

# PRODUCER PERSPECTIVES: THE NEW ENGLAND FARM-TO-INSTITUTION MARKET



*Farm to  
Institution*  
NEW ENGLAND

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# ACKNOWLEDGEMENTS

## ABOUT THE NEW ENGLAND FARM TO INSTITUTION METRICS PROJECT

Farm to Institution New England is a six-state network of nonprofit, public, and private entities working collaboratively to achieve a mission of to mobilize the power of New England institutions to transform our food system.

Since its inception, FINE has focused on developing cross-sector connections between K-12 schools, colleges and universities, hospitals, and other institutions. Today, FINE serves those at the forefront of the farm to institution movement in the region, providing a forum to connect and share ideas, models, resources, and support. FINE leads projects related to key issues identified by farm to institution leaders and acts as the backbone organization for farm to institution work in the region: we build the network, convene stakeholders, develop and disseminate tools and resources, and communicate with key external audiences.

To learn more about the New England Farm to Institution Metrics Project and explore highlights of our research, visit: [dashboard.farmtoinstitution.org](https://dashboard.farmtoinstitution.org)

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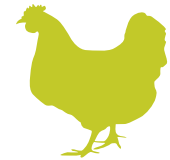
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# TABLE OF CONTENTS



4	EXECUTIVE SUMMARY
5	KEY FINDINGS
7	INTRODUCTION
10	SURVEY METHODS & PROCEDURES
12	PRODUCER & FARM OPERATION CHARACTERISTICS
18	SELLING DIRECT-TO-INSTITUTIONS
23	MOTIVATIONS & BARRIERS IN SELLING DIRECT-TO-INSTITUTION
28	SELLING PRODUCTS TO INSTITUTIONS THROUGH INTERMEDIARIES
31	RECOMMENDATIONS
34	REFERENCES
36	FOR MORE INFORMATION



# EXECUTIVE SUMMARY

Institutional food service operations, including K-12 schools, colleges and universities, and hospitals, are often seen as promising markets for agricultural producers, especially operators of small and mid-sized farms. Efforts to collect data demonstrating the scale of farm to institution sales and their related impacts, while limited in the past, are growing. Farm to school programs have increased rapidly in New England and beyond, and there is evidence that procurement of local foods at colleges and hospitals is also increasing.

To gain a better understanding of the opportunities and challenges for New England producers in these markets, Farm to Institution New England (FINE) conducted a survey of producers in the six New England states in early 2016. This report examines the differences in characteristics between producers who sell direct-to-institution and those who do not. It delves deeper into the practices, and the perceived benefits and challenges, of producers that sell direct-to-institution. It also explores sales to institutions through intermediaries like food distributors, food hubs, and food service management companies.



Courtesy of Nottingham Orchard in New Hampshire



Courtesy of Julie's Happy Hens in New Hampshire

# KEY FINDINGS

## PRODUCER & FARM OPERATION CHARACTERISTICS

- Over 220 producers completed the FINE Farm to Institution producer survey, with 26% reporting that they sold products directly to institutions. Another 25% reported that they were interested in selling their products direct-to-institution in the future, and nearly 20% said that they may be interested.
- Between 2012 and 2015, median acreage in production increased three acres for producers selling direct-to-institution, a statistically significant change, while it stayed the same for other respondents.
- While all respondents primarily used direct markets for a majority of their sales (e.g., direct-to-institution, direct-to-consumer, or direct-to-retail), operations selling direct-to-institution generally had higher total gross sales than those who did not.

## OVERALL MARKETING CHARACTERISTICS

- Institutional sales made up an average of 13.4% of total gross sales for producers selling direct-to-institutions.
- Producers selling direct-to-institution had a higher proportion of overall sales in direct-to-retail (on average, 24.8% of their total gross sales) than other respondents (12.4%).
- Direct-to-consumer markets made up a smaller proportion of sales for those selling direct-to-institution (on average, 44.1% of total gross sales) compared to other producer respondents (61.4%).
- Fresh fruits made up a higher proportion of total gross sales, on average, for respondents selling direct-to-institution when compared to other producers.

## SELLING DIRECT-TO-INSTITUTION

- For producers selling direct-to-institution, median sales to institutions increased over the last three years.
- Producers selling direct-to-institution reported that 49.3% of their institutional sales were made to K-12 schools, and 30.7% to colleges and universities. Hospitals (10.2%) and other institutions (9.9%) made up the remainder.
- The top five products sold direct-to-institution (by value) were tomatoes, apples, meat, carrots, and potatoes.
- Respondents were most interested in expanding/initiating direct sales to colleges and universities.
- 15.1% of producers selling direct-to-institution reported aggregating products from other producers to sell to institutions.
- 41.8% of producers selling direct-to-institution reported entering into informal pre-season arrangements with institutions, and 16.4% reported having entered into formal pre-season arrangements.

*All data comes from surveys, is self-reported, and may conflict with other data sources*

## MOTIVATIONS & BARRIERS IN SELLING DIRECT-TO-INSTITUTION

- Producers currently selling direct-to-institution and those interested in doing so ranked their motivations similarly. The majority agreed/strongly agreed that they sell to institutions to gain access to an additional market for their products and to build relationships with the community. Over half also reported that institutional customers provide a stable price, provide large volume orders, and reduce marketing costs.
- 64.1% of those currently selling to institutions agreed that they provide a fair price. This was significantly different from those who were interested in selling direct-to-institution, with only 31.6% agreeing.
- Producers selling direct-to-institution reported that the seasonality of their products, level of customer interest in their products, and the low purchase price offered by the institutions were the highest barriers to selling in these markets.
- Producers who are interested, but not yet selling into institutional markets, perceive barriers to the market as more problematic than those with some experience selling direct-to-institution.

## SALES TO INSTITUTIONS THROUGH INTERMEDIARIES

- 18.7% of respondents reported that they sold products to an institution through an intermediary, such as a distributor, wholesaler or food hub. Given that many producers may not know if the products they sell through intermediaries ultimately reach institutions, this percentage is likely underestimated.
- Producers ranked tomatoes, salad mix/greens, summer squash, apples, and beets as the top five products (by value) sold to institutions through intermediaries.
- 39.5% of those who use intermediaries to sell their products to institutions reported delivery or pick-up on the farm and access to distribution networks as important reasons for using intermediaries. A fifth reported that using an intermediary is easier than selling direct-to-institution, with less paperwork and logistics.



By Chris Manzella | Courtesy of Robie Farm in New Hampshire

# INTRODUCTION

Institutional food service operations, including those serving K-12 schools, colleges and universities, and hospitals, are often seen as promising markets for agricultural producers, especially operators of small and mid-sized farms. Sales of local food to institutions are also frequently noted for their beneficial impacts on local economies (Becot et al., 2016; Bellows, et al., 2013; Huff, 2015).

Efforts to collect data demonstrating the scale of farm to institution sales and their related impacts, while limited in the past, are growing. These data show that farm to school efforts have increased rapidly in New England, and that procurement of local foods at colleges and hospitals also seems to be increasing. The USDA Farm to School Census (USDA FNS, 2016) showed that 2,489 schools in New England had some type of farm to school activity during the 2013-14 school year, resulting in \$43.9 million of local food purchases for that year. Farm to Institution New England (FINE), through various surveys over the last year, found that 28 New England food distributors sold \$59 million in local food to institutions in 2014 (FINE, 2016).

In addition, 100 responding colleges and universities purchased \$57 million in local food over the past year (FINE, 2017), and 38 health care facilities purchased \$8.6 million in local food in 2015 (Healthcare Without Harm, 2016).

Two prior USDA census surveys provide some contextual data for farm to institution sales. The 2014 Organic Survey (USDA, 2016), implemented by USDA National Agricultural Statistical Service (NASS), revealed that approximately 40% of New England organic farms (both certified and exempt from certification) sold products direct-to-retail/institution<sup>1</sup>, which is much higher than the national average of 25%. These sales made up an average of 2%-25% (depending on the state<sup>2</sup>) of all retail/institutional sales and had increased from the 2008 Organic Survey. In addition, the 2012 Agricultural Census asked farmers about selling direct-to-retail, the definition of which includes institutions: “Market products directly to retail outlets (including restaurants, grocery stores, schools, hospitals and other businesses), that in turn sell directly to consumers.” In New England (USDA, 2014), 13.3% of the almost 35,000

farms reported that they were selling directly to retailers.

In 2016, the U.S. Department of Agriculture (USDA) implemented a new Local Food Marketing Practices Survey in order to provide official benchmark data on the local food sector in the United States. The survey asked producers for information on their production and local marketing of foods during the 2015 calendar year. Information includes the value of food sales by marketing channel (i.e., farmers markets, community supported agriculture (CSA) arrangements, restaurants, roadside stands, institutions, and food hubs), value of crop and livestock sales, marketing practices, expenses, and federal farm program participation.

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<sup>1</sup> Direct-to-retail relationships were defined in the survey as “an agreement between the producer/grower and the retailer (food store, restaurant, or institution) to provide a specific product, generally with specific quality standards.”

<sup>2</sup> Connecticut was 8%, Massachusetts 14%, Maine 25%, New Hampshire 2%, Vermont 12%, Rhode Island not available. The national average was 14%.

These data<sup>3</sup> showed 59,911 operations nationwide involved in direct-to-institution sales or direct-to-intermediary sales, with \$3.4 billion in sales. USDA Region 2, which includes the six New England states along with Delaware, Maryland, New Jersey, New York, and Pennsylvania, had 7,295 farm operators selling direct-to-institution and/or direct-to-intermediary, with \$615 million in sales.

Some research at the state level also provides data about the impact of farm to institution sales on the economy and producers. Results from an analysis of local food procurement by a large regional hospital in Vermont indicates that local food purchases there resulted in an impact on the economy with a total output multiplier ranging from 1.38 to 1.60; this means that every dollar spent on local purchases generated another \$0.38 to \$0.60 in the local economy rather than leaking away to distant regions (Becot, 2016).

Results from a 2014 survey of farms selling to institutions in Massachusetts performed by Massachusetts Farm to School (Adams, 2016) found that, since

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<sup>3</sup> For data, see [https://www.agcensus.usda.gov/Publications/2012/Online\\_Resources/Local\\_Food/](https://www.agcensus.usda.gov/Publications/2012/Online_Resources/Local_Food/). Data were not available at the state level.

2010, the average gross sales per farm increased significantly from \$31,474 in 2010 to \$134,895 in 2014. Income generated from sales to institutions has also increased significantly over the past four years. Sixty-five percent of the respondents that sold to institutions in 2014 perceived those sales as profitable and 83% plan to continue selling to institutions. Challenges reported by respondents include getting a high enough price to cover the costs of production, growing enough volume to meet institutional demand, and the time and fuel costs associated with delivery.

In a representative sample survey of Michigan vegetable farmers (Mattis et al., 2014), the most frequently reported motivations in selling to institutions were supplying healthy foods to customers, fair, steady prices, and supplying local food to consumers, indicating that farmers' motivations are based in social values, as well as economic ones. Smaller scale farmers (less than 25 acres) were significantly less likely to rate economic factors and help in meeting logistical challenges as important, which suggests that they see more potential social value in institutional markets. When asked how important different factors would be to help sell or increase sales of

vegetables to institutions, farmers most frequently chose knowing which institutions in the area were interested, consistent ordering, and higher prices. The most frequently reported concerns about selling to institutions were timely payments, low prices, and the need to regularly communicate with customers.

A recent survey of Minnesota farmers (Huff, 2015) found that of those currently selling to institutions, K-12 schools were the most common buyers (purchasing directly or through a distributor). Producers felt the primary benefit of institutional markets were the relationships with the local community, prices that they considered fair and steady, having an additional local market, and the option for advanced/reliable contracts. Respondents, however, felt that low purchase prices and the large volume needs of institutions were major barriers in institutional markets.

In a small number of farmers (less than 10) interviewed in the Upper Midwest and Northeast regions, Izumi and colleagues (2010) found that sales to schools made up a small percentage of farmers' overall sales (between 1% and 4%). The primary benefits of these sales for farmers were market diversification (adding



markets, having an outlet for small, visually imperfect, or otherwise unsold produce) and social benefits, including introducing children to nutritious foods and recirculating resources through the local community. Conner and colleagues (2010) also found social values as important motivators in interviews with five Vermont farmers. Hardesty and colleagues (2010) interviewed 17 California farmers, whose income averaged 2.5% from institutional buyers. Joshi and colleagues (2008) also concluded that income from farm to school is generally less than 5% of total sales for farmers.

Finally, preliminary results of interviews with farmers in New England (Fitzsimmons, 2015) revealed that, as in the prior research discussed above, the percent of sales to institutions was very small for interviewed farmers. In addition, Fitzsimmons found that those with access to a strong retail market do not necessarily consider institutional sales as distinct from general wholesale sales. Furthermore, the results indicated that transaction costs (the costs of gathering information, negotiating terms, and monitoring the implementation of those terms) are important to a farmer's decision to participate in institutional markets and are related to the size of the farm

operation, access to a convenient institutional market, and the role of wholesale in the overall farm operation.

The research to date seems to suggest that institutions are an increasing market for producers and that sales to institutions are growing. However, institutional markets have so far, in the literature, shown to make up a small percentage of overall sales for farmers. Both social and economic aspects motivate farmers selling to institutional markets, and low prices (either perceived or real) seem to be a barrier for farmers.

To gain a better understanding of the opportunities and challenges for New England producers, both those currently and interested in selling to institutions, FINE carried out a survey of producers in the six New England states in early 2016. This report summarizes the results of the survey of New England producers, as part of a series of reports for the FINE Shared Metrics Project (<http://dashboard.farmtoinstitution.org>). By providing this information, the report seeks to identify ways in which practitioners, policymakers, funders, and other advocates can increase farm to institution efforts in New England.



By Jess Wissemann | Courtesy of Hampshire College in Massachusetts

# SURVEY METHODS & PROCEDURES

## About the 2016 FINE New England Farm to Institution Producer Survey

Two key goals set out by the Metrics Project Team and Advisors for the survey were measuring the impact of farm to institution sales on agricultural producers and understanding the key barriers and opportunities for farm to institution sales in the region. The project team developed early drafts of the 2016 FINE New England Farm to Institution producer survey and solicited feedback from stakeholders in the region, the advisory team, and FINE staff. The survey questions were designed to collect data regarding:

- Farm operation and agricultural producer demographics (e.g., gross sales, years farming, size of operation, products sold and marketing outlets used);
- Types of institutional markets sold to;
- Products sold to institutions;
- Perceptions about the benefits and barriers of selling to institutions; and
- Perceptions and planned direction of future growth of farm to institution sales.

The survey was pre-tested with three producers who were selling through institutional markets and their comments helped shape the final version.

There is no affordable, easily obtainable public dataset of producers in New England<sup>4</sup>. The lack of a list frame made it impossible to draw a representative sample for the survey administration. As a result, snowball sampling, which is commonly used when the research population is hard to locate, was employed. Snowball sampling relies on social networks to reach the broadest possible sample, where members of target populations are asked to identify other members.



Courtesy of  
Dashing Star Farm  
in New York

In this case, FINE staff promoted the survey in a number of venues, including through the FINE newsletter and project advisory team, as well as personal outreach to farmers. FINE staff also reached out to contacts at many organizations and asked them to forward the invitation to participate in the survey to their contacts and/or include it in their newsletters. These organizations, many with offices in multiple states, include the following:

- State Departments of Agriculture
- USDA Cooperative Extension
- USDA Farm Service Agency
- Producer associations and organizations
- Farm Bureau
- Distributors and food hubs
- State-level farm to institution and local food systems nonprofits

<sup>4</sup> USDA National Agricultural Statistics Service can implement a representative sample survey in any area of the country. However, the cost for such a survey in New England was prohibitive for the project.

FINE conducted the online survey through Survey Monkey from late January 2016 through mid-April 2016; the survey was self-administered by the respondents. As an incentive to take the survey, FINE offered all respondents the chance to be entered into a drawing for one of five gift cards worth \$100.

The sampling method and survey design have implications for the research. The reliance on snowball

sampling means that the results of the analysis are not generalizable to the universe of producers in the region. It is highly likely, given the results of the survey outlined in this report, that producers currently selling or interested in selling to institutions, were more likely to complete the survey.

In total, 223 producers completed the survey. Almost three-quarters (70.8%) responded that they were either selling or interested in selling their products

direct-to-institution, defined as “direct sales to users such as K-12 schools, colleges, hospitals, prisons and other institutions.” Specifically, 58 (26.0%) reported that they sold products direct-to-institution, 56 (25.1%) reported that they were interested in selling their products direct-to-institutions in the future, and another 44 (19.7%) said that they may be interested.



By Chris Manzella | Courtesy of Robie Farm in New Hampshire

# PRODUCER & FARM OPERATION CHARACTERISTICS

## PRODUCER CHARACTERISTICS

Almost all respondents (89.7%) reported being white/Caucasian; no other race/ethnicity was reported by more than 2% of respondents. Half of the respondents reported being male and half female; no other gender was reported. The average age of respondents was 51.2 years, with a range of 21 to 89 years old. Producers have been farming for an average of 19.6 years, ranging from 1 to 60 years.

## FARM OPERATION CHARACTERISTICS

More respondents selling direct-to-institution were farming in Vermont, Massachusetts, and Connecticut than the other three states (Table 1). Some producers reported farming in more than one state.

TABLE 1: NEW ENGLAND STATES IN WHICH SURVEY RESPONDENTS ARE FARMING

STATE	PRODUCERS SELLING DIRECT TO INSTITUTIONS		ALL OTHER PRODUCERS		ALL RESPONDENTS	
	Count	Percentage	Count	Percentage	Count	Percentage
Connecticut	10	17.2%	35	21.3%	45	20.2%
Maine	7	12.1%	31	18.9%	38	17.0%
Massachusetts	13	22.4%	38	23.2%	51	22.9%
New Hampshire	6	10.3%	19	11.6%	25	11.2%
Rhode Island	4	6.9%	19	11.6%	20	9.0%
Vermont	21	36.2%	31	18.9%	52	23.3%

N=58 for producers selling direct-to-institution and N=165 for other producers. Respondents could choose more than one state, and thus the total percent can add to more than 100%.



By Jon Katz | Courtesy of Cold Antler Farm in New York

The average acres in production increased from 2012 to 2015 for all producers who reported any acreage in 2012 (Table 2). The median acreage is likely more representative of the respondents given the substantial range in acreage. Median acreage in production went up three acres for producers selling direct-to-institution, and this difference was statistically significant, while it stayed the same for all other producers. In 2015, the respondents had a total of over 15,000 of acres in production, with those selling direct-to-institution representing about 25% (3,724 acres) of the total.

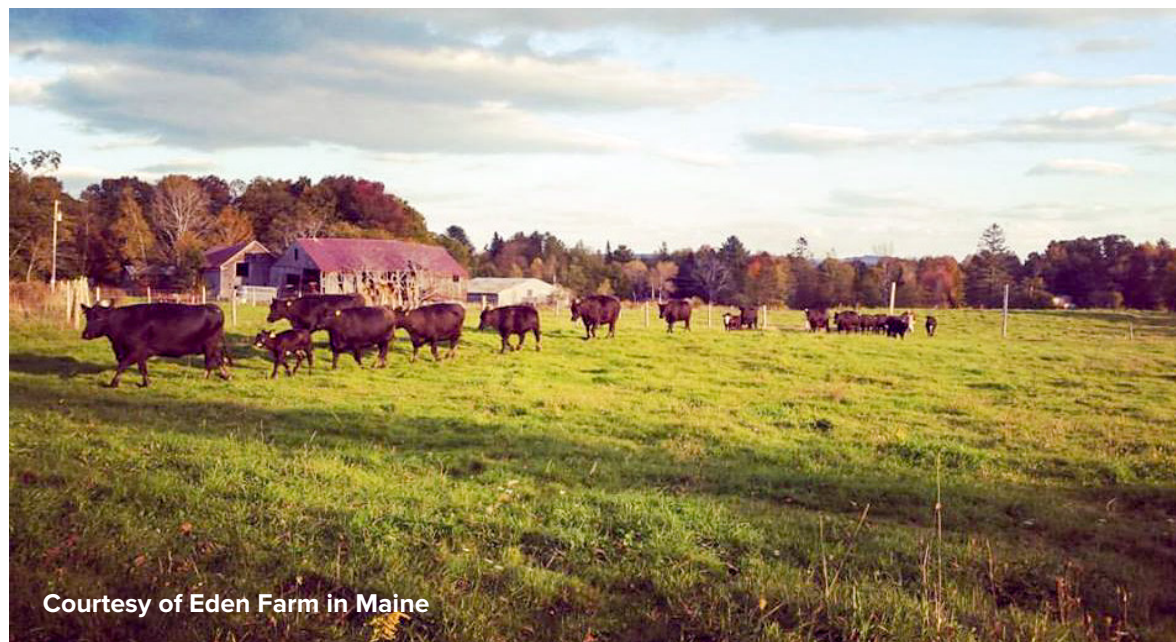
**TABLE 2: ACRES OF LAND IN PRODUCTION AT RESPONDING FARMS**

ACRES IN PRODUCTION	PRODUCERS SELLING DIRECT TO INSTITUTIONS		ALL OTHER PRODUCERS	
	2012	2015	2012	2015
Average	64.5	71.6	75.5	87.2
Median	24.5**	27.5**	11.5	11.5
Range	890	890	1750	2227
<b>Total</b>	<b>3,345</b>	<b>3,724</b>	<b>9,818</b>	<b>11,332</b>

N=52 for producers selling direct-to-institutions and N=130 for all other producers.

\*\*A Wilcoxon Signed-Ranks Test indicated that the median acreage was statistically higher in 2015 than in 2012  $Z = -2.800, p = 0.005$ .

**OVER THE COURSE OF THREE YEARS, FARMS THAT SELL FOOD DIRECTLY TO INSTITUTIONS GREW BY AN AVERAGE OF THREE ACRES, WHILE THOSE THAT DIDN'T SELL DIRECTLY TO INSTITUTIONS STAYED THE SAME SIZE**

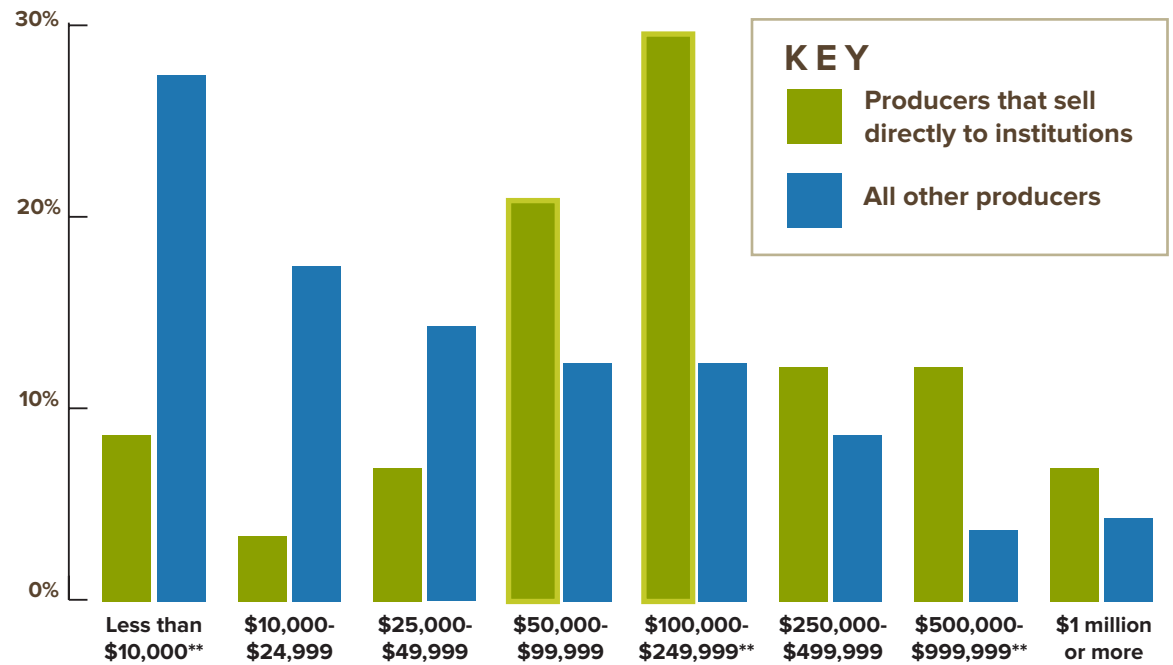


Courtesy of Eden Farm in Maine

Farms that sell direct-to-institution generally had higher gross sales than those who did not. While a majority of farms in the sample were small, fewer of the producers selling direct-to-institutions (68.9%) can be characterized as operating small farms, defined as those with gross sales under \$350,000<sup>5</sup>, than other respondents (83.3%) (Table 3). Analysis of the data show the greatest difference in three sales categories, specifically gross sales categories below \$24,999 (with producers selling direct-to-institution less likely to be in this category) and those between \$100,000-\$249,999 and \$500,000-\$999,999 (with producers selling direct-to-institution more likely to be in this category).

<sup>5</sup> USDA currently defines small farms as those with sales under \$350,000. In 2012, 92.2% of farms in New England were considered small farms, and 2.6% were mid-sized operations. The percentage reported here is for all farms with gross sales under \$250,000, as the next census category does not split at \$350,000, but at \$499,999. These categories were based on Agricultural Census categories.

**TABLE 3: RESPONDENTS' FARM OPERATION TOTAL 2015 GROSS SALES**



**Farm Operation Total 2015 Gross Sales Category**

\*\*A chi square test of independence was calculated to compare the frequency of gross sales categories between producers selling direct-to-institution and all other producers. A significant interaction was found  $\chi^2(7, N=220) = 29.95, p < 0.001$ . The standardized residuals showed the greatest effect with gross sales categories below \$24,999 and between \$100,000-\$249,999 and \$500,000-\$999,999.



## MARKETING CHARACTERISTICS

Most of the farmers who responded to the survey use direct markets—either direct-to-institution, direct-to-consumer, or direct-to-retail—for a majority of their sales (Table 4). Direct-to-institution sales averaged 13.4% for those making sales to that venue, higher than previous research has shown. Producers selling direct-to-institution also had a higher proportion of sales in direct-to-retail markets (an average of 24.8% of gross sales) than other respondents (12.4%). On the other hand, direct-to-consumer markets made up a smaller proportion of their sales (44.1%) than they did for other producers (61.4%). Respondents used distributor and wholesale markets for about a tenth of their sales, on average.

Based on 2012 Agricultural Census data, it is clear that the respondents to the FINE survey were not representative of all producers in the region. In 2012, while 27.9% of producers in New England had direct-to-consumer sales, the value of those sales made up only 5.6% of overall gross farm sales. However, it may be more representative of New England fruit and vegetable producers, who are more likely to use direct-to-consumer markets (67% of New England fruit and

TABLE 4: MARKETING OUTLETS USED IN 2015 BY RESPONDENTS

MARKETING OUTLET	PRODUCERS SELLING DIRECT TO INSTITUTIONS	ALL OTHER PRODUCERS
	<i>Average Percent</i>	
Direct-to-institution (schools, hospitals, colleges, and prisons)	13.4%	1.1%
Direct-to-consumer markets (e.g., farmers markets, farm stands, CSAs)	44.1%	61.4%
Direct-to-retail (supermarkets, cooperatives, restaurants)	24.8%	12.4%
Wholesale, distributor, food hubs	9.5%	9.9%
Distributed through farm cooperative/other farmers	3.0%	7.1%
Other outlets	2.1%	7.4%

N=58 for producers selling direct-to-institution and N=165 for all other producers. There were producers who did not characterize themselves as selling direct-to-institution but did report a percentage of 2015 gross sales in the category direct-to-institution above.

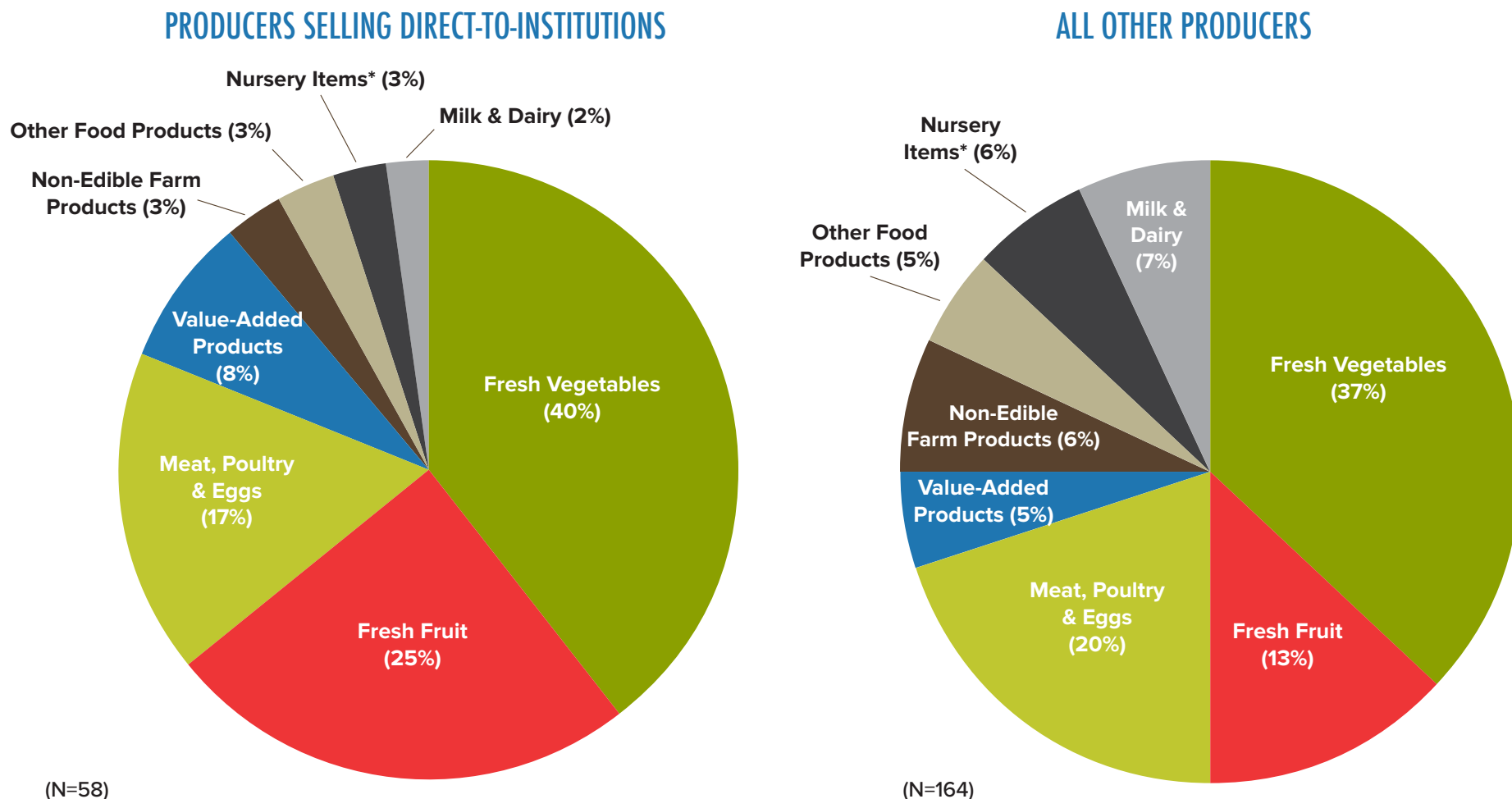
vegetable producers use direct-to-consumer markets) and direct-to-retail markets (22%) than wholesale markets (17%) (USDA NASS, 2013).



Courtesy of Gulf of Maine Research Institute

On average, over half of all the respondents' gross sales were composed of either fresh vegetables or fruit (Figure 1). However, fresh fruits made up a greater proportion of sales for respondents selling direct-to-institution (25%) than for other producers (13%) who responded to the survey.

**FIGURE 1: TOTAL 2015 GROSS SALES BY PRODUCT CATEGORY**



\*Nursery items = plants, mushrooms, herbs, and flowers



Farmers reported a variety of food safety certifications and other certifications or label claims (Table 5). About a tenth were GAP certified, with a number also noting (in the open ended section of the question) that they were in the process of GAP certification. Under a tenth of the respondents reported holding other food safety certifications.

Over a quarter (26.9%) of the producers were certified organic, with another 2.7% reporting they were using the organic label, but exempt from certification due to their gross sales. The high percentage of organic farmers is not surprising given the results of the USDA NASS Organic and Agricultural censuses (described in the introduction), which show that 40% of New England organic farms are selling direct-to-retailers/institution versus 13.3% of all farms in the 2012 Census of Agriculture. It is important to note that, while a large proportion of the respondents are organic producers, it does not necessarily mean that they are selling organic products to institutions, as the survey did not include this specific question.

**TABLE 5: FOOD SAFETY CERTIFICATIONS AND OTHER CERTIFICATION/LABEL CLAIMS USED BY RESPONDENTS**

FOOD SAFETY CERTIFICATIONS	RATE OF USE
Audited Good Agricultural Practices (GAP)	10.3%
Good Handling Practices (GHP)	6.3%
Good Manufacturing Practices	3.6%
HACCP	7.6%
Vermont CAPS	2.7%
Serve Safe	2.2%
Commonwealth Quality Program (CQP)	1.8%

N=223

OTHER CERTIFICATIONS & LABEL CLAIMS	RATE OF USE
Organic certification	26.9%
GMO-free	13.9%
Grass fed	12.1%
rBGH/rBST-free	5.8%
Animal welfare approved	4.0%
Organic (exempt)	2.7%
Pastured raised/free range	2.7%
Certified humane	2.2%
IPM	2.2%



By Lucy Senesac

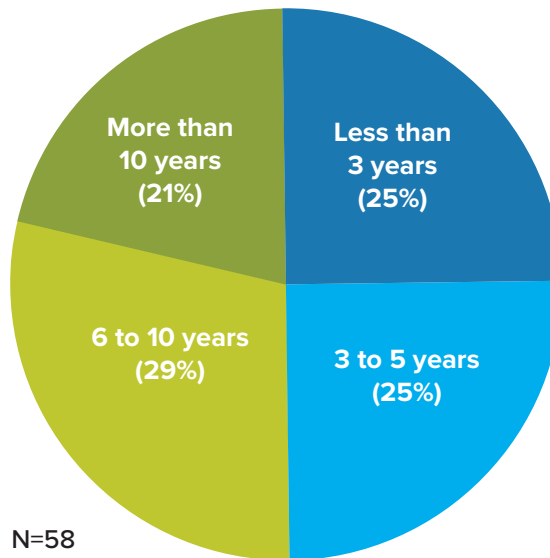
# SELLING DIRECT-TO-INSTITUTIONS

The FINE survey asked the 58 respondents who were currently selling direct-to-institution about their experiences, including how long they have been selling to institutions, what types of institutions they sell to, and the types of products they sell. The survey also addressed motivations for selling to these markets and major barriers for entering and growing sales in these markets.

The number of years of experience selling direct-to-institution was balanced among the respondents (Figure 2). Half of the respondents had five or fewer years of experience selling direct-to-institution, while the other half had six or more years of experience.

The respondents reported increased direct sales to institutions over the last three years (Table 6). It is important to note that the range of sales among the producers markedly increased in 2015, with one farm reporting sales much higher (\$1 million) than the rest of the producers. Thus, median sales, which in 2015 were \$4,100 and had increased from \$1,250 in 2012, are likely more representative of the survey respondents.

**FIGURE 2: NUMBER OF YEARS SELLING DIRECT-TO-INSTITUTION**



N=58



Courtesy of Silloway Maple in Vermont

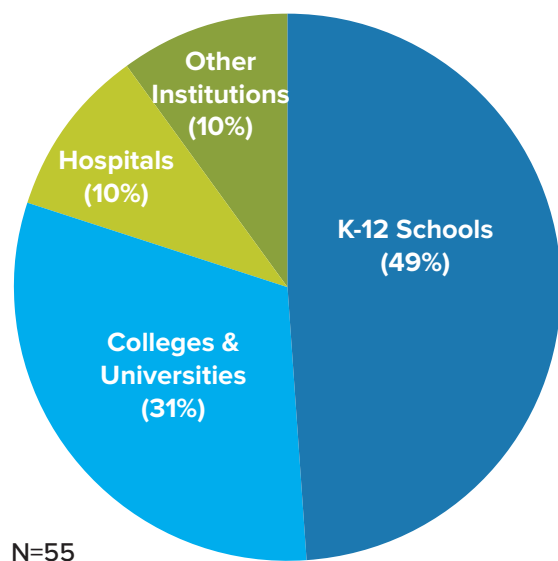
**TABLE 6: SALES MADE DIRECT-TO-INSTITUTION BY RESPONDENTS**

SALES MADE DIRECT-TO-INSTITUTION (STATISTIC)	2012	2015
	<i>Dollars</i>	
Average	\$15,949	\$33,865
Median	\$1,250	\$4,100
Range	\$400,000	\$999,900
Sum	\$813,407	\$1,828,720

N=54

Those producers using direct-to-institution markets reported making 49.3% of their institutional sales to K-12 schools (Figure 3), and 30.7% to colleges and universities. Hospitals (10.2%) and other institutions (9.9%) made up about the remainder. Further examination of the data showed no statistical relationship between the size of the operation (as defined by gross sales) and the percent of sales made to the different types of institutional markets.

**FIGURE 3: AVERAGE PERCENT OF SALES MADE DIRECTLY TO TYPE OF INSTITUTION, AS A PERCENTAGE OF TOTAL INSTITUTIONAL SALES**



## TYPES OF PRODUCTS SOLD TO INSTITUTIONS

Producers were asked to list the top five products (by value) they sold direct-to-institution in 2015 (Table 7). Most popular responses included tomatoes, apples, different types of meat, carrots, and potatoes. Squash also came up many times, although was specified often as either “summer,” “winter,” or “butternut” squash.

**TABLE 7: TOP PRODUCTS (BY VALUE) SOLD BY PRODUCERS DIRECT-TO-INSTITUTION**

PRODUCTS	PERCENT REPORTING AS TOP PRODUCT
Tomatoes	27.8%
Apples	24.1%
Meat*	22.2%
Carrots	18.5%
Potatoes	18.5%
Winter/butternut squash	14.8%
Lettuce or lettuce mix	14.8%
Kale	11.1%
Peaches	11.1%
Peppers	11.1%
Squash	11.1%
Onions	9.3%
Beans	7.4%
Beets	7.4%
Eggs	7.4%
Sweet corn	7.4%

N=54

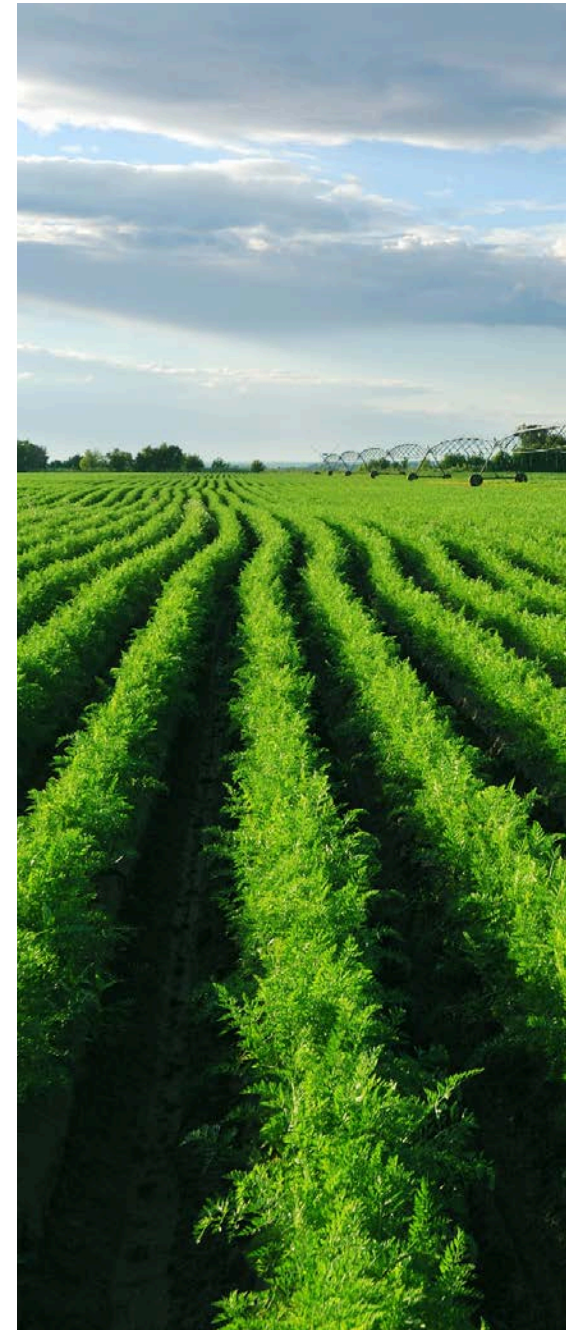


\*"Meat" includes whole chickens, whole goats, pastured pork, ground beef, ground veal, rabbit, lamb, poultry, chicken pieces, roaster pigs, veal stew, stew meat, pork kielbasa, beef shank and short rib.

# PRODUCERS GROW & PROCESS NEW PRODUCTS FOR INSTITUTIONS

*Ten producers reported which products they started growing/processing specifically for institutional markets:*

- 1 Applesauce
- 2 Duckling
- 3 Rainbow carrots
- 4 Spaghetti squash
- 5 Ready to cook food
- 6 Custom lettuce mixes and specific tomato varieties
- 7 Norwis potatoes, peeled rainbow carrots, and peeled red potatoes
- 8 Peeled butternut, coined carrots, and frozen blueberries
- 9 Peeled squash, carrots, turnips, parsnips, vegetable mixes, snipped beans, noodles, and jams
- 10 Certified kosher for Passover pickles, random pickles made out of whatever veggies we have excess fresh vegetables: giant kohlrabi, cylindrical beets (easy to chop), and long pie pumpkins



## USE OF MARKETING ARRANGEMENTS IN SELLING DIRECT-TO-INSTITUTION

Marketing arrangements are important in the farm direct relationship. For example, preseason arrangements, whether formal or informal, allow producers to plan accordingly for the season. Responding to the survey, 15.1% of producers reported aggregating products from other producers to sell to institutions. Of these, seven farmers reported buying from an average of 4.1 other farmers, ranging from one to ten farmers. In addition, 41.8% of producers selling direct-to-institution reported entering into informal preseason arrangements with institutions, and 16.4% reported having entered into formal preseason arrangements.

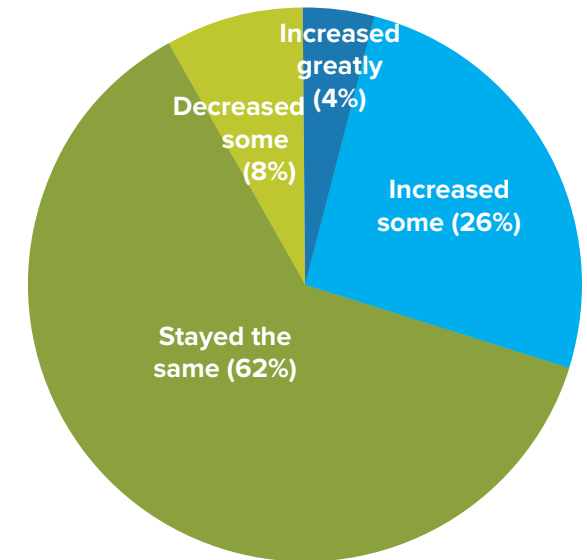


## PERCEPTIONS ABOUT DIRECT-TO-INSTITUTION MARKETS

In response to questions about how selling direct-to-institution may have changed their product variety (Figure 4), 29% reported that they increased the variety of products they sold, although most (63%) reported that their product variety had stayed the same.

**FARMS SELLING DIRECT-TO-INSTITUTION WERE MORE LIKELY TO INCREASE THEIR PRODUCT VARIETY THAN TO DECREASE IT**

FIGURE 4: CHANGE IN VARIETY SINCE INITIATION OF DIRECT SALES TO INSTITUTIONS



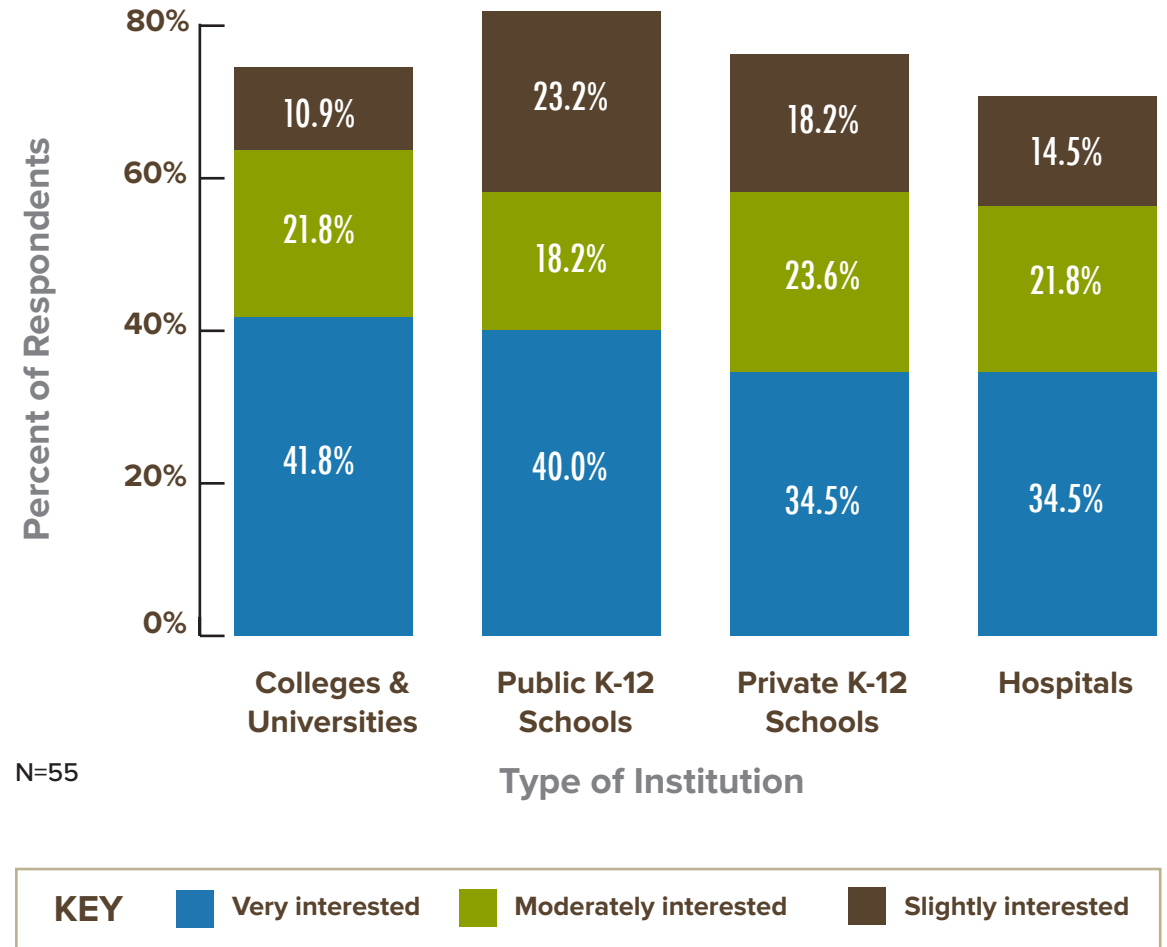
N=51



When asked how interested they were in expanding direct sales to institutions over the next five years, more than three-quarters of the producers already marketing direct-to-institution indicated at least a slight interest in each of the four different types of institutions (Figure 5). Producers seem most interested in expanding/initiating direct sales to colleges and universities, with at least 63.6% either moderately or very interested, followed by public K-12 schools. Five producers also reported other institutions they were interested in selling directly to, including assisted living facilities, special functions, nearby prisons, Head Start programs, and senior centers.



**FIGURE 5: INTEREST IN EXPANDING OR INITIATING DIRECT SALES INTO INSTITUTIONAL MARKETS IN NEXT FIVE YEARS**



# MOTIVATIONS & BARRIERS IN SELLING DIRECT-TO-INSTITUTION

## REASONS FOR SELLING DIRECT-TO-INSTITUTION

Generally, producers selling direct-to-institution and those interested in, but not currently, selling direct-to-institution ranked their reasons for doing so similarly (Figure 6). The majority agreed or strongly agreed that they sell to institutions because it provides an additional market for their products and builds a relationship with the community, similar to other studies described in the introduction. Over half also reported that institutions provide a stable price, provide large volume orders, and reduce marketing costs.

A significant finding was that while 64.1% of those *currently* selling to institutions agreed that institutions provide a fair price, only 31.6% of those *interested in* selling direct-to-institution agreed. There were also differences in responses to other positive attributes of institutional sales, i.e., that they provide large volume orders and are a market for surplus or seconds. Producers interested in selling direct-to-institution affirmed these positive attributes in larger numbers than those respondents who are currently selling direct-to-institution.

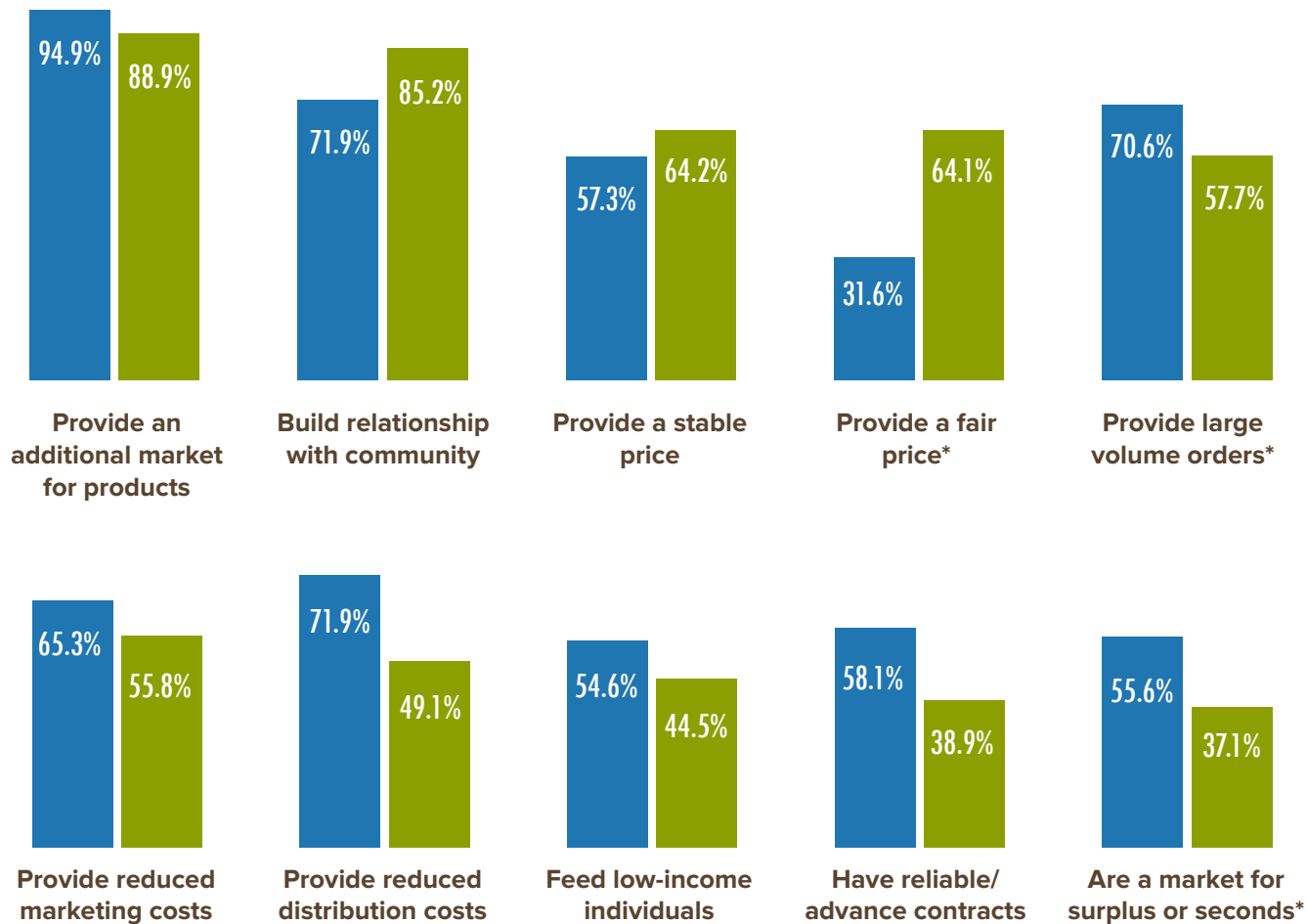


**64% OF RESPONDING PRODUCERS CURRENTLY SELLING TO INSTITUTIONS AGREED THAT INSTITUTIONS PAY A FAIR PRICE**

**ONLY 31.6% OF THOSE CURRENTLY NOT SELLING TO INSTITUTIONS (BUT INTERESTED IN DOING SO) AGREED THAT INSTITUTIONS PAY A FAIR PRICE**

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**FIGURE 6: REASONS FOR SELLING DIRECT-TO-INSTITUTION**



**KEY**

- Producers that are interested in selling directly to institutions
- Producers that currently sell directly to institutions



N=95 for interested in marketing direct-to-institutions and N=54 for currently marketing direct-to-institutions. Categories include “strongly agree,” “agree,” “neither agree nor disagree,” “disagree” and “strongly disagree.” Only “strongly agree” and “agree” are presented here for ease of exposition.

\*A Mann Whitney U test was conducted to determine whether there were differences between the two groups. Statistically significant differences were found for institutions being “market for surplus or seconds” (U=1969, p <0.01), “provide large volume orders” (U=1984, p=0.03), and “provide a fair price” (U=1897, p<0.01).



## BARRIERS TO SELLING DIRECT-TO-INSTITUTION

The survey also inquired about perceived barriers to direct-to-institution sales (Figure 7). Producers currently selling direct-to-institution reported that the seasonality of their products, low interest in their products, and the low purchase price were their top barriers. Over a third also said the volume of product needed by institutions was too small.

Statistically significant differences between producers currently selling direct-to-institution and those interested but not yet selling to institutions were found for each of these barriers as well, except for one—seasonality of products. Not surprisingly, a greater proportion of producers interested in, but not currently selling to, institutional markets considered potential barriers as more problematic than did those currently selling direct-to-institution. For instance, 54.1% of producers interested in selling direct-to-institution felt that product/packaging requirements were a barrier, whereas only 6.1% of producers currently selling direct-to-institution felt the same. Perceptions of the importance

of barriers, such as large volume needs of institutions, low purchase prices, and liability insurance costs differed significantly between the two groups of respondents as well, with inexperienced producers assigning greater importance than those with experience.

The only instance where those currently selling direct-to-institution ranked a barrier as more important than those with no experience was in terms of “volume needs of institutions are too small.” Some 37.5% of those selling direct-to-institution felt the issue of low volume needs was a barrier, while only 18.2% of those interested in selling to institutions felt the same. These findings point to important differences between those producers currently selling to institutions and those who are interested in doing so. Technical assistance and educational materials need to be tailored to address the significant differences in the perception of these barriers.

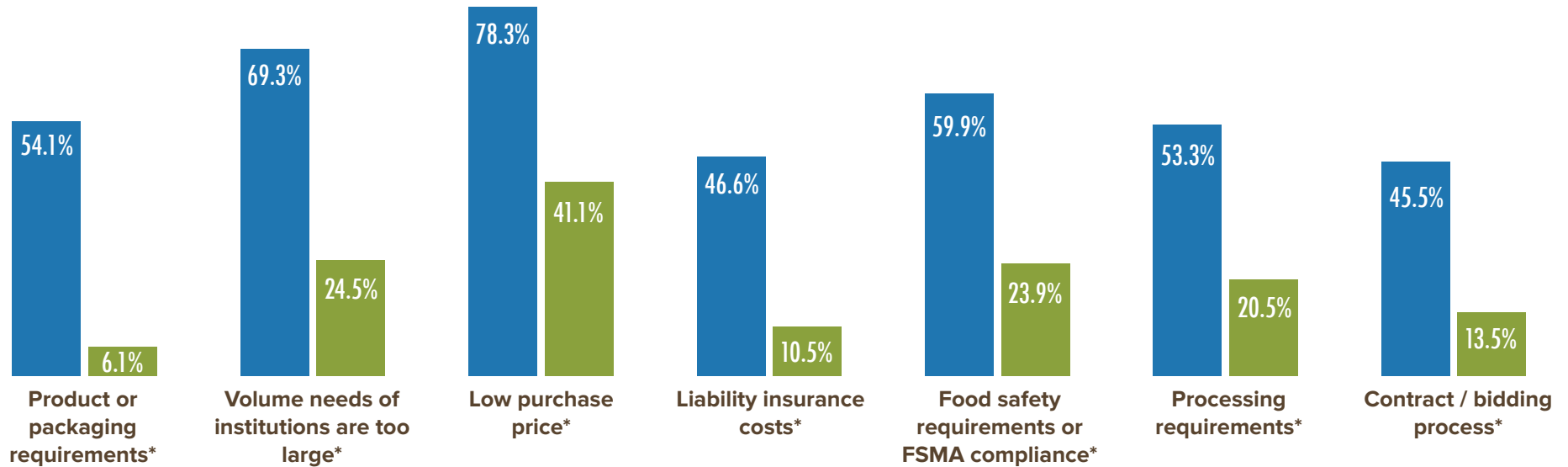
**A GREATER PROPORTION OF PRODUCERS INTERESTED IN, BUT NOT CURRENTLY SELLING TO, INSTITUTIONAL MARKETS CONSIDERED POTENTIAL BARRIERS AS MORE PROBLEMATIC THAN DID THOSE CURRENTLY SELLING DIRECT-TO-INSTITUTION**

*This may reveal that selling local food to institutions is easier than farmers expect*



Courtesy of Silloway  
Maple in Vermont

**FIGURE 7A: BARRIERS TO SELLING DIRECT-TO-INSTITUTION**



**KEY**

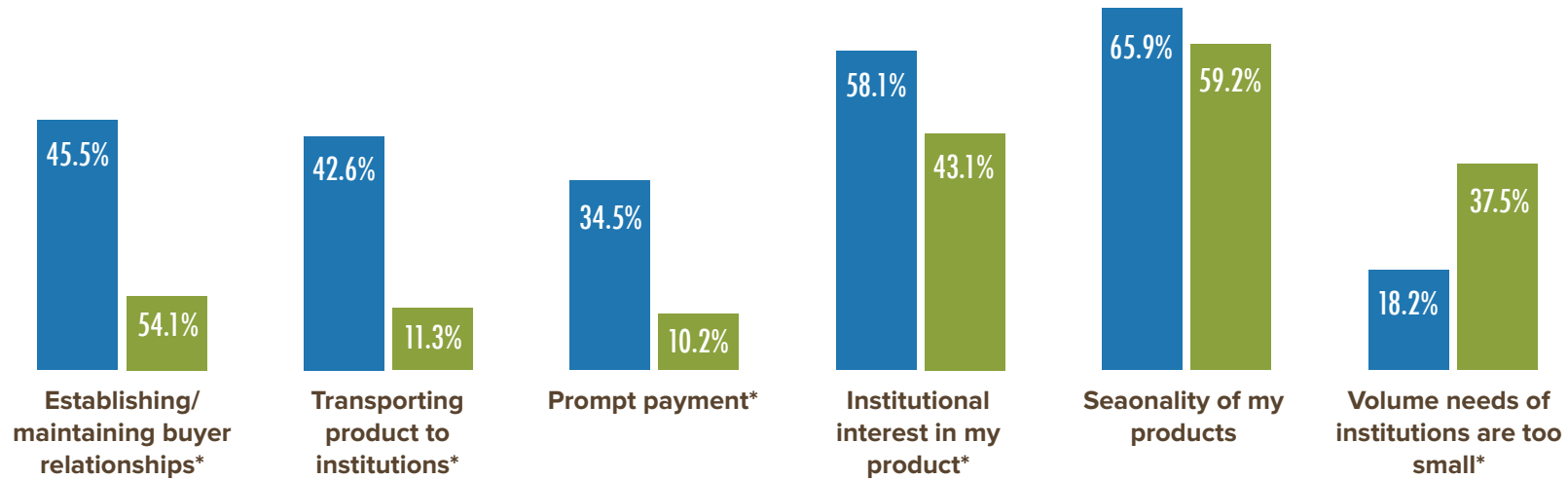
- Producers that are interested in selling directly to institutions
- Producers that currently sell directly to institutions

N=143 for interested in selling direct-to-institution and N=52 for currently selling direct-to-institution. Categories include “major barrier,” “somewhat of a barrier,” “minor barrier,” or “not a barrier at all.” Only “major barrier” and “somewhat of a barrier” are presented here for ease of exposition.

\*Statistically significant difference at P<0.05. A Mann Whitney U test was conducted to determine whether there were differences between the two groups. Differences were found for all of the barriers except seasonality of products.



**FIGURE 7B: BARRIERS TO SELLING DIRECT-TO-INSTITUTION**



**KEY**

- Producers that are interested in selling directly to institutions
- Producers that currently sell directly to institutions

N=143 for interested in selling direct-to-institution and N=52 for currently selling direct-to-institution. Categories include “major barrier,” “somewhat of a barrier,” “minor barrier,” or “not a barrier at all.” Only “major barrier” and “somewhat of a barrier” are presented here for ease of exposition.

\*Statistically significant difference at P<0.05. A Mann Whitney U test was conducted to determine whether there were differences between the two groups. Differences were found for all of the barriers except seasonality of products.



Courtesy of Indian Acres Farm in Massachusetts

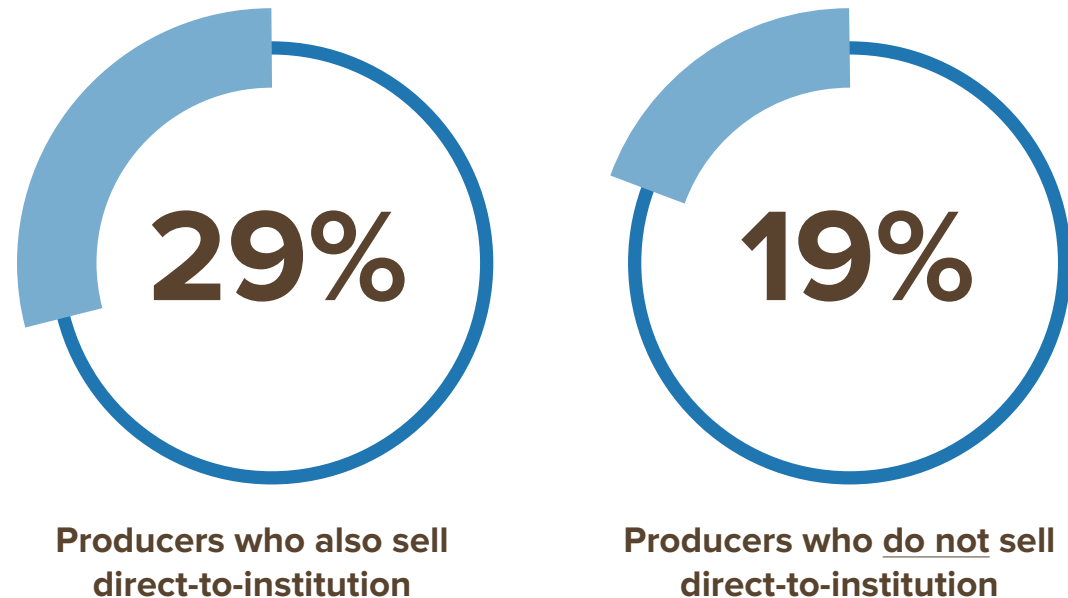


Courtesy of Julie’s Happy Hens in New Hampshire

# SELLING PRODUCTS TO INSTITUTIONS THROUGH INTERMEDIARIES

Producers who sell their products to intermediaries, such as distributors, wholesalers, and food hubs, may also be supplying the institutional market. However, producers often do not have knowledge about the end consumers of their products when selling to intermediaries. Thus, many producers may be selling to intermediaries, who in turn sell their product to institutions, but are unaware of it. The FINE survey sought to examine whether farmers selling to intermediaries knew whether any of their products were headed to institutions or not. Overall, 18.7% reported that they sell to an institution through an intermediary, while 13.1% reported they do not know if the intermediary sold their products to institutions. Given that many producers may not know where their products ultimately end up, this analysis likely underestimates the number of producers whose products are being sold to institutional settings through intermediaries. Figure 8 shows that producers selling direct-to-institution are also more likely (28.8%) to sell their products to institutions through intermediaries than those producers who do not sell their products direct-to-institution (18.7%).

**FIGURE 8: PERCENT OF PRODUCERS SELLING TO INSTITUTIONS THROUGH AN INTERMEDIARY**



N=214



**AN INTERMEDIARY IS A WHOLESALE BUYER SUCH AS A FOOD DISTRIBUTOR, FOOD HUB, OR FOOD AUCTION**

Producers ranked their top five products (by value) sold to institutions through intermediaries (Table 8): tomatoes, salad mix/greens, summer squash, apples, and beets. Two of these (tomatoes and apples) also appear on the list of the top five products sold direct-to-institution. In fact, the lists are very similar, with the exception of meat products, which rank very high on products sold direct-to-institution but do not appear at all on the list of those sold to institutions via intermediaries.



**TABLE 8: TOP PRODUCTS SOLD (BY VALUE) BY PRODUCERS TO INSTITUTIONS THROUGH INTERMEDIARIES**

PRODUCT	PERCENT OF RESPONDENTS REPORTING AS TOP PRODUCT
Tomatoes	21.1%
Salad mix / greens	18.4%
Summer squash	18.4%
Apples	13.2%
Beets	13.2%
Carrots	10.5%
Kale	10.5%
Onions	10.5%
Peppers	10.5%
Potatoes	10.5%
Sweet Corn	10.5%
Lettuce	7.9%
Winter squash	7.9%

N=38. Respondents were asked to list the top five products (by value) sold to institutions through intermediaries.

## WHAT PRODUCERS SAY ABOUT SELLING TO INSTITUTIONS THROUGH INTERMEDIARIES

“Reliability and ease of transportation. They pick up from our farm and then deliver to the schools. This way we are not incurring transportation costs for delivering small amounts of produce to multiple locations.”

“There is a known price that is competitive for the quantity that these channels are buying. Many institutions want to pay the same low price for only a few cases and want us to drop it off.”

“The distributor develops relationship with multiple buyers and we get large aggregated orders for all their buyers in one simple order.”

“It’s just an additional market channel – we’d much prefer to sell directly but sometimes the intermediary buyer has the relationship with the institution.”

“We don’t have to concern ourselves with the marketing, billing, and delivery to institutions.”

An open-ended question in the survey gauged what producers considered were the main benefits of selling through intermediary channels to institutions. The coded responses can be found in Table 9. Many (39.5%) mentioned delivery or pick-up on the farm and distribution networks as important reasons for using intermediaries. A fifth reported that selling to intermediaries was easier, with less paperwork and logistics. About a tenth each reported they receive good prices, it provides access to another customer base, distributors take larger orders, and it reduces their marketing costs.

**TABLE 9: BENEFITS OF SELLING TO INSTITUTIONS THROUGH INTERMEDIARIES**

ASPECT	PERCENT OF RESPONDENTS
Delivery/distribution	39.5%
Easier (logistics, less paperwork, ease)	21.1%
Price is good/fair	13.2%
Access to another customer base/buyer	10.5%
They take large orders	10.5%
Reduced or no need for marketing	10.5%
Outlet for excess products	7.9%
Established relationship with intermediary	5.3%
Prompt payment	5.3%
Reliability	5.3%
They have established buyers	5.3%

N=38

# RECOMMENDATIONS

The findings in this report lead to data-driven recommendations for several key audiences, including farmers, Cooperative Extension agents and other technical assistance providers, government officials, and institutions. Like most survey-based reports, the sample for this report was likely not representative of all New England farmers. However, findings related to perceived barriers clearly indicate where useful work can be done to move the field forward.

Survey results show that there is a place for additional technical assistance and educational materials tailored to address the significant differences in the perception of barriers to success in institutional markets. The differences in perception between those farmers who sell direct-to-institution and those who do not are significant. One tried and tested way of breaking down these perceptions is by creating opportunity for increased direct interaction between farmers and institutional food purchasers, e.g., through facilitated events put on by producer groups and other stakeholder organizations.

Best practices for meetings of this sort could be explored and put into practice at these gatherings.

Taken to another level, farmer-institution interaction could lead directly to identification of specific crops and processed farm products that institutions would like to buy from regional producers. Research findings from the USDA Farm to School Census, the FINE Farm to College Survey, and the Health Care Without Harm survey of hospitals provides this information on a sector level using survey sample data. This information could be used to frame conversations with individual institutions or groups of institutions about the specific crop and products they are interested in buying and how informal and/or formal contracting agreements with regional farmers could be developed to supply the desired products at a fair price. Extension Service and other technical assistance providers could play a role in mediating this conversation and bringing their expertise to the discussion.

State government agencies and funders (e.g., private foundations, public grant programs, social impact investors) also have a role to play in supporting farmers to connect with institutional buyers in mutually beneficial ways by funding this work. Additionally, farmer associations or cooperatives can be supported in forming, getting trained and certified, and effectively reaching out to institutional buyers.



## FOR FARMERS

1. Attend farmer wholesale readiness trainings and “Meet the Buyer” meetings near you.
2. Consider reaching out to local institutions to see what local products they want to buy but have been unable to find, and ask what they are paying for products you could supply.
3. Consider growing a product identified by a local institution that is in high demand and low supply, and make plans to supply that product.
4. Put time into developing marketing agreements with institutions that could bring large, consistent markets with fair prices.
5. Consider working with other producers near you to aggregate product to sell to local institutions.
6. Talk with other farmers near you who are already selling to institutions to learn about their best practices, if they are willing to share.
7. Work with producer service providers who can help you to understand if, when, and how institutional markets make sense for your farm.

## FOR COOPERATIVE EXTENSION & OTHER PRODUCER SERVICE PROVIDERS

1. Encourage your staff to get training to learn about how to assist farmers in entering institutional markets, including helping them with marketing to institutions.
2. Run trainings for farmers interested in entering or expanding their sales to the institutional market to help them learn how to adjust their growing and marketing practices for the institutional market.
3. Reach out to local institutions to assess their interests in buying local products. Connect interested institutions directly with farmers.
4. Host “Meet the Buyer” meetings that bring local institutions together with local farmers to discuss needs, prices, and potential for working together.

## FOR GOVERNMENT OFFICIALS

1. Support/host producer wholesale readiness trainings that have been informed by institutional customers and provide information specifically about institutional market development.
2. Support/host “Meet the Buyer” meetings that bring local institutions together with local farmers to discuss needs, prices, and potential for working together.
3. Support individual farmers and farmer groups who are interested in working together to supply local institutional markets in innovative ways.





## FOR FUNDERS & NON-PROFITS

1. Fund producer wholesale readiness trainings that feature information about institutional market development.
2. Support farmers who are interested in working together to supply local institutional markets in innovative ways.
3. Support the development of state Farm to Institution groups that bring institutions of different types together to learn about each other's local food procurement practices and needs.

## FOR INSTITUTIONS

1. Identify what local products you want to buy that you don't buy currently.
2. Prepare detailed information about each of the products you are interested to source locally so that you can easily plan with producers prior to the growing season. This includes volume, packaging, quality, frequency of delivery, liability requirements, certification requirements, and other relevant details so that you can find a good fit for your needs and communicate well with the producer.
3. Attend "Meet the Buyer" meetings near you.
4. Consider aggregating your local food demand with other nearby institutions.
5. Consider reaching out to local producer groups to see what they can supply, their product and price needs, and what they might be willing to grow for you in the future.
6. Consider working with individual producers that are near you to aggregate their product to sell to you.
7. Put time into developing marketing agreements with producers that could bring you consistent, high quality local food at fair prices.



Eastman Farm's processing kitchen in New Hampshire | By Kaitlin Haskins

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By Dianne Engleke | Courtesy of Dashing Star Farm New York



By Dianne Engleke | Courtesy of Dashing Star Farm New York

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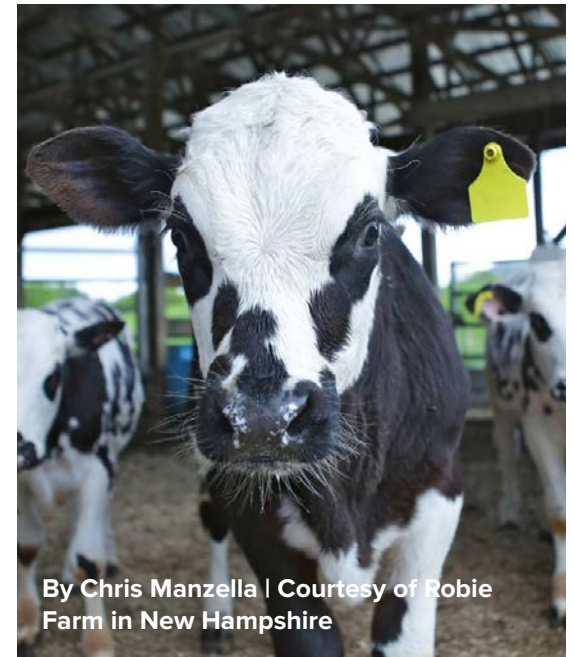
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By Kaitlin Haskins



By Chris Manzella | Courtesy of Robie Farm in New Hampshire

# FOR MORE INFORMATION

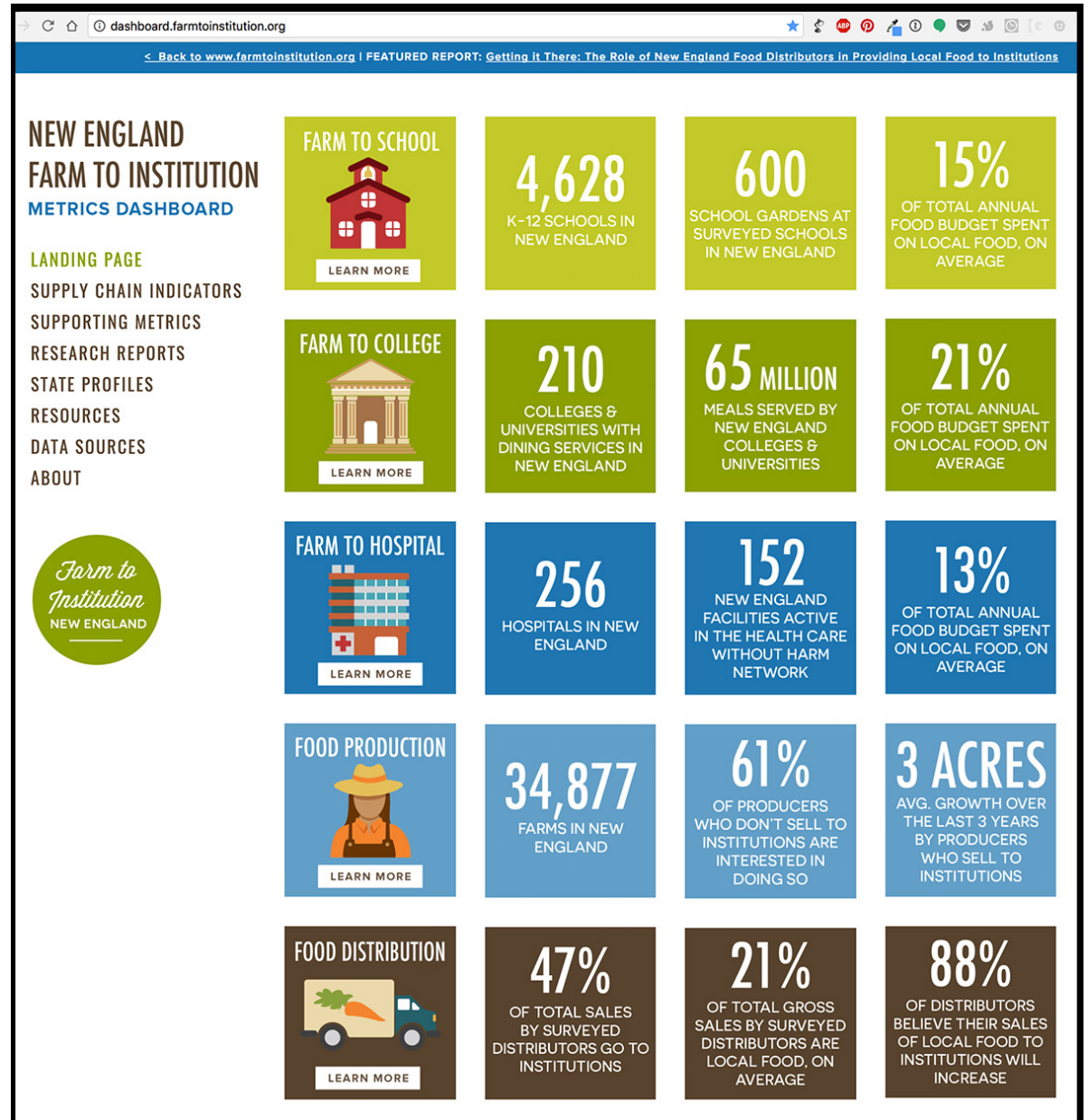
Please visit FINE's New England Farm to Institution Metrics Dashboard at [dashboard.farmtoinstitution.org](http://dashboard.farmtoinstitution.org) for even more farm to institution metrics and related resources.



[www.farmtoinstitution.org](http://www.farmtoinstitution.org)



Courtesy of USDA





# THANKS FOR READING!

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Feel free to email us with any questions or suggestions at [metrics@farmtoinst.org](mailto:metrics@farmtoinst.org)

