

Farm-to-School Programs: Perspectives of School Food Service Professionals

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ABSTRACT

Objective: This qualitative study used a case study approach to explore the potential of farm-to-school programs to simultaneously improve children's diets and provide farmers with viable market opportunities.

Design: Semistructured interviews were the primary data collection strategy.

Setting: Seven farm-to-school programs in the Upper Midwest and Northeast regions of the United States.

Participants: Seven school food service professionals, 7 farmers, and 4 food distributors recruited from 7 farm-to-school programs.

Phenomenon of Interest: Interviews probed why farmers, school food service professionals, and food distributors participate in farm-to-school programs and how they characterize the opportunities and challenges to local school food procurement.

Analysis: Data were analyzed using thematic coding and data displays.

Results: School food service professionals described 3 motivators for buying locally grown food for their cafeterias: (1) "The students like it," (2) "The price is right," and (3) "We're helping our local farmer." Students' preference for locally grown food was related to food quality, influence of school staff, and relationships with farmers. Buying food directly from farmers and wholesalers was associated with lower prices and flexible specifications, and the "local feel."

Conclusions and Implications: Understanding school food service professionals' motivations for buying locally grown food is critical to the sustainability of farm-to-school programs.

Key Words: farm-to-school program, qualitative methods, school food service, fruits and vegetables, children (*J Nutr Educ Behav.* 2010;42:83-91.)

INTRODUCTION

Farm-to-School programs are among the many efforts across the country aimed at improving the quality of school meals. These programs include a range of activities designed to connect children with local agriculture such as harvest festivals, field trips to farms, and educational visits from farmers. Integrating locally grown food into school meals has been described as the "cornerstone" of farm-to-school programs.¹

Health professionals agree that schools can and should play a key role in improving children's dietary habits.^{2,3} In addition to their ability to reach the majority of the nation's youth, schools are uniquely positioned to promote healthful eating because children eat a large share of their daily food while they are at school.^{3,4} Although the nutritional quality of school meals has improved substantially over the past decade, researchers say the overall school food environment continues to need

improvement.^{3,4} However, budget pressures have complicated schools' efforts to improve the quality of their food programs. School food service in the United States (US) is funded primarily by federal subsidies based on the number of meals served. Since participation in the school food program is not mandatory, schools need to serve as many meals as possible to generate the revenue needed for financial solvency. According to some researchers, the severe budget constraints of school food service generally have forced many schools to serve popular but sometimes nutritionally inferior food that is appealing to children.³

According to advocates, farm-to-school programs have the potential to improve children's diets, without posing a burden on school food service budgets, through increased access to fruits and vegetables.⁵ According to 1 report, buying produce directly from farmers allows schools to buy fresher food than they can purchase through their broadline

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distributors—one-stop shops that carry nearly all of the food, supplies, and equipment needed to operate a food service kitchen—while eliminating the transportation and handling costs associated with shipping food across long distances.⁶

As the percentages of children who are overweight reaches epidemic levels, another trend is taking place. In less than one hundred years, agriculture in the US has been transformed from one of small, family-owned and -operated farms that produced a diversity of commodities to one in which a handful of large, industrial-scale, specialized producers control the bulk of the food produced in this country.⁷ This trend toward concentration and consolidation in food production is reflected throughout what has become a global agrifood system.⁸ These structural changes have destabilized markets for farmers, especially those who are too big to take advantage of direct market opportunities such as farmers' markets but too small to compete in the global market.⁹ Scholars across diverse disciplines have argued that these agrifood system trends threaten the public's health as well as the environment and rural communities.⁹⁻¹¹ Farm-to-School program advocates have asserted that school food service represents a substantial and stable market for small- and mid-size family farmers who could sell their products directly to schools.⁵

Nationwide support for farm-to-school programs is increasing. The National Farm-to-School Network, a portal for information about and technical assistance resource for farm-to-school programs across the nation, estimates that more than 1,900 farm-to-school programs—up from 400 in 2005—across the country are connecting their students with local agriculture either through the cafeteria or the classroom.¹² Data remain scarce on how many school food service professionals (SFSPs) have integrated locally grown food into their cafeterias. Given the high level of interest in and rapid adoption of such programs across the country, an in-depth understanding of their opportunities and challenges is critical for enabling advocates to achieve their goals—providing viable market opportunities for farmers and improv-

ing children's health—and to minimize unintended or potentially contradictory outcomes.

The purpose of this study was to explore why SFSPs, farmers, and food distributors participate in farm-to-school programs and how they characterize the opportunities and challenges of local school food procurement. Our research focused on institutional sales because this dimension of farm-to-school programs appears to hold the greatest short- and long-term potential to improve children's diets and farmers' incomes. Although surveys of SFSPs' perceptions of farm-to-school programs have been conducted, they do not necessarily capture the perspectives of those individuals who have experience integrating locally grown food into their cafeterias. For example, only 10% of the SFSPs who responded to a Michigan farm-to-school survey reported having purchased food directly from a farmer within the prior year.¹³ Similarly, anecdotal reports, success stories, and how-to manuals that focus on integrating locally grown food into the cafeteria have largely been generated by academics and advocates of farm-to-school programs versus those who are directly involved in school food procurement. By using qualitative methods, this study sought to add depth to the understanding of farm-to-school programs by capturing and communicating the perspectives of SFSPs, farmers, and food distributors, 3 stakeholder groups who are directly involved in efforts to integrate locally grown food into the cafeteria. This paper focuses on the motivations of SFSPs; reports on the perspectives of farmers and distributors will be presented elsewhere.

METHODS

Research participants were recruited from 7 farm-to-school programs in the Upper Midwest and Northeast regions of the United States between January and April 2006. Seven SFSPs, 7 farmers, and 4 food distributors participated in the study. Farm-to-School programs were selected through maximum variation sampling, a purposeful sampling technique aimed at

capturing the central themes that emerge from diverse cases.¹⁴ The Upper Midwest and Northeast regions of the US were selected as the geographic boundaries of the study to capture a variety of distribution strategies for local food procurement, within an area that is climatologically similar. To maximize the variation of farm-to-school programs in the study, the authors constructed a matrix of programs that varied on school district and farm-to-school program characteristics. Eight programs were identified by key informants who were intimately familiar with programs in their respective regions. One SFSP did not return the authors' phone calls requesting participation in this study. Only those school districts that had been integrating locally grown food into their school food programs as a regular part of their food procurement routine for at least 2 years were included in the sample, a length of time the authors felt would allow stakeholders to articulate the opportunities and challenges of local school food procurement. SFSPs at 7 school districts were invited to participate in the study, as were the farmers and food distributors they identified as sources for locally grown food.

In-depth interviews were used as the primary data collection strategy. Procurement documents and other written material were also collected and examined to cross-check findings and enhance validity of the results.

Each research participant was interviewed twice by the first author. The first interview was conducted between January and April 2006, and a follow-up interview was conducted in March or April 2007. Table 1 provides examples of questions related to this manuscript. All interviews were taperecorded and transcribed verbatim. A semistructured interview guide was used to ensure that all questions were covered and to accommodate the limited amount of time with each of the participants. Probes and follow-up questions were asked to elicit depth of information and to follow up on leads initiated by the participants. The interviews lasted between 60 and 90 minutes and took place in the SFSPs' offices, although some questions were asked

Table 1. Selected Sample of Questions for Food Service Professional Interviews

Can you tell me about your farm-to-school program? How did it get started?
 How has it changed over the years?
 What are the goals of your food service program? How does your farm-to-school program fit into your goals?
 What motivates you to buy locally grown food?
 What are the challenges, if any, to buying locally grown food?

on tours of their food service operations.

This study was approved through the Human Research Protection Program at Michigan State University. For confidentiality, pseudonyms are used to identify the SFSPs, and all distinguishing characteristics were veiled to protect their identities. The data were analyzed in 2 stages. In the early stages of the study, while data were still being collected, memos were written after each data collection, emerging themes and concepts were identified, and codes were created. The codes were defined operationally and organized into a code dictionary that included the code name, definition, rule, and example for when each code should be applied. Interview transcripts were coded by the first author, and coding for a sample of transcripts was cross-checked by another researcher who was not involved with this study. Coding was an iterative process. New codes progressively emerged during the analysis, and those that were no longer appropriate were discarded and others were broken down into subcodes or refined. When major code changes were made, data that had already been coded were recoded with a revised dictionary.

After all of the interviews were coded, a series of displays for drawing and verifying conclusions about the data were developed. Displays allow researchers to reduce their data and systematically organize answers to their research questions.¹⁵ They increase the chance of drawing and verifying valid conclusions because they are arranged coherently to allow for careful comparisons within and across cases.¹⁶ Codes related to the SFSPs' motivations for buying locally grown food were identified, and passages associated

with these codes were extracted from each interview transcript. Codes and passages were compared across the 7 SFSPs and organized into a display, which in this case was a matrix that included motivations (columns) and school SFSPs (rows). For each cell, a quotation or summary phrase was first entered to indicate the relevance of the motivation for each SFSP. The data in the display were further reduced by using acronyms to indicate themes. Conclusions were drawn about each case and across cases by reading down the columns and across rows. Transcribed interviews and memos, as well as feedback from research participants and other individuals engaged in farm-to-school programs, were used to verify the authors' conclusions. A qualitative data analysis software package (Atlas.ti 5.2, Scientific Software Development GmbH, Berlin, Germany, 2006) was used to code the data, organize memos, and note patterns and themes. Data displays were created by hand.

RESULTS

Sample site and program characteristics are shown in Table 2. The farm-to-school programs were located in rural, urban, and suburban school districts, and student populations ranged from about 2,300 to more than 40,000 students. The free- and reduced-price lunch eligibility rates of the school districts ranged from about 30% to more than 85%. Six of the school districts had a warehouse or central kitchen where food could be received. One SFSP did not have central receiving and required farmers to deliver food to more than 15 individual school buildings. Three SFSPs indicated that they purchased locally

grown food directly from farmers. Four SFSPs purchased locally grown food through regionally based, mid-tier distributors that buy and sell food at a more regional level as opposed to broadline distributors that operate at a more national level. Two categories of regionally based, mid-tier distributors were identified: (1) produce wholesalers, referred to here as "wholesaler," and (2) distributors that sell produce plus other perishables, referred to here as "distributor." The 2 school districts with enrollment of over 20,000 purchased apples through wholesalers. Three school districts purchased locally grown food through distributors. Two SFSPs used a combination of strategies to purchase locally grown food that included both farmers and wholesalers or distributors.

Three major themes related to why SFSPs participate in farm-to-school programs emerged from the analysis. In the participants' own words: (1) "The students like it," (2) "The price is right," and (3) "We're helping our local farmer."

The Students Like It

The importance of offering children nutritious food that they will eat was emphasized by all of the SFSPs with whom the authors spoke. In addition to their need to comply with federal and local nutrition guidelines, the SFSPs talked about their goals to "encourage healthier choices at schools," to provide children with the "freshest possible food," and to "provide the best quality and nutritious food we can get to the kids we serve." Six of the 7 SFSPs emphasized that children liked the locally grown food items that were added to the menu, and the majority ($n = 4$) said that their students ate more fruits and vegetables when these were sourced from farmers and wholesalers. One SFSP who began buying apples and potatoes from local farmers in 2004 under pressure from parents extended her local food purchases to include butternut squash, asparagus, and a variety of fresh fruits after she witnessed the positive response from the children. She explained:

It used to be that I would stand around the cafeteria and when we would serve like a red delicious

Table 2. Selected Farm-to-School Program Characteristics

School District	Location	Site	Student Population	Free and Reduced-price Lunch Participation Rate (%)	Central Receiving	Distribution Strategy
Tulip	UM	R	11,136	30	No	Farm → school
Goosefoot	UM	U	23,295	81	Yes	Wholesaler → school
Gilliflower	UM	R	3,451	38	Yes	Farm → school
Petunia	NE	S	2,534	62	Yes	Farm → school
Osmunda	NE	S	2,375	36	Yes	Farm → school
Jonquil	NE	S	2,597	52	Yes	Distributor → school Farm → school
Bellflower	NE	U	41,089	87	Yes	Wholesaler → school Distributor → school

NE indicates Northeast; R, rural; S, suburban; U, urban; UM, Upper Midwest.
Note: School district names are pseudonyms.

apple, kids would put them on their plates because they were so shiny and pretty but then they would take one bite and the rest would go in the garbage. And that is not happening anymore. The kids are actually eating their apples, and if the kids aren't eating their apples at lunchtime, they're taking them with them, which, honestly, I'd never seen before. That kind of thing really prompts you, encourages you, to want to sell [local] stuff (Tulip School District, enrollment: 11,136).

Through analysis of themes and codes, it was found that within this broad category of “students like it,” there were 3 interconnected subcategories that related to this motivation: (1) quality, (2) influence of food service staff, and (3) relationships with farmers. These subcategories mediated the connection between students' food preferences and locally grown food.

Quality. The high quality of the products SFSPs were able to source from farmers and wholesalers was a common theme in the interviews. Six out of the 7 SFSPs interviewed compared the products they purchased from a farmer or wholesaler to those purchased through their broadline distributor and indicated that the former were often higher in quality. Freshness of product and flavor were used as indicators of quality.

Food that traveled long distances was seen as less fresh and of inferior quality than food that was locally grown. Whereas their broadline distributor purchased food from across the country, the SFSPs characterized locally grown food as being “picked yesterday” (Gilliflower School District, enrollment: 3,451). One SFSP in the Northeast, who had been buying a variety of fruits and vegetables from a farmer located less than 10 miles from her centralized kitchen for more than 10 years, described her experience:

Imagine, the pinkish hard tomato you can buy today, against [farmer's] luscious, juicy, warm from the earth, picked yesterday tomatoes. It's the quality of the food that really is the greatest benefit (Osmunda School District, enrollment: 2,337).

Another SFSP also compared the quality of food purchased from a nearby farmer with what she would be able to buy from her broadline distributor.

The cauliflower coming off of [broadline distributor] is very consistent sized, kind of small, there's no purple lines going through it or anything. It doesn't quite have the same color or size or yield as [farmer's] and obvious to the palate, it's not as fresh. I mean, you could taste a difference between something that's traveled and something that hasn't (Jonquil

School District, enrollment: 2,597).

Other SFSPs also used flavor as an indicator of quality that differentiated the food they bought from farmers and wholesalers from their broadline distributors. Flavor was tightly tied to the larger variety of product that was available through farmers and wholesalers. For example:

Kids eat more of these apples. Instead of getting a red Washington apple all the time they were getting different colors, different flavors, textures...a variety. And I think that makes a difference. (Goosefoot School District, enrollment: 23,295).

The Washington red delicious apple, a uniformly red apple that has become the quintessential school food service variety, was frequently evoked by the SFSPs to illustrate the quality difference between buying food from a farmer or wholesaler versus a broadline distributor. Larger distributors typically carry limited varieties of a product, such as apples, owing to their need to quickly turn over their products. Therefore, only those apple varieties with high enough demand, such as the red delicious, are regularly stocked. Although red delicious apples are attractive, shiny (from a vegetable wax coating), small in size (which students tend to prefer), and tend to be the most affordable apple variety that most broadline distributors carry, they are not the most

flavorful apple. Broadline distributors do carry other popular and more flavorful varieties, but they are often too expensive or too big for SFSPs, who are buying apples for children. The SFSPs interviewed in this study purchased a wide variety of apples from farmers and wholesalers including gala and empire apples, both of which are varieties valued for their sweet flavor, small size, and crunchy texture.

Influence of school staff. The majority of the SFSPs (n = 5) felt that staff played an important role in motivating students to try the locally grown food items on the menu. At Goosefoot School District, the addition of locally grown apples in the cafeteria generated excitement among teachers, who took their students on field trips to local apple orchards and allowed them to use school food to reinforce their classroom lessons. These teachers encouraged their students to eat the locally grown apples. For example:

It actually instilled some excitement with the staff. Some of our teachers were proud to be serving [state] apples. A lot of our teachers go to apple orchards so it was neat to have them served for lunch [. . .] so we had that link, cafeteria, classroom, field trip. I think they might have said something to the kids, and then the kids get a little more attention so they're like huh, maybe I should eat this apple instead of just letting it sit on the tray (Goosefoot School District, enrollment: 23,295).

One SFSP, a director of an urban school district with more than 60 schools, introduced blue potatoes to her menu and felt that staff encouragement made the difference in terms of which students were willing to try them. Those who tried them generally liked them.

In the [school], they really pushed [blue potatoes] from the instructional end of it. And the teachers were bringing in blue potato chips to show that this is the potato and then it becomes this and . . . try them. And truly, you really can't tell the difference [in taste]. But just getting the kids to the point where they would try them, we

needed the help of the instructional staff. So when we did, it worked. I didn't put them in all of the buildings and another manager said 'It did not go here at all. They wouldn't even touch them.' But we didn't have the instructional staff on board . . . So, that plays a role (Bellflower School District, enrollment: 41,089).

Five SFSPs felt that food service staff support for their farm-to-school program effort influenced students' consumption of locally grown food. The staff of 4 of the school districts began supporting the farmers who delivered product to their school districts with orders for their own personal consumption. At Osmunda School District, the SFSP described her staff as being proud to serve high quality food and that this pride had a "trickle-down effect" onto the students.

Relationships with farmers. Five of the farm-to-school programs studied had formed direct relationships between the farmer and the school, and 4 SFSPs talked about the importance of this connection. This relationship gave food "the local feel" (Tulip School District, enrollment: 11,136) that these SFSPs felt influenced students' consumption of these food items and their staff's support for the program. The connection between students and farmers was made informally when farmers dropped off their product and formally through farmer visits to the cafeteria, point-of-sale signs and placards in the cafeteria, announcements in school newsletters, and menu symbols denoting which products came from local sources. At Tulip School District, the farmer made weekly deliveries to individual school buildings. During his deliveries, he "walked the halls" to help students understand that the apples served in the cafeteria were grown and delivered by a farmer. According to the SFSP, this connection was critical to students' preference for these food items.

I think the fact that [children] know that it's local and they know where it came from, and they know it's from [farmer], the apple guy, or whoever it is . . . I think that does play a big role in

the participation [in school lunch]. Because if you don't market it as local, I don't think the kids—I think they would take it or not take it just like they did any other food item and not even think twice about it [. . .] it's hard to say that participation rates go up just because of local foods, but it's for sure a fact that if you are promoting something local and kids know where the food came from, and they know that it tastes good, they will take more of it (Tulip, enrollment: 11,136).

Similarly, 1 SFSP who has been buying food from a nearby farmer for 10 years tied locally grown food to "cool food" (Jonquil School District, enrollment: 2,597). The relationship between the farmer and students turned the farmers' fruits and vegetables into cool food. She explained:

The kids just love [farmer]. He's one of the coolest guys in the world. And if we're able to do that, it becomes a cool food and kids like cool foods, you know. They don't want things that aren't cool (Jonquil School District, enrollment: 2,597).

Thus, the symbolic meaning of the food was seen as a key factor in students' food choices.

The Price is Right

All 7 of the SFSPs were motivated to continue buying food from their farmers and wholesalers because these products were priced competitively with and were often priced lower than comparable products carried by their broadline distributor. This price differential, even when small, was seen as a benefit of buying locally grown food. All 7 SFSPs talked explicitly about the advantages of shortened supply chains. When food is purchased through a broadline distributor, the transportation and handling costs for each of the middlemen (eg, brokers, wholesalers, shippers) is included in the price. Shortening the supply chain through farm-direct purchases helped SFSPs save money on typical school food items such as apples and made expensive items such

as asparagus more affordable. For example:

I wouldn't order asparagus from [broadline distributor] because that would be too expensive. And I think what I paid for [farmer's] asparagus last year was \$1.48 a pound. The cheapest I've ever seen it at [supermarket] is \$1.99 a pound. So, it was still an expensive vegetable to have, but we made sure every child had 1 piece. I mean, just to try it because most of them have never [tried it] (Petunia School District, enrollment: 2,534).

In addition to savings associated with shortened supply chains, lower prices were influenced by product specifications. Whereas broadline distributors must use standardized product specifications to serve their broad customer base, the farmers and wholesalers interviewed had more flexibility. Because of the nature of their operation, broadline distributors carry only products that meet US Department of Agriculture standards for Extra Fancy and Fancy grades and their own internal standards of quality. In addition, the product must be packaged in boxes with cardboard trays and foam liners, all of which adds to the final price. The SFSP at Osmunda School District explained that schools do not necessarily need the extra services provided by broadline distributors. For example, since the apples are not traveling far and handling is minimal, they can be packed loose in a box, saving \$2.00 per case. These boxes were often returned to the farmer, which helped to keep prices low and contributed to farmers' profits. In addition, depending on how the food will be used, a "perfect" product is not always needed. She said:

I think schools are great markets for food that shouldn't be in retail. I will take the outsize apples. [Farmer] will bring me bushels of apples, the tiny ones, and that's great for our kindergarteners, our first-graders. We sort them out and the big ones children here [middle school] love so I think we're a great market for off-size. We don't need the perfect-sized apple. That's great for retail, that's what sells. But in schools, we can take

the carrots that have "s" in them because we'll clean them, we'll take the skin off, and then we'll chop them up and it doesn't matter to us. They'll end up in the homemade soup that day, or on top of salad. So for us, we're a good market and I don't think farmers realize that (Osmunda School District, enrollment: 2,337).

A second SFSP further illustrates the price advantage of flexible specifications with her experience of buying broccoli directly from a farmer. She explained:

With the farmer, I could specify what I wanted. I said I didn't want a whole lot of stalk because I wasn't buying it by the pound, I was buying it by the crate, so he cut that down for me. . . . And then I didn't want a twist tie on it. You know how broccoli comes like that? And I didn't want that because that would have been an extra labor step for me. So I could specify that, which was a pretty good thing. But he asked me about that. I wouldn't have thought of that. That wasn't my idea, it was his idea. So that was pretty good because you could specify pretty much what you wanted (Petunia School District, enrollment: 2,534).

Direct relationships with farmers and wholesalers also allowed SFSPs to take advantage of products that farmers needed to sell quickly. Produce is perishable, and when farmers were not able to sell it through their other market outlets, they sold it to schools, directly or indirectly through a wholesaler, for a low price. This strategy, also known as opportunity buying, allowed SFSPs to buy food items that are not typically offered in the cafeteria such as butternut squash, Asian pears, and blue potatoes at below market value, and they gave farmers a market for their product.

Two SFSPs found that at times, prices for products such as tomatoes were higher when purchased directly from a farmer than through their broadline distributor. However, because they were able to get a higher yield with their farmer's product, the price per serving was lower than a comparable product purchased through their

broadline distributor. The higher yield was attributed to the high quality of the product, which resulted in less waste. This tactic, which one SFSP called "yield testing" or "creative purchasing" (Jonquil School District, enrollment: 2,597), was used to justify purchasing directly from a farmer. "Creative purchasing" provided a way for these SFSPs to follow procurement regulations, which placed priority on price, while still supporting their local communities.

We're Helping Our Local Farmers

The final theme that emerged from this analysis suggests that the SFSPs interviewed were motivated to participate in farm-to-school programs because they hoped they were "helping our local farmers" (Bellflower City School District, enrollment: 41,089). All but 1 SFSP talked explicitly about their farm-to-school program as a way to connect students to the source of their food—where it was grown and the farmer who grew it—and the importance of supporting the local community. However, SFSPs' desire to support local farmers went beyond using their procurement decisions as an educational tool. They expressed genuine concern about farmers' livelihood, which at times was based on sympathy or empathy. For example:

I just get a really good feeling. When I see [farmer] and just knowing that we're helping a local guy out. I mean, he's just trying to make it just like anyone else. And it's nice to know we're helping him. And I guess I just get a good feeling about that (Gilliflower School District, enrollment: 3,451).

The SFSPs' regard for farmers is evident in this comment as well as others expressed throughout the interviews. For example, when asked what she would do if 2 of her farmers both had tomatoes to sell, 1 SFSP indicated her support for both farmers by saying, "I would probably buy a little from each" (Petunia School District, enrollment: 2,534). Another SFSP said that even though she was supposed to select vendors through a competitive bidding process, she

would find a way to continue supporting her current farmers.

The majority of the SFSPs did not tie their procurement decisions to larger food system trends and instead expressed a strong desire to support “their farmers”—those who were already supplying them with fresh fruits and vegetables. Two SFSPs articulated a more long-term view. For example:

I think we've got 2% of our population on farms and that's real close to zero, you know? That's frightening. That frightens the hell out of me. I want my grandkids to go to a farm and buy food, not have it manufactured and I don't think people really understand the risks and the things that are going on with our food system right now. There's an awful lot to our quality of life that depends on those farms, especially the small farms (Jonquil, enrollment: 2,597).

The concerns expressed by the SFSPs were an important motivator for their local food procurement efforts. Buying locally grown food, especially directly from a farmer, required extra effort that the SFSPs did not feel their peers would be willing to exert unless they had some level of concern for farmers or the food system. As the SFSP at Jonquil School District (enrollment: 2,597) summed up, buying locally grown food is “not just a business decision.”

DISCUSSION

This study suggests that SFSPs' motivations to buy locally grown food are diverse and complex. The broad themes—“The students like it,” “The price is right,” and “We're helping our local farmers”—create the illusion of independent categories. However, these themes are very much interrelated and together illustrate SFSPs' efforts to balance their child nutrition and financial goals with their desire to support their local community.

Recent quantitative studies have highlighted the fact that SFSPs perceive that one important benefit of farm-to-school programs is the support it provides the local community.^{13,17} These studies were designed to gather data on SFSPs' perceptions of local school food procurement and to col-

lect operational information such as purchasing practices and preferences.^{13,17} Both studies asked respondents to select or rate potential benefits from a list generated by the researchers. A study of SFSPs in Iowa, Kansas, Nebraska, and Minnesota reported that another perceived benefit of buying locally grown food was enhanced public relations.¹⁷ In addition, schools in communities of fewer than 1,000 people rated ability to purchase smaller quantities of food, availability of fresher food, and availability of safer food as important benefits, suggesting a stronger link with agriculture in more rural communities in the Midwest.¹⁷ Izumi et al reported that in addition to supporting the local community and economy, SFSPs in Michigan would be motivated to buy locally grown food for their school food program because doing so would allow them to access fresher and higher quality food, generate good public relations, and purchase smaller quantities.¹³ The clear connections between buying locally grown food and supporting the local community, fresher food, and higher quality food were observed in the present study of 7 SFSPs. However, good public relations, ability to purchase smaller quantities, and safer food were not strong themes in this study.

To the authors' knowledge, no other peer-reviewed qualitative studies have examined SFSPs' perceptions of farm-to-school programs. Clearly the perspectives of the SFSPs interviewed in this study tend to confirm anecdotal reports suggesting that such programs benefit both SFSPs and children.^{5,6} According to Tropp and Olowolayemo,⁶ direct relationships with local farmers have allowed some SFSPs to obtain fresher food than they would normally be able to buy through their long-distance suppliers. Other benefits included decreased transportation and handling costs and a greater variety of produce—especially highly perishable or specialty items, which are typically available only through broadline distributors at a high cost. One SFSP quoted in their report said she noticed an increase in fresh fruit and vegetable consumption among her students after she began buying these food items from local sources.⁶ She attributed the change to the increase in variety of fruits and vegetables she was able to of-

fer after she began working with local farmers through the Department of Defense Fresh Fruit and Vegetable Program, part of the US Department of Agriculture commodity entitlement program.

The findings of this study add depth and complexity to the link between locally grown food and children's food preferences that has been observed by others.^{5,6} The SFSPs the authors spoke with associated children's preference for locally grown food with the superior quality of the products they were able to buy from farmers and wholesalers. They explicitly stated that this same level of product quality was not available or affordable through their broadline distributor because of the inflexible specifications of large food distribution companies. Variety, flavor, and freshness were used as key indicators of quality. In addition to and related to quality, relationships with farmers appeared to have an important direct and indirect influence on children's food preferences. Relationships between children and farmers changed the symbolic meaning of locally grown food to “cool food.” Relationships between food service staff and farmers generated support for farm-to-school programs, which some SFSPs speculated had a “trickle down effect” onto students.

The finding that the price of locally grown food sourced through a farmer or wholesaler was competitive with and often cheaper than food carried by broadline distributors runs counter to the common perception among SFSPs that locally grown food is costly.^{13,18,19} Shortened supply chains and relationships with farmers and wholesalers were important variables that made these food items affordable. It is important to note that none of the locally grown food purchased by the SFSPs was certified organic, which is typically cost prohibitive for schools. In addition, lightly processed items such as washed and chopped lettuce, or peeled and cubed butternut squash, is generally more expensive than whole, unprocessed fruits and vegetables. All 7 of the SFSPs interviewed already had, if needed, the equipment and labor necessary to prepare whole fruits and vegetables and therefore did not have to pay the extra costs associated with lightly processed

items. The additional labor and equipment needed to prepare whole fruits and vegetables has been shown by others as a barrier to local school food procurement.¹⁹

As described in previous studies and reports, food distributors can play an important role in farm-to-school efforts.^{13,17,20} They allow schools that are already buying food directly from farmers to expand their local food purchases and make these food items available to schools that do not have the capacity for or interest in farm-direct procurement. However, the perspectives of SFSPs in the present study emphasize that not all food distributors are equal in terms of the products and prices that they are able to offer. Critically, the present analysis shows that there are ancillary benefits, such as lower prices, flexible specifications, and the “local feel,” that came with the personal relationships with farmers and wholesalers. The perspectives of the SFSPs interviewed suggest that these benefits may be compromised when locally grown food is sourced through long, complex food supply chains such as those that involve broadline distributors. As such distributors seek to take advantage of the growing niche market of local school food procurement, SFSPs should be aware of the advantages and disadvantages of buying locally grown food through different types of intermediaries.

Although 4 of the 7 SFSPs interviewed identified regionally based, mid-tier distributors as one of their sources for locally grown food, the benefits or motivators they mentioned were primarily associated with produce wholesalers but not the distributors who carried produce plus other perishables. The latter are family-owned and -operated distributors that buy food from local farmers whenever possible, in large part to capture the benefits—decreased costs and higher quality—that come with reduced transportation time.²¹ During the growing season in the Upper Midwest and the Northeast regions (approximately May through October), 25% to 80% of the produce these distributors carry is grown locally.²¹ Thus, SFSPs who purchased food from these distributors were *de facto* buying locally grown food even if they were not always aware of the

fact that they were doing so. It is not clear why the SFSPs did not talk specifically about the locally grown foods that they purchased through these distributors. However, since these distributors did not always market their locally grown products as “locally grown,” it is not surprising that the SFSPs did not associate those products with their farm-to-school program efforts. Regionally based food distributors are important farm-to-school stakeholders and may be strategically positioned to meet the small and large volume local food needs of school food service.²¹ Since the perspectives of the SFSPs interviewed suggest that direct or indirect relationships between farmers and food service staff and children may influence children’s consumption of locally grown food, the development of effective tools to retain or create these relationships via food distributors will be important.

This study has several limitations. First, the small sample and maximum variation sampling technique used means that the present findings cannot be generalized beyond the 7 farm-to-school programs studied. The participants were identified through key informants and thus, the motivations discussed may not be relevant to other SFSPs. The rich descriptions of the SFSPs’ experiences allow readers to assess the relevance of this research to other farm-to-school programs. Second, the results may be biased by the set of questions asked, as well as by the analysis. To minimize the effect of such bias, open-ended questions were asked, and coding and analysis were cross-checked by a researcher who was not involved with the study. Third, the interviews were conducted in the spring, when the SFSPs were not buying a whole lot of, if any, locally grown food. It is possible that had they been interviewed in the fall when they were at their peak in terms of local food procurement, their responses might have been different. Finally, the terms “farm-to-school program” and “local school food procurement” were used interchangeably throughout data collection and analysis. However, the research participants in this study may not have equated the 2 terms. When the authors were uncertain about how participants’ used the terms “farm-to-school pro-

gram or “local school food procurement,” they made follow-up phone calls for clarification.

IMPLICATIONS FOR RESEARCH AND PRACTICE

This study demonstrates that SFSPs buy locally grown food because doing so helps them to balance their need to meet their food service program goals with their desire to support their local community. Relationships with farmers and vendor characteristics emerged as important variables that may have contributed to the benefits that these food service professionals expressed. This study suggests a relationship between locally grown food and potential benefits such as increased consumption of fruits and vegetables among children. However, much more research is needed to better understand how these and other variables influence children’s short- and long-term dietary habits so that supportive programs and policies can be developed. This study also emphasizes the need for SFSPs to understand the advantages and disadvantages of buying locally grown food from different intermediaries as well as their own motivations (eg, improving children’s fruit and vegetable intake) and interest in local food procurement. More research is needed on how different types of intermediaries influence the benefits attributed to farm-to-school programs. Finally, whether buying locally grown food directly from a farmer or through a food distributor, connecting children and food service staff to the source of their food—where and how it was grown and who grew it—appears to be a key mediator between locally grown fruits and vegetables and children’s consumption of these food items. Therefore, as schools increasingly look to distributors for their local food needs, educational materials that retain or create a link from farms to schools will be important.

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SUPPLEMENTARY DATA

Supplementary data associated with this article can be found, in the online version, at [doi:10.1016/j.jneb.2008.09.003](https://doi.org/10.1016/j.jneb.2008.09.003).

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