningful impact. Of all respondents, 54% said opportunities to network with institutional buyers would encourage them to consider selling to institutions, consider selling to institutions again or sell more food to institutions. Half of respondents identified funding available to purchase post-harvest supplies (e.g., packaging equipment, sizers, coolers) as a form of encouragement. Other top factors cited to encourage respondents were funding available to build facilities and product delivery assistance. Exhibit 1.2.3 summarizes the responses provided by nonadopters, abandoners and adopters and the aggregate average across the three segments.

<sup>\*</sup> n = 18 for nonadopters; n = 2 for abandoners; n = 8 for adopters

Exhibit 1.2.3 – Factors that Would Encourage Farms to Consider Institutional Sales or Sell More to Institutions



<sup>\*</sup> n = 18 for nonadopters; n = 2 for abandoners; n = 8 for adopters

Question: Which of the following would encourage your farm to CONSIDER SELLING/CONSIDER SELLING AGAIN/CONSIDER SELLING MORE food to institutions? Please mark all that apply. Source: Missouri Farm to Institution Survey (2021)

Training may also support farms in making institutional sales. At least half of all respondents said they had interest in receiving training on these two subjects: networking with institutions, 65%, and farms working collectively, 57%. Exhibit 1.2.4 articulates the extent to which all respondents said they had interest in various farm-to-institution training topics.

100% Share of Respondents 80% 60% 40% 20% 0% Marketing Packaging Product specifications cooperatives, food hubs) Food safety Liability insurance Networking with (e.g., washing, freezing, Season extension Product preparation institutions collectively (e.g., Farms working

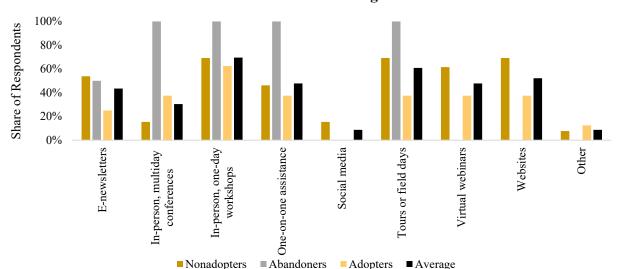
**Exhibit 1.2.4 – Interest in Farm-to-Institution Training Topics** 

Question: On which of the following topics would you like to receive training to help your farm participate in farmto-institution marketing? Please mark all that apply. Source: Missouri Farm to Institution Survey (2021)

■ Abandoners ■ Adopters

Exhibit 1.2.5 highlights the training formats respondents said they would use to learn about farmto-institution topics. Seven in 10 said they'd participate in in-person, one-day workshops, and 61% expressed interest in tours or field days. Half selected websites as a training resource they'd

access, and just less than half identified interest in one-on-one assistance and virtual webinars.



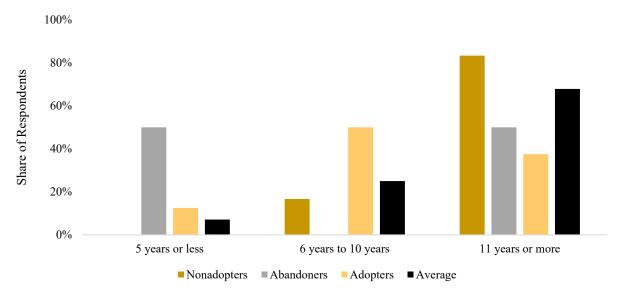
**Exhibit 1.2.5 – Interest in Farm-to-Institution Training Formats** 

Question: Which of the following formats would you use to access training on farm-to-institution topics? Please mark all that apply.

<sup>\*</sup> n = 13 for nonadopters; n = 2 for abandoners; n = 8 for adopters

<sup>\*</sup> n = 13 for nonadopters; n = 2 for abandoners; n = 8 for adopters

More than half of adopters would be considered beginning farmers because they had no more than 10 years of farming experience. See Exhibit 1.2.6. The average nonadopter, however, had more farming experience. More than 80% of nonadopters had at least 11 years of experience.



**Exhibit 1.2.6 – Years of Farming Experience** 

Question: How many years have you operated any farm? Source: Missouri Farm to Institution Survey (2021)

Adopters and abandoners were more likely to say they participate in the Missouri Grown program. Most of the participating farms had gross sales of agricultural products that didn't exceed \$100,000. None of the responding nonadopters or abandoners had gross sales of agricultural products that exceeded \$100,000 in 2019 or 2020. A small share of adopters, however, did report that they earned more than \$100,000 in gross sales of agricultural products.

#### 1.3 ADOPTERS

Adopters — Missouri farms that sold food to at least one institution in 2019 and/or 2020 — produced a variety of products to sell in 2019 and 2020. Exhibit 1.3.1 presents the share of

# "Adopter" Defined

Farms operated by adopters had sold food products to at least one institution in 2019 and/or 2020.

adopters who said they sold various food products to any market outlet. In 2019, the most commonly produced foods that adopters sold were meat, poultry and eggs; fruit; and vegetables. In 2020, adopters most commonly said they sold fruit and vegetables.

<sup>\*</sup> n = 18 for nonadopters; n = 2 for abandoners; n = 8 for adopters

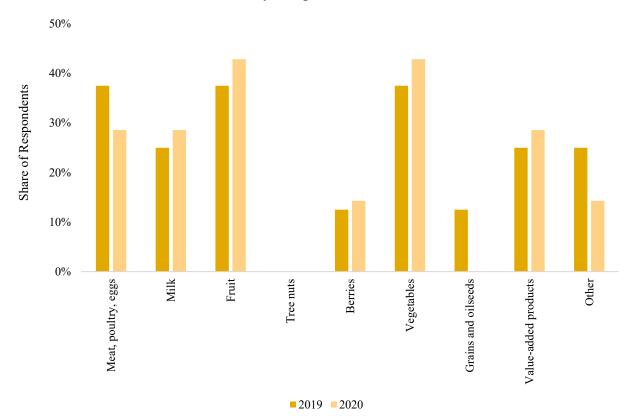


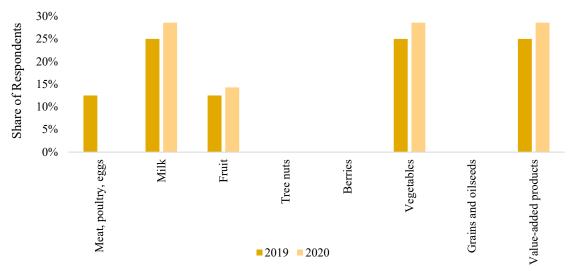
Exhibit 1.3.1 – Food Products Sold by Adopters, 2019 and 2020

\* n = 8 for 2019; n = 7 for 2020

Question: What types of food products did your farm produce to sell to any market outlet in the year(s) noted? Source: Missouri Farm to Institution Survey (2021)

Three products chiefly contributed to adopters' gross sales in 2019 and 2020. Exhibit 1.3.2 reports the share of adopters who said various farm products contributed the most to their farms' gross sales in a given year. Adopters were most likely to name milk, vegetables or value-added products as the predominant contributors to their farms' gross sales.

Exhibit 1.3.2 – Products Contributing Most to Adopters' Gross Farm Sales, 2019 and 2020



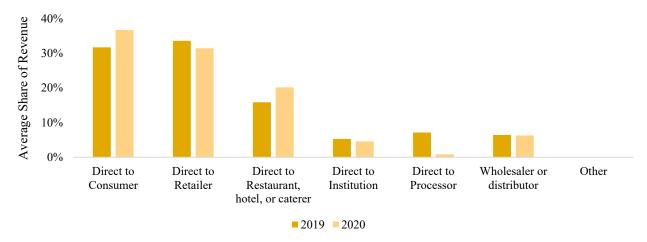
<sup>\*</sup> n = 8 for 2019; n = 7 for 2020

Question: Of the products your farm produced to sell to any market outlet in 2019, which contributed the most to your farm's gross sales?

Source: Missouri Farm to Institution Survey (2021)

Respondents who identified as adopters sold products through a variety of market outlets. Exhibit 1.3.3 indicates that direct-to-consumer and direct-to-retailer market outlets contributed the most to adopters' agricultural product revenue in 2019 and 2020. Direct-to-institution sales were steady between the two years. They averaged 5% of total agricultural product revenue.

Exhibit 1.3.3 – Average Share of Total Agricultural Product Revenue Generated by Market Outlet, 2019 and 2020

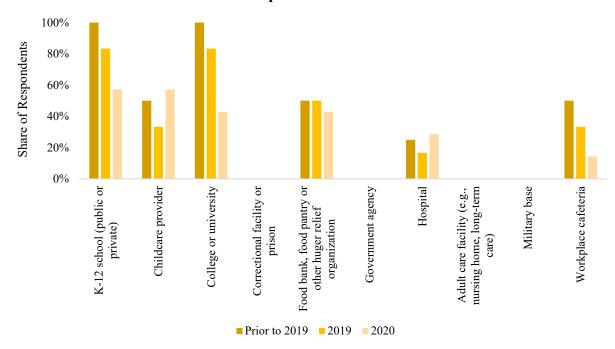


<sup>\*</sup> n = 7 for 2019; n = 7 for 2020

Question: Of the total agricultural product revenue your farm collected in 2019/2020, what percentage was generated from the following market outlets? The total must add to 100.

To understand the types of institutions that adopters had served, respondents selected the institutions they reached before 2019 and during 2019 and 2020. Of the four respondents who provided responses about institutional sales before 2019, all had sold food products to K-12 public or private schools and colleges or universities. The share of respondents serving these types of institutions declined in 2019 and 2020; six and seven respondents, respectively, reported institutions where they sold food products in those two years. The incidence of selling to workplace cafeterias also declined. See Exhibit 1.3.4. This weakening participation in 2020 may be attributed to the COVID-19 pandemic, which caused institutions such as schools, colleges and workplaces to close during lockdown periods.

The share of respondents who reported selling food to hospitals stayed relatively consistent during the three time periods noted. In 2020, a greater share of adopters said they sold food products to childcare providers compared with 2019. Adopters didn't indicate having previous experience with selling food products to correctional facilities, government agencies, adult care facilities or military bases.



**Exhibit 1.3.4 – Institutions Where Adopters Sold Food Products** 

Question: To which of the following institutions did your farm sell food products in the year(s) noted? Please select all that apply.

Source: Missouri Farm to Institution Survey (2021)

In 2019, adopters most significantly relied on institutional sales to colleges and universities and K-12 public and private schools. Exhibit 1.3.5 communicates the average share of institutional sales attributed to 10 institutional markets. Compared with 2019, institutional sales in 2020 were more diversified. Of the revenue they collected from institutions, adopters earned more from

<sup>\*</sup> n = 4 for prior to 2019; n = 6 for 2019; n = 7 for 2020; "n" represents the number of adopters who reported selling to at least one institution in the time period noted

hospitals and food banks, food pantries and other hunger relief organizations in 2020 than they did in 2019. Farms also reported slightly greater sales to childcare providers in 2020.

Again, lockdowns during the COVID-19 pandemic may have stimulated at least some of the institutional sales shift observed in the chart. Many schools and colleges closed or significantly reworked food service programs during the pandemic. Hospitals and food banks, food pantries and other hunger relief organizations may have served food to more clients during the pandemic.

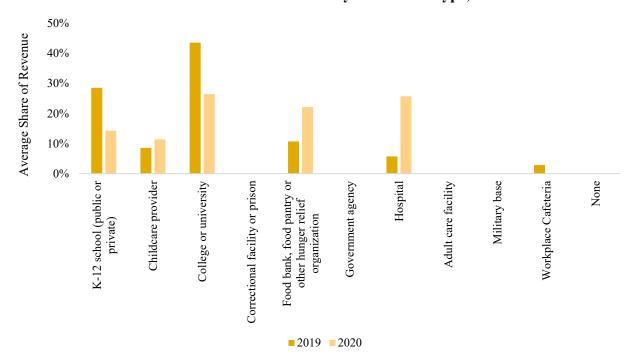


Exhibit 1.3.5 –Institutional Food Product Sales by Institution Type, 2019 and 2020

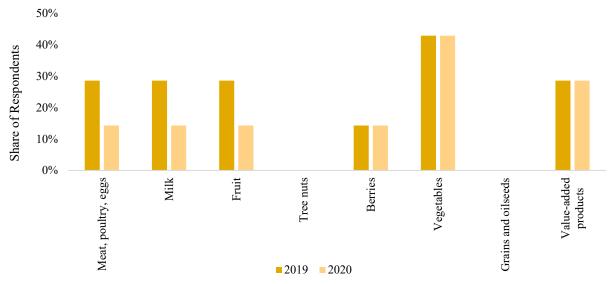
Question: Of your farm's revenue collected from institutions in 2019 or 2020, what percentage was generated from the following institutions. The total must add to 100. Source: Missouri Farm to Institution Survey (2021)

When selling food products to institutions, adopters largely didn't secure contracts or preseason commitments between their farms and institutional buyers. None of the seven adopters providing a response for 2020 said they had contracts or preseason commitments with institutions. In 2019, one respondent said 15% of his or her food sales generated from institutions were linked to a contract or preseason commitment. Additionally, few respondents sold "seconds" to institutions. Seconds include overripe fruit, very small eggs and misshapen vegetables.

Exhibit 1.3.6 presents that adopters most commonly sold vegetables to institutions in 2019 and 2020. Adopters' sales to institutions were slightly less diversified in 2020 than 2019 in terms of the types of products they sold — as shown by a smaller share of adopters saying that they sold meat, poultry and eggs; milk; and fruit to institutions in 2020 compared with 2019. The share of respondents selling berries, vegetables and value-added products to institutions experienced no change between 2019 and 2020.

<sup>\*</sup> n = 7 for 2019; n = 7 for 2020

Exhibit 1.3.6 – Food Products Adopters Sold to Institutions, 2019 and 2020



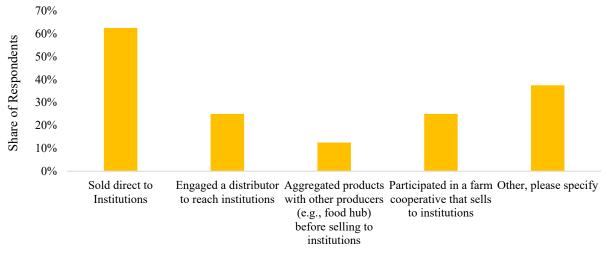
\* n = 7 for 2019; n = 7 for 2020

Question: What types of food products did your farm sell to institutions in the year(s) noted? Please mark all that apply.

Source: Missouri Farm to Institution Survey (2021)

In terms of how adopters said they reached institutions, 63% said they had at some point sold food products directly to institutions. Relatively few adopters had worked with a distributor or farm cooperative to sell food products to institutions. Exhibit 1.3.7 displays the extent to which adopters had pursued certain pathways to reach institutional markets.

Exhibit 1.3.7 – Pathways Adopters Had Ever Used to Reach Institutional Markets



\* n = 8

Question: Which of the following describes how your farm has ever reached institutional markets? Source: Missouri Farm to Institution Survey (2021)

The adopters who responded to the survey have a history of working with institutions. Exhibit 1.3.8 illustrates that all of the responding adopters had served institutions for at least two years. Three-quarters of these adopters had at least five years of institutional sales experience.

40%
30%
20%
10%
Less than 2 years 2 to 4 years 5 to 7 years 8 to 10 years 11 years or more

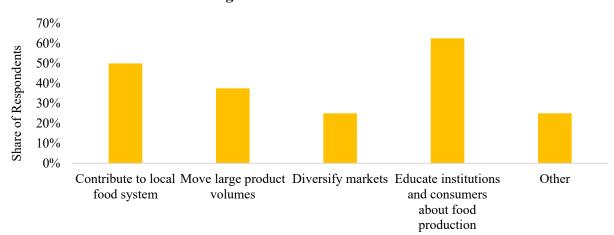
**Exhibit 1.2.8 – Years of Experience Selling Food to Institutions** 

\* n = 8

Question: For how many years total – not necessarily consecutively – has your farm sold food products to institutions?

Source: Missouri Farm to Institution Survey (2021)

Adopters identified two factors as the leading reasons to sell food products to institutions. For 63% of adopters, educating institutions and consumers about food production motivated them. Half indicated they sell to institutions to contribute to their local food systems. Exhibit 1.3.9 summarizes the share of respondents who selected other reasons. Slightly more than one-third viewed selling food to institutions as an opportunity to move large product volumes. One-quarter said institutional sales allow them to diversify markets. Comments submitted as write-in "other" responses mentioned sustainability and fulfilling Missouri Farm to Table grant requirements.



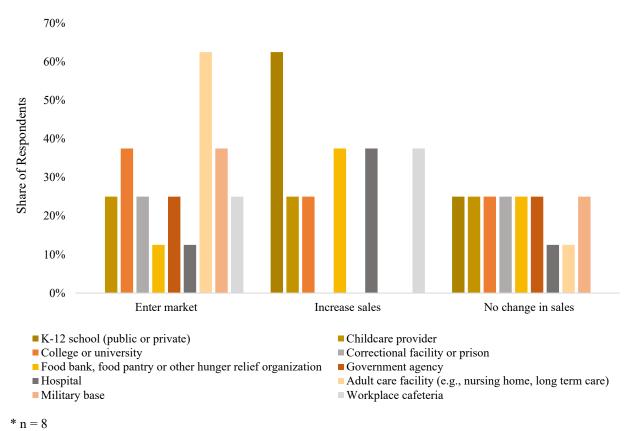
**Exhibit 1.3.9 – Reasons for Selling Food to Institutions** 

Question: Why does your farm sell food products to institutions?

<sup>\*</sup> n = 8; no respondents selected the following reasons as motivators for selling food to institutions: receive a consistent price, earn a fair price, secure contracts to know volumes in advance, decrease marketing costs and reduce product delivery costs

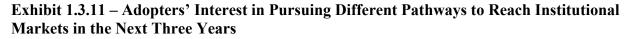
The survey also asked adopters to describe their future outlook for farm-to-institution sales. Looking forward, the largest share of respondents expressed interest in entering into sales with adult care facilities such as nursing homes and long-term care facilities. In the next three years, more than half of responding adopters said they had interest in entering into this institutional market. See Exhibit 1.3.10. In terms of the institutional market where adopters indicated the greatest interest in increasing sales, 63% of respondents said they'd like to increase farm-to-school sales in the next three years. Note, no respondents said they'd like to decrease sales in a certain institutional market outlets or exit any institutional markets.

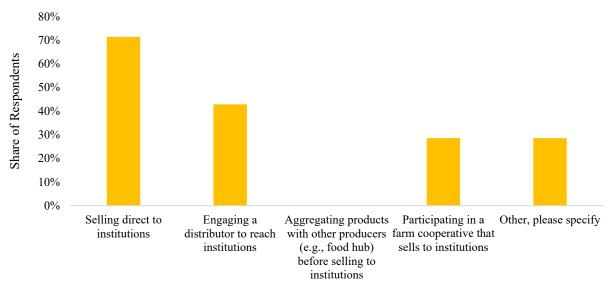
Exhibit 1.3.10 – Adopters' Interest in Pursuing Different Institutional Markets in the Next Three Years



Question: In the next three years, what's your farm's outlook for food product sales to institutions? Source: Missouri Farm to Institution Survey (2021)

With respect to the pathway that adopters had the most interest in pursuing to reach institutions in the next three years, nearly three-quarters selected direct sales to institutions. See Exhibit 1.3.11. Of the seven responding adopters, 43% said they had interest in engaging a distributor to reach institutional markets. Fewer adopters expressed interest in farm cooperative participation. None of the adopters said they had interest in aggregating their product with other products' goods — like would be the case if operating a food hub.





\* n = 7

Question: In the next three years, which of the following pathways are you interested in pursuing to reach institutional markets?

Source: Missouri Farm to Institution Survey (2021)

Adopters who responded to the survey selected several factors that would encourage them to sell more food to institutions. At least half of adopters named three factors as those that would facilitate more farm-to-institution activity. All three tie to funding availability.

- Funding available to purchase your own post-harvest supplies (e.g., packaging equipment, sizers, coolers), 75%
- Funding available to hire staff dedicated to farm-to-institution sales, 63%
- Funding available to purchase your own season extension supplies (e.g., high tunnels, heaters), 50%

Fewer respondents selected other items such as product delivery assistance and funding available to build facilities as forms of assistance that would drive more farm-to-institution sales. Exhibit 1.3.12 presents the share of adopters who expressed interest in other types of support meant to drive farm-to-institution sales.

Supplier directories can serve as a resource that connects farms and institutions and facilitates sales opportunities. Of the eight adopters who responded to the question, 88% of adopters said they had interest in listing their farms in a farm-to-institution supplier directory.

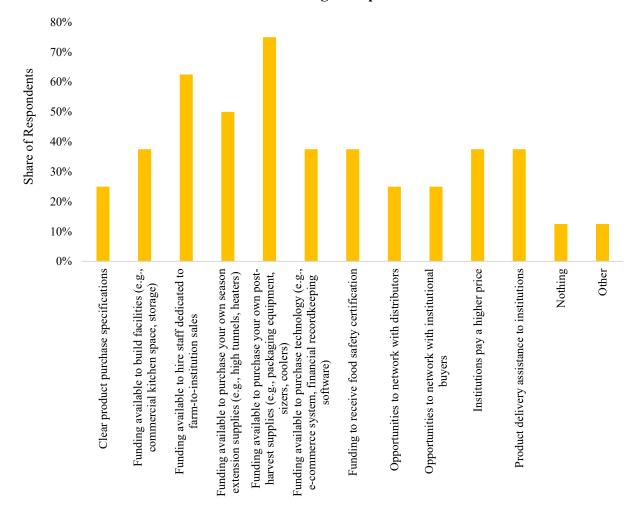


Exhibit 1.3.12 – Factors that Would Encourage Adopters to Sell More Food to Institutions

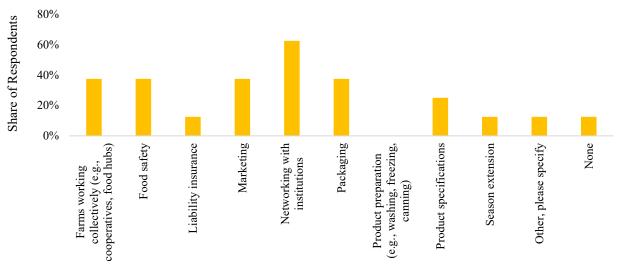
Question: Which of the following would encourage your farm to consider selling more food to institutions? Source: Missouri Farm to Institution Survey (2021)

Training programs may provide some farms with the knowledge and skills that could help to market more food products to institutions. Exhibit 1.3.13 lists potential training topics and the share of adopters who said they'd like to receive training on those topics. Networking with institutions ranked as the top training topic of interest to farms. Nearly two-thirds of adopters said they viewed networking with institutions as a training topic that could help their farms participate in farm-to-institution marketing. Four topics tied for second place as 38% of respondents indicated interest in these topics: farms working collectively (e.g., cooperatives, food hubs), food safety, marketing and packaging.

The "other" response provided to this question mentioned that institutions may have greater training needs than producers. Other training ideas noted by this respondent included how to make wholesale work and how to maximize yield and shelf life.

<sup>\*</sup> n = 8; no respondents selected the following factors that would encourage them to sell more food to institutions: pool products with other producers' products, readily available infrastructure to lease (e.g., freezers, commercial kitchens) and work collaboratively with other producers to share costs (e.g., insurance, equipment)

Exhibit 1.3.13 – Farm-to-Institution Training Topics of Interest to Adopters



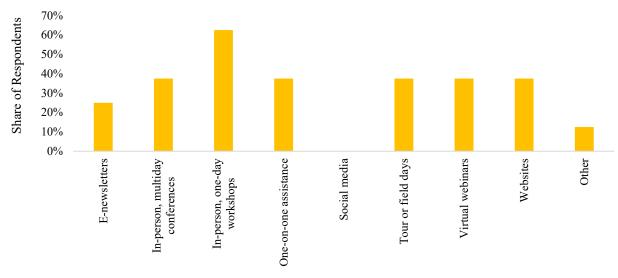
n = 8

Question: On which of the following topics would you like to receive training to help your farm participate in farm-to-institution marketing?

Source: Missouri Farm to Institution Survey (2021)

The training format of greatest interest to adopters are in-person, one-day workshops. More than 60% of respondents said they would use such workshops to access training on farm-to-institution topics. Five training formats interested 38% of adopters: in-person, multiday conferences; one-on-one assistance; tour or field days; virtual webinars; and websites. See Exhibit 1.3.14. Note, no respondents selected social media as a format they'd access for farm-to-institution training.

Exhibit 1.3.14 – Farm-to-Institution Training Formats of Interest to Adopters

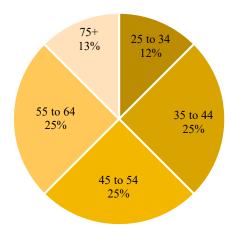


n = 8

Question: Which of the following formats would you use to access training on farm-to-institution topics? Source: Missouri Farm to Institution Survey (2021)

Three-quarters of the responding adopters were females, and three-quarters said their farms participate in the Missouri Grown program. More than half reported they had fewer than 10 years of farming experience. Thus, they are beginning farmers, according to USDA. Exhibit 1.3.15 illustrates the age distribution of responding adopters. Half of adopters were 35- to 54-year-olds. Additionally, 38% of adopters were at least 55 years old.

**Exhibit 1.3.15 – Age Distribution of Responding Adopters** 



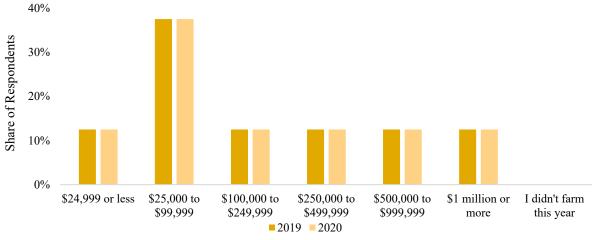
n = 8

Question: What is your age?

Source: Missouri Farm to Institution Survey (2021)

Half of responding adopters said their farms' gross sales of agricultural products didn't exceed \$100,000 in 2019 and 2020. Exhibit 1.3.16 details the gross sales of agricultural products data. The other half of adopters reported more wide-ranging gross sales of agricultural products.

Exhibit 1.2.16 – Adopter Average Gross Sales of Agricultural Products



\* n = 8

Question: Which of the following categories best reflects your farm's average gross sales of agricultural products in 2019 and 2020?

#### 1.4 ABANDONERS

Of the 28 respondents who had survey responses analyzed, two reported being abandoners who had sold food to at least one institution at some point but not in 2019 or 2020. The two operations these respondents represented were diversified in terms of the food products they sold to any market outlet in 2019 and 2020. Exhibit 1.4.1 illustrates that both farms produced

## "Abandoner" Defined

Farms operated by abandoners had sold food products to at least one institution but didn't sell to any institutions in 2019 or 2020.

fruits, vegetables and value-added products in 2019 and 2020. In both years, the two abandoners said vegetable sales contributed the most to their farms' annual gross sales. These farms also reported experience selling meat, poultry and eggs; tree nuts; and berries.

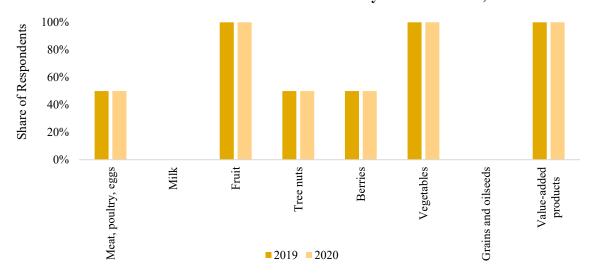


Exhibit 1.4.1 – Food Products Abandoners Sold to Any Market Outlet, 2019 and 2020

Question: What types of food products did your farm produce to sell to any market outlet in the year(s) noted? Please mark all that apply.

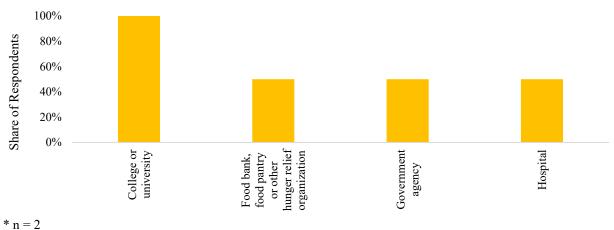
Source: Missouri Farm to Institution Survey (2021)

Both abandoners relied heavily on direct-to-consumer marketing arrangements. During 2019 and 2020, the two abandoners said they earned at least 90% of their total agricultural product revenue from direct-to-consumer sales. They generated other revenue through direct sales to restaurants, hotels or caterers. In the past, though, the abandoners had sold food products to varied institutions. Exhibit 1.4.2 presents the share of abandoners who said their farms had sold food to certain institutions at some point in the past.

Abandoners' farms had sold vegetables to these institutions, and they both had sold food to institutions for less than two years. To reach institutions, abandoners sold food directly to those institutional markets. At most, institutional sales represented less than 20% of one abandoner's annual food product sales. For the other abandoner, institutional sales had represented as much as 20% to 39% of their farm's annual food product sales.

<sup>\*</sup> n = 2 for 2019 and 2020

Exhibit 1.4.2 – Institutions Where Abandoners Had Sold Food Products

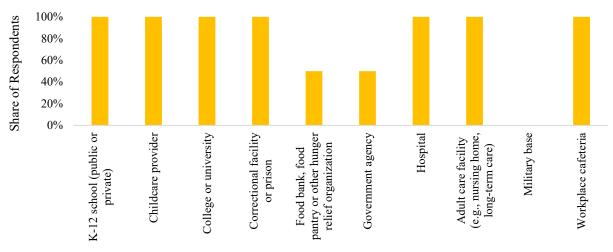


Question: To which of the following institutions has your farm ever sold food products? Please mark all that apply. Source: Missouri Farm to Institution Survey (2021)

One abandoner provided input about why his or her farm stopped selling food products to institutions. The respondent cited two reasons: institutions bought too little, and institutions weren't interested in developing long-term relationships with farms.

The two abandoners expressed interest in resuming sales to institutions, and they named several types of institutions as market opportunities that they had interest in serving during the next three years. Exhibit 1.4.3 shows both abandoners had interest in selling to K-12 public or private schools, childcare providers, colleges or universities, correctional facilities or prisons, hospitals, adult care facilities (e.g., nursing homes, long-term care facilities) and workplace cafeterias.

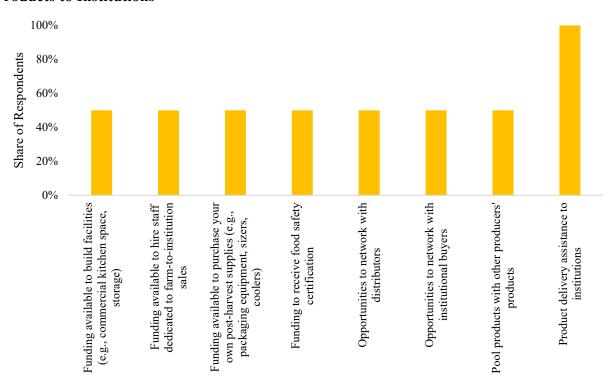
**Exhibit 1.4.3 – Institutions Abandoners Said They Had Interest in Serving in the Next Three Years** 



\* n = 2

Question: To which of the following institutions is your farm interested in selling food products in the next three years? Please mark all that apply.

Exhibit 1.4.4 highlights factors that abandoners said would cause them to reconsider selling food to institutions. Both said product delivery assistance to institutions would encourage them to reconsider selling to institutions. Other factors named were funding available to build facilities, funding available to hire staff, funding available to purchase post-harvest supplies, funding to receive food safety certification, opportunities to network with distributors, opportunities to network with institutional buyers and pooling products with other producers' products.



**Exhibit 1.4.4 – Factors That Would Encourage Abandoners to Reconsider Selling Food Products to Institutions** 

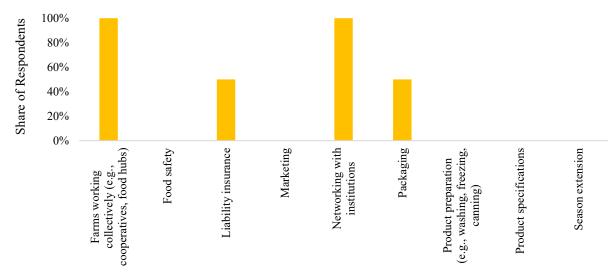
Question: Which of the following would encourage your farm to consider selling food to institutions again? Please mark all that apply.

Source: Missouri Farm to Institution Survey (2021)

Abandoners cited some interest in participating in training that would help them with farm-to-institution marketing. Exhibit 1.4.5 lists specific training topics and the share of abandoners who had interest in participating in training on each topic. Both named farms working collectively and networking with institutions as interest areas. Liability insurance and packaging were also noted as training topics of interest to abandoners.

<sup>\*</sup> n = 2; factors not named by any abandoners were as follows: clear product purchase specifications, funding available to purchase your own season extension supplies (e.g., high tunnels, heaters), funding available to purchase technology (e.g., e-commerce system, financial recordkeeping software), institutions pay a higher price, readily available infrastructure to lease (e.g., freezers, commercial kitchen), work collaboratively with other producers to share costs (e.g., insurance, equipment) and nothing.

Exhibit 1.4.5 – Farm-to-Institution Training Topics of Interest to Abandoners



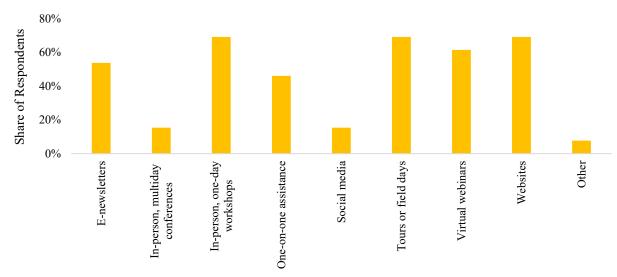
\* n = 2

Question: On which of the following topics would you like to receive training to help your farm participate in farm-to-institution marketing? Please mark all that apply.

Source: Missouri Farm to Institution Survey (2021)

The formats that abandoners would most prefer for farm-to-institution training are in-person, multiday conferences; in-person, one-day workshops; one-on-one assistance; and tours or field days. Exhibit 1.4.6 reports that both abandoners said they would access farm-to-institution training materials in these four formats.

Exhibit 1.4.6 – Farm-to-Institution Training Formats of Interest to Abandoners



\* n = 2

Question: Which of the following formats would you use to access training on farm-to-institution topics? Please mark all that apply.

Of the abandoners participating in the survey research, one had no more than five years of farming experience — a beginning farmer. The other had between 16 years and 20 years of experience. One respondent was a male, and the other was a female. One was a 35- to 44-year-old, and the other was a 45- to 54-year-old. Both operate farms that participate in the Missouri Grown program. In terms of their operations' gross sales of agricultural products, one respondent earned less than \$25,000 in 2019 and 2020. The other earned between \$100,000 and \$249,999.

#### 1.5 NONADOPTERS

Nonadopters responding to the survey most commonly produced meat, poultry and eggs. Exhibit 1.5.1 illustrates that nearly all nonadopters providing responses for 2019 and 2020 said they produced meat, poultry or eggs. In 2019, vegetables ranked as the second most popular product raised by nonadopters. In 2020, grains and oilseeds ranked second.

# "Nonadopter" Defined

Farms operated by nonadopters had never sold food products to institutions.

Relatively few producers — 14% in 2019 and 12% in 2020 — created value-added agricultural products. Some nonadopters also participated in producing fruit, berries and tree nuts.

Of the 14 respondents who provided a response about their 2019 production, nearly 80% said meat, poultry or eggs sales contributed most to their overall sales. The survey collected 2020 responses from 17 respondents, and two-thirds of them said meat, poultry or eggs contributed the most their farms' sales in that year.

Nature-added products

Exhibit 1.5.1 – Food Products Nonadopters Sold to Any Market Outlet, 2019 and 2020

\* n = 14 for 2019; n = 17 for 2020

Question: What types of food products did your farm produce to sell to any market outlet in the year(s) noted? Please mark all that apply.

To understand the market outlets nonadopters use to market the products they raise, they reported the share of total agricultural product revenue generated by market outlet. Exhibit 1.5.2 shares that nonadopters primarily relied on direct-to-consumer sales and "other" market outlets. "Other" may include transactions made with sale barns, elevators or cooperatives. For 40% of nonadopters responding about 2019 and 29% of nonadopters responding about 2020, they exclusively collected agricultural product revenue from direct-to-consumer sales arrangements.

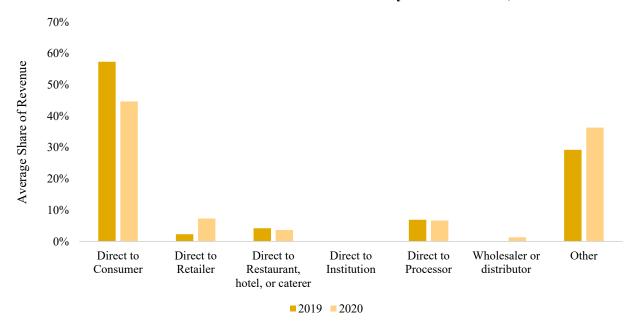


Exhibit 1.5.2 – Share of Food Product Sales Generated by Market Outlet, 2019 and 2020

Question: Of the products your farm sold in 2019, what percentage of those sales was generated from the following market outlets? The total must add to 100.

Source: Missouri Farm to Institution Survey (2021)

In terms of why nonadopters hadn't sold food products to institutions, at least half of respondents identified two barriers: no connection to institutions or their food vendors, 78%, and uncertainty about what food products institutions would want or need, 50%. Exhibit 1.5.3 highlights other reasons that kept nonadopters from selling food products to institutions. Two respondents who selected "other" mentioned that the paperwork or permits involved in selling food to institutions were barriers. Another respondent indicated no desire to sell to institutions.

<sup>\*</sup> n = 14 for 2019; n = 15 for 2020

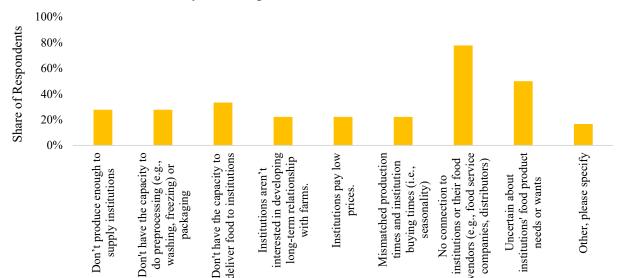


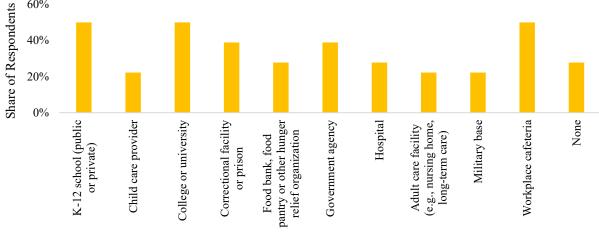
Exhibit 1.5.3 – Reasons Why Nonadopters Hadn't Sold Food to Institutions

Question: For what reasons has your farm not ever sold food products to institutions? Please mark all that apply. Source: Missouri Farm to Institution Survey (2021)

To determine nonadopters' interest in institutional sales, they selected institutions where they had interest in making food sales during the next three years. Half indicated interest in three institutions: K-12 public or private schools, colleges or universities and workplace cafeterias. Nearly 40% said they had interest in selling to correctional facilities or prisons and government agencies. See Exhibit 1.5.4. Note, 28% of respondents had no interest in selling to institutions.

Exhibit 1.5.4 – Share of Nonadopters Interested in Selling Food to Certain Institutions in the Next Three Years

90 40%



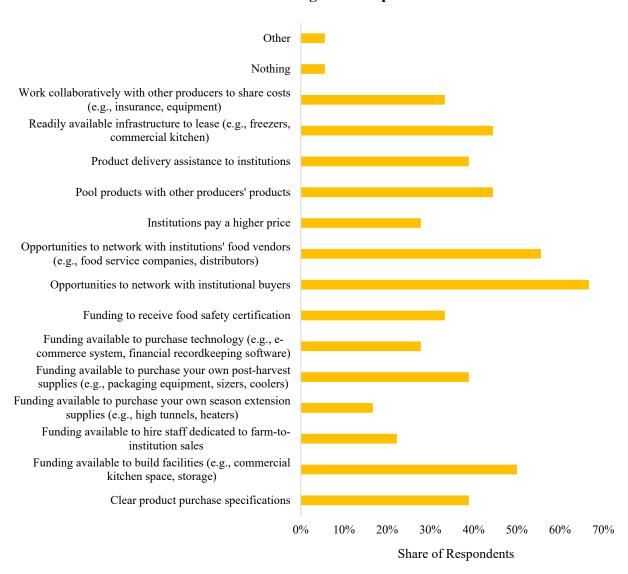
\* n = 18

Question: To which of the following institutions is your farm interested in selling food in the next three years? Please market all that apply.

<sup>\*</sup> n = 18; note, no respondents selected the following as reasons for not selling food products to institutions: don't meet institutions' food safety requirements; inadequate liability insurance; and institutions buy too little.

Nonadopters identified several items that would encourage them to sell food to institutions. The top response — cited by 67% of nonadopters — was finding opportunities to network with institutional buyers. See Exhibit 1.5.5. Of those responding, 56% identified opportunities to network with institutions' food vendors, such as food service companies and distributors, as a factor that would encourage them to sell to institutions. Half said funding available to build facilities, such as a commercial kitchen or storage space, would be an encouragement. Two items were selected by 44% of nonadopters: pool products with other producers' products and readily available infrastructure such as freezers or commercial kitchens to lease.

Exhibit 1.5.5 – Factors That Would Encourage Nonadopters to Sell Food to Institutions



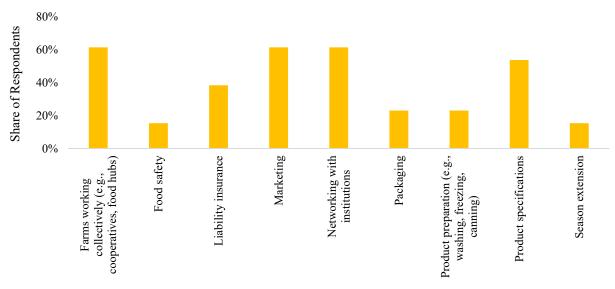
n = 18

Question: Which of the following would encourage your farm to consider selling food to institutions? Please market all that apply.

Exhibit 1.5.6 summarizes several farm-to-institution training topics and the share of nonadopters who said they had interest in participating in such training. At least half of nonadopters identified the following topics as interests:

- Farms working collectively (e.g., cooperatives, food hubs), 62%
- Marketing, 62%
- Networking with institutions, 62%
- Product specifications, 54%

**Exhibit 1.5.6 – Farm-to-Institution Training Topics of Interest to Nonadopters** 



\* n = 13

Question: On which of the following topics would you like to receive training to help your farm participate in farm-to-institution marketing? Please mark all that apply.

Source: Missouri Farm to Institution Survey (2021)

In terms of how to deliver farm-to-institution training, Exhibit 1.5.7 illustrates the training formats nonadopters said they would use to access farm-to-institution training. At least half of nonadopters said they would access farm-to-institution training in these formats:

- In-person, one-day workshop, 69%
- Tours or field days, 69%
- Websites, 69%
- Virtual webinars, 62%
- E-newsletters, 54%

One individual selected "other" and noted an interest in on-demand online training modules.



Social media

Tours or field days

Virtual webinars

**Exhibit 1.5.7 – Farm-to-Institution Training Formats of Interest to Nonadopters** 

\* n = 13

Question: Which of the following formats would you use to access training on farm-to-institution topics? Please mark all that apply.

One-on-one assistance

Source: Missouri Farm to Institution Survey (2021)

In-person, multiday

conferences

E-newsletters

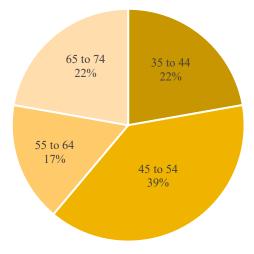
Of the nonadopters responding, 78% were males, and 22% were females. Most — 83% — were experienced farmers who had operated a farm for at least 11 years, but 17% had six years to 10 years of farming experience. Two-thirds of responding nonadopters did not participate in the Missouri Grown program, but one-third did participate. Exhibit 1.5.8 presents the age distribution for nonadopters. Six in 10 responding nonadopters were 35- to 54-year-olds. The other nonadopters ranged in age from 55 to 74.

other nonadopters ranged in age from 55 to 74.

Exhibit 1.5.8 – Nonadopter Age Distribution

In-person, one-day

workshops



\* n = 18

Question: What is your age?

Source: Missouri Farm to Institution Survey (2021)

Other

Websites

When selling agricultural products in 2019, Exhibit 1.5.9 summarizes that a majority of nonadopters earned less than \$25,000 in gross sales. Most nonadopters in 2020 earned less than \$25,000 or \$25,000 to \$99,999 in gross sales.

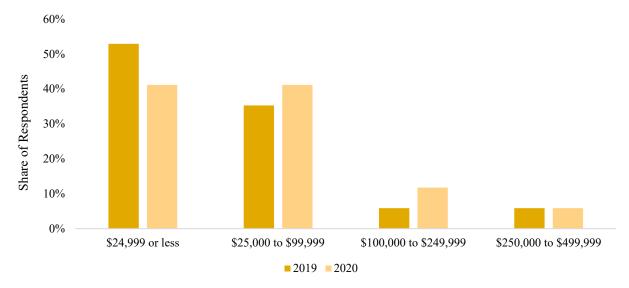


Exhibit 1.5.9 – Nonadopter Average Gross Sales of Agricultural Products

Question: Which of the following categories best reflects your farm's average gross sales of agricultural products in 2019 and 2020?

Source: Missouri Farm to Institution Survey (2021)

#### 1.6 FOOD DONATIONS TO INSTITUTIONS

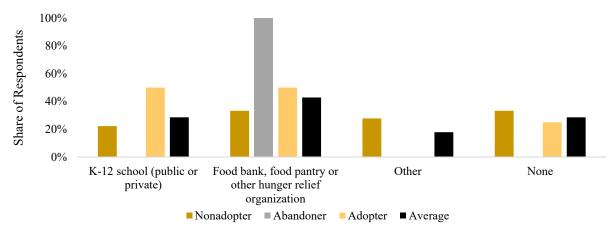
In addition to collecting information about producers' food product sales to institutions, the survey asked producers several questions about their experience with donating food to institutions. Both respondents who had abandoned selling food products to institutions had at some point donated food products raised on their farms. Three-quarters of adopters had donated food products they raised, and two-thirds of nonadopters had donated.

Exhibit 1.6.1 presents the share of respondents who said they had donated at some point to various institutions. The average respondent had most commonly donated food they raised on their farms to food banks, food pantries or other hunger relief organizations.

Farm-raised products most commonly donated to institutions were meat, poultry and eggs; vegetables; and fruit. Of the eight individuals responding, 75% said they had donated "firsts." One-quarter said they had donated firsts and seconds. Across all respondents, half said they had no more than two years of total experience with donating farm-raised food to institutions. The other half had donated for at least five years, not necessarily consecutively. Of those who had donated at some point to a food bank, food pantry or other hunger relief organization, all had donated directly to organizations. Other pathways used were coordinating with a gleaning program or volunteers and participating in a farm cooperative that sells to institutions.

<sup>\*</sup> n = 17 for 2019; n = 17 for 2020

**Exhibit 1.6.1 – Respondent Participation in Donating Food Raised on Their Farms to Institutions** 

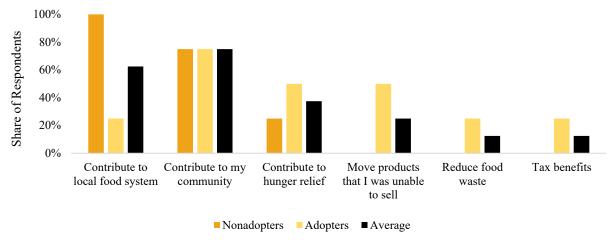


<sup>\*</sup> n = 18 for nonadopters; n = 2 for abandoners; n = 8 for adopters

Question: To which of the following institutions has your farm ever donated food products raised on your farm? Source: Missouri Farm to Institution Survey (2021)

Respondents who had donated farm-raised products to institutions cited several reasons that motivated those donations. Three-quarters said they donated to contribute to their communities, and more than 60% said they donated to contribute to their local food systems. See Exhibit 1.6.2.

Exhibit 1.6.2 – Reasons Respondents Had Donated Farm-Raised Food to Institutions

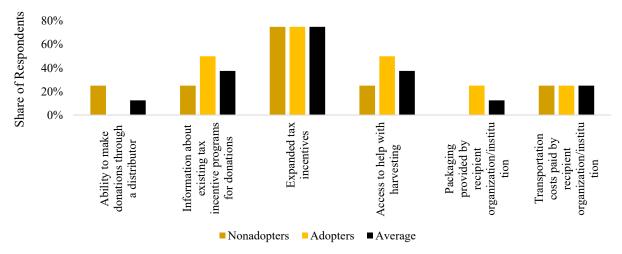


<sup>\*</sup> n = 4 for nonadopters; n = 4 for adopters; n = 0 for abandoners

Question: Why has your farm donated to institutions? Please mark all that apply. Source: Missouri Farm to Institution Survey (2021)

A few factors would encourage respondents to continue donating or donate more farm-raised food products to institutions. Exhibit 1.6.3 shares that 75% of respondents said expanded tax incentives would encourage them to donate. Nearly 40% of respondents said information about existing tax incentive programs and access to help with harvesting are factors that would encourage donation.

Exhibit 1.6.3 – Factors that Would Encourage Respondents to Continue Donating or Donate More Farm-Raised Food to Institutions



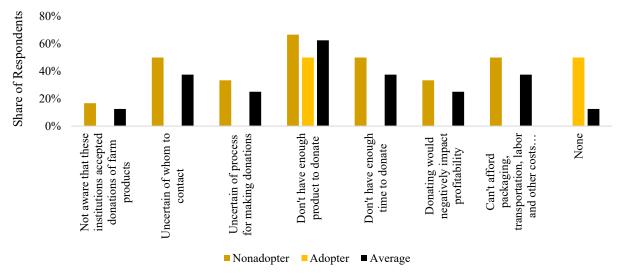
<sup>\*</sup> n = 4 for nonadopters; n = 4 for adopters; n = 0 for abandoners

Question: Which of the following would encourage you to continue donating or donate more food raised on your farm to institutions? Please mark all that apply.

Source: Missouri Farm to Institution Survey (2021)

In terms of why respondents hadn't donated products their farms raised to institutions, Exhibit 1.6.4 illustrates that the most commonly cited reason was not having enough product to donate. Other reasons noted by at least one-third of respondents were uncertainty about whom to contact; don't have enough time to donate; and can't afford packaging, transportation, labor and other costs incurred for donated farm products.

Exhibit 1.6.4 – Reasons Respondents Hadn't Donated Farm-Raised Food to Institutions

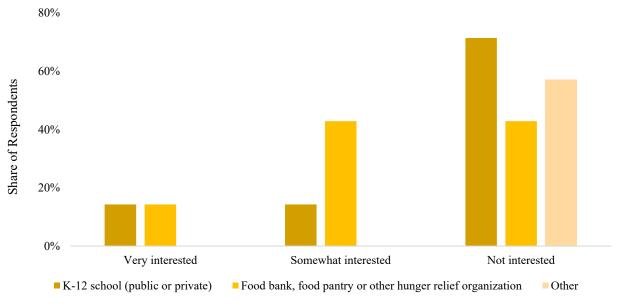


<sup>\*</sup> n = 6 for nonadopters; n = 2 for adopters; n = 0 for abandoners

Question: For what reasons have you not ever donated food products raised on your farm to institutions? Source: Missouri Farm to Institution Survey (2021)

Looking forward, of respondents who hadn't previously donated, most expressed interest in donating farm-raised food to food banks, food pantries or other hunger relief organizations. Of the seven individuals responding, more than half indicated they were very interested or somewhat interested in donating to these types of institutions. See Exhibit 1.6.5.

Exhibit 1.6.5 – Interest in Donating to Institutions in the Next Three Years Among Those Who Hadn't Donated Previously

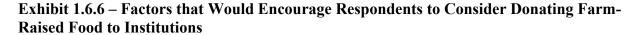


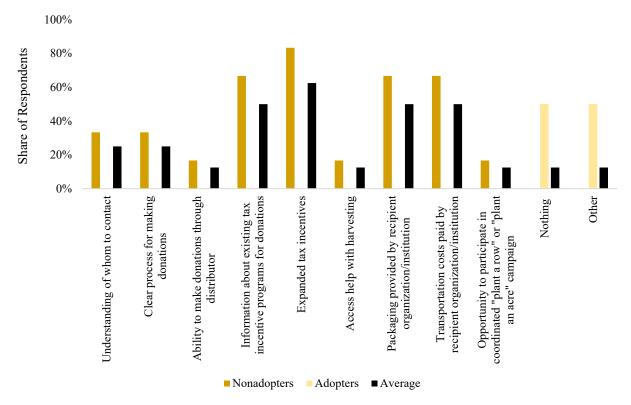
\* n = 7

Question: In the next three years, what's your farm's interest level in donating farm-raised food products to the following institutions?

Source: Missouri Farm to Institution Survey (2021)

In terms of what would encourage farms to consider donating farm-raised food products to institutions, Exhibit 1.6.6 highlights that 63% said expanded tax incentives. Half selected information about existing tax incentive programs, packaging provided by recipient organization or institution and transportation costs paid by recipient organization or institution as factors that would encourage them to consider donating farm-raised food.





<sup>\*</sup> n = 6 for nonadopters; n = 2 for adopters

Question: Which of the following would encourage you to consider donating farm-raised food products to institutions?