ZWICK CENTER FOR FOOD AND RESOURCE POLICY

FARM TO SCHOOL IN CONNECTICUT

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PREPARED FOR

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PREPARED BY

Cristina Connolly
Assistant Professor

Alyssa McDonnell
Research Assistant

Christine Dosseh
Graduate Research Assistant

Jacob Gentile
Graduate Research Assistant

DEPARTMENT OF AGRICULTURAL AND RESOURCE ECONOMICS
1376 STORRS ROAD, UNIT 4021,
STORRS, CT 06269-4021

UCONN | COLLEGE OF AGRICULTURE, HEALTH AND NATURAL RESOURCES
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Executive Summary

Farm to school programs, which connect students to local agriculture through activities spanning the cafeteria, classroom and broader school community, are associated with positive outcomes for both students and the state economy. Connecticut has invested in growing farm to school programming throughout the state, including establishing a Farm to School Program in 2006, and implementing the CT Grown for CT Kids Grant in 2021. A core pillar of farm to school programming is the integration of fresh and locally grown food into school meals. In order to understand the state of local procurement post-COVID we implemented a survey of the 173 School Food Authorities (SFA) in Connecticut and conducted semi-structured interviews with 19 SFA directors across the state. We found that most SFAs are not only already procuring locally sourced food for their schools but have also taken actions to improve the overall quality of school meals. However, they also face financial and institutional challenges when implementing farm to school programs.

What we found

101 SFAs have procured local food in the last year

The primary motivation of SFA directors implementing local procurement is to provide fresh, high-quality produce that students enjoy

Districts with access to supplemental produce funding or organizations such as Put Local on Your Tray are more likely to procure directly from producers

Primary challenges to local procurement included expense, availability, and staff time

83% of SFAs that bought local had purchased from CT sources

Only 30% of those that buy local spend more than 10% of their local funding on CT Grown

Based on the results of our study we provide the following recommendations:

- ✓ Improve informational resources regarding local food procurement
- ✓ Expand the number of districts receiving logistical support
- ✓ Conduct outreach to current broadline and produce distributors
- ✓ Provide equipment aid
- ✓ Continue universal meals for all
- ✓ Implement local food incentives

Introduction

Farm to School programs use fresh, locally grown food to enhance the health and nutrition of children, and local food procurement is a core pillar of farm to school programming (Mishra et al., 2022; Prescott et al., 2019). Particularly in the context of school nutrition programs, local and small-scale farmers are now considered to play a key role in increasing exposure and access to better nutrition in schools, while also benefiting local agriculture (Chaves et al., 2023). These programs also match student preferences for improved school lunches, which include an increase in produce variety, access to salad bars, improved communication on the benefits of healthy eating and an emphasis on “quality and palatability” (Asada et al., 2017). Previous research demonstrates the beneficial impacts of farm to school programs on student outcomes, including increased awareness and participation in school meal programs (Gosselin & Benson, 2015; Mishra et al., 2022), healthier meal options for students and better food decisions (Izumi et al., 2010) and increased vegetable consumption through salad bars (Bean et al., 2018). Investing in local food systems can also provide economic benefits to the community (Bauman & McFadden, 2017; Pesch & Bhattacharyya, 2014; Tuck et al., 2010). A study conducted in Colorado concluded that a proposal to offer a $0.05 per meal incentive reimbursement for the purchase of local foods could lead to a seasonal increase in local food spending of 11–12% (Long et al., 2021). However, this impact depends on a state's capacity to supply enough locally grown food, demonstrating the importance of a multi-pronged approach to growing local agriculture.

Despite the promise of farm to school, challenges are encountered by both food service directors and farmers when implementing local food procurement. Procuring foods from local producers entails higher transaction costs and logistical challenges for both farmers and foodservice buyers (Izumi et al., 2010), including lack of year-round availability, consistency of quality and volume, time commitment of sourcing and ordering, and lack of delivery capacity (Bonanno & Mendis, 2021; Conner et al., 2011; Dimitri & Gardner, 2018; Feenstra & Ohmart, 2012; Gregoire & Strohbehn, 2002; Motta & Sharma, 2016). School food service directors face limited staff time and resources, and variation across schools in terms of their size, infrastructure, and financial and human resources (Prescott et al., 2019). Farmers cited logistical issues related to the timing of deliveries, including a lack of

availability of storage or refrigeration space in school kitchens or warehouses, as well as the presence or absence of loading docks (FINE, 2017).

Given these challenges, farm to school proposals have been discussed within the Connecticut General Assembly for many years, with the primary purpose of connecting local farmers and their produce with Connecticut (CT) school districts. In 2006 CT passed Public Act 06-135 which developed a farm to school program within the Departments of Education and Agriculture, including support for local purchasing and implementation of events such as Connecticut Grown for Connecticut Kids week (*2020 Connecticut General Statutes*, 2006). In 2018 the statute was amended by Public Act 18-73 which required suppliers to provide proof that their "CT Grown" products were actually produced within the state (*Connecticut General Assembly Raised Bill No. 106*, 2018). Connecticut has also tried to encourage geographic preference in bids, beginning with Public Act 16-37 in 2016 that required food management companies' bids for district contracts to include information detailing their consistency with the CT farm to school program (*Connecticut General Assembly Raised Bill No. 76*, 2016). It also states that the board of education must correspondingly give preference to bids that facilitate procurement from local farms. In 2021 CT incorporated financial support through Conn. Gen. Stat. § 10-215l , which created the CT Grown for CT Kids Grant (*CT Grown for CT Kids Grant--Regulations*, 2021). This program, established through the Department of Agriculture, provides direct support of up to $25,000 to support farm to school programming in early childhood education centers and K-12 schools. Additionally, CT used a portion of its American Rescue Plan Act funds to support universal meals through the end of the 2022-2023 school year, providing additional revenue to school food authorities (CSDE, 2022). Most recently, for Spring 2023 the USDA allocated $1.8 million to CT school food authorities through the Local Food for School Incentive Program (USDA, 2023). These funds can be used to purchase locally or regionally grown unprocessed food products, 80% of which must be from Connecticut. There is also a second stage of funding that will be used to build procurement relationships between schools and socially disadvantaged or small-scale farms. This is in addition to the COVID-related funds all schools received.

COVID-19 had significant impacts on school lunch programs through supply chain disruptions, worker shortages and changes in meal distribution (Burt, 2022; Orden, 2020; Thilmany et al., 2021; USDA, 2022), with disparate effects in urban and rural school districts (McConville, 2020). However, the pandemic also led to school meal flexibility that increased participation. Universal school meals, which are associated with improved diet quality, food

security, academic performance and lower meal costs (Cohen et al., 2021; Long et al., 2021), were extended to all districts. Changes to the summer meal program permitted directors to serve meals that followed different federal meal patterns and were "grab-and-go," allowing parents to pick up meals for their children (Connolly et al., 2021; Rundle et al., 2020; USDA, 2022). Some directors credited this flexibility for their ability to serve more local foods in the summer, support farm to school initiatives, and increase overall participation (Bennett et al., 2022). Thus, the pandemic provided opportunities for directors to engage with local community suppliers and growers, and provide meals to a greater number of students. However, a survey of SFA directors in California found pandemic meal reimbursement rates were still not sufficient to cover the cost of serving meals with locally procured products (Zuercher et al., 2022).

COVID has also renewed interest in the role procurement by public institutions such as schools can play in developing sustainable food systems (Marshall et al., 2020). In order to address the current state of local food procurement in CT we implemented a survey of all CT School Food Service Authority (SFA) directors. There have been three previous rounds of a national SFA survey implemented through the USDA (Bobronnikov et al., 2021). Results from these surveys have been used to assess the factors that predict the existence or continuation of a farm to school program (Bonanno & Mendis, 2021; Botkins & Roe, 2018; O'Hara & Benson, 2017; Wen & Connolly, 2022) and local food expenditures (Christensen et al., 2017; Fitzsimmons & O'Hara, 2019; Plakias et al., 2020). However, the most recent wave was conducted in Fall 2019, before the onset of the COVID-19 pandemic. Our study aims to fill this gap by understanding the state of local food procurement post-COVID. We also supplement survey results with semi-structured interviews with 19 SFA directors.

We find that a majority of Connecticut SFAs are not only procuring local food but also incorporating these items into their cycle menus. However, most of this local food spending does not appear to be going to Connecticut producers. While SFA directors serving local are primarily motivated by the desire to provide high-quality and tasty meals to their students, they also emphasize supporting the local community. However, these directors face significant challenges, including inadequate information, confusion about procurement processes, a lack of staff time and facilities, and cost. Despite these challenges, 97% of directors currently procuring local food intend to either maintain or raise their procurement levels in the next year.

The report is structured as follows. We begin by describing our survey and interview implementation methods. We then discuss the survey results of CT SFAs, incorporating insights from the interviews for additional context. We next compare our results to those from the 2019 Farm to School census to identify changes since COVID. We end by comparing the 2019 results for Connecticut with the rest of the Northeast.

Methodology

In February 2022 the Connecticut Department of Agriculture (CT DoAG) released a request for proposals (RFP) for development of a report that would shed light on the current state of local procurement and farm to school in Connecticut (CT) school meal programs. Desired information included: how much schools are spending on local and CT grown produce, what kinds of products are being locally procured, the types of funding SFAs are using for local procurement, existing barriers, and the capacity of schools to begin or increase local procurement. Data collection occurred at the level of SFA director. In most districts, the SFA director is responsible for the procurement of all food, menu development, and adherence to the National School Lunch Program guidelines and policies. SFA directors are often also responsible for managing various food programs individual schools may qualify for (i.e., Community Eligibility Program, Fresh Fruit and Vegetable Program) and deal directly with the day-to-day management of cafeteria operations. Data collection included a census of all SFA directors as well as semi-structured interviews with a representative sample.

Survey development was guided by the RFP but was also structured to complement the USDA's national Farm to School (FTS) census instrument to allow us to compare our results with the data from the 2019 wave; however, our study is more procurement focused. Specifically, we analyzed data from the 2019 FTS Census to understand pre-COVID farm to school activities and presented these results to stakeholder groups to facilitate discourse around survey design. Question design was then influenced by these meetings with farm to school stakeholders, including representatives from the CT Department of Agriculture , CT Department of Education (CSDE), CT Farm to School Collaborative, FoodCorps, and UConn Extension.

After developing the initial survey instrument we received additional feedback from the CT DoAG and the CSDE. Our updated survey was then pretested in a representative focus group with directors at different stages of local procurement. We met with the focus group virtually on September 8, 2022. Prior to this initial meeting participants were asked to complete the SFA survey to the best of their ability and document any questions or concerns. Changes to the survey instrument were made based on director feedback and we met again with the focus group on September 20, 2022. Additionally, some questions were moved to the informational interviews as they required more in-depth qualitative answers.

The survey was initially rolled out to SFA directors at the School Nutrition Association of CT annual conference on October 14, 2022. An announcement about the survey was made after the keynote address and a QR code linking to the survey was printed in the program. Additionally, we set up a table in the farm to school area of the conference to answer questions and promote the survey. Following the conference, the SNACT monthly newsletter was distributed with a link to the survey on October 20, 2022. In the following weeks SFA directors were then sent reminder emails from multiple sources including UConn, CSDE, and CT DOAG. Beginning in January 2023 follow-up calls were made to all remaining non-respondents and the survey closed March 13, 2023. SFA directors completing the survey were eligible to win prizes, including airpods, a blender, a juicer, or an immersion blender.

From the initial survey responses, 33 SFAs were selected to be potential interviewees. Candidates for interviews were selected based on the size of the district, whether or not the district was CEP eligible, if the SFA had schools enrolled in the FFVP, whether they had farm to school programs (including local procurement), and the structure of the school lunch program (self-operated, Food Service Management Company, Regional Educational Services Center). Selected SFAs were sent an email requesting a one-hour long meeting, either in person or online, along with a link to allow them to schedule the interview time. Of the 19 interviews, 18 were conducted virtually and 1 occurred in person. The semi-structured interview questions were partly based on their survey responses, and concentrated on motivation, informational needs, capacity to handle fresh produce and program successes.

Results

Responses for all Respondents

Non-Respondent Population

Of the 173 SFAs in Connecticut (CT) we received responses from 149 of them, which is a response rate of 86%. However, in several instances one director managed multiple SFAs and provided a combined survey response for their districts. Thus, our final sample consisted of 142 observations. In order to assess the potential for non-response bias we compared the demographic information of the respondent and non-respondent populations. Demographic data for each district was downloaded from EdSight, which is maintained by the CT Department of Education (EdSight, 2023). Information on whether the town was considered rural or urban came from DataHaven's "Five Connecticuts" system (Data Haven, 2023). The 23 non-respondent districts appear generally similar to those that responded. Non-respondents have slightly lower per-pupil expenditures and fewer districts with a pre-k program. A greater proportion of non-respondents also appear to be located in suburban areas. Based on these results we do not see evidence of non-response bias, though we do not know the local procurement levels of non-responding districts[1].

Respondent Population

Slightly more than half of all districts had no schools enrolled in either the Fresh Fruits and Vegetables Program (FFVP) or Community Eligibility Program (CEP), while 12% of SFAs participated in both, and 34% were enrolled in only one.

	Non-CEP	CEP
Non-FFVP	53.62%	16.67%
FFVP	17.39%	12.32%

FFVP provides lower-income school districts with additional funds to purchase produce for elementary school students while CEP allows low-income school districts to serve free school lunches to all students[2]. Thus, while these FFVP or CEP districts may be in under-

[1] For full results see Table A2.1

[2] SFAs must apply for FFVP annually and funding constraints mean not all eligible schools receive it in a given year. CEP eligibility is determined by the percentage of low-income households in a given district, and all qualifying schools that participate in the program receive increased meal reimbursement values.

resourced communities, the SFAs have additional funds available to purchase produce or can take advantage of economies of scale when purchasing. Districts where all eligible schools were enrolled in FFVP were more likely to purchase directly from producers, though the same relationship did not hold for districts that only enrolled some of their schools[3]. It would appear that FFVP funds can be used to expand the purchase of produce from non-traditional distributors[4]. CEP school districts were more likely to have purchased local food before the 2021-2022 school year, which represents the time period before COVID rules permitted universal meals in all districts. However, those districts with only some CEP schools were also more likely to have since stopped serving local during COVID[5]. One potential reason for this finding could be that some CEP districts saw a drop in meal participation during COVID while non-CEP districts saw an increase once universal meals were implemented.

"We have 16 sites, most of the elementaries are re-heat kitchens so producing is difficult."

Turning to kitchen setup, the vast majority of respondents had school-based kitchens (91%), though some also had central or receiving kitchens[6]. Though we initially hypothesized that school-based kitchens would be associated with increased levels of local procurement, in interviews it became clear that there was significant heterogeneity in the quality of these kitchens. While some schools had walk-in freezers and modern equipment others were "the size of a closet". In fact, districts with central kitchens were sometimes able to utilize these spaces to accept local food deliveries from producers and prepare items such as soup or sauce from scratch for distribution to different schools. Slightly more than ⅔ of the sample operated their own foodservice operation, while ⅓ used a food service management company (FSMC)[7]. Less than 5% of programs were managed by a Regional Education Services Center (RESC), which are non-profits created through CT statute to support public schools. One such support service is the management of school food programs for a fee.

[3] For full results see Table A2.2 and Table A2.3

[4] Most school produce is purchased using entitlement dollars in the DoD Fresh Program; generally, districts only purchase from other distributors if their funds have been spent or they need specific products. FFVP funds can be used to purchase produce from a larger variety of suppliers.

[5] For full results see Table A2.4 and Table A2.5

[6] For full results see Table A1_Q1.14

[7] For full results see Table A1_Q1.15

While there is a perception that food service management companies are more regimented and unable to procure locally, in interviews directors from those companies all expressed excitement about their farm to school programs[9]. In fact, they suggested that having the support of their company was an asset in identifying local food vendors and streamlining the procurement process. One FSMC director even noted that their newest vendor contract was going to require local preference, 80% of which must be from Connecticut. However, FSMCs differed in whether they required all suppliers to go through their vending system, or allowed for micropurchases from producers[10]. So, while there was no difference in most local procurement activities between FSMC and self-operated programs, having a self-operated food service program was associated with a higher likelihood of buying directly from producers[11].

8

Food Processes


80% of respondents stated they prioritized purchasing local vegetables

Though all school meal programs are required to serve fruits and vegetables, there was heterogeneity in how SFAs approached their meal programs. 63% purchased more than half of their produce unprocessed, compared to 31% that primarily purchased pre-cut or

[8] For full results see Table A1_Q1.3
[9] They did note that their degree of local procurement was directly related to the interest expressed by district administration.
[10] A micropurchase threshold is a value below which state or public officials may purchase directly from a vendor outside of the normal contract and bidding process. Procurement occurring through this method is called a micropurchase.
[11] For full results see Table A2.6

packaged produce[12]. Almost all respondents used fresh vegetables as raw menu items, and ¾ incorporated them into hot menu items[13]. Thus, there appears to be a certain degree of scratch cooking amongst most respondents. Slightly more than half of respondents (58%) purchased their meat raw, which can require additional food safety processes in the kitchen[14]; one director noted that while they buy raw beef they "won't touch raw chicken". Only 24% of respondents baked their items from scratch[15], though in several interviews SFA directors highlighted baked goods, such as bread, as a product they purchased locally.

COVID

The most common changes made to school meals during COVID were to begin serving in classrooms or through grab and go and to modify how produce was packaged[16], and more than half of SFAs intended to keep at least some of the changes[17]. In interviews, SFA directors described breakfast grab and go as a success. Several mentioned previously trying to get schools to allow students to eat breakfast in the classroom, resulting in significant pushback from teachers, but that it has now become accepted post-COVID. This has allowed students to take whole fruits, such as apples, to eat later, where previously they might have been wasted. Consuming school breakfast was associated with a healthier weight and improved academic outcomes (Adolphus et al., 2013; Wang et al., 2017), so there are benefits to increasing participation. Regarding the 25 SFAs reporting to have purchased from new or alternative distributors, this was primarily due to having to seek out additional suppliers as a result of supply chain shortages. While directors generally intend to return to their status-quo, as more vendors entails more coordination, one director highlighted how having created these new relationships makes her feel her program will be more resilient if future shortages occur.

[12] This includes products such as apple slices, baby carrots and fajita peppers. For full results see Table A1_Q1.9
[13] For full results see Table A1_Q1.10
[14] For full results see Table A1_Q1.12
[15] For full results see Table A1_Q1.13
[16] For full results see Table A1_Q1.16
[17] For full results see Table A1_Q1.17

Summer Meals

Summer meal programs serve free meals to all youth 18 and under at pre-approved sites in order to ensure children have access to healthy food even when school is not in session. Slightly more than one-third of respondents participated in the summer meal program, and districts were evenly split between using Seamless Summer or Summer Food Service[18]. The Summer Food Service program has slightly higher reimbursement rates than the Seamless Summer Option but it also requires more paperwork (USDA, 2013). While nearly 90% of SFAs serving local meals stated they served local food in summer meals, only 25% increased their local procurement despite summer being prime harvest season for CT[19]. This was initially surprising as summer is the peak of the CT growing season. For many directors this is because they stop serving hot meals, relying instead on sandwiches and pre-packaged produce or juice. This is primarily due to the need to transport products to multiple sites, often in coolers, and a decrease in available staff.

All directors noted that summer meals had become less profitable as participation dropped off in the post-COVID return to requirements that meals be consumed on site; a survey of summer meal participants in CT found 80% of parents believed the grab and go option to be very important (Bennett et al., 2021). Several directors suggested that this negatively impacted their most vulnerable students as they may not have a stay-at-home parent that can walk them to the site each day. Others noted that some of the funds they used to purchase local food, such as the Fresh Fruit and Vegetable Program (FFVP), were not available during summer as they are only for use during the regular school year, and that it was difficult to do micropurchasing at that time as well. While nearly 70% of respondents used USDA DoD Fresh program funding, many were exclusively purchasing through their non-profit food-service account, which can be applied to local producers[20]. This suggests a potential to increase local procurement, especially with increased funding through the Summer Food Service Program. SFAs using the Summer Food Service program were less likely to have never served local food and more likely to purchase directly from producers[21]; in interviews, directors expressed it was difficult to remain profitable for summer meals, which is potentially ameliorated through the higher SFS funds. Additionally,

[18] For full results see Table A1_Q1.20 and Table A1_Q1.21
[19] For full results see Table A1_Q1.22 and Table A1_Q1.23
[20] For full results see Table A1_Q1.24
[21] For full results see Table A2.7

those programs with a strong emphasis on buying fresh and unprocessed produce were still able to procure local products such as fresh fruit or produce for veggie sticks. However, even they noted a reduction in the amount of fresh product they were able to serve. Several directors stated an interest in increasing their summer local procurement, and one even suggested that it would be an ideal time to purchase local fruit as meal patterns allowed them to substitute an additional fruit for the traditional vegetable serving.

Farm to School

Nearly ¾ of all respondents believed their administration considered farm to school important, while ⅔ agreed that there was a strong desire in their community[22]. Less than half of directors believed students were interested in where their food comes from (43%) and even fewer agreed that students were regularly served fruits and vegetables at home (39%). However, during interviews SFA directors suggested that even when the push to do local procurement was led by the director they subsequently received administrative support, especially given the ability to advertise these activities to parents. They also highlighted the importance of "local go-getters in the community" such as farmers or town personnel that build and maintain relationships. Families themselves differ in the emphasis they place on local food; for some they are just happy their children are fed. Parents may be interested when they learn about local procurement activities through newsletters or social media posts, but they don't generally reach out about it. Directors also noted that buying local tells students and the community that you want to support them.

Agree with the following statements	142	
My administration considers Farm to School important	101	71.13%
There is a strong desire within my community to implement Farm to School programming	87	61.27%
Students are curious about where their food comes from	61	42.96%
Most students in my school district are regularly served fresh fruit and vegetables at home	55	38.73%

[22] For full results see Table A1_Q1.8

70% of the sample stated they procured local food either in the 2021-2022 school year or currently (2022-2023 SY). This corresponds to 17 SFAs that procured food this year but not the prior year, and two that stopped. Thus, it appears that local procurement is growing in the state.

Does your SFA serve locally procured food in any of your federally-funded food programs		
Total number of respondents	141	
	n	%
Never served local food	26	18.44%
Yes, before the 2021-2022 school year	82	58.16%
Yes, in the 2021-2022 school year	81	57.45%
Yes, in the current school year	96	68.09%
Yes, before 2021-2022, but not since	16	11.35%
Yes, in 2021-2022 SY, but not 2022-2023	2	1.42%
Yes, newly in 2022-2023 SY	17	12.06%

[23]

[23] For full results see Table A1_Q1.18

Responses for Respondents that Procure Local

Practices

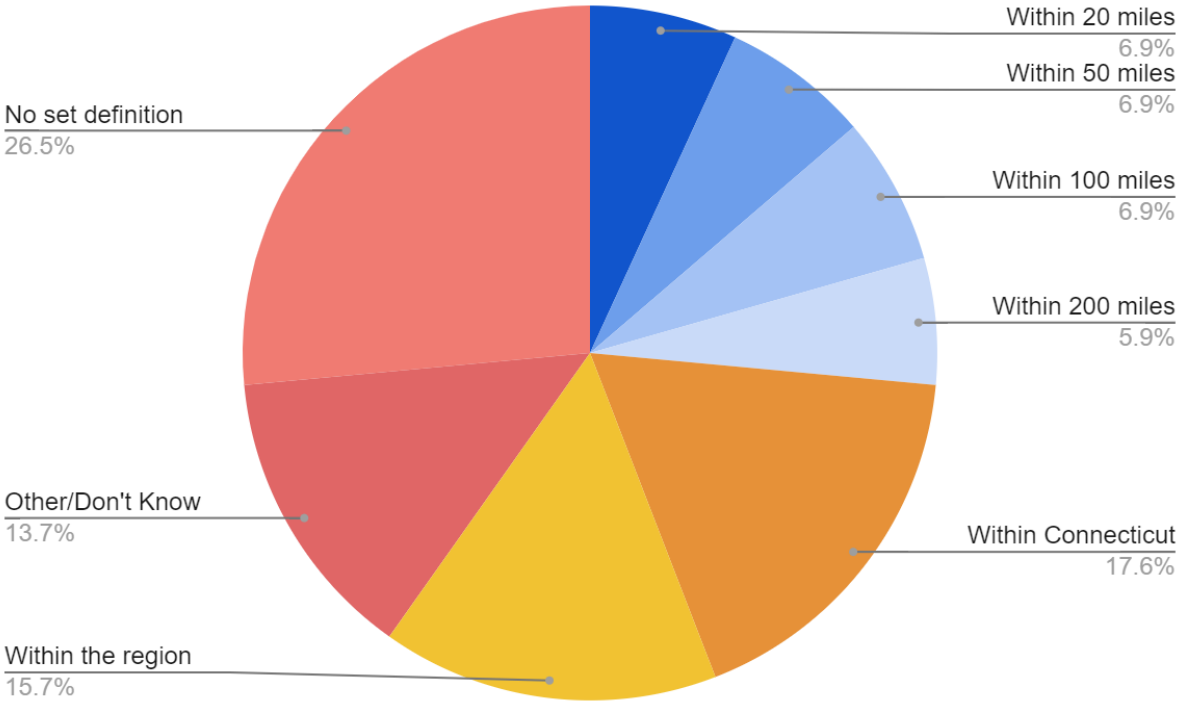
Our primary sample for the rest of the report consists of the 101 SFAs that procured local either in the 2021-2022 or 2022-2023 school year.

Respondents are generally heterogeneous in terms of the length of time they have been serving local food and whether they initiated local procurement or inherited a pre-existing program[24]. However, SFAs that have been procuring local food for at least three years are more likely to have purchased directly from producers[25], which could represent the additional legwork needed to connect with producers. Directors noted the difficulty of initiating farm to school programming, and even those whose SFAs has pre-existing programs felt not much information was given. One director described the process as "trial by error" as there is no formal network or place to ask for help, though there are far more resources available now compared to even five years ago. Directors mentioned that understanding how to work within procurement rules was daunting and suggested a fact sheet on how to buy from producers be developed. Directors also praised the aid provided by programs such as FoodCorps and the CT Produce Pilot in terms of providing resources to grow procurement. While directors noted that it was simple to maintain the process of procuring from producers once the relationship was established, creating those connections was difficult. There was a request for a supplier directory, though it was especially helpful when producers or food hubs reached out to start the process. Directors also wished there were more training opportunities and procurement funds. One director specifically asked for training on scratch cooking, including how to make products such as seasonings to address the low-sodium meal rules.

The majority of SFAs are now serving local food in all school cafeterias, not solely elementary schools, and 42% have farm to pre-K programs[26]. This corresponds to between 6 and 7 schools in each SFA[27], and represents an increase in access since 2019.

[24] For full results see Table A1_Q5.1 and Table A1_Q5.2
[25] For full results see Table A2.8
[26] For full results see Table A1_Q5.6
[27] For full results see Table A1_Q5.5

SFAs also differed in how they defined local for procurement. Slightly more than ¼ of respondents used a mileage definition while ⅓ used either CT or the region, which primarily included New England or the Northeast. However, the most common response was to not have a set definition for local, which could represent how the concept of local changes seasonally.



SFAs do seem to prioritize purchasing from nearby areas. Specifically, 83% of SFAs purchased local products from CT, while 49% purchased from Massachusetts and 39% from New York, which are bordering states[28]. Unsurprisingly the most common months in which to purchase local produce were September, October and November[29]. Yet a majority of SFAs were still purchasing in the winter months, including root vegetables and yogurt. While SFAs predominantly purchased their local food in unprocessed form, nearly 50% were able to procure slightly processed products[30]. The most common example in interviews was from farms able to cut or peel their root vegetables. In fact, all interviewed directors specifically mentioned the difficulty of peeling and slicing root vegetables and squash.

[28] For full results see Table A1_Q5.7
[29] For full results see Table A1_Q6.2
[30] For full results see Table A1_Q6.3

Procurement

Unsurprisingly, the most commonly procured local products are fruits and vegetables, followed by fluid milk[31]. Additionally, most respondents are incorporating these products into their cycle menus rather than simply serving them during special events[32]. Several of the directors procuring local yogurt highlighted product from a New York dairy farm that is available through their primary vendor and is both high-quality and lasts several weeks. Only eight SFAs are procuring local meat, at least partly due to the food safety implications of handling raw meat. However, one director who bought local beef raved about the product. While they have to create the patties themselves to ensure they meet size standards, they also noted that *"I cannot tell you the publicity I've gotten from that- adults love it even though for us it's not that big of a deal. The smell is better- it definitely increased our participation."* However, even within their district not all schools were equipped to handle raw meat. Most directors seem satisfied by their local procurement as 97% of respondents stated an intention to purchase at least as much local food next year[33].

	Procuring in 2021-2022 or 2022-2023 SY	**Use in cycle menu when available**
Fruits	88	87
Vegetables	85	84
Fluid milk	72	67
Yogurt and other dairy	34	34
Cheese	15	15
Eggs	13	14
Plant-based protein items	12	10

The most common source of locally procured food was the Department of Defense Fresh program, which was selected by ¾ of the sample, and was the top source for 44 of them. All schools receive USDA entitlement dollars to purchase commodity products, and through DoD Fresh they are allowed to apply that funding to purchase fresh fruits and vegetables.

[31] For full results see Table A1_Q5.6 and Table A1_Q5.14
[32] For full results see Table A1_Q5.9 and Table A1_Q5.15
[33] For full results see Table A1_Q5.10 and Table A1_Q5.16

The current approved DoD Fresh vendor is Gargiulo Produce in New Jersey and while they will highlight foods as local in their buying system, during interviews SFA directors suggested it was unclear what region is considered local to New Jersey[34]. Local produce was also procured through the SFA's produce distributor, and less frequently through their broadline distributor.

Rank Top Three Sources	n	%	Mean	Std. Dev	First	Second	Third
Number of respondents	98						
USDA DoD Fresh Program	75	76.53%	1.49	0.64	44	25	6
Produce distributor	61	62.24%	1.77	0.80	28	19	14
Broadline distributor	33	33.67%	2.39	0.61	2	16	15
Individual food producers	31	31.63%	2.29	0.82	7	8	16
USDA Foods	28	28.57%	2.04	0.74	7	13	8

While 30% of respondents stated they procured directly from producers, few ranked it as their top source. The most common challenges faced when purchasing from producers included delivery, identifying potential producers and the procurement process[35]. This matches what SFA directors said during interviews. For instance, delivery is a huge concern for directors. Distributors generally deliver to all schools in a district, while producers may only deliver to one site, if at all. Several directors had stories of having to meet producers at their farm or some other location and transport the product themselves. Conversely, one director mentioned that buying from producers could be good for specific schools in a district that are too small to meet delivery minimums from traditional distributors. While SFAs with school gardens found them to be of great value to the students involved, interviewed SFA directors explained that the volume from the school garden is insufficient to stand

[34] The DoD contract specifies that "local purchase" is defined as product purchased from growers or manufacturers within the state the customer is located, within the contract zone, or from a state bordering the state in which the customer is located." However, directors may not be aware of this.
[35] For full results see Table A1_Q6.9

alone as a procurement source. One SFA interviewed told us they used the garden as a framework for tastings and supplementing with produce from a local farm.
However, many of the challenges described by directors were information based, even those related to procurement. Beyond a directory of producers interested in selling to schools, directors wanted preferred contact information and hours of operation. Given the volume requirements of most districts they expressed a need to know what farmers can produce and how much they can provide. One director noted that there is a limit to how flexible they can be in regards to produce availability as they are constrained by NLSP rules, such as needing to incorporate certain vegetable subgroups. They suggested it would be especially helpful to know if they could access products needed to complete their cycle menus, though SFAs with salad bars can more easily incorporate unexpected produce items.

Directors would also like information on what the buying process would look like, including the forms of payment that farmers can accept. The most frequently used methods for local procurement were informal procurement and micropurchases[36]. However, not all directors were clear on the rules surrounding informal purchases. Additionally, there is heterogeneity across CT towns when it comes to the micropurchase threshold value. While the average amount was $3,276, some towns allowed as high as $30,000 while 40% of districts faced a threshold of $1,000 or less. Districts in towns with above average micropurchase thresholds ($4,000 or more) were more likely to both procure local food and purchase local directly from producers[37].

	Mean	Std. Dev.	Min	Max
Micropurchase Threshold	$3,726.38	$4,853.26	$0	$30,000

Only 16% of respondents stated they used geographic preference, which allows SFAs to prioritize vendors that purchase from local producers. Based on interviews it would appear the main reason for this is that many SFAs participate in buyer cooperatives for the bidding process and are not sure what is included in those requests for proposal. Based on our review of prior bid proposals it would appear that some organizations use geographic preference while others do not, which ends up impacting a large number of school

[36] For full results see Table A1_Q6.11
[37] For full results see Table A2.9

districts, including those that are self-operated. However, at least one buying group has now added language prioritizing local to their next bid request. One director noted that current geographic preference in their language was vague and they would like to strengthen it upon the next bidding cycle; directors may benefit from sample language that they can easily add to their requests for proposals. Directors at food service manager companies indicated that their use of geographic preference depended on the interests of the district, though at least one FSMC has it automatically in their bids. Several directors also mentioned that they have had trouble getting vendors to bid on their contracts, which presumably impacts their ability to include additional requirements such as geographic preference.

Procurement Approach		
Total number of respondents	96	
	n	**%**
Informal procurement	45	46.88%
Micro-purchases	29	30.21%
Formal procurement	16	16.67%
Use of geographic preference	16	16.67%
Forward contracts	14	14.58%

Beyond their own non-profit food service accounts, the most common funding sources for local food were the Fresh Fruit and Vegetable Program (FFVP) and Healthy Food Certification funds (HFC). As part of HFC, any SFA that follows CT nutritional standards for all food it sells to students (including through vending machines) receives an additional 10 cents for each reimbursable meal it sells. It would appear that SFAs are using at least some of those extra funds to procure local products for its students. A regression of the impact of funding sources on local procurement found that districts with HFC funding spent significantly more on local food[38].

[38] For full results see Table A2.11

Funding sources		
Total number of respondents	97	
	n	**%**
Federal reimbursement funds and/or cafeteria food sales	82	84.54%
Healthy food certification	28	28.87%
Fresh Fruit and Vegetable Program	23	23.71%
Grants	9	9.28%
School/District funding	7	7.22%

Facilitation

SFAs differ on the degree of support they receive from external organizations and internal policies. Nearly half of SFAs did not participate in farm to school networks and either had no policies supporting farm to school or weren't sure. However, 49% of responding SFAs stated they participated in Put Local on Your Tray (PLOYT), which is an Extension program that facilitates farm to school activities by providing training on micropurchasing, hosting cafeteria taste tests and developing promotional materials. During interviews several directors highlighted the PLOYT program, including the listserv that helps connect them to producers with available products. This program appears successful as SFAs participating in PLOYT were more likely to purchase local products directly from producers[39]. Only 7% of respondents had FoodCorps personnel in their district, but those that did credited these members with aiding in procurement, taste tests and the creation of promotional material. Recipients of CT Grown for CT Kids grants also highlighted the role those funds played in facilitating their farm to school activities.

"Put Local on Your Tray has been a godsend– their local directory."

[39] For full results see Table A2.11

SFAs were also asked what would most facilitate their ability to increase their local food procurement. While nearly half of respondents did mention funding as a need, more common responses had to do with receiving information, both from their current distributors and from potential farms. Over a quarter of respondents mentioned an interest in partnering with food hubs, while only 7% were currently procuring through one. One director specifically highlighted the Northwest Connecticut Food Hub in interviews as being a major factor in their ability to procure local food. Specifically, they mentioned that they were able to easily access high quality and diverse products, including weekly availability lists, consistent delivery, and invoices containing farm-level information. Directors also mentioned a desire for better procurement processes, including higher micropurchase thresholds. As noted earlier, there is significant heterogeneity in threshold values across the state, which impacts local procurement.

52 Only 52 SFAs reported any personnel dedicated to farm to school

31 At best- 31 responents had full time staff members that spent some of their time on farm to school

Farm to school is an additional responsibility for School Food Directors

What would facilitate ability to increase local procurement		
Total Number of Respondents	90	
	n	**%**
Receiving lists of farms interested in selling to schools	58	64.44%
Increased information from current food distributors	55	61.11%
Funding for locally purchased products	44	48.89%
Partnering with food hubs	26	28.89%
Automated buying process	20	22.22%
Higher micropurchase thresholds	15	16.67%
Other	9	10.00%

While 45% of respondents stated they purchased local products due to supply chain shortages caused by COVID[40], this impact appears to have since decreased. Post-COVID, ⅓

[40] For full results see Table A1_Q9.4

of directors stated their interest in local food increased and ¼ noted their actual purchases increased. Only 4 SFAs decreased their purchases of local food during COVID, primarily due to lack of staffing, supply chain shortages and food availability. COVID was clearly a trying time for all food service directors. With supply chain shortages and a change in meal patterns and distribution many districts had to shift away from serving fresh food products, with one director noting "during COVID we had to focus on having the kids fed rather than local". However, some districts were able to take advantage of restaurant closures to increase purchases from local farms (Burt, 2022). Several directors also noted how important their supplier relationships were in helping keep their programs afloat, including with local producers.

	Interest in purchasing local since COVID	Purchase of local food since COVID
Increased	33.33%	25.26%
Stayed the same	51.04%	55.79%
Decreased	3.13%	4.21%

CT Grown

We also asked about CT Grown products specifically. The CT Department of Agriculture developed the CT Grown program in 1986 to highlight CT agricultural products, and recently underwent a rebrand, including development of a new logo in 2021. The vast majority (92%) of directors were familiar with the CT Grown label, and only 3% of respondents stated they would not be more likely to purchase a product identified as CT Grown. In fact, nearly all directors (97%) expressed a willingness to try and incorporate new menu items if they were grown in CT. Though only 55% of directors directly asked their vendors for products grown in-state, all directors stated some degree of willingness to do so.

Nearly all respondents (92%) served apples grown in Connecticut, followed by summer squash, then lettuce. Notably these are all products that can be served with minimal or

light processing. Slightly less than half of directors selected that they served local carrots. In interviews, baby carrots were cited as a commonly served vegetable, and many directors expressed concerns about the quality of pre-packaged carrots they purchased from distributors and noted that students preferred when they purchased and cut fresh carrots, which could be reflected in these results. Green beans, sweet corn, winter squash and berries were also purchased in-state by at least 40% of directors. While several directors mentioned that students enjoyed getting local corn they also discussed the excessive time that shucking and preparation took; though a few directors suggested they would not do it again, another stated they were able to purchase it from the producer already shucked. Local winter squash is another product that can be prohibitively difficult to process but several directors mentioned work-arounds such as roasting without peeling to use the product in soups or purees. It is surprising that berries are not purchased more frequently as they do not require any type of processing to serve beyond portioning and could be used in the fruit smoothies directors have stated are popular among students. However, they are the product that directors expressed the greatest interest in purchasing in the future and can also be frozen to allow for local fruit to be served in the winter months. Approximately ¼ of SFAs had purchased CT Grown root vegetables and fresh herbs. While root vegetables allow for year-round local procurement they are also notoriously difficult to process, though there is at least one producer in CT that is able to process them before selling to schools.

After berries, approximately 40% of SFAs were interested in buying CT Grown versions of fresh herbs, green beans, lettuce and carrots. This information can be used to help producers make planning decisions when selling to schools. Both winter squash and root vegetables were the least popular products for future purchasing, potentially due to the processing concerns.

CT Grown produce SFAs are **currently buying**[41]		
	n	%
Apples	88	91.67%
Summer Squash	60	62.50%
Lettuce	54	56.25%
Carrots	47	48.96%
Snap/Green Beans	44	45.83%
Sweet Corn	44	45.83%
Winter Squash	39	40.63%
Berries	38	39.58%
Root Vegetables	24	25.00%
Fresh Herbs	23	23.96%

CT Grown produce SFAs **would like to buy**[42]		
	n	%
Berries	42	48.84%
Fresh Herbs	35	40.70%
Snap/Green Beans	34	39.53%
Lettuce	34	39.53%
Carrots	34	39.53%
Sweet Corn	31	36.05%
Winter Squash	23	26.74%
Root Vegetables	22	25.58%
Summer Squash	17	19.77%
Apples	8	9.30%

Attitudes

"I don't think you can put a price tag on nutrition."

In order to understand what motivates SFA directors to undertake the extra time and effort to procure local food, we asked respondents to rank their top four reasons for buying local. We are able to observe both the total number of directors that selected a given motivation, as well as the number that ranked that motivation as most important. It would appear that the most significant motivator for directors is to increase student consumption of fresh fruits and vegetables, followed by the freshness of the product. This is in line with director interviews; the majority of the directors we spoke with had either a culinary background or were registered dietitians, and the same themes were repeated multiple times. Directors

[41] For full results see Table A1_Q10.6
[42] For full results see Table A1_Q10.7

reported valuing fresh produce and believed local products were of higher quality and lasted longer. They also noted that students were more likely to eat fresh produce and thought it tasted better[43]. The next most common motivation was to support local economic development. Multiple directors expressed the importance of supporting local and small farmers and keeping money in the community. One director noted that their students got excited about local produce as they liked eating food "grown by people that looked like them". Other top reasons were for better tasting product, increased student meal participation and better positive public relations. This matches earlier results that both administration and the local community tended to value farm to school programming. Directors also cited an educational component as they could incorporate messaging on CT agriculture, healthy eating and seasonal harvests. Similarly, directors highlighted the ability to use promotion and taste tests to encourage students to try new products. One director also mentioned the environmental benefits of reduced mileage.

Rank your SFA's top 4 reasons for buying local	**n**	**Mean**	**SD**	**Rank 1st**	**Rank 2nd**	**Rank 3rd**	**Rank 4th**
Total number of respondents	89						
Product is fresher	56	1.66	0.96	33	14	4	5
Increase consumption of fruits and vegetables by students	61	2.31	1.01	15	21	16	9
Supports local economic development	56	2.29	1.00	13	23	11	9
Product tastes better	27	2.41	1.22	10	2	9	6
Increase student meal participation	29	2.72	1.10	5	7	8	9
Positive Public Relations – community wants it!	22	2.86	1.17	4	4	5	9

The top challenge to local procurement selected by SFA directors was that local foods are more expensive than conventional products. As results suggest that programs such as HFC can positively impact local food procurement[44] it appears that local funding incentives may address this concern. While the next most frequently suggested challenge was a lack of staff time in preparing local foods, a greater number of SFAs ranked local foods not being

[43] One current running through all interviews was the degree to which SFA directors are in tune with what their students want, rather it be slicing apples for them or switching from string cheese to sliced because students had problems with the packaging.
[44] For full results see Table A2.11

available from their primary vendors as their top challenge. Based on interviews with directors there is a connection between price and staff time as processing products on site (such as chopping carrots) is cheaper than paying a premium for pre-cut and packaged versions; for carrots specifically, one director noted that the local variety was of such high quality that they did not need to peel before chopping.

Rank your top three challenges	n	Mean	SD	Rank 1st	Rank 2nd	Rank 3rd
Total number of respondents	82					
Local foods are more expensive than conventional products	32	1.69	0.74	15	12	5
Local foods not available from primary vendors	22	1.68	0.78	11	7	4
Lack of staff time in preparing local foods	30	2.03	0.85	10	9	11
Limited availability of local foods	26	1.96	0.82	9	9	8
Delivery challenges	18	1.61	0.70	9	7	2
Lack of skilled/trained staff to prepare local foods	12	2.08	0.79	3	5	4
Difficult to coordinate procurement of local foods with non-local foods	8	1.88	0.83	3	3	2
Local foods are not identified or marked as local by distributor/vendor	14	2.43	0.76	2	4	8
Lack of availability of precut/processed local foods	12	2.33	0.65	1	6	5

"I'd like to have a breakdown by state, and it would be helpful to say what's available- a breakdown by season."

As mentioned, the next top challenges relate to a limited availability of local foods, which can represent both the seasonal nature of local products as well as access through primary vendors, including identification. Directors had wildly different experiences with receiving origin information from distributors. Most directors stated they wished they could at least know the state of origin, with a preference for farm location, especially for CT products. Most produce is purchased through the DoD program, whose current distributor is in New Jersey. Thus, directors reported that while a frequent line item in the buying directory was "local" or "regional" it was unclear what area that referred to. Most directors stated they did not ask for additional information from distributors as they did not believe vendors could provide it. However, the few directors that did reach out felt vendors were able to provide information on the origin of their purchases, including information on the state and farm. It appears that even for the same

vendor directors differed on their perception of the information available to them[45]. Directors wished there was consistency in available origin information, and it appears that vendors differ on whether they provide information on the buying website, invoice, or both. There was also some heterogeneity in preference for delivery of information, with most suggesting it should be on the invoice while others wished for a weekly e-mailed newsletter highlighting local producers, and potentially even what farm products would be available in the following week. One director believed that improved information should be a win-win as vendors are tracking their suppliers regardless and it would be great publicity to advertise that they work with local farmers. Directors also suggested vendors provide handouts on the farm suppliers that could be shared with parents and students, or perhaps even a map of all the local farm suppliers, and a common theme was that knowing the farm location allows directors to tell the story of the food.

"The hours and the labor need to change if you want to do things whole."

While 12 SFAs faced the challenge of a lack of skilled staff to prepare local foods, as well as lack of availability of precut foods, this partially represents a division amongst those we interviewed. Independent of local, several directors mentioned that they had prioritized purchasing fresh, unprocessed produce to peel and chop themselves. Examples included creating their own baby carrots or sliced apples as they believed students preferred the higher quality. However, other directors expressed a need to rely on pre-sliced products due to a lack of staff or equipment. Availability of equipment such as slicers or sectionizers differed between districts, and often between schools, which impacted processing ability. SFA directors had a variety of suggestions of equipment that could improve their ability to serve unprocessed and local product. Some were basic but crucial such as large sinks for washing produce, high quality knives and cutting boards, and containers to store the cut produce. As most SFAs need to process large quantities quickly, suggestions included a robot speed cutter or buffalo chopper, tilt skillets, a steamer, a sectionizer and a blast chiller. However, this needs to be accompanied by increased storage and refrigeration space and kitchens large enough to fit the machinery; one way that having a central kitchen can help with this sort of processing is that it can hold equipment that may be too bulky for

"It's more work but once my kitchen got used to doing it, it's not a ton more work."

[45] One director noted that when purchasing through the CT Produce Pilot vendors will provide farm-level information on invoices.

smaller school kitchens. Additionally, all directors mentioned having to train their own staff to cut and process products as few had prior experience with this activity.

Related to staffing, directors also noted the challenges they faced in marketing their local procurement. While all directors wished they were able to promote their local products, in practice it appears to primarily happen in districts where there is a staff person other than the director who can manage the promotional element; FSMCs specifically highlighted how they were able to rely on their company to handle marketing. One director stated that during the pandemic she was creating new promotional material each week but when schools temporarily returned to paid meals she had to devote that time to managing the program. Directors also suggested that they would try to get teachers involved either by providing material or asking them to announce that day's local food in class. However, with so much coursework to cover it often wasn't possible for this link to occur; one director specifically mentioned the importance of getting teachers excited about local food in cafeterias, to the point where he started a small CSA program for them.

We would also like to highlight the challenge of the difficulty in coordinating procurement of local and non-local foods. Directors expressed how a lack of storage and refrigeration space required precise coordination of deliveries, making it difficult to manage multiple vendors with different schedules. A minority of directors worked with local-oriented vendors such as the Northwest Food Hub, Sardilli's Produce or Red Tomato, which allowed them to procure local products conveniently; the invoices even provide the name of each farm supplying the product.

Rank your top three challenges	**n**	**Mean**	**SD**	**Rank 1st**	**Rank 2nd**	**Rank 3rd**
Total number of respondents	82					
Local foods are more expensive than conventional products	32	1.69	0.74	15	12	5
Local foods not available from primary vendors	22	1.68	0.78	11	7	4
Lack of staff time in preparing local foods	30	2.03	0.85	10	9	11
Limited availability of local foods	26	1.96	0.82	9	9	8
Delivery challenges	18	1.61	0.70	9	7	2
Lack of skilled/trained staff to prepare local foods	12	2.08	0.79	3	5	4
Difficult to coordinate procurement of local foods with non-local foods	8	1.88	0.83	3	3	2
Local foods are not identified or marked as local by distributor/vendor	14	2.43	0.76	2	4	8
Lack of availability of precut/processed local foods	12	2.33	0.65	1	6	5

Local Spending

A key purpose of this report is to quantify the total amount of local food being procured by SFAs in CT. However, this is difficult as SFAs differ in their ability to track local procurement, as well as their tracking methods. 56% of our respondents stated they did not track, while an additional 42% used spreadsheets and records. In interviews it was clear that SFAs differed in their interpretation of tracking local spending. Directors are generally able to track local food purchased directly from producers as they enter all invoices into their system. However, separating local and non-local products from distributors proved more challenging. Even when the origin information is available on the invoice, it is an additional step to input it into their tracking system or spreadsheet. Directors also noted that even if they selected local products from a vendor, when this was invariably supplemented with non-local product to meet volume needs the director was not able to track which schools received the local and non-local version. The exception to this was districts with central receiving kitchens or warehouses as they could then direct the produce as needed.

"I'm always interested in collecting the data, but it needs to be easy, I need to be able to run a report."

Directors differed on whether they had assistance in collecting invoices, which also impacted their ability to track. While most directors agreed that if they could track local their administration would love to highlight it, some stated they currently track specifically to be able to market these activities. Generally, it appears that SFAs may be undercounting their local purchases as they are only able to easily include amounts purchased directly from producers. A common refrain was that it would be helpful if this were tracked by the distributor, though some directors felt current velocity report options were sufficient[46]. This divergence in opinion could be reflective of differences in vendors used, as well as the degree of localization desired.

"If they could break down what's from Connecticut- that could be helpful. Instead of asking individual schools to track- if they could set up a system. Vendors have to know where their things are coming from."

How is SFA tracking local procurement		
Total # of Respondents	**n**	**%**
We don't formally track	53	55.79%
Spreadsheets/records	40	42.11%

[46] A velocity report tracks total spending by an SFA at a given vendor, though vendors may differ in the degree of detail provided.

In the following table we describe average local spending values and compare them between SFAs that did and did not track their local procurement. The average SFA reported spending approximately $57,000 on local food. However, those SFAs that were not tracking procurement reported higher spending levels. This suggests that a better baseline value of local food procurement would be the $48,000 per district reported by those SFAs that stated they tracked local procurement.

	N	Mean	SD	Min	Max
Dollars spent on local food (excluding fluid milk)	59	$56,635.83	$144,857.50	$0	$800,000
Whether SFA Tracks Local Procurement					
SFA Doesn't Track	32	$64,112.50	$176,167.90	$0	$800,000
SFA Tracks	27	$47,774.59	$98,265.20	$14	$515,000

SFAs were also asked what percentage of this total local food spending was dedicated to CT Grown. The majority of respondents either did not know this value or reported spending less than 10%. [47]

Responses for Respondents that Do Not Procure Local

Respondents that have never procured local food, or no longer procure local food, received a shorter subset of questions. This includes the same question concerning challenges as in Table A1_Q11.2.

Those who stopped serving local food

A respondent was characterized as no longer serving local food if they checked that they procured local before the 2021-2022 school year but did not select during the 2021-2022 school year or during the current school year. Though 11 respondents met this criteria, in comments one director stated they actually were still serving local food. The most common reason for ending local procurement was a lack of staff available to seek out local; this was selected by twice as many respondents as a lack of staff time related to preparation. Thus, it appears that the informational barriers noted in other survey sections may have been sufficiently challenging as to prevent local procurement for some directors.

[47] For full results see Table A1_Q12.5

Why is your SFA no longer procuring local food?		
Total number of respondents	11	
	n	**%**
No staff available to seek out local food	8	72.73%
I don't know	5	45.45%
Took too much time to procure	4	36.36%
Took too much time to prepare	3	27.27%
No staff available to prepare local food	3	27.27%

SFA directors were then asked to rank the same list of challenges as in Table A1_Q11.2. The top challenges reported by SFAs from when they used to procure local involved staff and availability, similar to the challenges selected by currently procuring directors. However, cost appeared to be less of an issue relative to logistical challenges, though the number of respondents is too small to make generalizations. SFAs appear uncertain about their future behavior regarding local procurement as 40% of SFAs (5) stated an intention to restart their local procurement and 60% (8) were not sure[48].

Rank your top three challenges	**n**	**Mean**	**Std. Dev**	**Rank 1st**	**Rank 2nd**	**Rank 3rd**
Total number of respondents	11					
Lack of staff time in preparing local foods	3	1.67	1.15	2		1
Lack of skilled/trained staff to prepare local foods	3	2.33	1.15	1		2
Limited availability of local foods	3	2.67	0.58		1	2
Local foods are more expensive than conventional products	2	1.00	0.00	2		
There are no challenges	2	1.00		2		
Local producers aren't bidding on Invitations for Bids	2	1.50	0.71	1	1	

[48] For full results see Table A1_Q2.5

Those who never served local food

For those that have never procured local food, the most commonly selected challenge was that local foods were not available from their primary vendors. This is in line with the procurement challenges faced by currently procuring districts and further suggests the significance of logistical challenges in the local procurement process. Cost again is less prevalent than staffing and accessibility. These SFAs are not opposed to local procurement as 52% (13) expressed an interest in serving local food in the future, while 44% (11) were not sure; only one director had no future plans to serve local food. Instead, they appear to be stymied by procurement challenges and may need support from outside organizations or agencies.

What challenges prevented you from procuring local		
Total number of respondents	24	
	n	**%**
Local foods not available from primary vendors	11	45.83%
Limited availability of local foods	7	29.17%
Lack of staff time in preparing local foods	7	29.17%
Local food vendors don't offer a broad range of products	6	25.00%
Difficult to coordinate procurement of local foods with non-local foods	6	25.00%
Difficult to get local products that meet quality requirements & other specifications	5	20.83%
Local foods are more expensive than conventional products	5	20.83%
Unclear how to write specifications targeting local foods	5	20.83%

"Seeing some of the [local food] recipes, they're wonderful but they're cumbersome in the amount of items they have to do. The minimal amount of items that I need to make it taste great- there's a lot that can go into preparing good vegetables that you can do that isn't just adding seasonings. Especially, my cooking staff is already stressed and understaffed... I know between shaving and cutting yams, and if you don't have a chopper or even if you do- it's just too many ingredients. To me it's lower that barrier for staff to feel confident."

Comparison to 2019 Results

Where possible we compare our results with responses from the 2019 USDA Farm to School Census. It appears that local procurement has slightly decreased as 106 SFAs reported serving local food in 2019, compared to 101 now. However, the intensity may have increased. In 2019 there were 61 CT SFAs serving local fruit at least once a week and 48 serving vegetables. By comparison, 87 SFAs currently use local fruit in their cycle menus and 84 incorporate vegetables. Only 10 reported consistently procuring local yogurt or other dairy in 2019, compared to 34 now. However, while SFAs generally have the same level of farm to school support policies post-COVID, fewer SFAs stated there are policies to support local procurement (26 currently compared to 35 in 2019). SFAs were also more likely to report having school gardens (32 currently compared to 13 in 2019).

Local food procurement does appear to be better integrated throughout the school system. A greater proportion of SFAs report serving local foods at each grade level, suggesting that in 2019 districts were more likely to bring local into only a subset of their schools.

	Current	2019
Pre-K and younger	29%	19%
Kindergarten through 5th grade	69%	64%
6th grade to 8th grade	72%	52%
9th grade to 12th grade	67%	47%
Don't Know	3%	23%

It also appears SFA directors may now be using a more localized definition of local. In 2019 only 14 SFAs used CT as their definition for local, compared to 18 now. While the number of SFAs that selected within 20 or 50 miles did not change, fewer respondents selected “did not know” than in 2019.

More SFAs report currently using traditional suppliers for local food procurement, including the DoD Fresh program (75 now compared to 68 in SY 2018-2019), produce distributors (61 now compared to 53 in 2019) and broadline distributors (33 in 2019 compared to 27 in 2019). However, the number purchasing from producers has stayed consistent, suggesting that a wider variety of vendors are now incorporating local products.

Similar numbers of SFAs are using informal (45 currently compared to 42 in 2019) and formal (16 currently compared to 18 in 2019) procurement. However, more seem to be taking advantage of geographic preference (16 currently compared to 12 in 2019) and forward contracts (14 currently compared to 5 in 2019). The increase in forward contracts is especially notable as directors have expressed a desire to be able to plan volumes and product variety with farmers but producers are reluctant to enter into such agreements.

More SFAs are asking their vendors for the price of local foods they have procured (36 currently compared to 25 in 2019) and they are generally asking for local availability guides at the same rate (49 currently compared to 52 in 2019). However, fewer are requesting information on the origin of items (32 currently compared to 39 in 2019). Additionally, more directors now report receiving these reports only sporadically (25 currently compared to 15 in 2019). It is unclear how to interpret these changes other than to say that SFAs directors are consistently not asking for many reports overall.

Conclusion

> *"It's not that I don't want to do it, it's that it's difficult to start."*

SFA directors in CT are working hard to implement farm to school activities while juggling supply chain shortages, reduced staffing and developing meals that meet USDA standards while facing strict cost constraints. Their motivation for incorporating local produce is student-centric; they believe it is healthier, fresher, tastier and gets students to eat more fruits and vegetables. However, though they are passionate about the work that they do and the students they serve they are also seeking support. While directors face challenges regarding staffing, space and equipment, most have stated a movement toward buying fresh, unprocessed produce regardless of origin. CT SFAs appear to have the capacity for local procurement, but face significant logistical and cost challenges. Based on the challenges expressed by directors in interviews and through the survey we provide potential recommendations to help grow local food procurement in CT K-12 schools.

Improve informational resources regarding local food procurement

Key challenges were highlighted related to information. Directors do not know how to reach out to producers, noting that they need not just farm information but also how best to contact the producer given that hours of operation may differ between a farm and a school. While some resources are compiled at the state level they may not be comprehensive or up-to-date and directors do not know how to access them. Directors also want information on product availability to allow them to plan their meals, though directors with salad bars noted an ability to be flexible with whatever produce happens to be available.

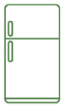
Directors also want information concerning procurement, including how to work within rules regarding contracting and food safety. One director mentioned her "fear of not being in compliance with guidelines" and requested a handout for schools on how to correctly purchase from producers. While some versions of this document already exist there is still a need to get it into directors' hands; one director specifically noted the lack of a central repository where all this information is readily available.

Expand the number of districts receiving logistical support

While programs such as FoodCorps and Put Local on Your Tray were highlighted as major facilitators of farm to school programming, most districts are not accessing these resources. SFAs that participate in FoodCorps receive additional staff dedicated to farm to school, but is an added expense for districts. Conversely, Put Local on Your Tray is a free program run by UConn extension that offers logistical resources and marketing materials for existing staff. Directors suggested staff from facilitation organizations were critical for connecting with producers, getting students engaged in eating local foods, and promoting the program to parents and the community. They also help directors overcome some of the logistical and staffing challenges they face. Expanding the reach of these programs to more districts could increase the capacity of directors to procure local food.

Conduct outreach to current broadline and produce distributors

CT SFAs purchase most of their food from broadline or produce distributors but have vastly different perceptions of the information available to them. It appears that most vendors at least occasionally offer origin information on their buying sheets, though this can range from “regional” to a specific state. However, additional information may be available to directors that reach out directly. It is possible organizations facilitating farm to school could collaborate with vendors to better understand how they label or identify products in their system. Tracking locally procured food is especially difficult through distributors as they differ in the layout of their invoice and the information they include; additionally, broadline invoices contain a variety of different products, which only increases the amount of effort it would take a director to pull out information on their produce purchases. Development of a tracking system that automatically recognizes the invoice setup of the most commonly used distributors could aid directors in their record keeping. Facilitation of tracking could potentially be as simple as identifying the best way to request local food velocity reports from each vendor and communicating this to directors, though there is clear interest in the ability to track to at least the state level. From a state perspective, tracking local spending may be done more effectively by collecting the information from the distributors supplying schools directly rather than the SFA directors themselves.



Provide equipment aid

SFA directors highlighted three main barriers to processing fresh produce: staffing, kitchen space and equipment. However, given enough kitchen space the problem of staffing could be addressed through better equipment. Directors we interviewed with equipment such as tilt skillets, blast chillers and automatic slicers/peelers credited them with improving the quality of meals and overall student satisfaction. However, other directors mentioned having equipment such as a professional food processor that they were never trained on and did not have time to learn. This suggests that while some directors could benefit from funding for new equipment, others may need help with what is currently available. Additionally, many of these pieces of equipment require kitchen spaces that schools do not have. Kitchen design was a concern highlighted by several directors; as a general rule, any director in a new or updated school also had a story about having to fight initial plans to just included a warming kitchen. It appears that partial kitchens may be the default option offered by some architectural firms or consultants due to their low cost and the onus is then on the director to advocate for other options. Providing support to districts or SFAs on how to maximize kitchens in new design could potentially alleviate this concern.

Continue universal meals for all

While directors in CEP districts were used to serving meals without worrying about a students' paid status, for some directors the shift to free meals for all during the pandemic was a new experience. Based on interviews it would appear that this policy shift had a positive impact on school meals, leading to increased participation, decreased administrative burden and reduced financial constraints. There was a brief period when there was a return to paid meals and all directors noted a swift drop in participation. One director observed that "the sad thing is we even saw a drop in free and reduced because of the stigma", noting that for two years all students ate cafeteria meals, whereas after the return to paid meals it became obvious who did and did not bring their own lunch. This director also estimated that they spent an extra ten hours per week on administrative tasks related to paid meals that they were previously spending on activities such as promoting local procurement. Another director credited the universal meals program for freeing up money to buy new kitchen equipment while also noting that they had to stop procuring local beef when meals returned to paid. Even before COVID, being CEP was associated with

increased local procurement and a clear message from directors was that paid meals made the school lunch program more expensive while simultaneously negatively impacting students and staff.

Implement local food incentives

Cost is a top concern for SFA directors, especially when they are working under a paid meals framework. However, several directors stated that the additional funds available through pandemic relief helped increase their local procurement. Districts primarily procure their produce through the DoD Fresh program, which provides entitlement dollars to schools but requires them to be spent at one specific vendor. Conversely, programs such as FFVP and HFC provide funds to procure produce from any supplier, and both programs are associated with buying directly from producers. Directors participating in FFVP noted that they rarely received funding for all their eligible schools, demonstrating a demand for flexible programs that support produce spending. One director specifically noted that she wished DoD Fresh funds could be used to buy from farmers. Alternatively, a supplemental produce incentive program could lead to increased local procurement. A key test will be the impact of the new Local Food for School Incentive Program.

Appendix 1: 2022 Survey Instrument and Results

Dear School Food Authority Representative,

You are being invited to participate in a research study of Connecticut farm to school (F2S) initiatives, being conducted collaboratively by the University of Connecticut, CT Department of Agriculture and CT Department of Education. The goal of the survey is to collect information about your local food purchasing, and other farm to school activities. You have been selected as a participant in this study because you are listed as the **director of a K-12 SFA**.

If you are not currently involved in farm to school related activities, we would still appreciate your response in order to gather input on your level of interest and to compare information across respondents.

Questions seen by all respondents

Q1.2 What is the name of your SFA? (Open-Ended)

Table A1_Q1.3. How many years have you been director at this SFA?
Table A1_Q1.4. How many years have you been a SFA director?

	n	Mean	Std. Dev	Min
Number of Years as SFA Director	136	7.43	6.79	1
Number of Years as Director at Current SFA	138	10.47	8.92	1

Table A1_Q1.5. How many food service staff members are currently employed in your SFA?

	n	Mean	Std. Dev	Min
Number of foodservice staff members	139	25.57	25.34	1

Table A1_Q1.6. Does your SFA participate in the Fresh Fruit and Vegetable Program (FFVP)?

Number of Respondents	141	
	n	%
All elementary schools	29	20.57%
Some elementary schools	13	9.22%
None	99	70.21%

Table A1_Q1.7. Prior to COVID, did your SFA participate in the Community Eligibility Provision (CEP)?

Number of Respondents	141	
	n	%
Whole SFA	30	21.28%
Some schools in SFA	11	7.80%
No	100	70.92%

Table A1_Q1.8. How much do you agree with the following statements?

Number of Respondents	142	
	n	%
My administration considers Farm to School important	101	71.13%
There is a strong desire within my community to implement Farm to School programming	87	61.27%
Most students in my school district are regularly served fresh fruit and vegetables at home	55	38.73%

Table A1_Q1.9. What percentage of your SFA's produce is bought in unprocessed form?

Number of respondents	141	
	n	**%**
None	2	1.42%
1-25%	16	11.35%
26-50%	28	19.86%
51-75%	47	33.33%
76-100%	41	29.08%
Don't know	7	4.96%

Table A1_Q1.10. Do you incorporate fresh vegetables into your menu? (select all that apply)

Number of Respondents	142	
	n	%
For raw menu items	136	95.77%
For hot menu items	108	76.06%

Table A1_Q1.11. When Possible, do you prioritize purchasing local vegetables?

Number of Respondents	141	
	n	%
Yes	112	79.43%
No	29	20.57%

Table A1_Q1.12. Does your SFA purchase any raw meat? (consider both commercial and USDA purchases).

Number of Respondents	141	
	n	%
Yes	83	58.87%
No	58	41.13%

Table A1_Q1.13. Does your SFA bake any of its baked goods from scratch (i.e. weighing, measuring and mixing; not from frozen/pre-formed dough)?

Number of Respondents	141	
	n	%
Yes	34	24.11%
No	107	75.89%

Table A1_Q1.14. What method of food prep does your SFA use? (Select all that apply.)

Number of Respondents	142	
	n	%
Central Kitchen	24	16.90%
Regional Kitchens	11	7.75%
Receiving (Satellite) Kitchens	16	11.27%
School-based Kitchens	129	90.85%
Other	5	3.52%

Table A1_Q1.15. What method of food service operation does your SFA use? (Select all that apply)

Number of Respondents	141	
	n	%
Self-Operated	89	63.12%
Food Service Management Company	45	31.91%
Vended meals	4	2.84%
Regional Education Services Center	6	4.26%
Other	0	0.00%

Table A1_Q1.16. What changes did your SFA make as a result of COVID-19? (Select all that apply.)

Number of Respondents	135	
	n	**%**
None	22	16.30%
Began serving less fresh produce	15	11.11%
Began serving more fresh produce	15	11.11%
Produce served to students is now packaged and served differently	58	42.96%
Purchased from new/alternative food distributors	25	18.52%
Began serving school breakfast	12	8.89%
Stopped serving school breakfast	0	0.00%
Began serving breakfast in classrooms, grab and go carts, etc.	65	48.15%
Began serving lunch in classrooms, grab and go carts, etc.	56	41.48%
Joined buyer cooperatives with other schools	5	3.70%
Other	11	8.15%

Only seen if selected at least one option in Q1.16

Table A1_Q1.17. Which of these will your SFA continue after the pandemic? (Select all that apply)

Number of Respondents	79	
	n	%
Began serving less fresh produce	1	1.27%
Began serving more fresh produce	12	15.19%
Produce served to students is now packaged and served differently	34	43.04%
Purchased from new/alternative food distributors	21	26.58%
Began serving school breakfast	8	10.13%
Stopped serving school breakfast	0	0.00%
Began serving breakfast in classrooms, grab and go carts, etc.	33	41.77%
Began serving lunch in classrooms, grab and go carts, etc.	12	15.19%
Joined buyer cooperatives with other schools	4	5.06%
Other	4	5.06%

Table A1_Q1.18. To the best of your knowledge, which farm to school activities took place in one or more schools in your district during the past school year? In this case, 'activities' refers to educational activities involving food, agriculture, or nutrition. (Select all that apply.)

Number of Respondents	138	
	n	**%**
Edible school gardens	32	23.19%
Indoor growing systems	21	15.22%
Student field trips to farms or orchards	37	26.81%
Farmer visits to classroom	7	5.07%
Branded promotion	41	29.71%
Hosting farm to school community events	11	7.97%
Local food cooking/demonstrations/taste tests/recipe & cooking competitions	31	22.46%
Teaching lessons/units on food systems/food & agriculture literacy	30	21.74%
None of these	47	34.06%

Table A1_Q1.19. Does your SFA serve locally procured food in any of your federally-funded school food programs (breakfast, lunch, snack, summer, etc.)? (Select all that apply.)

Number of Respondents	141	
	n	%
Never served local food	26	18.44%
Yes, before the 2021-2022 school year	82	58.16%
Yes, in the 2021-2022 school year	81	57.45%
Yes, in the current school year	96	68.09%

Table A1_Q1.20. Does your SFA participate in the Summer Meal program?

Number of Respondents	141	
	n	**%**
Yes	53	37.59%
No	88	62.41%

Only seen if yes to Q1.20

Table A1_Q1.21. What program does your SFA use for summer meals?

Number of Respondents	52	
	n	**%**
Seamless Summer Option	26	50.00%
Summer Food Service Program	26	50.00%

Only seen if selected yes to Q1.19

Table A1_Q1.22. Does your SFA serve local foods in its summer meals?

Number of Respondents	44	
	n	**%**
Yes	38	86.36%
No	6	13.64%

Only seen if selected yes to Q1.22

Table A1_Q1.23. Which of the following best describes your use of local foods in your summer meals?

Number of Respondents	37	
	n	**%**
Incorporate into cycle menus more frequently	9	24.32%
Incorporate into cycle menus less frequently	8	21.62%
Incorporate into cycle menus with same frequency	20	54.05%

Only seen if selected yes to Q1.22

Table A1_Q1.24. What sources of funding do you use to procure local food in your summer meal program? (Select all that apply)

Number of Respondents	38	
	n	**%**
From the non-profit food-service account	25	65.79%
USDA DoD Fresh	26	68.42%
Corporate partnerships and donations	1	2.63%
School/District funding, such as PTA/PTO	0	0.00%
Individual donations of money and/or goods	1	2.63%
Other	4	10.53%
I don't know	2	5.26%

Respondents that no longer procure local

Table A1_Q2.1 For the 2021-2022 school year, what were your SFA's approximate total food costs (in dollars)?

	n	**Mean**	**Std. Dev**	**Min**	**Max**
Approximate total food costs	12	$2,676,917	$7,076,569	$1.42	$25,000,000

Table A1_Q2.2 Why is your SFA no longer procuring local food? (Select all that apply.)

Number of Respondents	11	
	n	**%**
COVID	2	18.18%
Lack funds to purchase local food	1	9.09%
Took too much time to procure	4	36.36%
Took too much time to prepare	3	27.27%
No staff available to seek out local food	8	72.73%
No staff available to prepare local food	3	27.27%
We lost personnel invested in the project		0.00%
Don't see the benefit of serving local food		0.00%
Don't have buy-in from district management		0.00%
Lack of administrative support	2	18.18%
Unable to find vendors that provide local foods	1	9.09%
Farmers/producers near me are unable to provide what we need	1	9.09%
The cost of purchasing local foods is too high	1	9.09%
Other reason:	1	9.09%
I don't know	5	45.45%

Table A1_Q2.3 Which, if any, of the following challenges prevented your SFA from procuring local products? Please select (up to) your top three.

Number of Respondents	15	
	n	**%**
Limited availability of local foods	3	20.00%
Lack of availability of precut/processed local foods	2	13.33%
Local foods not available from primary vendors	7	46.67%

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(Table A1_Q2.3 Continued)	n	%
Local foods are not identified or marked as local by distributor/vendor	3	20.00%
Local food vendors don't offer a broad range of products	1	6.67%
Difficult to find local producers, suppliers, and distributors	2	13.33%
Difficult to coordinate procurement of local foods with non-local foods	2	13.33%
Local producers aren’t bidding on Invitations for Bids	6	40.00%
Difficult to get local products that meet quality requirements & other specifications	3	20.00%
Producers unable to meet food safety requirements	0	0.00%
Don’t always receive ordered items	0	0.00%
Delivery challenges	2	13.33%
Local foods are more expensive than conventional products	2	13.33%
Unstable product prices	1	6.67%
School/district payment procedures do not align with farmers' needs	1	6.67%
Unclear on how to apply the geographic preference option	2	13.33%
Unclear how to write specifications targeting local foods	0	0.00%
Lack of kitchen equipment to process/prepare local foods	3	20.00%
Lack of skilled/trained staff to prepare local foods	3	20.00%
Lack of staff time in preparing local foods	5	33.33%
Lack of interest in preparing local foods	0	0.00%
Other	1	6.67%
There are no challenges	2	13.33%

Table A1_Q2.4 Please rank these challenges (1 is the most significant barrier)

	n	Mean	Std. Dev	Rank 1st	Rank 2nd	Rank 3rd
Rank your top three challenges	11					
Limited availability of local foods	3	2.67	0.58		1	2
Lack of availability of precut/processed local foods	1	2.00			1	
Local foods not available from primary vendors	1	1.00		1		
Local foods are not identified or marked as local by distributor/vendor	2	2.00	0.00		2	
Local food vendors don't offer a broad range of products	0					
Difficult to find local producers, suppliers, and distributors	0					
Difficult to coordinate procurement of local foods with non-local foods	1	1.00		1		
Local producers aren’t bidding on Invitations for Bids	2	1.50	0.71	1	1	
Difficult to get local products that meet quality requirements & other specifications	0					
Producers unable to meet food safety requirements	0					
Don’t always receive ordered items	0					
Delivery challenges	2	2.00	0.00	2		
Local foods are more expensive than conventional products	2	1.00	0.00			
Unstable product prices	1	3.00				
School/district payment procedures do not align with farmers' needs	1	2.00				

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(Table A1 Q2.4 Continued)	n	Mean	Std. Dev	Rank 1st	Rank 2nd	Rank 3rd
Unclear on how to apply the geographic preference option	1	2.00				
Unclear how to write specifications targeting local foods	0					
Lack of kitchen equipment to process/prepare local foods	1	1.00		1		
Lack of skilled/trained staff to prepare local foods	3	2.33	1.15	1		2
Lack of staff time in preparing local foods	3	1.67	1.15	2		1
Lack of interest in preparing local foods	0					
Other	0					
There are no challenges	2	1.00		2		

Table A1_Q2.5 Do you intend to restart your procurement of local food?

Number of Respondents	13	
	n	%
Yes	5	38.46%
No		0.00%
I don't know	8	61.54%

Q2.6 What would most facilitate your SFA procuring local food again? (Open-Ended)

Respondents that never procured local

Table A1_Q4.1 For the 2021-2022 school year, what were your SFA's approximate total food costs (in dollars)?

	n	Mean	Std. Dev	Min	Max
Approximate total food costs	16	$1,250,558	$3,425,243	$0.00	$14,000,000

Table A1_Q4.2 Which, if any, of the following challenges have prevented your SFA from procuring local products? Please select (up to) your top three.

Number of Respondents	24	
	n	**%**
Limited availability of local foods	7	29.17%
Lack of availability of precut/processed local foods	4	16.67%
Local foods not available from primary vendors	11	45.83%
Local foods are not identified or marked as local by distributor/vendor	4	16.67%
Local food vendors don't offer a broad range of products	6	25.00%
Difficult to find local producers, suppliers, and distributors	3	12.50%
Difficult to coordinate procurement of local foods with non-local foods	6	25.00%
Local producers aren't bidding on Invitations for Bids	4	16.67%
Difficult to get local products that meet quality requirements & other specifications	5	20.83%
Producers unable to meet food safety requirements	0	0.00%
Don't always receive ordered items	2	8.33%
Delivery challenges	3	12.50%
Local foods are more expensive than conventional products	5	20.83%
Unstable product prices	1	4.17%

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	n	%
School/district payment procedures do not align with farmers' needs	3	12.50%
Unclear on how to apply the geographic preference option	2	8.33%
Unclear how to write specifications targeting local foods	5	20.83%
Lack of kitchen equipment to process/prepare local foods	3	12.50%
Lack of skilled/trained staff to prepare local foods	4	16.67%
Lack of staff time in preparing local foods	7	29.17%
Lack of interest in preparing local foods	0	0.00%
Other	3	12.50%
None	2	8.33%

Table A1_Q4.3 Would your SFA be interested in serving local food in the future?

Number of Respondents	25	
	n	**%**
Yes	13	52.00%
No	1	4.00%
Maybe	11	44.00%

Only seen if selected Yes or Maybe to Q4.3

Q4.4 What would most facilitate your SFA Procuring local food? (Open-Ended)

Respondents that procure local

Table A1_Q5.1 How long has your SFA been serving local foods, other than milk, in any of your meal programs? (Please choose one; your best estimate is fine.)

Number of Respondents	101	
	n	**%**
Less than 3 years	21	20.79%
3-5 years	26	25.74%
6-10 years	27	26.73%
More than 10 years	27	26.73%

Table A1_Q5.2 Which of the following best describes local procurement in your SFA?

Number of Respondents	100	
	n	**%**
I initiated procurement of local food	53	53.00%
SFA already procuring local food before I became director	47	47.00%

Table A1_Q5.3 How does SFA define "local" for the majority of its school food procurement? (Please choose one. If your definition of local varies by product, please select the most commonly used definition.)

Number of Respondents	102	
	n	**%**
Produced within a 20 mile radius	7	6.86%
Produced within a 50 mile radius	7	6.86%
Produced within a 100 mile radius	7	6.86%
Produced within a 200 mile radius	6	5.88%
Produced within a 400 mile radius		
Produced within Connecticut	18	17.65%
Produced within the region	16	15.69%
Other	6	5.88%
We don't have a set definition for local	27	26.47%
I don't know	8	7.84%

Only seen if selected region:

Table A1_Q5.4 How do you define "region"?

How do you define region	
CT, MA, RI and/or NY	4
Northeast	4
New England	2
Tiered or seasonal priority system	2
County	1
As defined by distributor	1
United States	1
n	15

For the following set of 6 questions, districts received one of the two sets, depending on whether they had done local food procurement in the 2021-2022 school year or not.

For those that did procure in the 2021-2022 SY:

Table A1_Q5.5 To the best of your knowledge, approximately how many of the schools in your SFA served local food of any kind in the 2021-2022 school year?

	n	Mean	Std. Dev	Min	Max
Number of schools	78	7.13	7.99	1	44

Table A1_Q5.6 During the 2021-2022 school year, what grades were served meals or snacks that included local food? (Select all that apply)

Number of Respondents	79	
	n	**%**
Pre-K and younger	29	36.71%
K through 5th grade	69	87.34%
6th grade to 8th grade	72	91.14%
9th grade to 12th grade	67	84.81%
I don't know	3	3.80%

Table A1_Q5.7 Did your SFA purchase local food, EXCLUDING milk, from any of the following states during the 2021-2022 school year? (Select all that apply)

	80	
	n	**%**
Connecticut	65	81.25%
Maine	13	16.25%
Massachusetts	40	50.00%
New Hampshire	4	5.00%
New York	32	40.00%
Vermont	4	5.00%
I don't know	18	22.50%

Table A1_Q5.8 Please indicate if your SFA, Or any schools in your SFA, Purchased any of the following local foods - IN ANY FORM– during the 2021-2022 school year or would like to in the future. (In this case, 'locally sourced food item' means fresh or lightly processed food from within the state of from New England + NY)

	Used to Procure	Procured in 2021-2022 SY	Procuring in 2022-2023 SY	Plan to Procure	Never Procured	Don't Know	n
Fruits	4	30	39	2	2	2	79
Vegetables	3	30	37	3	3	2	78
Fluid milk	4	23	31	2	11	5	76
Cheese	1	4	9	5	33	14	66
Yogurt and other dairy	1	11	14	4	23	14	67
Meat/Poultry	2	1	7	2	35	17	64
Eggs	2	5	8	3	29	16	63
Seafood	2	1	3	1	42	14	63
Plant-based protein items	4	3	8	4	30	16	65
Flour or other grains	1	3	3	2	37	16	62
Maple Syrup		2	5	4	39	12	62
Other product type		1	4		17	21	43

Table A1_Q5.9 To the best of your knowledge, in SY 2021-2022 were these locally sourced food items incorporated into your monthly/ cycle menus? (In this case, 'locally sourced food item' means fresh or lightly processed food from within the state of from New England + NY)

	Use in cycle menu when available	Serve during special events	Never serve local version	Don't know	n
Fruits	69	3	1	5	78
Vegetables	66	3	2	6	77
Fluid milk	51		11	11	73
Cheese	11	6	35	17	69
Yogurt and other dairy	24	5	26	14	69
Meat/Poultry	9	2	36	20	67
Eggs	14	2	29	22	67
Seafood	3	1	41	20	65
Plant-based protein items	10	2	37	17	66
Flour or other grains	5	1	40	18	64
Maple Syrup	6		43	15	64
Other product type	4		28	18	50

Table A1_Q5.10 Do you expect your SFA to serve local food at the same frequency in the 2022-2023 school year as in 2021-2022?

Number of Respondents	79	
	n	%
Yes	50	63.29%
No, I will serve more frequently	27	34.18%
No, I will serve less frequently	2	2.53%

For those that only began procurement in the 2022-2023 SY:

Table A1_Q5.11 To the best of your knowledge, approximately how many of the schools in your SFA serve local food of any kind?

	n	Mean	Std. Dev	Min	Max
Number of schools	20	4.50	3.90	1	17

Table A1_Q5.12 What grades are served meals or snacks that include local food? (Select all that apply.)

Number of Respondents	21	
	n	**%**
Pre-K and younger	13	61.90%
K through 5th grade	18	85.71%
6th grade to 8th grade	18	85.71%
9th grade to 12th grade	14	66.67%
I don't know	21	100.00%

Table A1_Q5.13 Has your SFA purchased local food, EXCLUDING milk, from any of the following states? (Select all that apply.)

Number of Respondents	21	
	n	**%**
Connecticut	19	90.48%
Maine	1	4.76%
Massachusetts	9	42.86%
New Hampshire	21	100.00%
New York	7	33.33%
Vermont	21	100.00%
I don't know	2	9.52%

Table A1_Q5.14 Please indicate if your SFA, or any schools in your SFA, purchased any of the following local foods -IN ANY FORM- this school year or would like to in the future. (In this case, 'locally sourced food item' means fresh or lightly processed food from within the state of from New England + NY)

	Used to Procure	Procured in 2021-2022 SY	Procuring in 2022-2023 SY	Plan to Procure	Never Procured	Don't Know	n
Fruits		1	18	1			20
Vegetables		2	16	1			19
Fluid milk		2	16				18
Cheese			2	2	6	4	14
Yogurt and other dairy			9		5	1	15
Meat/Poultry			1		7	6	14
Eggs	1		1		7	5	14
Seafood					10	3	13
Plant-based protein items			1	3	6	4	14
Flour or other grains					9	4	13
Maple Syrup			1		11	1	13
Other product type					4	4	8

Table A1_Q5.15 To the best of your knowledge, are these locally sourced food items incorporated into your monthly/cycle menus? (In this case, 'locally sourced food item' means fresh or lightly processed food from within the state of from New England + NY)

	Use in cycle menu when available	Serve during special events	Never serve local version	Don't know	n
Fruits	19	1			20
Vegetables	19	1			20
Fluid milk	17			1	18
Cheese	5		6	3	14
Yogurt and other dairy	11		3	2	16
Meat/Poultry	3		6	6	15
Eggs	3		6	6	15
Seafood			10	2	12
Plant-based protein items	1	1	7	5	14
Flour or other grains	1		8	5	14
Maple Syrup	1		8	4	13
Other product type			5	4	9

Table A1_Q5.16 Do you expect your SFA to serve local food at the same frequency in the next school year as in this school year?

Number of Respondents	21	
	n	%
Yes	15	71.43%
No, I will serve more frequently	5	23.81%
No, I will serve less frequently	1	4.76%

For the next set of questions respondents were provided with the following instructions: If you no longer serve local food please use your information from last year.

Table A1_Q6.2 In what month does your SFA purchase local food? (Select all that apply.)

Number of Respondents	96	
	n	**%**
January	65	67.71%
February	65	67.71%
March	58	60.42%
April	66	68.75%
May	74	77.08%
June	70	72.92%
July	36	37.50%
August	60	62.50%
September	93	96.88%
October	91	94.79%
November	82	85.42%
December	64	66.67%

Table A1_Q6.3 In what form do you purchase your local food? (Select all that apply.)

Number of Respondents	99	
	n	**%**
Whole/unprocessed	95	95.96%
Slightly processed	48	48.48%
Cooked	4	4.04%
I don't know	3	3.03%
Other	3	3.03%

Table A1_Q6.4 When serving local vegetables, do you serve them

Number of Respondents	89	
	n	**%**
Raw	7	7.87%
Hot	2	2.25%
Both	79	88.76%
Never Serve	1	1.12%

Table A1_Q6.5 Does your SFA ever process or freeze locally procured food to serve at times when that local product is not grown/ harvested?

Number of Respondents	99	
	n	**%**
Yes	20	20.20%
No	79	79.80%

Table A1_Q6.6 From which of the following sources does your SFA procure local food? Please rank the top three (1 is the largest source of your local food.)

	n	%	Mean	Std. Dev	Rank 1st	Rank 2nd	Rank 3rd
Number of Respondents	98						
USDA DoD Fresh Program	75	76.53%	1.49	0.64	44	25	6
Produce distributor	61	62.24%	1.77	0.80	28	19	14
Broadline distributor	33	33.67%	2.39	0.61	2	16	15
Individual food producers	31	31.63%	2.29	0.82	7	8	16
USDA Foods	28	28.57%	2.04	0.74	7	13	8
Cooperatives of farmers, ranchers or fishers	8	8.16%	2.50	0.76	1	2	5
School or community garden/farm	7	7.14%	2.29	0.95	2	1	4
Grocery stores	7	7.14%	2.29	0.76	1	3	3
Food hub	7	7.14%	1.71	0.95	4	1	2
I don't know	3	3.06%	1.67	1.15	2		1
Farmers' markets or roadside stands	2	2.04%	2.50	0.71		1	1
Other	0	0.00%					
None of these	0	0.00%					

Only Seen if selected Individual Food Producers in Q6.6:

Table A1_Q6.7 Would your SFA be interested in increasing the amount of local food you purchase directly from farmers?

Number of Respondents	25	
	n	**%**
Yes	24	96.00%
No		
Don't Know	1	4.00%

Only Seen if did not select Individual Food Producers in Q6.6:

Table A1_Q6.8 Would your SFA be interested in purchasing directly from farmers?

Number of Respondents	75	
	n	**%**
Yes	44	58.67%
No	9	12.00%
Don't Know	22	29.33%

Only Seen if selected Yes or Don't Know in Q6.8:

Table A1_Q6.9 What challenges does your SFA face in purchasing directly from producers? (Select all that apply.)

Number of Respondents	86	
	n	**%**
Identifying potential producers	49	56.98%
Procurement process	46	53.49%
Delivery	52	60.47%
Not enough SFA staff	27	31.40%
Other	14	16.28%

Table A1_Q6.10 What would facilitate or encourage your SFA to purchase more directly from producers? (Select all that apply).

Number of Respondents	88	
	n	**%**
Receiving contact information of interested producers	50	56.82%
If producers could lightly process	31	35.23%
If they could deliver	66	75.00%
If we could enter into longer-term contracts	11	12.50%
Receiving availability/price lists each week	61	69.32%
Other	7	7.95%

Table A1_Q6.11 Which of the following approaches does your SFA use to procure local food? (Select all that apply.)

Number of Respondents	96	
	n	**%**
Forward contracts	14	14.58%
Informal procurement	45	46.88%
Micro-purchases	29	30.21%
Formal procurement	16	16.67%
Use of geographic preference	16	16.67%
Other	9	9.38%
I don’t know	18	18.75%

Only seen if selected "Yes, in the 2021-2022 SY" but not "Yes, in the current SY" in Q1.19

Table A1_Q6.12 You selected that you served local food last year, but not in the current school year. Why did your SFA not procure local food this year? (Select all that apply.)

Number of Respondents	11	
	n	**%**
COVID	2	18.18%
Lack funds to purchase local food	1	9.09%
Took too much time to procure	4	36.36%
Took too much time to prepare	3	27.27%
No staff available to seek out local food	8	72.73%
No staff available to prepare local food	3	27.27%
We lost personnel invested in the project		0.00%
Don't see the benefit of serving local food		0.00%
Don't have buy-in from district management		0.00%
Lack of administrative support	2	18.18%
Unable to find vendors that provide local foods	1	9.09%
Farmers/producers near me are unable to provide what we need	1	9.09%
The cost of purchasing local foods is too high	1	9.09%
Other reason:	1	9.09%
I don't know	5	45.45%

Table A1_Q6.13 Do you intend to restart your procurement of local food?

Number of Respondents	13	
	n	**%**
Yes	5	38.46%
No		0.00%
I don't know	8	61.54%

Table A1_Q7.1 How is your SFA's local procurement funded? (Select all that apply.)

Number of Respondents	97	
	n	**%**
Federal reimbursement funds and/or cafeteria food sales	82	84.54%
Healthy food certification	28	28.87%
Fresh Fruit and Vegetable Program	23	23.71%
Corporate partnerships and donations	0	0.00%
School/District funding	7	7.22%
Individual donations of money and/or goods	2	2.06%
Grants	9	9.28%
Other	4	4.12%
I don't know	7	7.22%

Table A1_Q7.2 Does your SFA participate in a Farm to School network, task force, or advisory board that promotes or assists with implementing farm to school activities? (select all that apply.)

Number of Respondents	95	
	n	**%**
Put Local on Your Tray	47	49.47%
FoodCorps	7	7.37%
Farm to School Collaborative	19	20.00%
Other	2	2.11%
None of these	44	46.32%

Table A1_Q7.3 From the list below, please select which, if any, of the following policies are currently in place at your SFA to support Farm to School. (Select all that apply.)

Number of Respondents	96	
	n	**%**
Wellness policies that support Farm to School	36	37.50%
Procurement policies that support the purchasing of local foods	26	27.08%
Policies that support fundraising for farm to school activities	2	2.08%
Budget allocations dedicated to farm to school activities	8	8.33%
No policies are in place to support farm to school activities	24	25.00%
Other	9	9.38%
Don't know	18	18.75%

Table A1_Q7.4 How many staff, either full or part time, are dedicated to local purchasing and procurement within your SFA/school/district? Please only include paid staff, including nutrition specialists and any contracted or grant-funded staff.

Number of Respondents	62			
	Full time, with all their time dedicated to procurement / farm to school	Full time, with some of their time dedicated to procurement / farm to school	Part time, with all their time dedicated to procurement / farm to school	Part time, with some of their time dedicated to procurement / farm to school
School-funded staff	5	31	1	15
Grant-funded staff	1	2	1	
FoodCorps/Americorps staff	1	1		

Table A1_Q7.5 What would most facilitate your SFA's Ability to increase your local food procurement? (Select all that apply.)

Number of Respondents	90	
	n	**%**
Partnering with food hubs	26	28.89%
Increased information from current food distributors	55	61.11%
Automated buying process	20	22.22%
Higher micropurchase thresholds	15	16.67%
Funding for locally purchased products	44	48.89%
Receiving lists of farms interested in selling to schools	58	64.44%
Other	9	10.00%

Table A1_Q8.1 How is your SFA Tracking local food procurement? (Select all that apply.)

Number of Respondents	95	
	n	**%**
Spreadsheets/records	40	42.11%
Verbal/written reports from teachers/staff	2	2.11%
Surveys	2	2.11%
Other	6	6.32%
We don't formally track	53	55.79%

Only shown if stated they used surveys in Q8.1:

Table A1_Q8.2 At what level are you surveying? (Select all that apply.)

Total number of respondents	2	
	n	**%**
Students	2	100.00%
Teachers/Staff	2	100.00%
Schools		0.00%
Other	1	50.00%

Table A1_Q8.3 Which of the following would help your SFA better track local food procurement? (Select all that apply.)

Number of Respondents	90	
	n	**%**
More funding/staff time	43	47.78%
Technical training for staff	22	24.44%
More transparent and/or available data from your vendors about products	46	51.11%
A standardized, easy to use template for tracking	49	54.44%
More alignment around metrics and definitions for tracking	16	17.78%
More publicly available information about specific products that qualify as regional	33	36.67%
Other	4	4.44%

Table A1_Q8.4 Which of the following reports do you ask your vendors or distributors for regarding the items your SFA is considering ordering or has ordered? (Select all that apply.)

Number of Respondents	93	
	n	**%**
Local order/availability guide	49	52.69%
Origin of item	32	34.41%
Volume of all local foods procured by that vendor for your SFA	16	17.20%
Price of all local foods procured by that vendor or distributor for your SFA	36	38.71%
Other		0.00%
I have not asked for any of these	29	31.18%

Not shown to those that selected "I have not asked for any of these"

Table A1_Q8.5 Are the vendors or distributors able to provide these requested reports?

Number of Respondents	64	
	n	**%**
Yes	26	40.63%
No	4	6.25%
Sometimes	34	53.13%

2Only shown if selected "I have not asked for any of these":

Table A1_Q8.6 How often do you receive (or have you received) these reports? (Select all that apply.)

Number of Respondents	64	
	n	**%**
Weekly	17	26.56%
Monthly	8	12.50%
Every few months	5	7.81%
Yearly	7	10.94%
Sporadically	25	39.06%
I don't know	11	17.19%

Table A1_Q8.7 Do your distributors tell you the state where your locally procured food was grown?

Number of Respondents	96	
	n	**%**
Yes	28	29.17%
No	7	7.29%
Sometimes	57	59.38%
I don't know	4	4.17%

Only shown if did not select "Yes" in Q8.7

Table A1_Q8.8 Would you be interested in knowing the state of origin of your food purchases?

Number of Respondents	68	
	n	**%**
Yes	56	82.35%
Maybe	10	14.71%
No	2	2.94%

Table A1_Q9.1 How has your SFA's interest in purchasing local food changed since COVID-19?

Number of Respondents	96	
	n	**%**
Increased	32	33.33%
Stayed the same	49	51.04%
Decreased	3	3.13%
I don't know	12	12.50%

Table A1_Q9.2 How has your SFA's purchase of local food changed since COVID-19?

Number of Respondents	95	
	n	**%**
Increased	24	25.26%
Stayed the same	53	55.79%
Decreased	4	4.21%
I don't know	14	14.74%

Only shown if selected "Decreased" in Q9.2

Table A1_Q9.3 Why have your purchases decreased? (Select all that apply.)

Number of Respondents	4	
	n	**%**
Lack of staffing	2	50.00%
Change in meal service delivery	1	25.00%
Lack of available local food products	1	25.00%
Change of distributors		0.00%
Other	3	75.00%

Table A1_Q9.4 Have you purchased local products due to shortages caused by COVID-19 supply chain issues?

Number of respondents	95	
	n	%
Yes	43	45.26
No	52	54.74

Table A1_Q10.1 Are you familiar with the CTGrown label?

Number of Respondents	93	
	n	**%**
Yes	86	92.47%
No	7	7.53%

Table A1_Q10.2 If your vendor identified a particular food product as coming from Connecticut would it make your SFA more likely to purchase it?

Number of Respondents	96	
	n	**%**
Yes	57	59.38%
Yes, but only if it is a current menu item	17	17.71%
No	3	3.13%
Depends	19	19.79%

Table A1_Q10.3 Would you be willing to try and incorporate new menu items if they were grown in Connecticut?

Number of Respondents	96	
	n	**%**
Yes	93	96.88%
No	3	3.13%

Table A1_Q10.4 Do you ever ask your distributor for products grown in Connecticut?

Number of Respondents	95	
	n	**%**
Yes	52	54.74%
No	43	45.26%

Only seen if selected No to Q10.4

Table A1_Q10.5 Would you be willing to ask your distributor for Connecticut-grown products?

Number of Respondents	45	
	n	**%**
Yes	28	62.22%
Maybe	17	37.78%
No	0	0.00%

Table A1_Q10.6 Below is a list of commonly grown fruits and vegetables in Connecticut. Do you purchase Connecticut-grown versions of any of these products? (Select all that apply.)

Number of Respondents	96	
	n	**%**
Apples	88	91.67%
Berries	38	39.58%
Sweet Corn	44	45.83%
Snap/Green Beans	44	45.83%
Summer Squash	60	62.50%
Winter Squash	39	40.63%
Root Vegetables	24	25.00%
Lettuce	54	56.25%
Carrots	47	48.96%
Fresh Herbs	23	23.96%
I don’t know	6	6.25%

Table A1_Q10.7 Would your SFA be interested in serving CT grown versions of these products? (Select all that apply).

Number of Respondents	86	
	n	**%**
Apples	8	9.30%
Berries	42	48.84%
Sweet Corn	31	36.05%
Snap/Green Beans	34	39.53%
Summer Squash	17	19.77%
Winter Squash	23	26.74%
Root Vegetables	22	25.58%
Lettuce	34	39.53%
Carrots	34	39.53%
Fresh Herbs	35	40.70%
I don't know	10	11.63%

Q10.8 Are there any other products you would be interested in buying from CT producers? (Open-Ended)

Table A1_Q11.1 What values most represent your SFA's reasons for purchasing local? Please rank (up to) the top four (where 1 is the most important).

	n	Mean	SD	Min	Max
Rank your SFA's top 4 reasons for buying local			89		
Increase student meal participation	27	2.41	1.22	1	4
Increase consumption of fruits and vegetables by students	56	1.66	0.96	1	4
Lower meal costs	12	2.33	0.78	1	3
Supports local economic development	56	2.29	1.00	1	4
Supports fair labor practices	0				
Supports BIPOC	1	3.00		3	3
Supports Women, LGTBQ+, Veteran-owned or operated business	1	1.00		1	1
Supports urban agriculture	9	3.11	0.78	2	4
Product is organic/sustainably grown	7	3.43	0.79	2	4
Product is fresher	61	2.31	1.01	1	4
Product is healthier	18	2.78	0.94	1	4
Product tastes better	29	2.72	1.10	1	4
Promotes environmental stewardship/sense of place	10	3.30	0.67	2	4
Positive Public Relations - community wants it!	22	2.86	1.17	1	4
Purchases can support anti-racism, justice, diversity, equity and inclusion efforts	3	3.33	1.15	2	4
Knowing product sources for tracing or other purposes	4	3.00	1.41	1	4
Food safety standards are met	6	2.83	0.98	1	4
Humane animal husbandry standards are met	2	1.00	0.00	1	1
Other					

Table A1_Q11.2 Which, if any, of the following challenges have prevented your SFA from procuring local products? Please select (up to) your top three.

Number of Respondents	89	
	n	**%**
Limited availability of local foods	31	34.83%
Lack of availability of precut/processed local foods	23	25.84%
Local foods not available from primary vendors	53	59.55%
Local foods are not identified or marked as local by distributor/vendor	22	24.72%
Local food vendors don't offer a broad range of products	15	16.85%
Difficult to find local producers, suppliers, and distributors	9	10.11%
Difficult to coordinate procurement of local foods with non-local foods	10	11.24%
Local producers aren’t bidding on Invitations for Bids	15	16.85%
Difficult to get local products that meet quality requirements & other specifications	14	15.73%
Producers unable to meet food safety requirements	5	5.62%
Don’t always receive ordered items	5	5.62%
Delivery challenges	18	20.22%
Local foods are more expensive than conventional products	32	35.96%
Unstable product prices	7	7.87%
School/district payment procedures do not align with farmers' needs	7	7.87%

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	n	%
Unclear on how to apply the geographic preference option	1	1.12%
Unclear how to write specifications targeting local foods	2	2.25%
Lack of kitchen equipment to process/prepare local foods	9	10.11%
Lack of skilled/trained staff to prepare local foods	12	13.48%
Lack of staff time in preparing local foods	32	35.96%
Lack of interest in preparing local foods	1	1.12%
Other	2	2.25%
There are no challenges	4	4.49%

Table A1_Q11.3 Please rank these challenges (1 is the most significant barrier).

	n	Mean	SD	Min	Max
Number of Respondents	82				
Limited availability of local foods	26	1.96	0.82	1	3
Lack of availability of precut/processed local foods	12	2.33	0.65	1	3
Local foods not available from primary vendors	22	1.68	0.78	1	3
Local foods are not identified or marked as local by distributor/vendor	14	2.43	0.76	1	3
Local food vendors don't offer a broad range of products	8	2.13	0.83	1	3
Difficult to find local producers, suppliers, and distributors	8	1.88	0.64	1	3
Difficult to coordinate procurement of local foods with non-local foods	8	1.88	0.83	1	3

(Continued on next page)

	n	Mean	SD	Min	Max
Local producers aren't bidding on Invitations for Bids	6	2.17	0.98	1	3
Difficult to get local products that meet quality requirements & other specifications	2	2.00	1.41	1	3
Producers unable to meet food safety requirements	5	1.40	0.55	1	2
Don't always receive ordered items	5	2.20	0.84	1	3
Delivery challenges	18	1.61	0.70	1	3
Local foods are more expensive than conventional products	32	1.69	0.74	1	3
Unstable product prices	7	2.00	1.00	1	3
School/district payment procedures do not align with farmers' needs	7	2.14	0.69	1	3
Unclear on how to apply the geographic preference option	0				
Unclear how to write specifications targeting local foods	2	2.50	0.71	2	3
Lack of kitchen equipment to process/prepare local foods	8	2.38	0.92	1	3
Lack of skilled/trained staff to prepare local foods	12	2.08	0.79	1	3
Lack of staff time in preparing local foods	30	2.03	0.85	1	3
Lack of interest in preparing local foods	1	3.00		3	3
Other	2	1.00	0.00	1	1

Table A1_Q11.4 Have you found a way to overcome these challenges?

Have you found a way to overcome these challenges?	84	
	n	%
Yes	19	22.62%
No	65	77.38%

Only seen if selected Yes to Q11.4

Table A1_Q11.5 How have you overcome these challenges? Please explain. (Open-Ended)

Table A1_Q12.1 For the 2021-2022 school year, what were your SFA's approximate total food costs (in dollars)

	n	Mean	Std. Dev	Min	Max
Total Food Costs	62	726,872.10	1,063,957.00	0	5,155,300

For the following set of 2 questions, districts received one of the two sets, depending on whether they had procured local food in the 2021-2022 school year or not.

For those that did procure in the 2021-2022 SY:

Table A1_Q12.2 For the 2021-2022 school year, what were your SFA's approximate local food purchases (in dollars), EXCLUDING fluid milk? Please feel free to estimate these values if you do not have accurate information readily available.

	n	Mean	Std. Dev	Min	Max
Local Food Costs	44	52,682.14	139,818.10	0	800,000

Table A1_Q12.3 For the 2021-2022 school year, approximately what percentage of your SFA's local food purchases (EXCLUDING fluid milk) were spent on Connecticut-grown foods?

Total number of respondents	82	
	n	**%**
Less than 10%	39	47.56%
10%-25%	12	14.63%
25%-50%	8	9.76%
50%-75%	1	1.22%
More than 75%	5	6.10%
Don't know	17	20.73%

For those that began procurement in the 2022-2023 SY:

Table A1_Q12.4 Approximately how much has your SFA spent on local food purchases (in dollars) this year, EXCLUDING fluid milk? Please feel free to estimate these values if you do not have accurate information readily available.

	n	**Mean**	**Std. Dev**	**Min**	**Max**
Local Food Costs	15	68,233.33	163,387.90	0	650,500

Table A1_Q12.5 Approximately what percentage of your SFA's local food purchases (EXCLUDING fluid milk) were spent on Connecticut-grown foods?

Total number of respondents	16	
	n	**%**
Less than 10%	4	25.00%
10%-25%	2	12.50%
25%-50%	2	12.50%
50%-75%		0.00%
More than 75%	4	25.00%
Don't know	4	25.00%

Appendix 2: Supplementary Tables

Table A2.1 Demographic Variables

	Non-Respondent	Survey Respondent
Education characteristics		
Number of schools	8.27	9.12
Student Enrollment	3,414.50	3,071.55
Total Expenditures	$59,500,000.00	$60,000,000.00
Per-pupil expenditures	$17,589.82	$18,729.53
Has a Pre-k program	81.82%	88.46%
Has Elementary Schools	95.45%	91.54%
Has Middle Schools	100.00%	96.92%
Has High Schools	77.27%	82.31%
District Type		
Public	90.91%	90.77%
Charter	9.09%	9.23%
Geography		
Rural	23.81%	31.97%
Suburban	47.62%	34.43%
Urban Core	4.76%	9.84%
Urban Periphery	23.81%	22.13%
Student Demographics		
% Male	50.80	51.38
% White	59.45	61.92
% Black	16.09	13.12
% Hispanic	19.70	19.32
% Eligible for free and reduced lunch	36.05	39.26

Chi-Sq Analyses

We conducted chi-square analyses to assess how distinct SFA characteristics influence local food procurement activities[49]. Only results significant at the 10% level are displayed below but full tables are available upon request.

Table A2.2 Impact of FFVP participation on local procurement

	All schools in district are FFVP				
	Not FFVP		FFVP		Pearson Chi-Sq
	n	%	n	%	
Buys Local Directly From Producers	26	34.21	12	57.14	0.057

Note: A district was categorized as a FFVP district if ALL elementary schools participated

Table A2.3 Impact of FFVP participation on local procurement

	Some schools in district are FFVP				
	Not FFVP		FFVP		Pearson Chi-Sq
	n	%	n	%	
Never Procured Local	22	22.22	4	9.76	0.084
Procures Local in 2022-2023 SY	63	63.64	32	78.05	0.097

Note: A district was categorized as a FFVP district if SOME elementary schools participated

Table A2.4 Impact of CEP participation on local procurement

	All schools in district are CEP				
	Not CEP		CEP		Pearson Chi-Sq
	n	%	n	%	
Procured Local Before 2021-2022 SY	60	55.05	21	72.41	0.091

[49] Local procurement variables used in the models were Never Procured Local; Procured Local Before 2021-2022 SY; Procured Local in 2021-2022 SY; Procures Local in 2022-2023 SY; New to Procuring Local; Procured Local Either Last or This Year; Stopped Procuring Local; Buys Local in Winter Months; Freezes Local Food to Serve Later; Buys Local Directly From Producers; Purchased Local Due to COVID Shortages

Note: A district was categorized as a CEP district if ALL schools participated

Table A2.5 Impact of CEP participation on local procurement

	Some schools in district are CEP				
	Not CEP		CEP		Pearson Chi-Sq
	n	%	n	%	
Procured Local Before 2021-2022 SY	52	53.06	29	72.50	0.035
Stopped Procuring Local	8	8.16	8	20.00	0.049

Note: A district was categorized as a CEP district if SOME schools participated

Table A2.6 Impact of being self-operated on local procurement

	Not self-operated		Self-operated		Pearson Chi-Sq
	n	%	n	%	
Buys Local Directly From Producers	8	22.86	29	46.77	0.020

Table A2.7 Impact of summer meal program type on local procurement

	Uses SFS		Uses SSO		Pearson Chi-Sq
	n	%	n	%	
Never Procured Local	7	0.00	6	11.54	0.074
Buys Local Directly From Producers	12	54.55	4	20.00	0.021

Table A2.8 Impact of program duration on local procurement

	3+ Years		Less than 3 years		Pearson Chi-Sq
	n	%	n	%	
Freezes Local Food to Serve Later	18	23.08	1	5.00	0.068

Table A2.9 Impact of microthreshold value on local procurement

	Micro <$4,000		Micro $4,000+		Pearson Chi-Sq
	n	%	n	%	
Never Procured Local	13	22.03%	2	6.67%	0.067
Procured Local Before 2021-2022 SY	30	50.85%	22	73.33%	0.042
Buys Local Directly From Producers	13	31.71%	14	63.64%	0.015

Table A2.10 Impact of participation in Put Local on Your Tray on local procurement

Whether SFAs participate in Put Local on Your Tray					
	No PLOYT		PLOYT		Pearson Chi-Sq
	n	%	n	%	
Buys Local Directly From Producers	14	29.17%	23	48.94%	0.048

Regression Analysis

Table A2.11 Regression of Funding Mechanisms on Local Spending

	Coefficient	SE	P-Value
FFVP District	-13,018.65	-60,473.15	0.83
CEP District	70,189.89	-44,610.49	0.122
Uses HFC funds to buy local	102,272.984**	-47,237.43	0.035
Uses FFVP funds to buy local	56,164.56	-64,525.80	0.388
Constant	-3,543.46	-28,335.50	0.901
Observations	52		
R-squared	0.194		
Standard errors in parentheses			
*** p<0.01, ** p<0.05, * p<0.1			

Appendix 3: 2019 Survey Analysis

The USDA has implemented three national censuses of school food authorities (SFAs) to evaluate farm to school development over time. The most recent iteration, in 2019, was conducted by Abt Associates. They revamped and updated the survey to close research gaps found in their comprehensive literature review, while also using a more expansive definition of farm to school based on activity participation. Of 18,832 National School Lunch Program SFAs that were targeted for the survey, a total of 12,025 responded.

All respondents saw questions related to meal program participation, salad bar use and level of scratch cooking. Then, based on their response to a series of questions related to farm to school activities they either received a longer questionnaire about farm to school practices or exit questions about why they were not participating in any activities. Thus, the majority of the questions were hidden from all SFAs except those who stated they incorporated at least one F2S activity.

In the following report we detail the responses of the 123 Connecticut (CT) SFAs that responded to the census[50]. We also compare the CT results to those of other northeastern states (the rest of New England and New York state), which had1,207 responding SFAs. We find that 88.87% of CT SFAS participated in at least one F2S activity, 86.18% served local food, and their responses were generally on par with those of the rest of the Northeast.

Questions Seen by All Respondents

In this first section we report the set of questions that were seen by all survey respondents. This consists of general inquiries about SFAs' Farm to School initiatives and food practices, including when F2S involvement started, how they define local, what activities they are currently conducting or are planning to in the future, and whether they incorporate salad bars into their meals. While the questions in this section were seen by all 123 CT respondents and 1,207 Northeastern respondents, the actual number of responses varied from question to question.

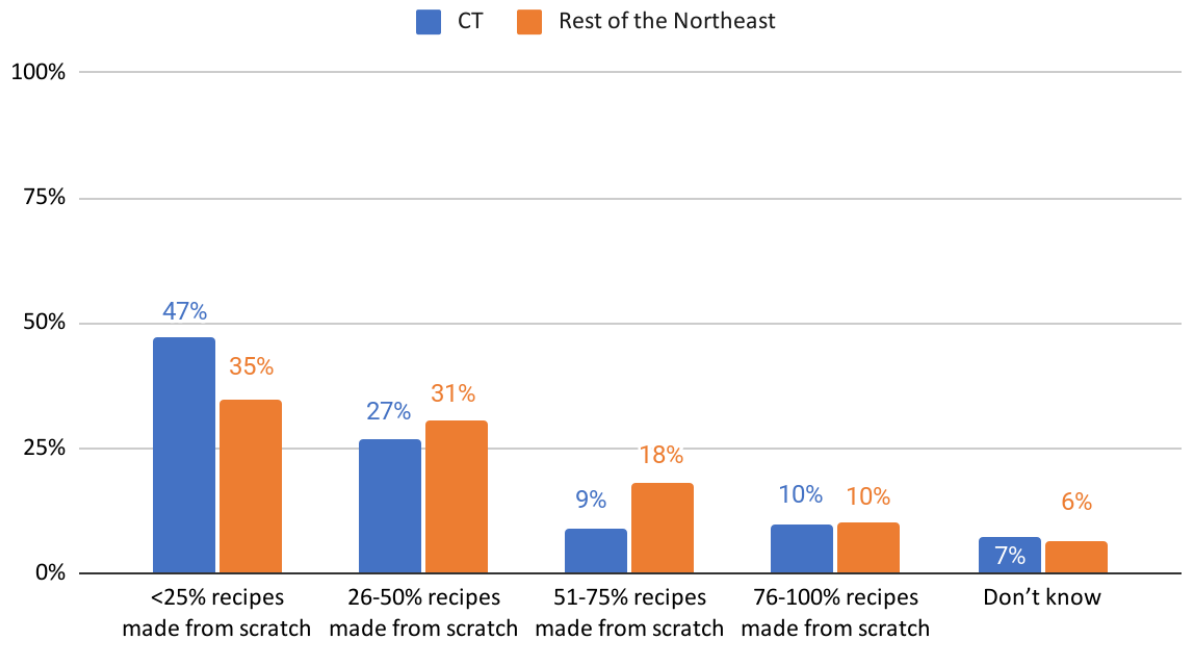
Kitchen Processes

An SFA that cooks items from scratch is presumably using at least some whole and unprocessed ingredients, which provides an opportunity to substitute some of those

[50] Note: 129 CT SFAs completed at least part of the survey, but the publicly available data only details responses for SFAs that hit the submit button.

products for locally-produced versions. However, only 10% of CT respondents made at least ¾ of their recipes from scratch. Conversely, nearly a majority of CT respondents (47%) made less than a quarter of their recipes from scratch, though we cannot identify how many SFAs made no food from scratch. The USDA used a fairly liberal definition of "from scratch" in the survey, stating that "scratch can include peeling and cutting up fruits and vegetables, measuring out raw ingredients, adding seasonings". Thus, a menu item consisting of all pre-processed or cooked vegetables and meat, with only seasonings added in the kitchen, could constitute as "from scratch". 7% of CT SFAs did not know this percentage, which could potentially be due to a lack of documentation on the part of the director or confusion with how the question was worded. A greater proportion of CT SFAs made less than a quarter of their recipes from scratch than other Northeastern states, while a lower proportion made between 26-75% from scratch. Across the Northeast less than 10% of schools made more than ¾ of their recipes from scratch. While we do not know why this low rate of scratch cooking exists (lack of staff time or knowledge, dearth of equipment, etc.) this demonstrates a potential area where changes could lead to increased local food procurement.

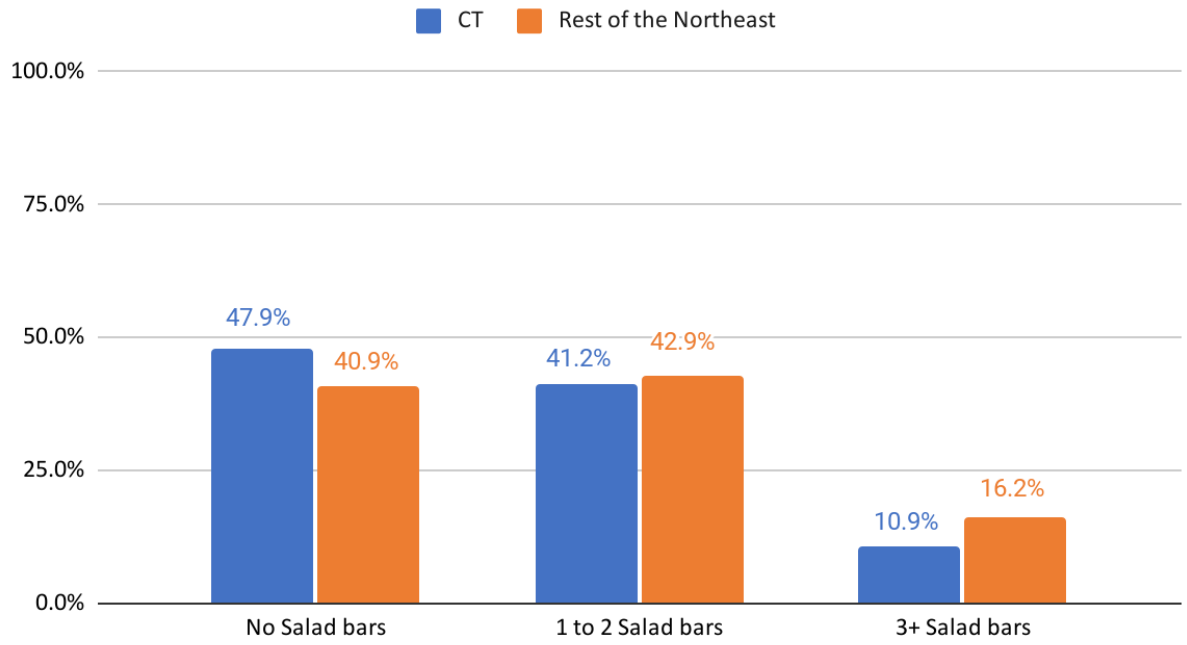
Figure A3.1 During SY 2018-2019, What Percent of your SFA's Recipes Were Made From Scratch



NOTE: 123 respondents from CT out of 123 and 1207 from NE out of 1207

Slightly less than half of CT SFAs responded that they do not have salad bars in any schools in their SFA, despite the benefits of increasing produce consumption and potentially reducing plate waste (USDA, 2019). While 41% of CT SFAs reported 1-2 schools that had salad bars, only 11% of CT respondents had three or more. As a caveat it is important to note that we cannot compare the percentage coverage across SFAs as it was not reported how many schools are in each SFA. We find that CT schools were slightly less likely to have salad bars than the rest of the Northeast, as well as fewer in each district. As salad bars have been associated with healthier school meals, and could incorporate local produce, this is a potential area of growth for local food procurement.

Figure A3.2 How Many Schools in your SFA had Salad Bars



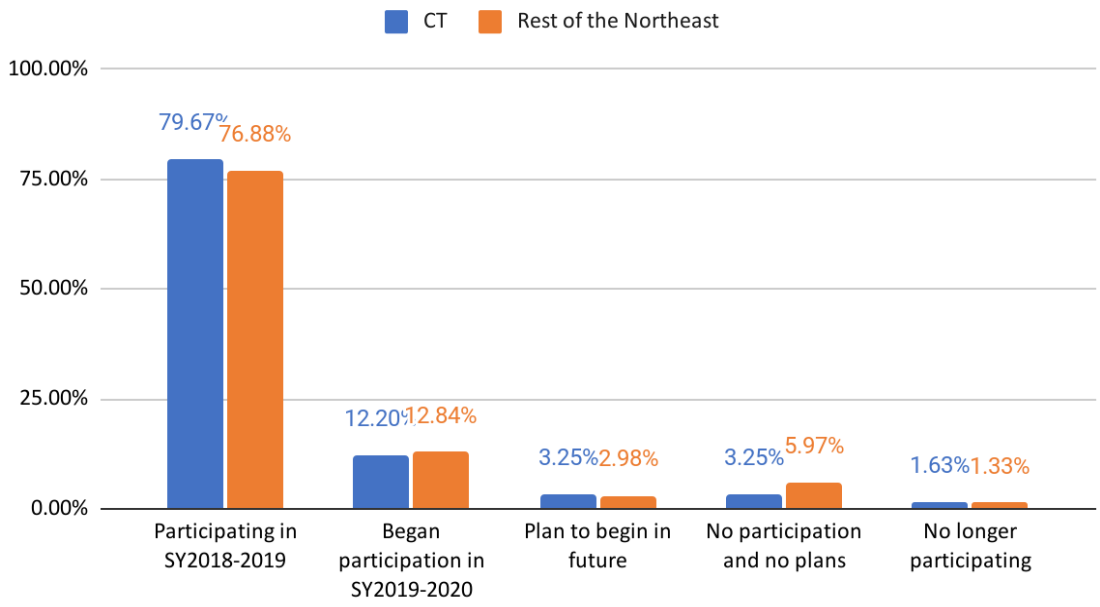
Note: 119 CT SFAs responded (of 123) and 1141 Northeastern SFAs (of 1207)

Farm to School Participation

At the time of the survey there were 113 SFAs participating in farm to school activities, 15 of which had just started. Thus, the vast majority of CT SFA's stated they engaged in at least one activity (79.67%), with an additional four stating a desire to participate. In fact, only six SFAs had either stopped participating in farm to school or had no desire to begin. While there is a

clear caveat that this could reflect non-respondent bias, as those SFAs most interested in farm to school could be more likely to complete the survey, it does suggest that there is an overwhelming amount of interest in farm to school across the state. Connecticut's F2S participation rate mirrored that of the rest of the Northeast.

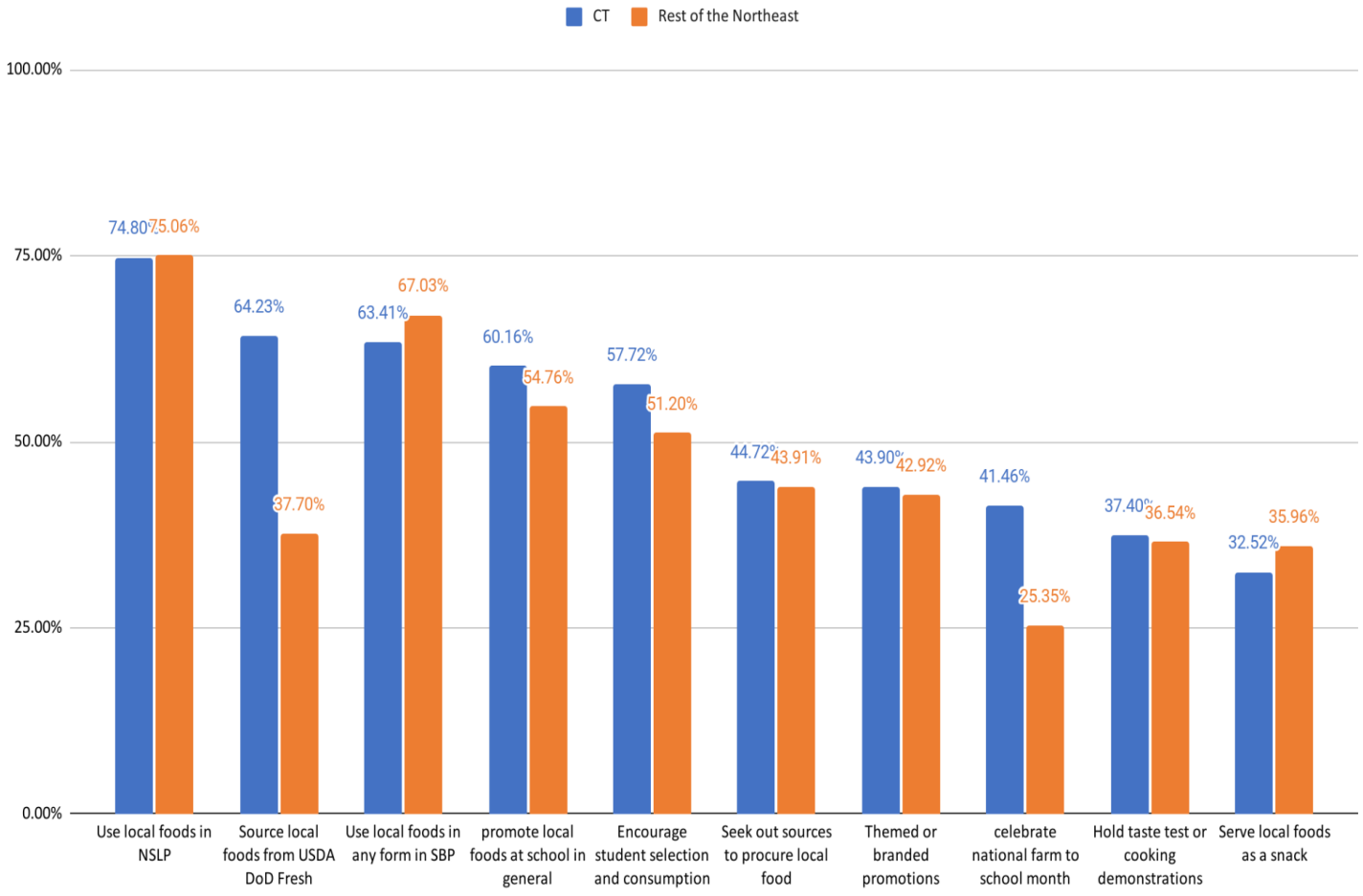
Figure A3.3 F2S Participation



NOTE: 123 CT SFAs Responded (of 123) and 1207 Northeastern SFAs responded (of 1207)

An SFA was characterized as participating in Farm to School if they stated they engaged in at least one of a list of 30 activities. All SFAs were asked to select Farm to School activities in which they participate to develop a baseline understanding of the types of initiatives that are being implemented. While respondents were able to select from 30 activities, we only included the top 10 most popular activities. The most commonly undertaken activities relate to serving and procuring local food: providing local food during lunch (75%), sourcing local food from DoDFresh (64%) and serving local food during breakfast (63%). However, only 44% of respondents are actively searching out sources from which to purchase local food, suggesting a space for outreach and matchmaking. The only other activities practiced by a majority of SFAS were promoting local foods generally (60%) and encouraging consumption (58%). While a majority of SFAs in all states incorporated local foods into their school lunches, CT was more likely to procure through the USDA DoD Fresh program than other states. For most other activities CT was in line with the rest of the Northeast.

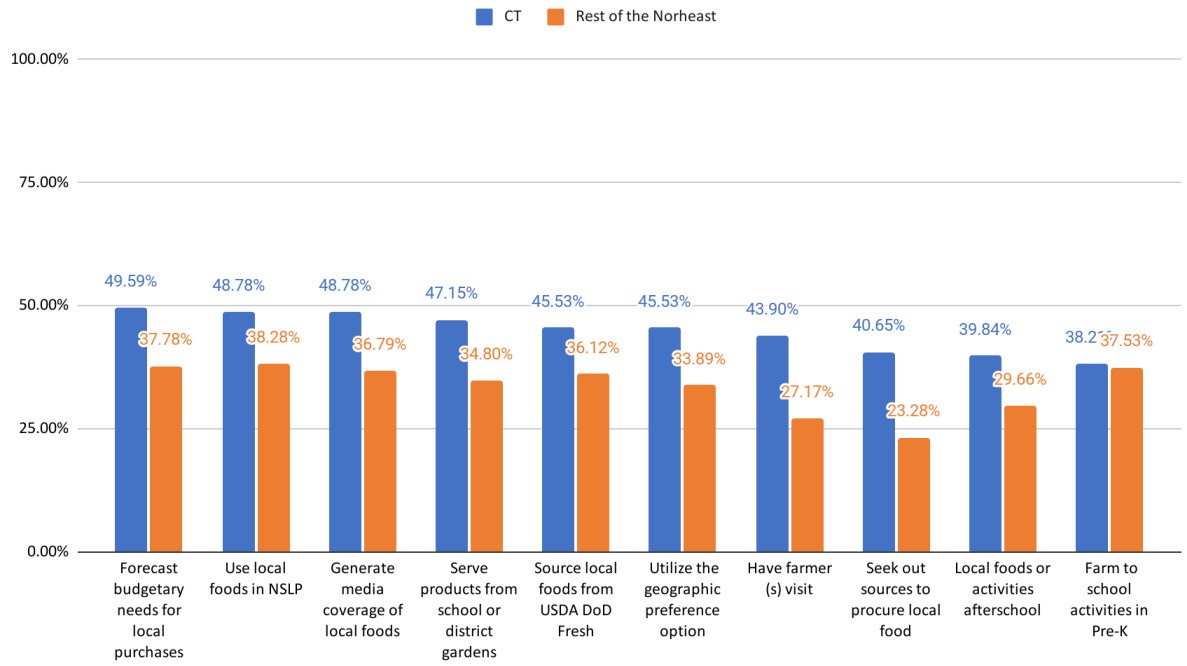
Figure A3.4 Currently doing this activity



NOTE: 123 CT SFAs responded (of 123) and 1165 Northeastern SFAs responded (of 1207)

SFAs were also asked about the activities they planned to do in the future, and generally a higher percentage of CT SFAs planned to begin farm to school activities than SFAs in the rest of the Northeast.

Figure A3.5 Plan to do this activity



NOTE: 123 CT SFAs responded (of 123) and 1165 Northeastern SFAs responded (of 1207)

Given the wide variety of potential activities, we then combined them into one of five activity types. The most common activities concerned the procurement of local foods, followed by the promotion of farm to school to students, parents or the community, though this was slightly more common in Connecticut. However, only 43% of CT SFAs highlighted administrative tasks such as training staff or utilizing the geographic preference option, which could reflect logistical constraints faced by SFAs. CT SFAs appeared to be slightly less likely to conduct educational activities than the rest of the northeast, and they were much less likely to incorporate school gardens. CT SFAs were also less likely to

Figure A3.6 Currently doing this activity (by category)

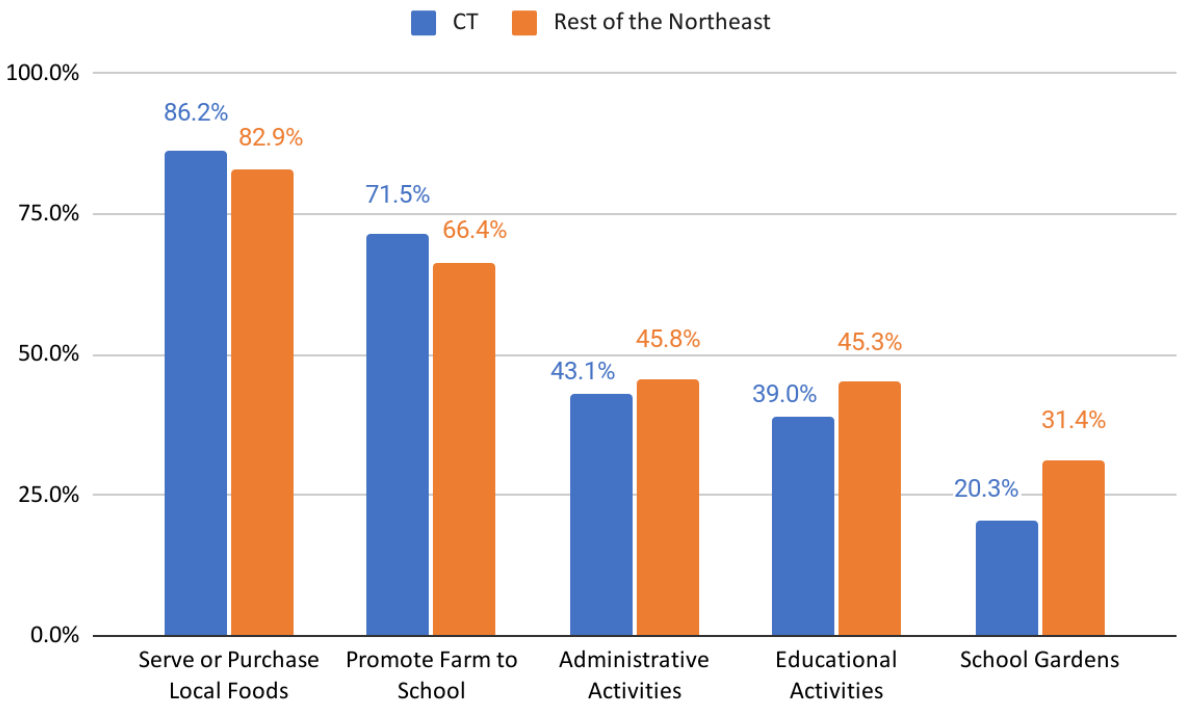
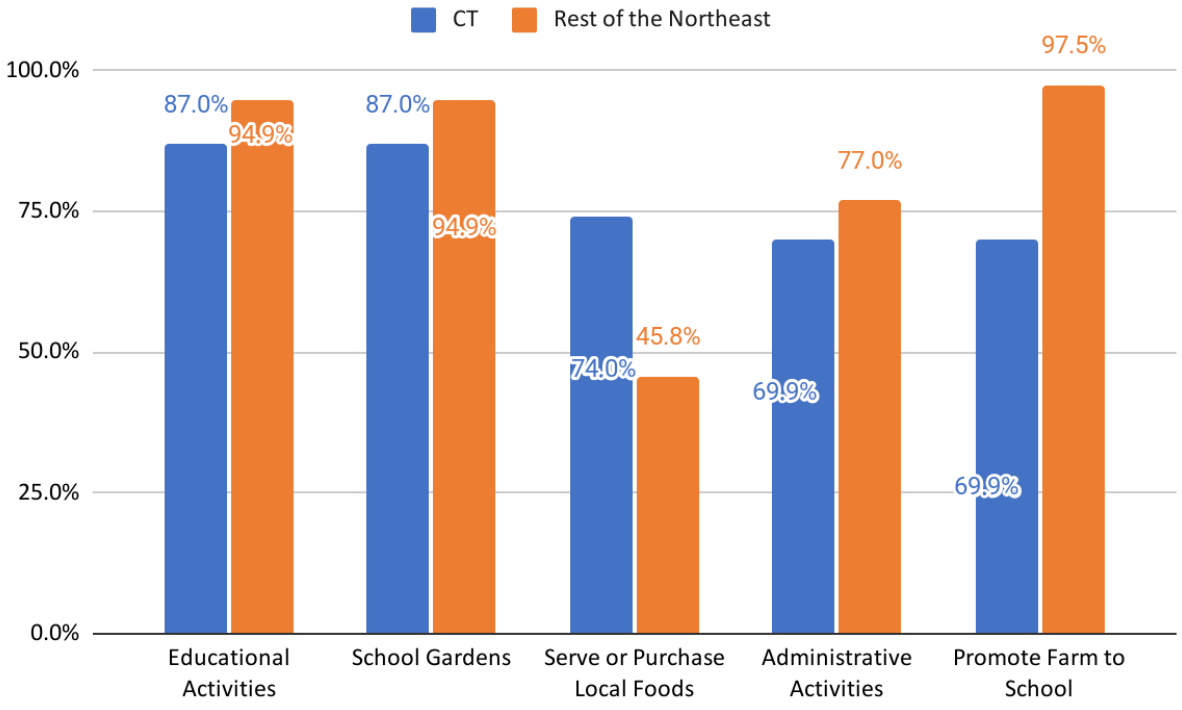


Figure A3.7 Plan to do this activity (by category)



Local Food Procurement

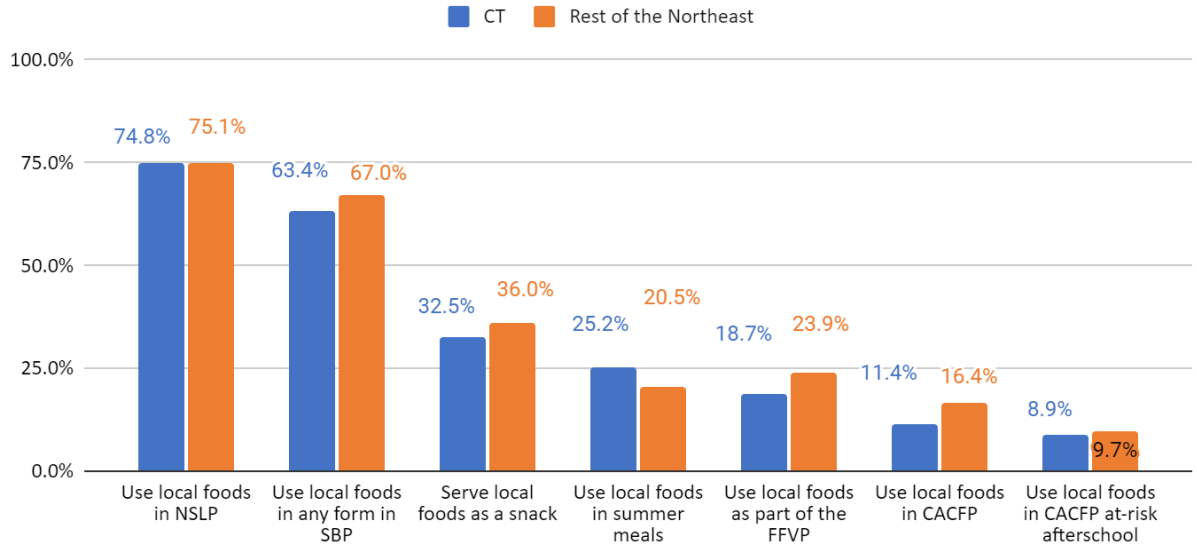
While farm to school can encompass a variety of activities, stakeholders are often most interested in local procurement. Serving local food was surprisingly common as 73% of CT SFAs stated they served local food in the 2018-2019 school year, which increased to 83% in 2019-2020. While CT SFAs were slightly more likely to procure local foods than the rest of the Northeast, we note below that they were less likely to use a state-based definition of local. It could be that their procurement is coming from farms in other states such as Massachusetts or New York.

Figure A3.8 Changes in local food procurement over time

	Connecticut			Northeast	
	n	%		n	%
Served local food in 2018-2019	90	73.2%		816	67.6%
Served local food in 2019-2020	102	82.9%		972	80.5%
Stopped serving after 2018-2019	4	3.3%		49	4.1%
Began serving in 2019-2020	16	13.0%		205	17.0%
Total	123			1,207	

We next look at the meal programs where SFAs are serving their local food. 75% of all CT SFAs incorporated local food in school lunches and 63% served during breakfast. Despite the increased availability of local produce during the summer season only 25% of SFAs served local food in summer meals, though this result could reflect that fewer SFAs serve summer meals. A slightly greater proportion of CT SFAs incorporated local foods into the Fresh Fruit and Vegetable Program, which is the Department of Defense's initiative to increase produce availability in lower-income schools. Meanwhile, CT SFAs were less likely to use local food in the Child and Adult Care Food Program (CACFP), which is generally targeted toward supporting childcare for non-school age children.

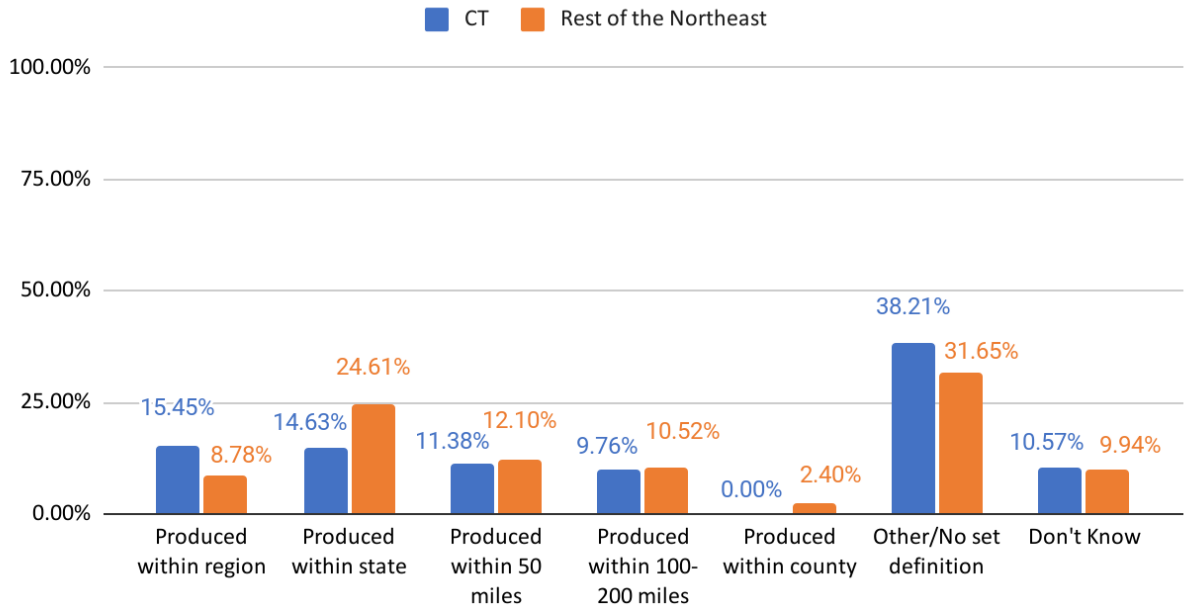
Figure A3.9 Serving Local



NOTE: 123 CT SFAs responded (of 123) and 1165 Northeastern SFAs responded (of 1207)

All SFAs were also asked how they defined local. We begin by comparing CT results with those of the Northeast. SFAs differed in how they defined local, and an SFA's definition of local has been shown to impact the total amount of local food procured (Plakias et al, 2020). Beginning with CT we find the most common response was for an SFA to state they either did not have a set definition for local or did not know their definition (45.6%). However, the most common definition was "produced within the region" (15.4%), followed by "produced within the state" (14.6%). Only 26% used a mileage definition, the most popular of which was within 50 miles (8.1%). Comparing CT to the rest of the Northeast, a similar proportion of SFAs used mileage-based definitions, and no CT SFAs considered county. However, CT SFAs were less likely to use a state-based definition of local, and more likely to use region. It is unclear whether this is related to the size of CT, logistical disparities, or some other factor, but it suggests CT producers may not be benefitting from local food procurement.

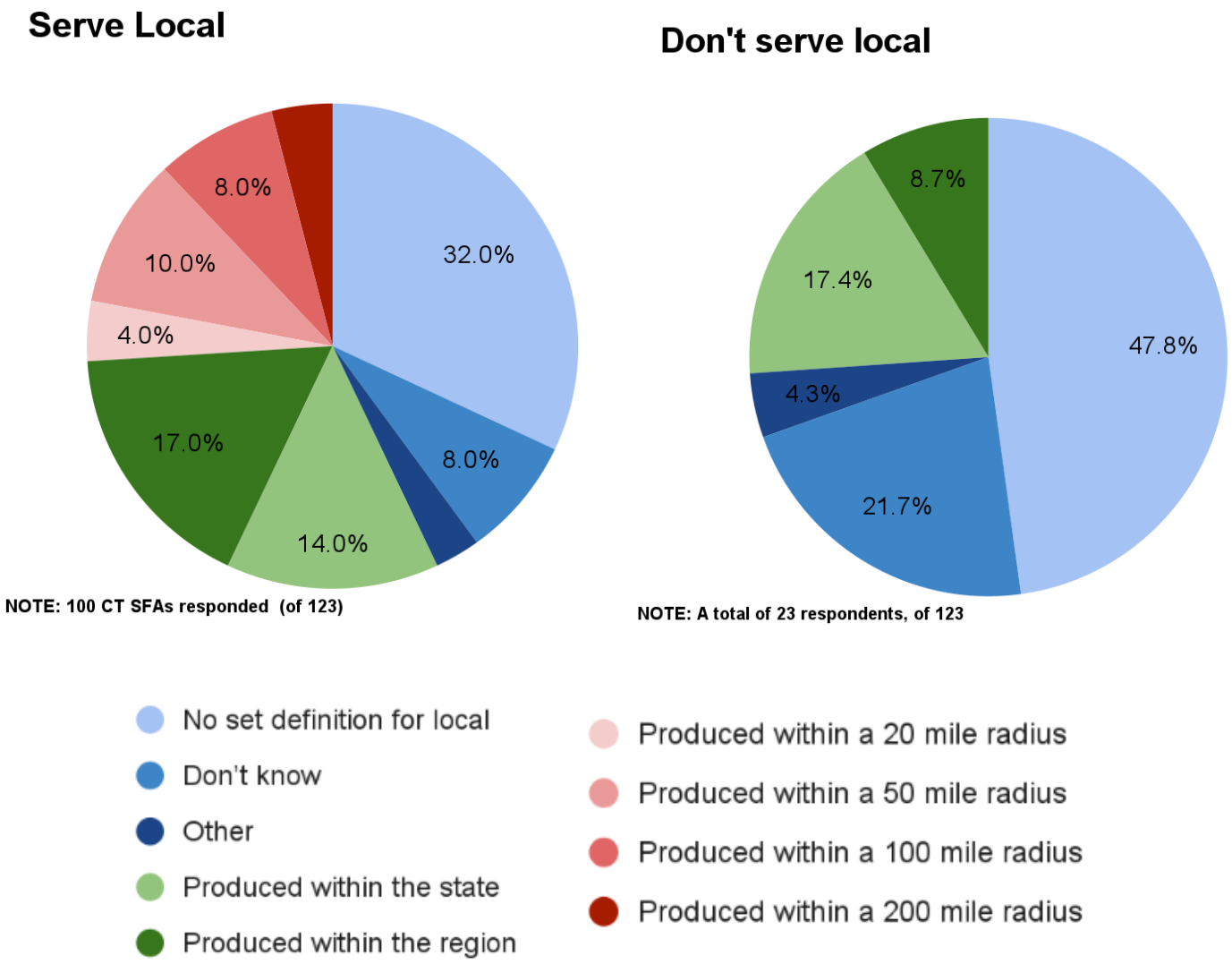
Figure A3.10 How does your SFA define 'Local'



NOTE: 123 CT SFAs responded (of 123) and 1207 Northeastern SFAs responded (of 1207)

For just CT we then compared whether the definition of local differs between those SFAs that do and do not incorporate local foods into their meals or snacks. Unsurprisingly, those that do not serve local food are much more likely to not have a set definition for local or not know the definition. However, the most common response for SFAs that procured local foods was still to not have a set definition for local (32%). Of note, only those SFAs that serve local food use a mileage definition, which has implications for how to approach non-participating SFAs. 3% of respondents stated that they have other means of defining what local means to them, though we do not know what those are.

Figure A3.11 How long has your SFA been conducting F2S activities



Questions Seen by Those Currently Engaging in Farm to School Activities

Farm to School Characteristics

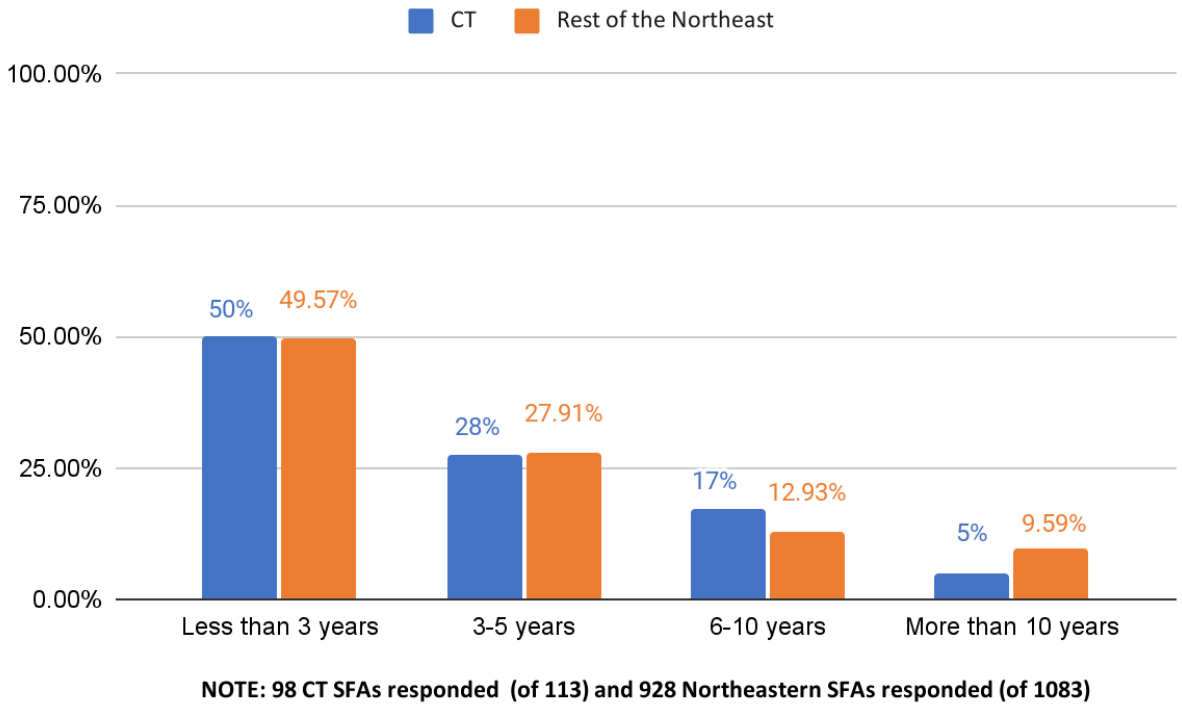
Based on their selection of farm to school activities, SFAs were categorized into five categories. Their farm to school status was

- "1" if they participated in at least one activity in the 2018-2019 school year
- "2" if they began farm to school activities in the 2019-2020 school year
- "3" if they plan to implement farm to school programming the future
- "4" if they used to participate in farm to school programming and no longer intend to
- "5" if they do not incorporate farm to school activities and have no plan to do so

Only the 113 respondents who stated they participated in at least one F2S activity were shown the questions for this section (those in categories one and two). The following topics include the duration of F2S participation, the grades involved, local purchase types and values, and related subjects. Additionally, some questions were only shown to the 98 SFAs that participated in F2S activities in the 2018-2019 school year (those in category one). As such, for each question we report both the number of respondents that viewed the question and the number that replied.

The majority of CT SFAs conducting farm to school activities had been doing so for less than three years[51] (50%), representing the relative newness of farm to school programming. The recent increase in SFAs participating in farm to school (over 80% of programs were less than five years old) could reflect growing interest on the part of the community as well as increased federal and state funding. Conversely, half as many CT SFAs as those in the rest of the Northeast have been participating in farm to school for over 10 years.

Figure A3.12 How long has your SFA been conducting F2S activities

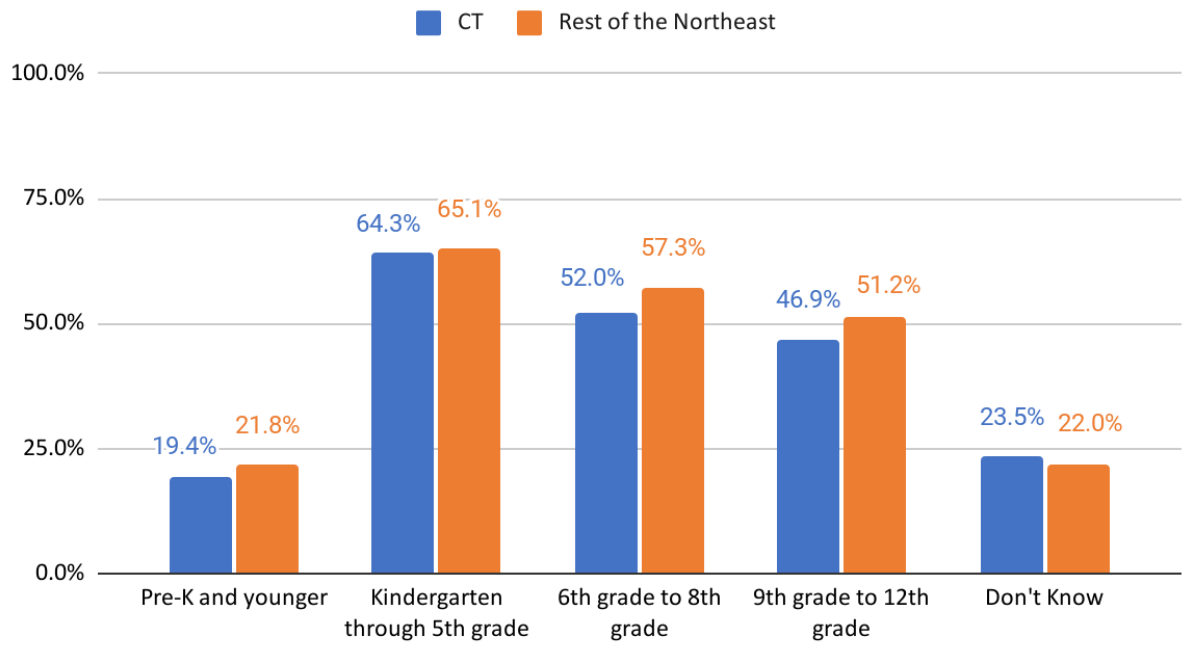


NOTE: 98 CT SFAs responded (of 113) and 928 Northeastern SFAs responded (of 1083)

In terms of which students can access farm to school programming, less than 20% of CT SFAs included students in pre-K and younger, which is unsurprising as not all school districts have a pre-K program. Otherwise programs seem to be concentrated in earlier grades. This suggests that students exposed to farm to school in elementary schools lose those opportunities as they progress through the school system. While CT's inclusion of farm to school activities in elementary school is on par with the rest of the Northeast, there is a slightly lower level of programming in all other grades (pre-k, middle school and high school).

[51] Though the question was only asked of the 98 schools that were conducting farm to school activities in the 2018-2019 school year, if we the 15 schools that had just begun farm to school activities in the 2019-2020 school year then this value jumps to 56.6% of all CT SFAs..

Figure A3.13 Grades Participating in Farm to School Activities



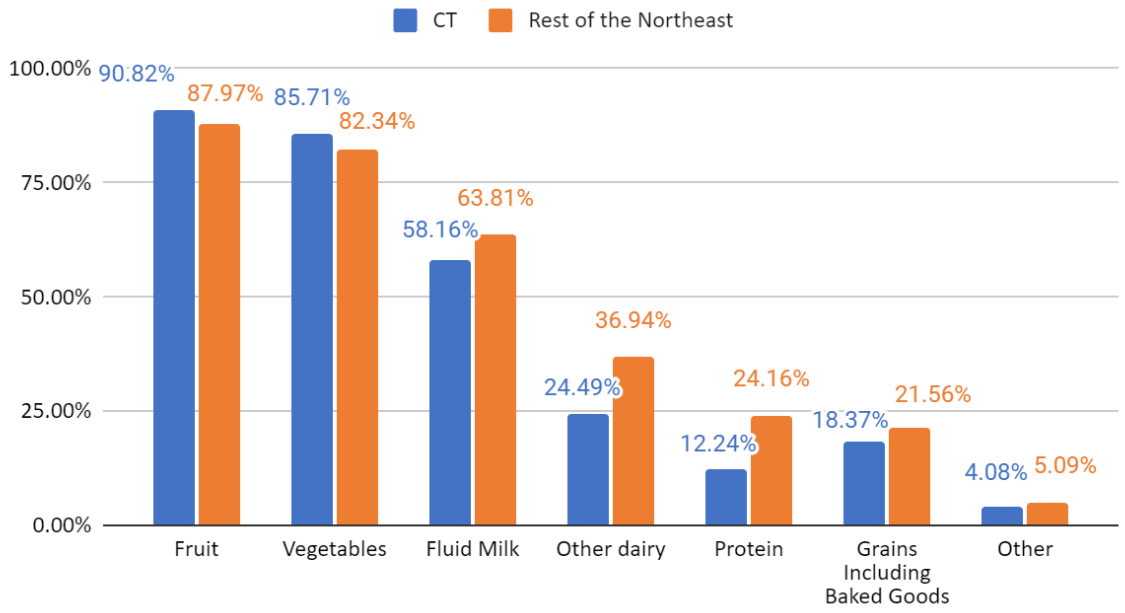
NOTE: 98 CT SFAs responded (of 98) and 928 Northeastern SFAs responded (of 928)

Local Food Procurement

For the following question, respondents were asked to select from a variety of options (currently purchase, plan to purchase, do not purchase) for each product category in a matrix-style table[52]. During the school year 2018-2019 a majority of CT SFAs purchased fruits (89) and vegetables (84) locally. Given the regional nature of milk marketing it is surprising that only 58% of CT SFAs stated they purchased local milk, though this could be due to either a stricter definition of local on the part of the SFA or not considering milk purchased through traditional means to be "local". While CT SFAs were slightly less likely to report serving local milk than the rest of the Northeast, they were much less likely to serve local varieties of other dairy such as yogurt or cheese. They were also half as likely to serve local protein as the rest of the Northeast.

[52] As a result, the number of respondents declined between each category, so we use the total number of respondents that responded to at least one category as the denominator when calculating percentages. This is true for both figures A3.15 and A3.16.

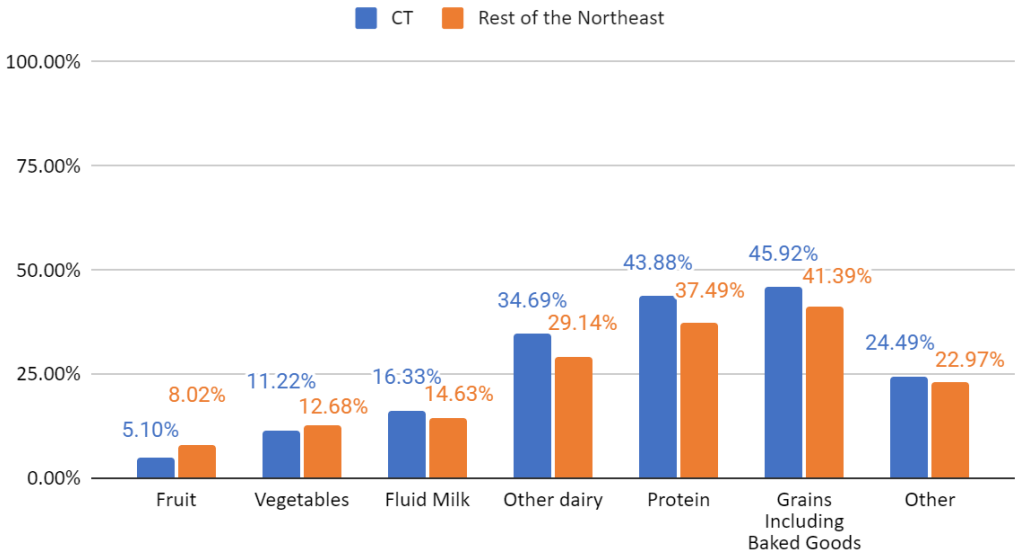
Figure A3.14 Locally Purchased in SY 2018-2019



NOTE: 98 CT SFAs responded (of 98) and 923 Northeastern SFAs responded (of 928)

Figure A3.15 Plan to purchase

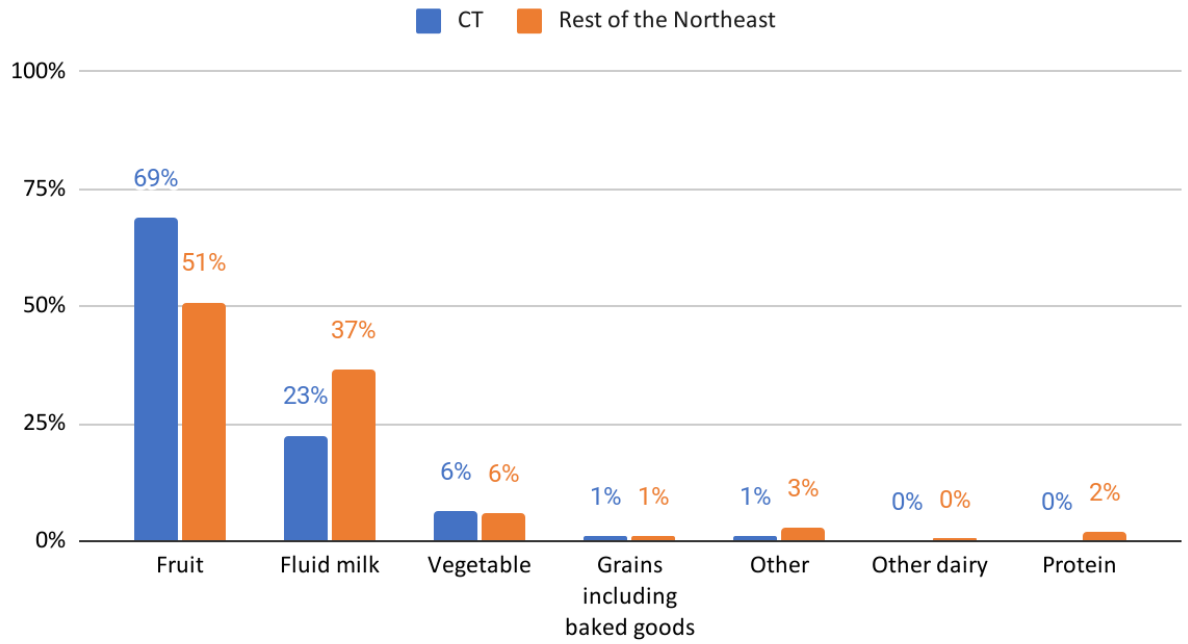
Looking instead at future plans for local procurement, CT SFAs were more likely to state an interest in procuring dairy other milk, protein and grains, suggesting an area where policymakers and stakeholders could support increased relationships with CT growers.



NOTE: 98 CT SFAs responded (of 98) and 923 Northeastern SFAs responded (of 928)

SFAs were also queried on what local products they spent the largest amount of their local food dollars on. The most common category by far was fruit at 69% for CT SFAs, compared to approximately 50% for the rest of the Northeast. Conversely, 23% of CT SFAs stated the greatest proportion of their local food spend went to fluid milk, compared to 37% for the rest of the Northeast. Only 6% of SFAs primarily purchased vegetables, and there was a sole CT SFA that highlighted grain spending.

Figure A3.16 Top food group purchased, based on total Dollar spent

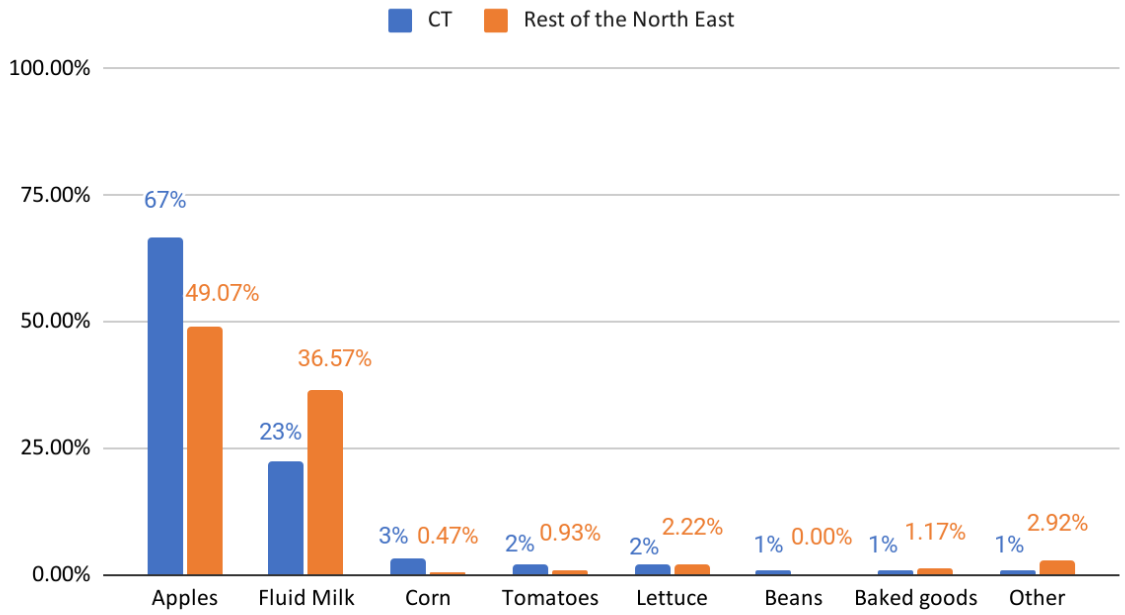


NOTE: 93 CT SFAs responded (of 98) and 856 Northeastern SFAs responded (of 928)

SFAs were also asked for the top product (in terms of dollars spent on particular food items), and in the table below we show the top eight. The most commonly purchased product was apples, followed by fluid milk. However, CT SFAs were more likely to list apple than those in the rest of the Northeast, while the converse was true for fluid milk. Less than 3% of SFAs stated their primary local food product was either corn, tomatoes, lettuce, beans or baked goods. While apples are most clearly thought of as a school fruit, these results identify areas where CT producers have not yet entered.

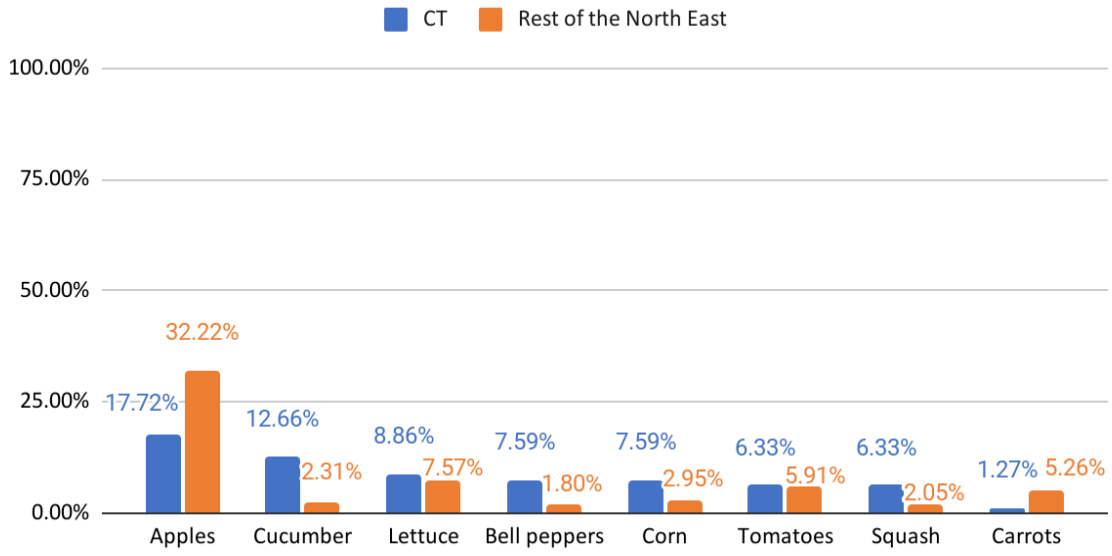
However, more heterogeneity occurs when SFAs are asked to identify their second most purchased item. We now see that relative to the rest of the Northeast, CT favors cucumbers, lettuce, bell peppers, corn, tomatoes, squash and carrots. Meanwhile, a greater proportion of Northeastern SFAs list apples as their second most procured product.

Figure A3.17 Top local Item purchased



NOTE: 93 CT SFAs responded (of 98) and 856 Northeastern SFAs responded (of 928)

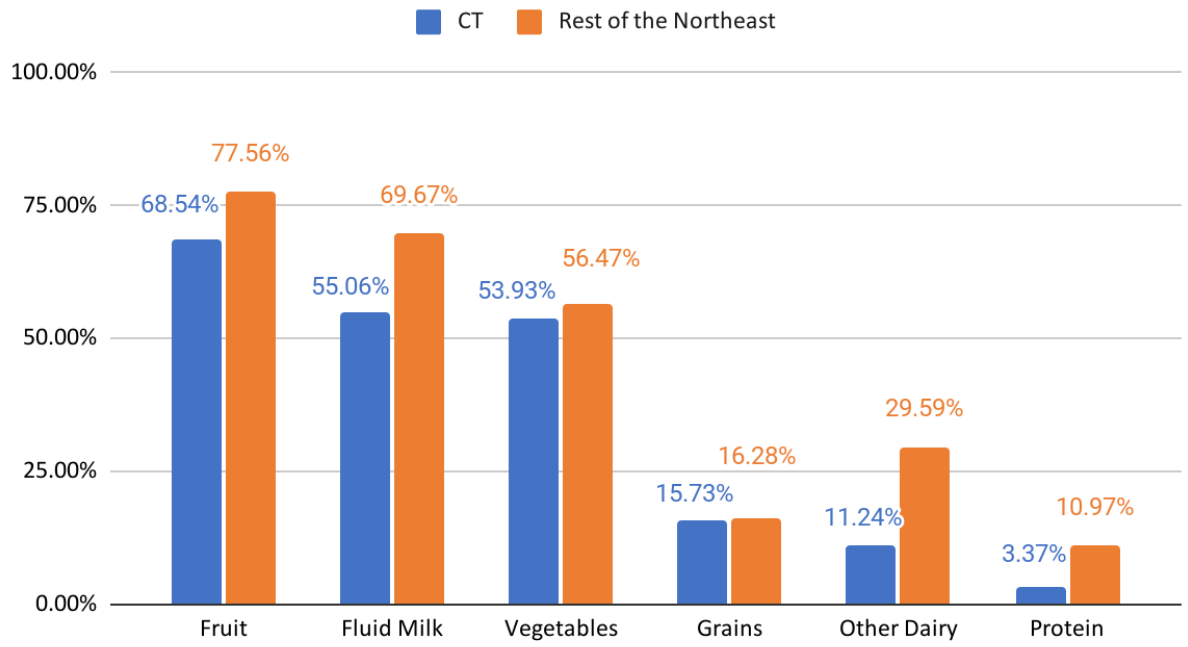
Figure A3.18 Second Top Local Item



NOTE: 79 CT SFAs responded (of 98) and 779 Northeastern SFAs responded (of 928)

SFAs were also asked about the breadth of their procurement; specifically, the were asked to identify foods that they included in snacks or meals at least once a week[53]. Nearly 70% of CT SFAs incorporated local fruit at least once a week, compared to over 75% in the rest of the Northeast. The results were even more disparate for the next most frequently served category of fluid milk, which could be related to how local is defined. Only slightly more than 50% of SFAs were serving local vegetables at least once a week, presenting an area for growth. While approximately 15% of SFAs served local grains at least once a week, fewer CT SFAs served local protein relative to the rest of the Northeast.

Figure A3.19 SFA included this local food in snacks or meals at least once a week



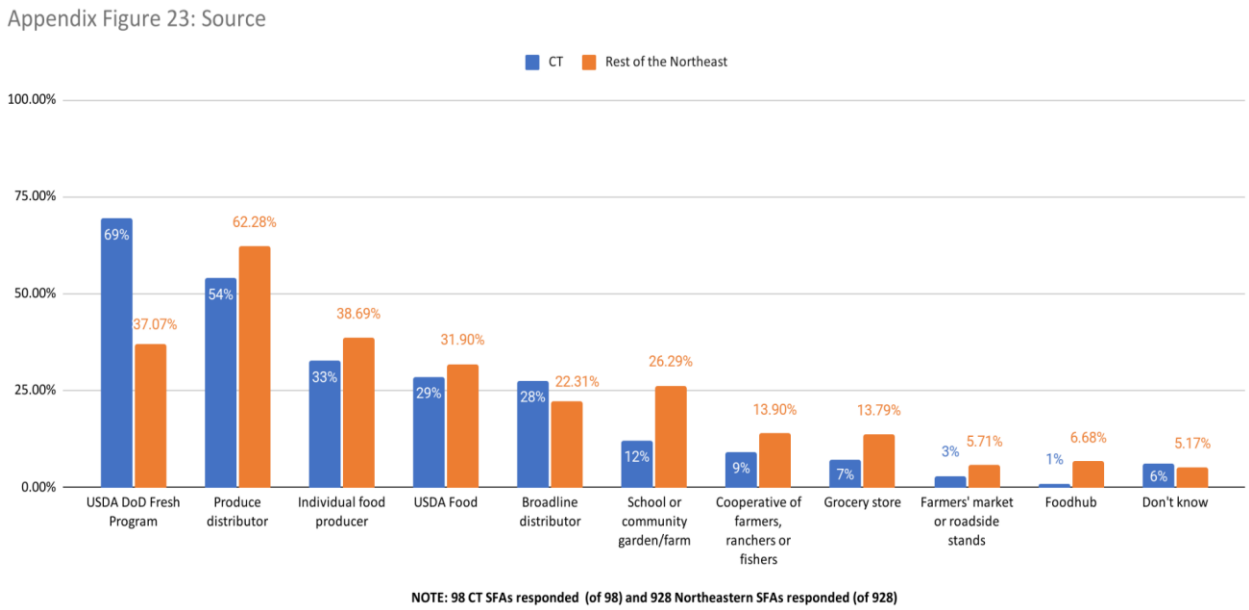
NOTE: 89 CT SFAs responded (of 98) and 811 Northeastern SFAs responded (of 928)

[53] As the number of respondents again decreased by category in this matrix table, we list the number of SFAs that responded to at least one category. This is under the assumption that given the complexity of the question (for each category SFAs needed to select if they served daily, a few times per week, weekly, a few times per month, monthly, seasonally and never), the declining number of respondents is due to SFAs not completing the row for products they do not serve.

Procurement Processes

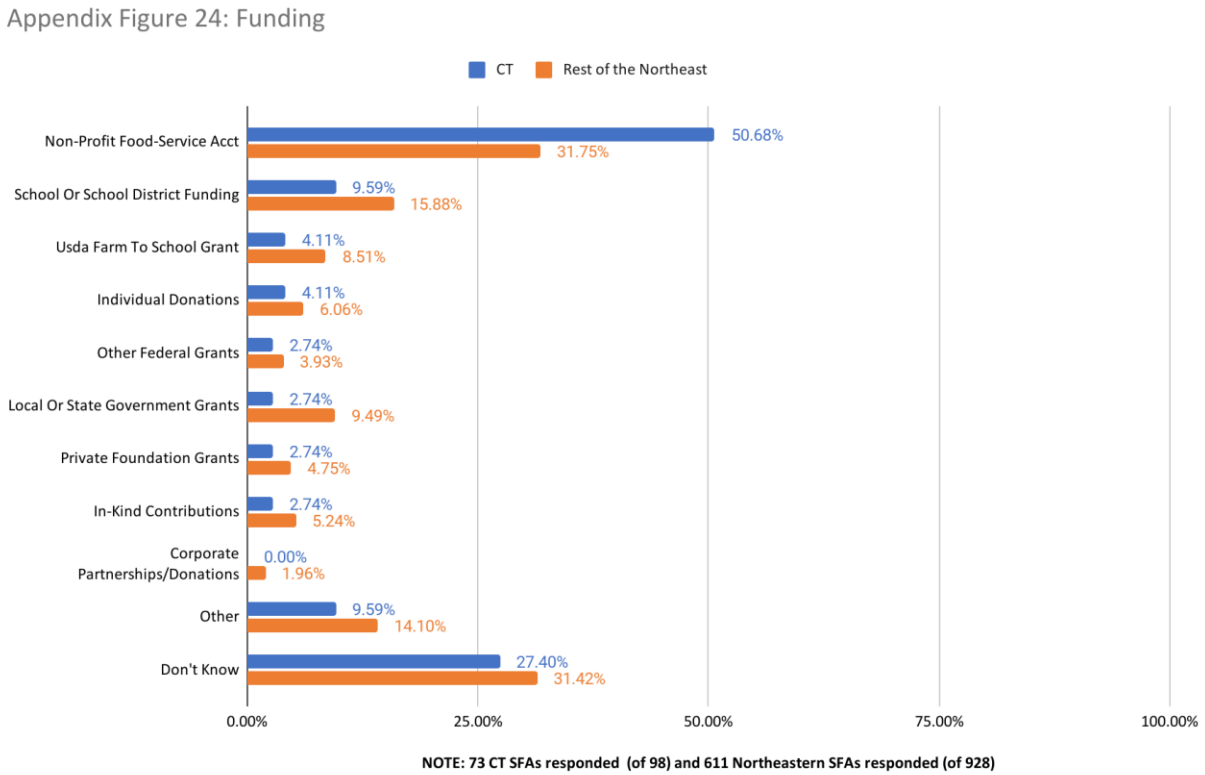
SFAs were asked to identify all the sources from which they procured local food. The most common source of local food was the USDA DoD Fresh Program, which allows USDA Foods entitlement dollars to be put toward the purchase of fresh produce. However, while 69% of CT SFAs used DoD Fresh to procure local, this was only true of 37% of other SFAs in the Northeast. It is possible the popularity of this source to CT SFAs could suggest a cost constraint to local food procurement that is overcome with these funds. It could additionally imply a level of convenience to local food procurement as the DoD has been working to increase the amount of local food it offers, and the next most common response was a produce distributor, suggesting a preference for a reduced logistical burden. However, nearly a third of CT respondents (33%) purchased directly from food producers, compared to 39% in the rest of the Northeast. As purchasing directly from producers is associated with a variety of transaction costs (Matts, C et al., 2016), it could be that other states are better facilitating this connection. Only 1% of CT SFAs purchased directly from food hubs, compared to 7% in the rest of the Northeast, despite the reputation of these operations as reducing the logistical burdens of local food distributions by offering aggregation services (Diamond, A., & Barham, J., 2012).

Figure A3.20 Source



When identifying funding sources for all farm to school activities, a slight majority of CT SFAs (51%) used their non-profit food service account, presumably from USDA reimbursement funds and cafeteria sales, compared to only 32% of other Northeastern SFAs. Conversely, 16% of Northeastern SFAs received school or district funding, compared to less than 10% of CT SFAs. SFAs outside of CT were also more likely to use grant funds and individual or in-kind donations. Thus, it would appear that CT SFAs may be receiving less financial support than their Northeastern counterparts. However, close to 30% of respondents were not sure how their activities were funded, which could represent Farm to School activities outside the purview of the SFAs. It should be noted that the census was disseminated before the CT Grown for CT Kids grant program was instituted, so the number of SFAs receiving state government grants should presumably now be higher.

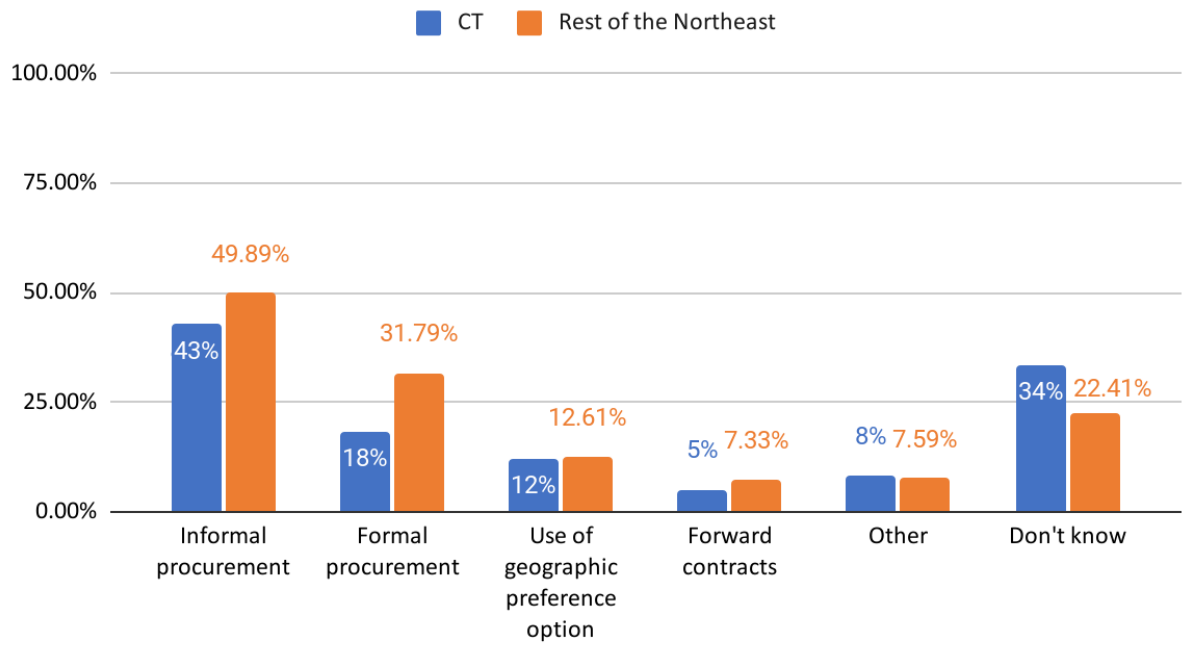
Figure A3.21 Funding



When procuring local food the most common approach was informal procurement, which facilitates the purchase of food from producers and other small-scale

operations. However, CT SFAs were less likely to use this approach than their counterparts in the rest of the Northeast. Only 18% of CT respondents used formal procurement methods, compared to 32% in the rest of the Northeast, but there was no difference in the use of geographic preferences in their contracts, presenting an opportunity for increased local purchasing. As 34% of CT SFAs stated they did not know how their local procurement was funded, this could represent respondents participating in Farm to School activities outside of local food procurement.

Figure A3.22 Approach used to purchase local food

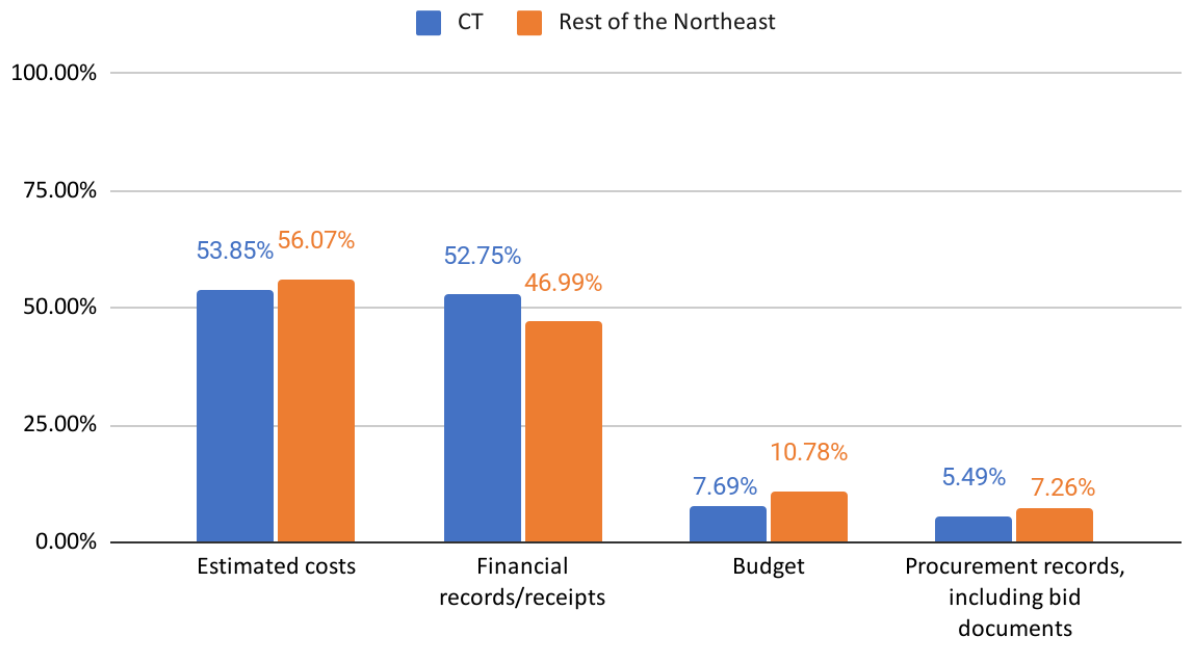


NOTE: 98 CT SFAs responded (of 98) and 928 Northeastern SFAs responded (of 928)

Tracking

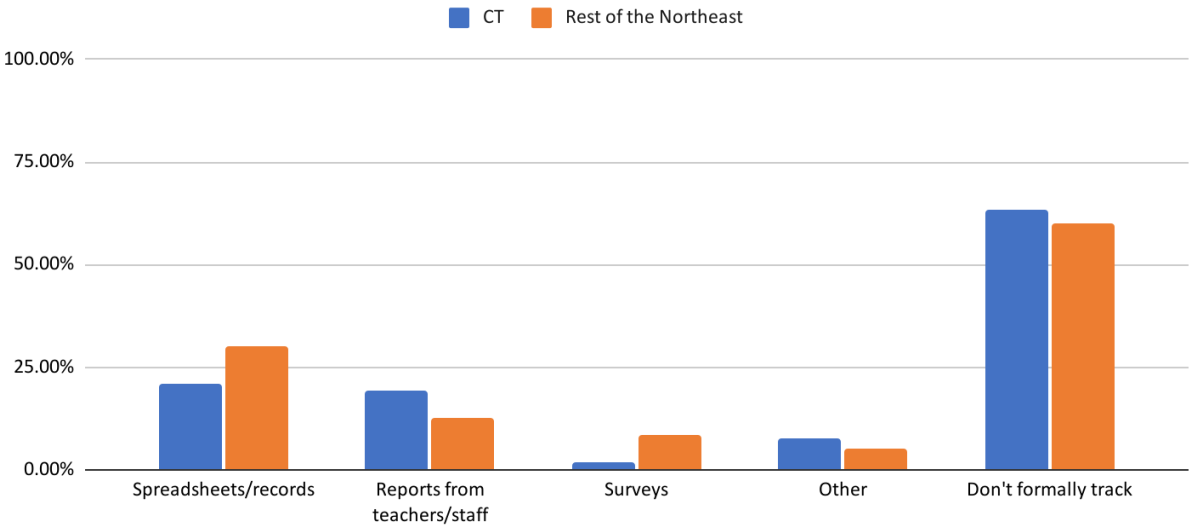
Over 50% of SFAs do not seem to tracking local food spending, given that they had to estimate some portion of their total costs. However, slightly more CT SFAs seem to be relying on financial records or receipts than the rest of the Northeast, though they are less likely to be using budget or procurement records. Even fewer SFAs are tracking F2S activities generally, though this again seems to be consistent across the Northeast.

Figure A3.23 Source for response to a local food spending question



NOTE: 81 CT SFAs responded (of 98) and 881 Northeastern SFAs responded (of 928)

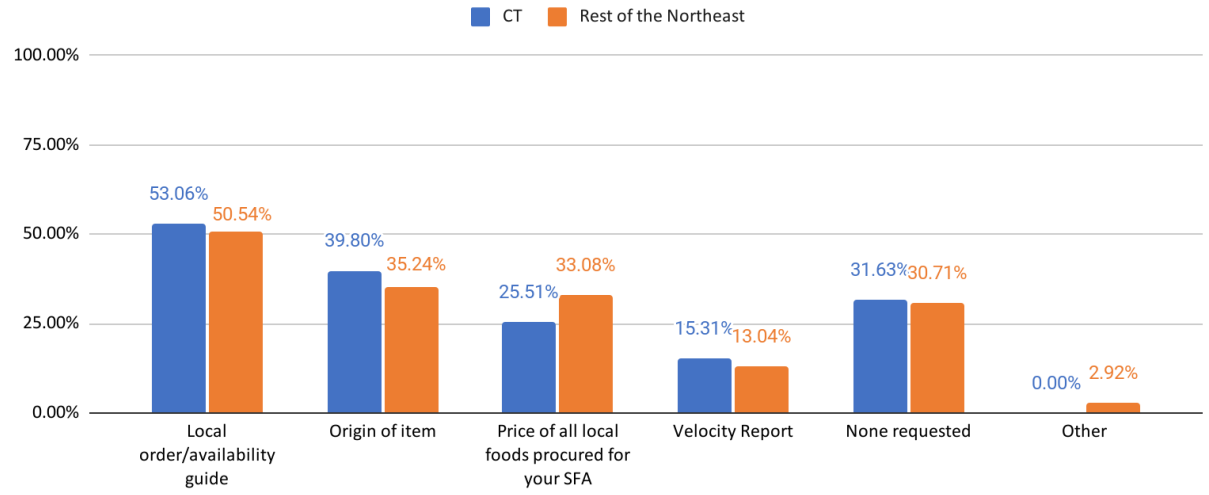
Figure A3.24 Tracking F2S Activities



NOTE: 52 respondents from CT out of 98 and 542 from NE out of 928

When asked about the types of reports they request from vendors, nearly a third of SFAs stated they never requested any. Over 50% of respondents requested a local order or availability guide, suggesting interest in actively procuring local food, while 40% of CT SFAs requested origin of the item reports, which is slightly more than the rest of the Northeast. Approximately a quarter of CT respondents stated that they ask for reports on the price of all local foods procured for their SFA, compared to 33% of the Northeast. Only 15% of CT SFAs and 13% of Northeastern SFAs requested velocity reports.

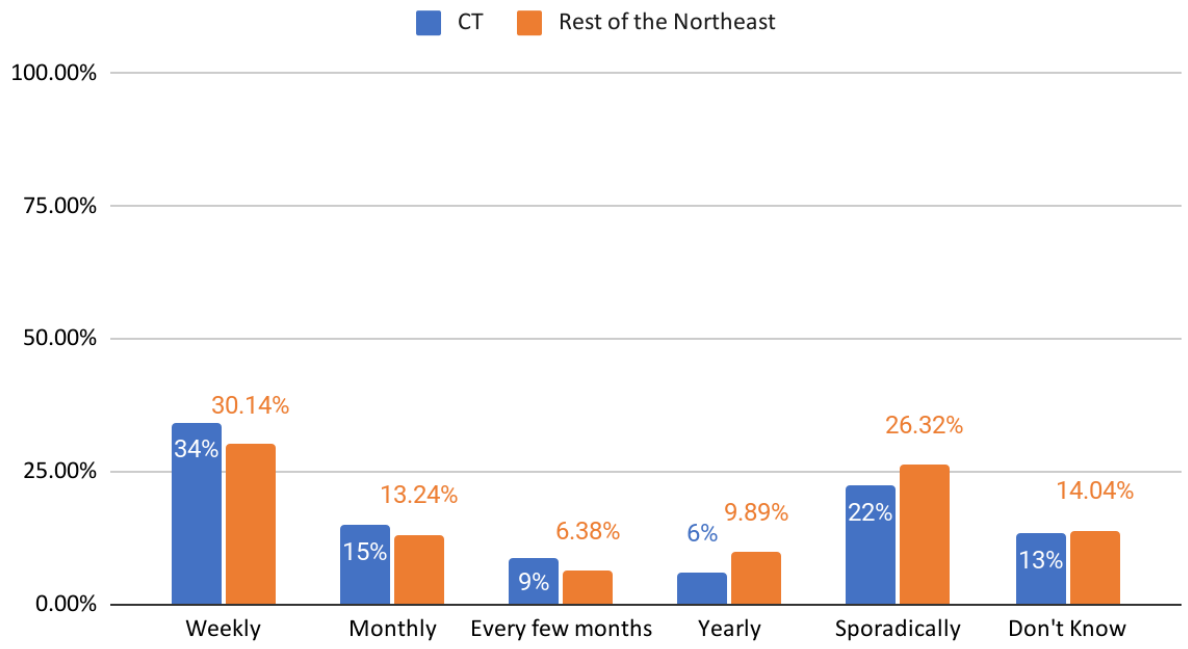
Figure A3.25 Reports Requested



NOTE: 98 CT SFAs responded (of 98) and 928 Northeastern SFAs responded (of 928)

Only 34% of CT respondents received these reports on a weekly basis. While it cannot be determined if this is due to a lack of requests on the part of the SFA or availability on the part of the distributor, most respondents stated vendors were able to provide reports when asked. The next most common response was that reports were received sporadically (22%) then monthly (15%). These results highlight that most SFAs are not receiving regular reports on their local food purchases, making accurate tracking of their procurement difficult. However, CT SFAs do appear to be receiving regular reports more frequently than the rest of the Northeast. They were also more likely to state that vendors were able to provide them with their requested reports.

Figure A3.26 Frequency of reports received



NOTE: 67 CT SFAs responded (of 98) and 627 Northeastern SFAs responded (of 928)

Figure A3.27 Are the vendors or the distributors able to provide the reports requested above?

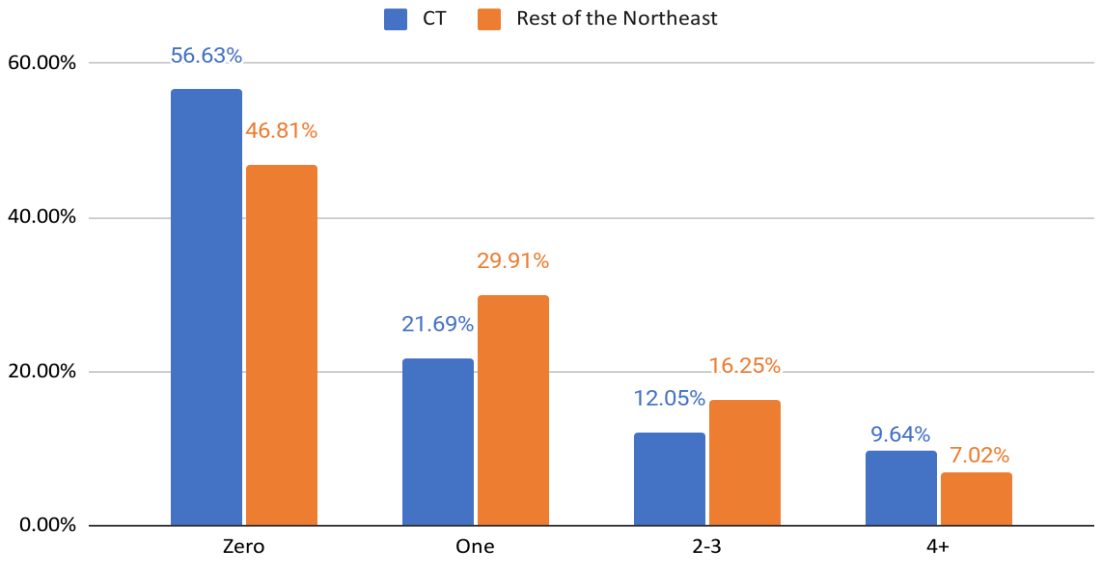
	CT	Rest of NE
Yes	73%	58%
No	0%	2%
Sometimes	27%	40%

Other Activities

SFAS were also asked about the edible school gardens in their districts as school gardens have been associated with benefits such as increased fruit and vegetable intake (Mateja et al., 2016). However, the majority of SFAs in CT (57%) had no edible school gardens, compared to 47% of other Northeastern SFAs. CT SFAs were correspondingly less likely to have any edible gardens relative to the rest of the Northeast. This is a potential area for growth in CT. While the most common uses for garden harvests were to serve the produce in meal programs or through educational activities, CT SFAs were less likely to do so. Instead, they

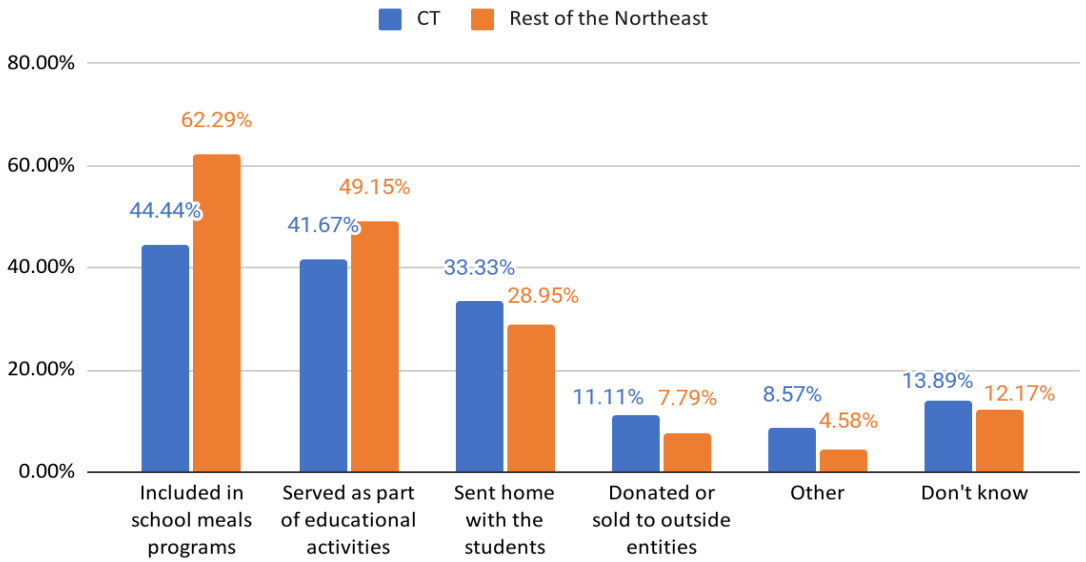
were more likely to send produce home with students or donate to outside entities. Thus, it appears CT SFAs could better connect cafeterias with gardening programs.

Figure A3.28 How many schools in your SFA had edible gardens?



NOTE: 83 CT SFAs responded (of 98) and 769 Northeastern SFAs responded (of 928)

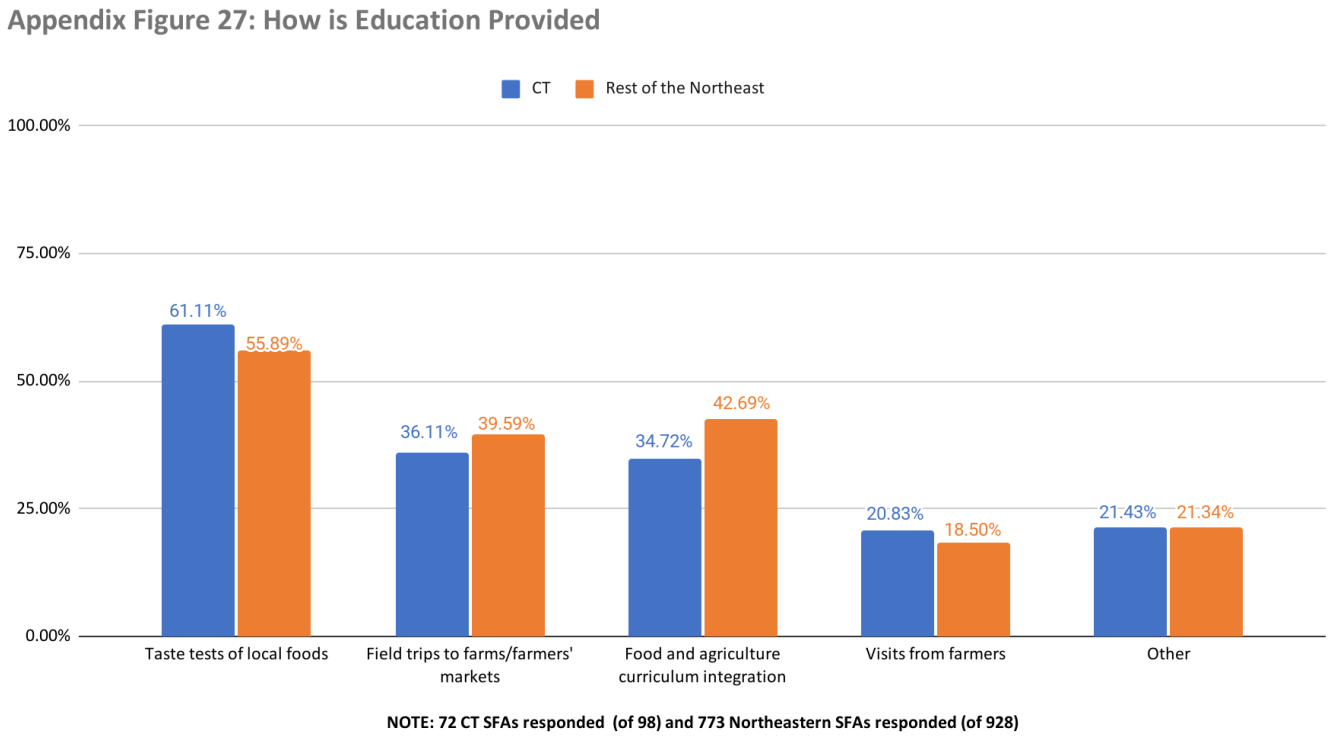
Figure A3.29 How garden Harvest is Used



NOTE: 36 CT SFAs responded (of 36) and 379 Northeastern SFAs responded (of 379)

SFAs were also asked how food, nutrition and agricultural education was provided to students. Over 60% of CT SFAs incorporated taste testing of local foods, as did 56% of SFAs in the rest of the Northeast. The next most common activities were farm field trips and curriculum integration, with slightly lower rates in CT. Less than ¼ of SFAs incorporated farmer visits, though we do not know if this is due to logistical reasons, student or educator preference, or some other factor.

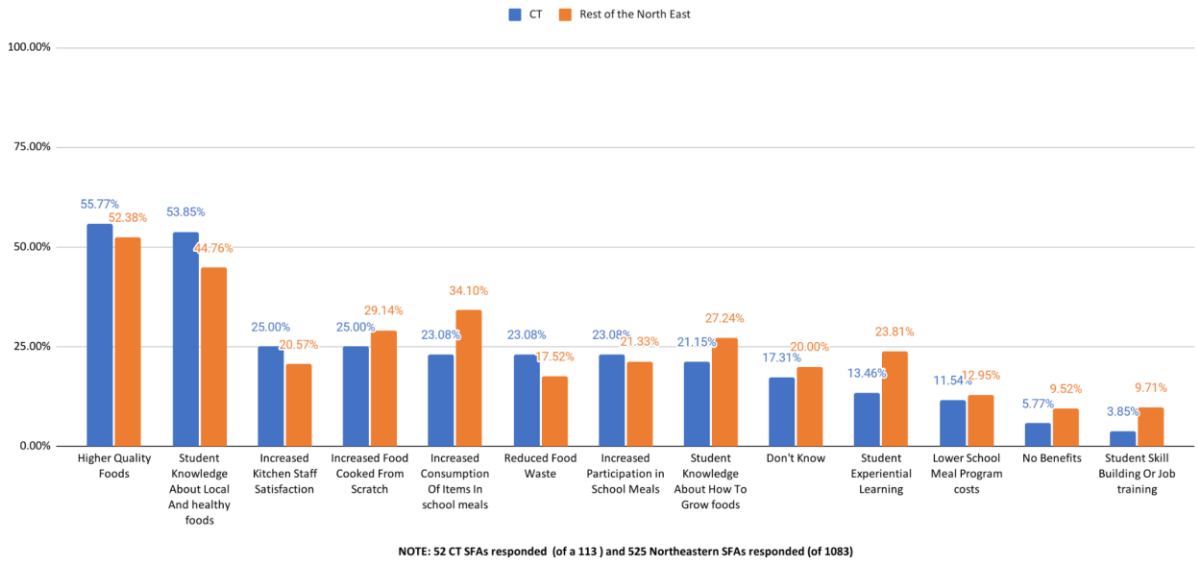
Figure A3.30 How is education provided



Benefits and Challenges

When asked about the benefits their SFAs have gained from participating in farm to school activities, the most common responses were the higher quality of foods and student knowledge about local and healthy food. A slightly greater proportion of CT SFAS selected these responses relative to the Northeast, as well as for increased kitchen staff satisfaction. However, this pattern reversed for increased scratch cooking and increased consumption of food items in school meals, which may be related if scratch cooking leads to higher quality menu items. While CT and Northeastern SFAs reported generally similar levels of satisfaction with increased participation in school meals, Northeastern SFAs were more likely to highlight increased student knowledge about how to grow foods and experiential learning. They were also more likely to mention the building of student skills.

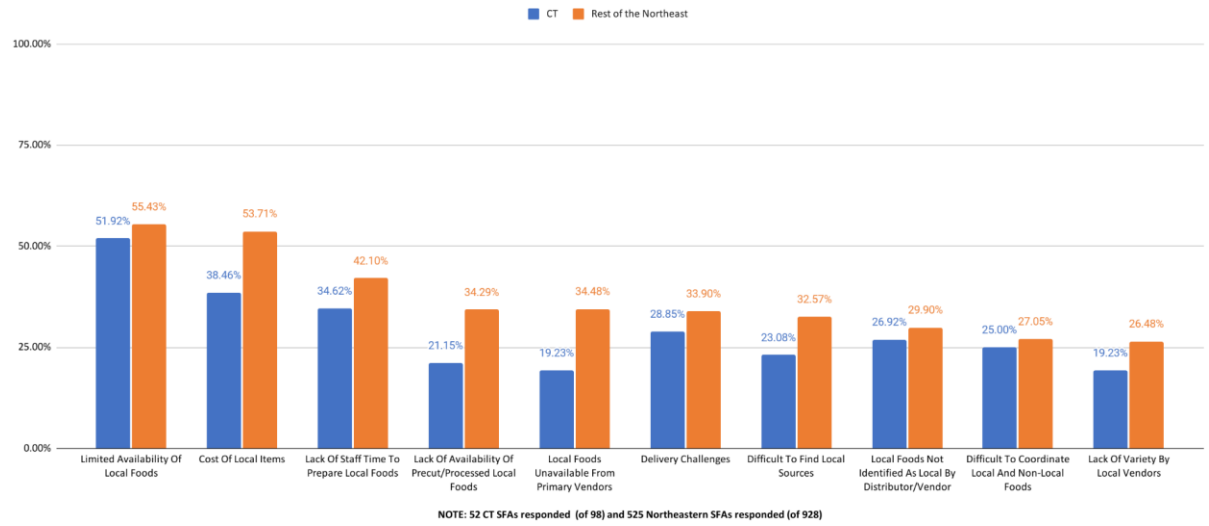
Figure A3.31 Benefits of farm to school activities



NOTE: 52 CT SFAs responded (of a 113) and 525 Northeastern SFAs responded (of 1083)

We next report the top 10 challenges experienced by CT SFAs. CT SFAs generally stated fewer challenges than their counterparts in the rest of the Northeast. The most common challenge reported by CT SFAs was the limited availability of local foods, only then followed by cost. However, only 38% of CT SFAs reported cost as a concern, compared to over 50% in the rest of the Northeast. Over a third of CT respondents noted that staff lacked the time to prepare locally procured food (35%), while less than ¼ were concerned with a lack of available precut vegetables. These results seem at odds with each other, but this pattern holds for the rest of the Northeast as well.CT SFAs also noted issues with delivery (29%), food origin identification (27%) and coordination of different food types (25%). SFAs also noted trouble with identifying sources and lack of availability and variety of local foods. Thus, while some barriers require additional funding or time, the majority are those that can be addressed through facilitation aid from outside organizations or agencies.

Figure A3.32 Challenges Experienced

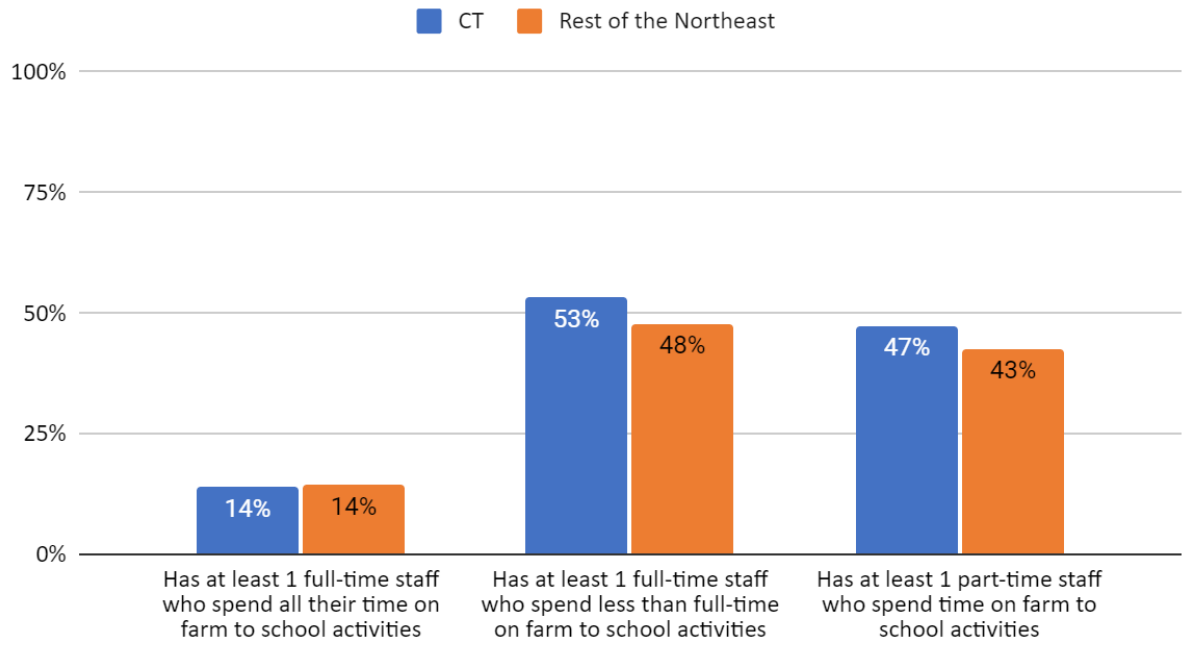


Facilitation

The majority of SFAs (86%) have no full-time staff members solely dedicated to F2S activities. Slightly more than half of CT SFAs have a full-time staff member that spends at least part of their time on farm to school activities, but it is not clear whether this represents staff members whose responsibilities include farm to school or staff members that are taking on additional duties. Slightly less than half of CT SFAs included at least one part-time staff member that spent some of their time on farm to school activities. Thus, most staff working on farm to school activities appear to be doing it on top of, or as part of, their main

responsibilities. This could suggest a need for a state farm to school coordinator, which has been proposed previously (Joshi et al, 2008), though a greater proportion of CT SFAs have part-time farm to school staff relative to the rest of the Northeast.

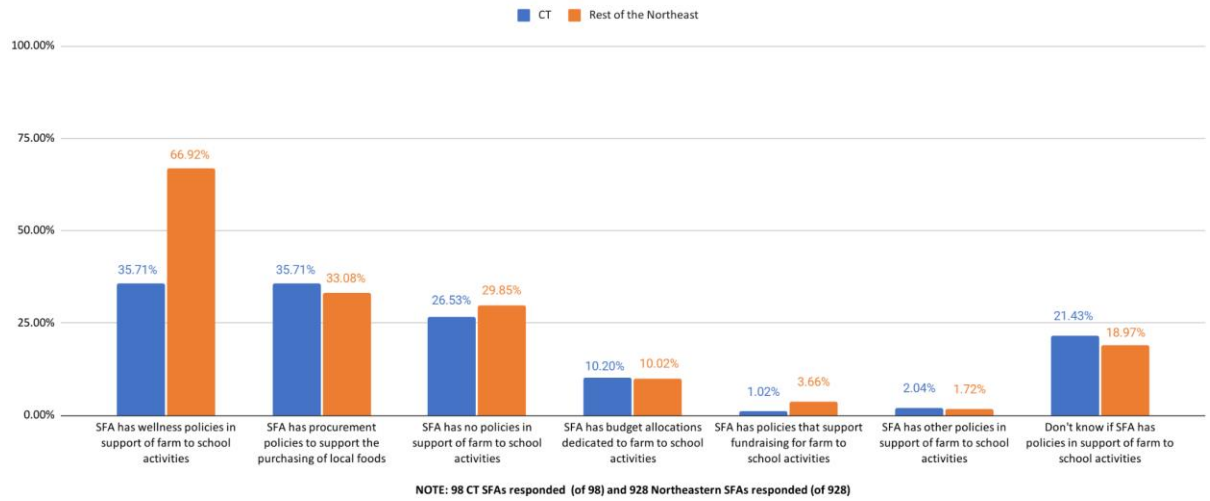
Figure A3.33 Number of staff dedicated to F2S activities



NOTE: 95 CT SFAs responded (of 98) and 913 Northeastern SFAs responded (of 928)

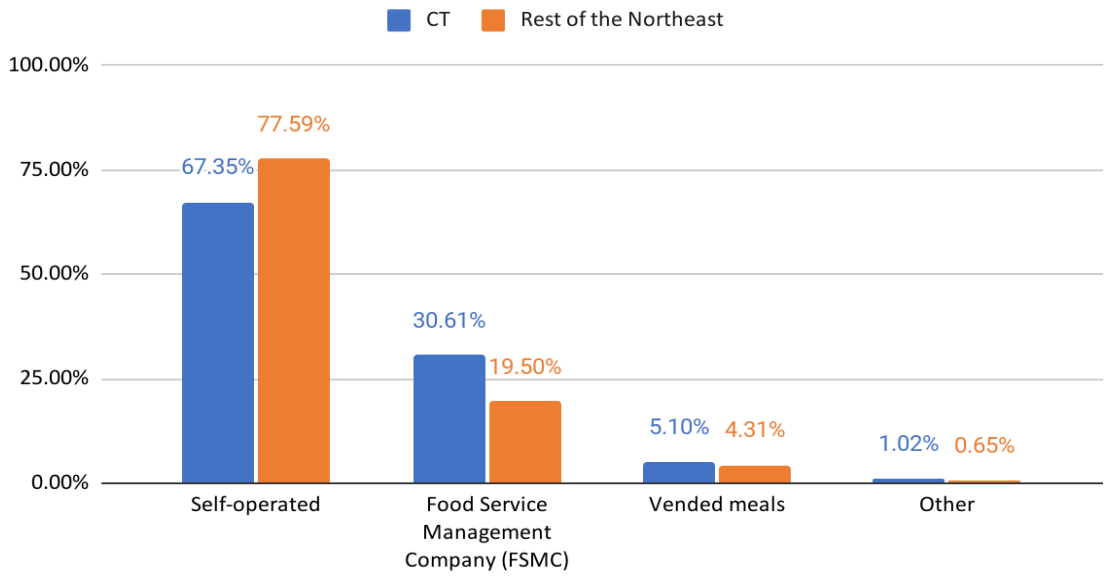
In line with the lack of farm to school staff, there also appear to be few policies that facilitate farm to school. The most common policies were related to wellness, though CT SFAs were half as likely to have this as the rest of the Northeast. However, responses were equally low for all SFAs regarding procurement policies (approximately 1/3 of SFAs had one). (34%), though CT had significantly fewer SFAs with wellness policies. Slightly more than ¼ of CT SFAs reported having no farm to school support policies at all, which is slightly lower than the rest of the Northeast. These results could suggest a potential ad-hoc or non-institutionalized nature of farm to school in many SFAs.

Figure A3.34 Policies dedicated to F2S



There is little prior research on the impact of food service management on farm to school programs. However, CT SFAs were less likely to have self-operated food service programs, and more likely to use a food service management company than in the rest of the Northeast.

Figure A3.35 How do SFA's handle food preparation



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