



School Food Learning Lab in Saint Paul, Minnesota: A Case Study of Procurement Change in Action

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This document was prepared for School Food FOCUS, a program of Public Health Solutions, by:



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Executive Summary

School Food FOCUS (FOCUS) is a national collaborative that leverages the knowledge and procurement power of large school districts to make school meals nationwide more healthful, regionally sourced, and sustainably produced. Funded by the W.K. Kellogg Foundation and launched in late 2008, FOCUS aims to transform food systems to support students' academic achievement and lifelong health, while directly benefiting farmers, regional economies, and the environment.

Through one of its central programs, the School Food Learning Lab, FOCUS engages selected school districts in collaborative research to discover methods for transforming food options. Each Lab brings school food service professionals and their district partners together with research and technical assistance to study and work on specific procurement goals. The School Food Learning Lab analyzes food supply and demand and changes in food procurement practices, and documents the process, including results and lessons learned. The Learning Lab helps districts make needed changes—setting them up for long-term, continual transformation and catalyzing changes in mindset, relationships, and perceptions of what is possible. The Labs also create valuable learning experiences and transmit emerging practices to the school districts participating in FOCUS.

As the first of three pilot projects, Saint Paul Public Schools (SPPS) joined the Learning Lab in fall 2008 along with its district partner, the Institute for Agriculture and Trade Policy (IATP). Together, they identified four procurement change goals: (1) milk produced without artificial growth hormones and lower in added sugar content, (2) more fresh local produce, (3) whole grain hamburger and hot dog buns, and (4) local and sustainably produced poultry.¹

Along the way the Saint Paul Learning Lab experienced some easy wins and exciting new opportunities, along with challenges that required creative solutions and the mobilization of School Food FOCUS's national network to influence industry. By the close of its 18-month Learning Lab period, the Saint Paul Learning Lab:

- Developed a formal bidding process through a Request for Proposals [PDF] for vendors to increase the percentage of locally grown produce used in school meals.
- Worked creatively with local producers and processors to incorporate more local produce into menus.
- Reduced the sugar content of flavored milk [PDF] served at SPPS and in school districts across the state of Minnesota.

¹ This was later narrowed to fresh, raw chicken, instead of all poultry.

- Negotiated with a national manufacturer that supplies schools nationwide to transition from 100 percent white to 53 percent whole-grain hamburger and hot dog buns.
- Contracted with a local poultry producer to source raw chicken drumsticks and developed a protocol for cooking them from scratch.
- Created "Minnesota Grown" educational materials for the lunchroom to educate students about the local food system and where their food comes from.
- Discussed product specifications and explored avenues for partnership with regional bison suppliers and tested recipes for dishes made with bison.
- Began to source specialty produce from a consortium of local, small-scale Hmong growers.

Although they will be working more independently on their procurement change goals, Saint Paul Public Schools hopes to continue to make progress on each of these items and more in their ongoing effort to serve more healthful, more regionally sourced, and more sustainably produced food for their school meal program. Although it is not in the scope of this analysis to document, FOCUS researchers and evaluators will continue to monitor and collaborate with SPPS in their efforts, including circling back with the school district to interview them and assess the viability of changes over time.

I. Introduction

School Food FOCUS is a national collaborative that leverages the knowledge and procurement power of large school districts to make school meals nationwide more healthful, regionally sourced, and sustainably produced. Funded by the W.K. Kellogg Foundation and launched in late 2008, FOCUS aims to transform food systems to support students' academic achievement and lifelong health, while directly benefiting farmers, regional economies, and the environment.

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The School Food Learning Lab

A central component of School Food FOCUS is the School Food Learning Lab, comprised of selected school districts, their partners, researchers, FOCUS staff and consultants. The Learning Lab provides technical assistance and research support for analyzing school meal procurement practices in an intensive and participatory learning environment. Its overall goal is to enact research-based and peer-tested, strategic, and innovative changes in school meal purchasing practices that will have local, regional, and national impacts.

The Learning Lab's central tenet is its participatory approach to research that ensures that school food service professionals are directly involved in the research and decision making process. In addition to technical and research support, participating school districts receive a \$50,000 stipend over their 18-month commitment. They also select local organizations – known as school district partners – to participate in the Learning Lab. School district partners vary and thus bring a range of expert knowledge on local food system issues that can advance the school district's work. Partners include local nonprofits, health departments, state departments of agriculture, and mayoral offices. School district partners may bring a unique perspective to the team, provide logistical and content-area support, increase the visibility of the changes made within the community, and enhance the sustainability of changes over time.

II. A Closer Look at Saint Paul Public Schools and its Nutrition & Custodial Services

Saint Paul Public Schools (SPPS), in Saint Paul, Minnesota, was the first pilot for the Learning Lab. SPPS was interested in being a Learning Lab because it wanted to increase momentum toward achieving healthier and more sustainably produced food and realized it needed assistance to do so. The district also realized that to make substantial changes, it would need to allot more time, resources, and focused attention to its sustainability goals. For School Food

FOCUS, SPPS represented a sound choice as a Learning Lab because it was already engaged in making changes toward sourcing more healthful, regional, and sustainable school food. In addition, the district had already demonstrated commitment in exploratory meetings as the FOCUS collaborative was forming.

Saint Paul Public School's population of approximately 39,000 students is highly diverse. In 2008/2009, students were reported to speak over 70 languages and dialects at home, and 29% were Asian, 30% were African American, 26% were Caucasian, 13% were Hispanic, and 2% were Native American. 70% of the students were eligible for free and reduced price meals. Including free, reduced, and paid meals, overall school meal participation rates in 2008/2009 averaged 77% for lunch and 36% for breakfast [of adjusted daily enrollment] (Table 1).

Table 1

Participation and Enrollment					
		2006/2007	2007/2008	2008/2009	2009/2010
Participation	Lunch (%)	76%	76%	77%	75%
	Lunch (average lunches per day)	28,875	28,528	27,746	27,886
	Breakfast (%)	37%	37%	36%	43%
	Breakfast (average breakfasts per day)	14,147	13,667	13,169	15,944
Total Enrollment		40,543	39,550	38,469	39,240
Adjusted Daily Enrollment	(Total enrollment x Attendance factor)	38,232	37,296	36,276	37,082

Within the School District there are 63 schools, including 49 elementary schools, seven middle schools, and seven high schools. The School District has closed campuses and Provision II Breakfast funding at 47 of its 63 sites. At these 47 sites, all students are provided breakfast at no charge because at least 63% of the students are eligible for free or reduced price meals. SPPS provides Breakfast to Go¹, Summer Food, and Afterschool Programs, and is piloting a Fresh Fruit and Vegetable Program (FFVP).

The School District has a central commissary with a cook-chill kitchen that prepares items from scratch² in batches and then ships out to individual schools once daily. The central kitchen

¹ Started in 2009/2010

² Traditionally, scratch cooking refers to cooking when starting with basic ingredients and doing the preparation (chopping, mixing, kneading, etc.) and cooking (steaming, baking, sautéing, etc.) instead of using processed foods such as pre-made mixes, sauces, and fully prepared entrees. The term is sometimes used interchangeably with "homemade".

handles produce and brown box commodities³, and SPPS food service staff prepare items at the central kitchen such as whole wheat French bread and pizza crusts, cookies, desserts, breakfast breads, “Good to Go” wraps and sandwiches, sauces, gravy, lasagna, meatloaf, and pastas. A limited number of items are sent directly from suppliers to the school sites—instead of the central kitchen—including milk, juice, and hamburger and hot dog buns.

I. Composition and Philosophy of the SPPS School Food Learning Lab

The Saint Paul School Food Learning Lab was comprised of the following: SPPS food service staff, in particular the Food Service Director and the Purchasing Analyst; a Learning Lab Manager (a School Food FOCUS staff member) who provided project coordination and management; university researchers from Michigan State University who provided content area expertise in agriculture economics and food systems analysis; a school district partner agency, the Institute for Agriculture Trade Policy (IATP) which acted as the project liaison and provided technical support and knowledge in the local food system; and an evaluation team from the University of California, Davis, which provided project reflection and real-time evaluation (Table 2). This structure advanced the school district’s agenda because it created a system for shared responsibility and division of tasks, ensured a diversity of opinions and ideas were at the table, and provided a team of knowledgeable experts. Each member of the Learning Lab team brought with them critical knowledge and skills to the process, ensuring maximum likelihood of success.

The Learning Lab benefited from a strong and pre-existing working relationship between SPPS and their school district partner, IATP. This good rapport enabled the whole Learning Lab team to build momentum faster than within projects where entirely new relationships must be formed before substantial work can begin.

It was important that team members fostered an environment conducive to co-learning and knowledge co-creation. It was hoped that by working on priorities identified by SPPS and by employing a participatory approach to research, the Learning Lab’s end results would be more useful, practical, and sustainable over time. Within this participatory approach to research, it was decided that the school district should be the primary decision maker and could call all of the final shots, while the rest of the team would provide support and help with the research and investigative work to make changes possible.

³ According to the School Nutrition Association, “‘brown box’ commodities is an unofficial name for further finished products which USDA purchases for Recipient Agencies, like canned or frozen fruits and vegetables, batter breaded chicken, sliced cheese and turkey taco meat. Generally, these products are not diverted to processors for further processing, but it is done on some items like frozen fruit to be made into pies or cups, or to a ‘pre-platter’ that assembles multiple food items to create whole meals for districts.”

Table 2

Saint Paul Public Schools Learning Lab					
Team Member Role	School District	Community Partner	Learning Lab Manager	Researchers	Evaluators
Affiliation	Saint Paul Public Schools, Nutrition and Custodial Services	Institute for Agriculture Trade Policy (IATP)	School Food FOCUS	Michigan State University	Agricultural Sustainability Institute, University of California Davis
Responsibility	Took lead role in Learning Lab decision-making, selected procurement change goals, & provided raw data on food purchasing for detailed analysis.	Provided technical support, specifically with community and local food systems knowledge; enhanced the visibility of changes within the community and the sustainability of changes over time.	Served as primary point person for all communications; provided project planning, coordination, technical support, and much of the documentation.	Provided expertise in agriculture economics and food systems analysis, conducted school meal purchasing analysis & procurement change research.	Provided real time evaluation, opportunity for reflection, and recommendations for adjustments.

II. Selection of Procurement Change Goals

The first step of the Learning Lab was to identify potential procurement change goals. SPPS suggested possible goals, including sourcing: local bison; flavored milk with less added sugar; more local and sustainable produce; whole wheat buns; Minnesota-raised chicken and turkey; local brown box commodities; Minnesota-raised goat meat; pork from Minnesota hog farmers who uses SPPS cafeteria table scraps as feed; and Minnesota and Wisconsin cheese.

From this larger list, the Learning Lab team narrowed the list to their top four procurement change goals:

1. Dairy:
 - decrease amount of added sugar in flavored milk
 - ensure continued supply of milk produced without artificial growth hormones
2. Produce:
 - access a larger and more consistent supply of locally grown produce
 - expand variety and volume of locally grown produce
3. Bread:
 - increase purchases of whole grain items, including whole grain rolls and buns
 - obtain smaller size rolls (2" long slider rolls appropriately sized for elementary school children), ideally whole grain

- explore the potential to work with local bakeries
 - explore the potential to use locally sourced grain
4. Poultry:
- source poultry with lower sodium and fat, and a cleaner ingredient label with fewer additives
 - source more locally grown and sustainably produced poultry through Minnesota-based poultry operations

These four priorities were chosen over the other possible priorities for a variety of reasons, including: they were consistent with areas in which SPPS had previously explored but had encountered road blocks; they were deemed achievable within the 18-month time period allotted; they could have large impacts on the district’s overall procurement practices; and they had the potential to positively impact other school districts regionally and nationally. Although SPPS selected just four procurement change goals, when all four product areas were combined, they represented 37% of the school district’s total food expenditures⁵, indicating the centrality that these foods play in the school district’s meal offerings and the potential for broad impact.

Through the priority setting process, the Learning Lab and the food service professionals, in particular, became better able to define the terms “healthful,” “local,” and “sustainable” in the context of their operation and the Learning Lab activities. Specifically, *healthful* came to mean more whole food, less processed food and a cleaner ingredient label with fewer additives. *Local*, for the purposes of this project, came to mean regional products produced within a 200-mile radius from Saint Paul, including adjacent areas of Wisconsin and, Iowa and North Dakota (Figure 1). Defining *sustainability* took ongoing refinement throughout the 18-month period, but the district partner and other members of the Learning Lab team helped push SPPS to define the term in relation to their unique context—which came to include more locally sourced items. The rationale was that local products offered greater transparency, might require less transport, and kept money in the local economy. For each goal, SPPS had to balance affordability with their goals of moving toward greater degrees of healthful, local, and sustainable foods.

⁵Of SPPS’ 2008/2009 purchase data, half pints of milk represented 13%, fresh produce represented 8%, bread represented 4%, and poultry represented 11% of total food expenditures.

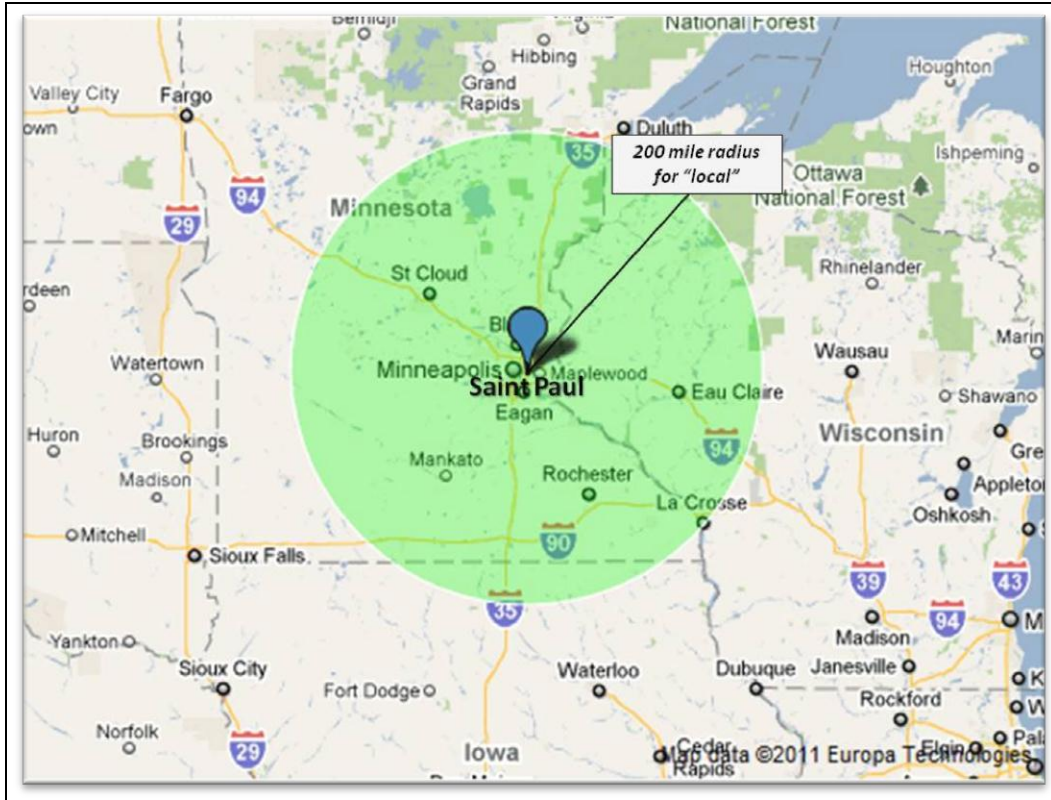


Figure 1

V. Making Changes to Achieve Goals

Research Phase

After procurement change goals were identified the Learning Lab conducted two rounds of on-the-ground interviews in which members of the Learning Lab team met with suppliers, distributors, buyers' co-ops, and growers associations. For SPPS, talking with some of their vendors was not new, but the Learning Lab provided the opportunity to be more strategic and intentional with the conversations and to talk to farmers and distributors at the same time. The Learning Lab manager, district partner, and researchers also met with SPPS food service staff and the district's "Healthy Hits"⁶ committee to explore their current operations and potential alternative structures, and they held pre-meetings, debriefings, and planning meetings

⁶ SPPS uses its Healthy Hits Process for all new menu offerings. The process starts with submission of a new recipe, and SPPS food service Staff consider the recipes' healthfulness and likelihood of being a hit with students. Then the district analyzes the cost per serving to find out if it is \$0.60 or less. Next, the district analyzes the recipe's nutritional profile to see if it meets USDA requirements for calories, fat, and nutrients, and then the recipe is tested in large batches to see if it can be produced on a large scale. If the recipe meets these requirements, it is taste tested using focus groups or sampling. If the taste tests are successful, the recipe is then piloted at a school and menued three times. If there is positive feedback from students and staff, and if the participation numbers show it is well received by students, the recipe becomes a "healthy hit" and is circulated into school meals district-wide.

between SPPS staff and the rest of the Learning Lab team during each of the visits. This iterative research process provided extensive baseline data to use for making informed, research-based decisions on procurement change goals, and the process also built trust and rapport among the Learning Lab team and created a strong foundation for future information sharing by providing real and meaningful work for the team to tackle together.

School Food FOCUS has subsequently created a companion document so others can replicate the Learning Lab’s strategy of vendor interviewing, in a document titled, [The road to school food system change: Enacting a vendor strategy](#) [PDF].

Implementation Phase

After researching information on which to base their procurement change strategies, the Learning Lab team worked to achieve each goal over an 18-month time period (Figure 2). What follows is a detailed view of each procurement change goal, including a look at the baseline situation, descriptions of how changes were made, and the key decision points, challenges, and breakthrough moments along the way.

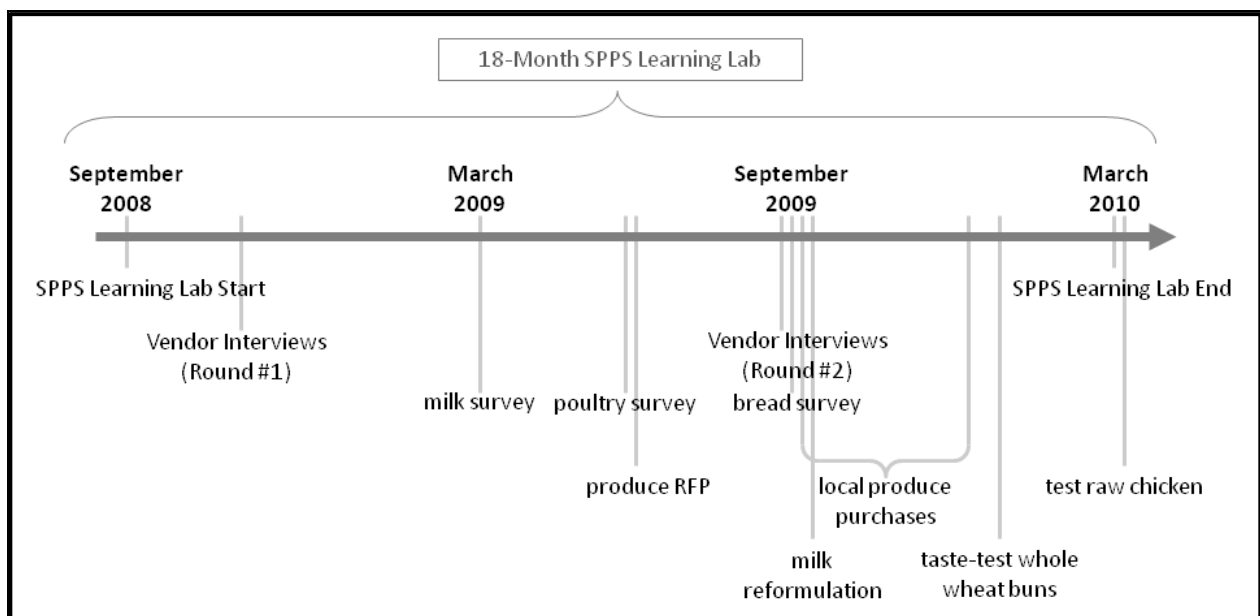


Figure 2

Dairy

Goals: Decrease amount of added sugar in flavored milk and ensure continued supply of milk produced without artificial growth hormones

At the start of the Learning Lab period, SPPS sourced its half pints of milk from a single supplier, “Dairy 1”⁷. School demand was over 6.4 million half pints per year, and Dairy 1 delivered direct to 63 schools every other school day because it was seen as more cost effective than

⁷ Company names have been changed.

redistributing half pints of milk from the central kitchen. SPPS was generally happy with the quality of the milk, delivery arrangements, and pricing but they wanted a more healthful option for flavored milk.

For the 2007/2008 school year, SPPS spent over \$1 million on half pints of milk which represented about 13% of the total food expenditures. Approximately 60% of all half pints of milk purchased was flavored milk, or about 8% of the total food expenditures. The flavored milk contained 26 grams of sugar (14 grams of *added* sugar in the form of high fructose corn syrup) per half pint container. Dairy 1 stated that their milk was rBGH-free, but their product was not labeled as such and therefore it was not evident to the end consumer.

To better understand the spectrum of possible changes, the Learning Lab conducted a series of interviews to better understand the school district's operations and vendors' operations, and to gather information about their respective requirements and capacities. They found that the school was wary of using the bid process to solicit low sugar milk because it might not result in bids. On the vendor side, the current vendor (Dairy 1) had the necessary logistics in place but was reluctant to incur the cost of changing their flavored milk formulation without evidence that it would not harm sales, whereas the prospective vendor (Dairy 2) had the right formulation but needed time to get supply and delivery arrangements in place.

To move the discussion forward, the Learning Lab team decided it needed to better understand the current statewide milk procurement practices and preferences in schools in order to demonstrate market demand to the vendors. Through IATP and the Minnesota School Nutrition Association, the team conducted a milk survey of Minnesota school districts. This survey looked at added sugar in flavored milk, purchase of rBGH-free milk, and related bid requirements. The survey had a high response rate of 55%. Overall, 46% of the school districts surveyed preferred flavored milk with less than 21 grams of sugar per half-pint and another 27% preferred 21 to 23 grams of sugar. Having the desired amount of sugar in the milk served was important for 82% of the school districts surveyed. The milk survey revealed widespread desire for low sugar milk and opened the door to future conversations with other school districts about leveraging school district procurement power, in this case with milk, to influence industry.

Acting on a desire to influence Minnesota dairies, SPPS food service staff wrote a memorandum with the survey results attached and sent this to the two dairy processors. They also shared survey results at a Minnesota School Nutrition Association meeting in an effort to encourage other school districts across the state to ask their suppliers for lower-sugar milk and to foster a more unified message to industry. Communicating the results of the survey with the vendors helped alleviate the current vendor's major concerns because it demonstrated that many schools wanted low sugar milk. This assurance, along with the threat of possible loss of business to competitors, created the right incentives for Dairy 1 to reformulate their flavored milk with less added sugar.

In the summer of 2009, SPPS opened a bidding process for the 2009/2010 school year for milk, a process required by law. SPPS created a customized bid form that asked bidders to state their position on rBGH milk as well as their plan to reduce sugar in flavored milk to 22 grams or less if

they did not already meet the specifications. Two bids were received, including one from Dairy 1. From these two bids, SPPS chose to continue to purchase from Dairy 1 because of its good pricing and reliable delivery. SPPS decided not to insist that milk be labeled hormone free because it felt the current arrangement provided sufficient assurance to food service management that the milk was indeed rBGH free.

Figure 3 shows half pints of white and flavored milk purchased from 2006/2007 and 2007/2008 (baseline data prior to the start of the Learning Lab) and 2009/2010 (final data after changes had been enacted because of the Learning Lab). The figure illustrates two important points, assuming that milk purchases are representative of students' milk consumption: first, that reformulation certainly did not hurt and may have even helped flavored milk sales; second, it illustrates the growing gap between the consumption of white milk and flavored milk.

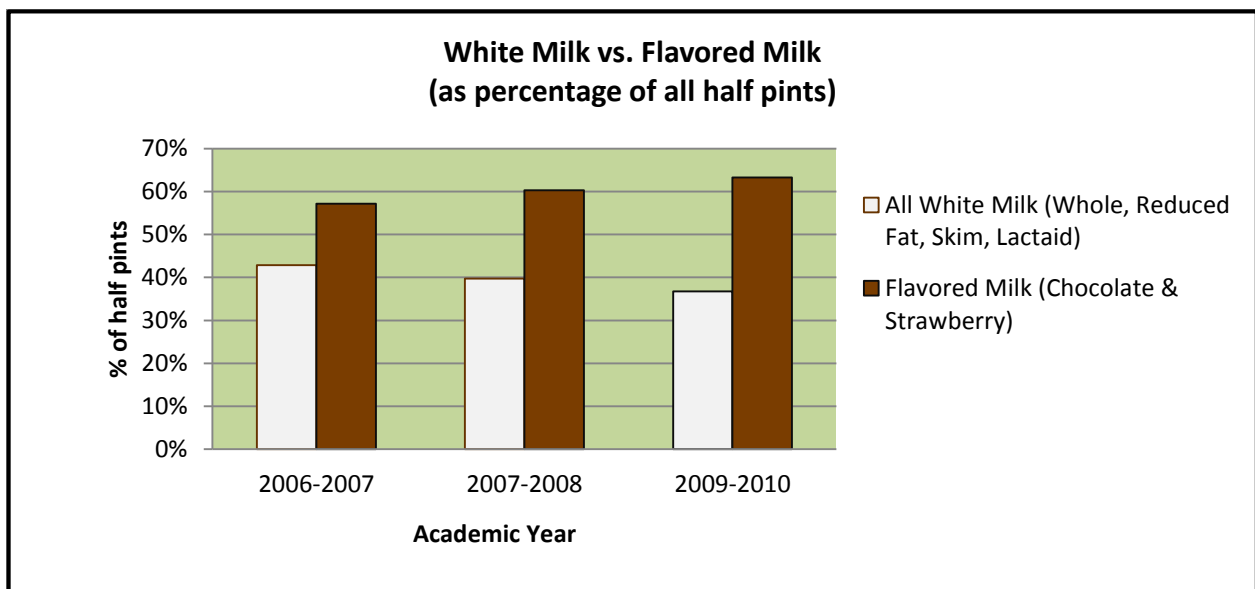


Figure 3

The reformulation of flavored milk from 26 grams to 22 grams of sugar per half pint, resulted in a reduction in added sugar consumption per student per year from 6.93 pounds of added sugar in 2007/2008 to 5.64 pounds of added sugar in 2009/2010 (Figure 4). However, because of the overall increase in flavored milk consumption across the school district, the reformulation, which represented a 29% reduction in added sugar per half pint, only resulted in an estimated⁸ 19% reduction in added sugar consumption per student per year. Therefore, although the reformulated milk helps get part of the way toward lower sugar consumption, flavored milk remains a significant source of added sugar in students' school meals.

⁸ Estimates were done assuming a half pint of low fat or skim white milk has 12 grams of naturally occurring sugar from lactose; actual quantity in Dairy 1's formulation are unknown. Knowing that all flavored milk was consumed during lunch, we took the percentage of flavored milk half pints out of all half pints of milk purchased and applied that percentage to average lunch participation for each school year (28,875 students in 2006/2007, 28,528 in 2007/2008, and 27,886 in 2009/2010).

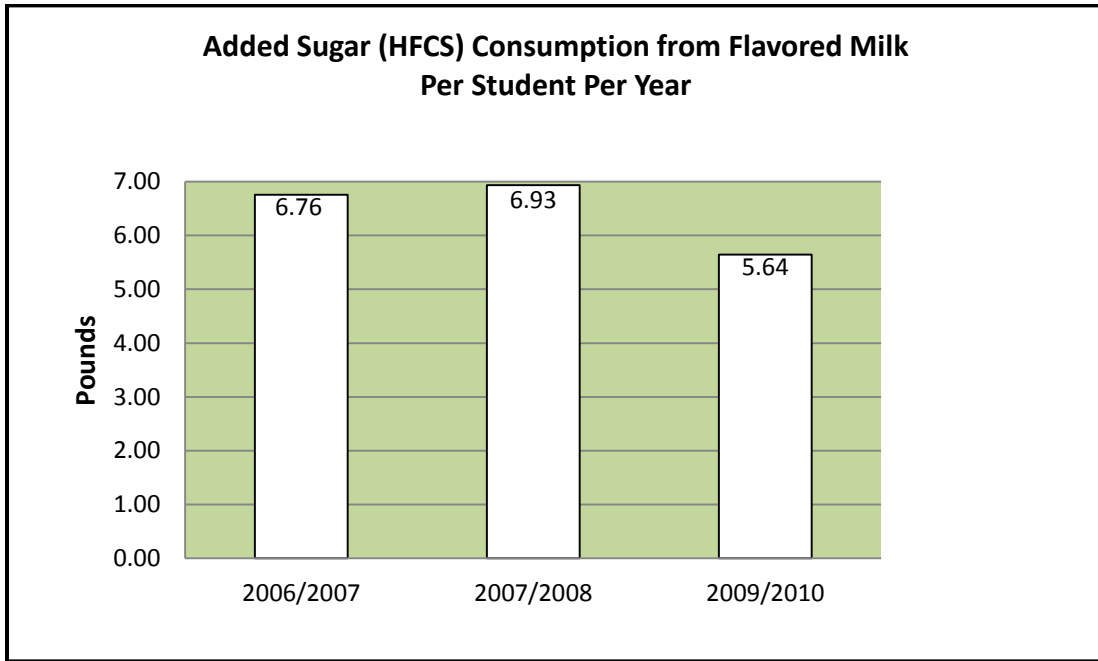


Figure 4

To learn more, see the [Learnings From the Lab: Improving Milk in Saint Paul, Minnesota \[PDF\]](#).

Produce

Goal: access a larger and more consistent supply of locally grown produce and expand variety and volume of locally grown produce

At the beginning of the Learning Lab period, SPPS used a weekly bid process to purchase fresh produce, in which it sent out its produce needs to distributors and then purchased from the distributor who provided the lowest price. Because of this, the district sometimes ordered from multiple distributors in the same week. Each distributor delivered a variety of fresh produce (almost all of it chopped, diced, bagged, etc.) to the central kitchen where the produce was then incorporated into various recipes and placed in salad bars. SPPS consistently bought from two produce distributors, Produce 1 and Produce 2 because of their affordable pricing, but these were just two vendors among many from which SPPS could purchase .

During the 2007/2008 year, SPPS spent over \$1.1 million on produce⁹, which represented approximately 15% of the total food expenditures. Of this, about \$611,400 was spent on fresh fruits and vegetables, or about 8% of the total food expenditures. Distributors told SPPS that they thought that about 40% of the fresh produce was in season and local although they did not keep track. There was very little local labeling except for Minnesota-sourced apples, which SPPS

⁹ Excluding juice and potatoes; when these are included, produce expenditures reach \$2 million, or approximately 26% of food expenditures.

bought directly from a local grower/packer/shipper rather than through the two distributors noted above.

To make progress on their goals to increase purchasing of fresh, local produce, SPPS reworked their menus in advance to feature more local and seasonal produce (Figure 5). This way, the foodservice staff could know exactly what local produce they needed to purchase and when. After menuing local and seasonal produce, SPPS developed and taste-tested potential recipes using their tried-and-true “Healthy Hits” model (see footnote above).









MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
<p>21 <u>Breakfast Special</u> Lemon Poppyseed Bread  NEW!</p> <p><u>Lunch</u> Italian Dunkers with Marinara Sauce  Mixed Vegetables Applesauce Fresh Veggies Salad Greens Whole Wheat French Bread</p>	<p>22 <u>Breakfast Special</u> Cheesebread</p> <p><u>Lunch</u> Beef or Vegetarian Taco Salad Refried Beans  Corn, Brown Rice Tortilla Chips Fresh Veggies Shredded Salad Greens Whole Wheat French Bread</p>	<p>23 <u>Breakfast Special</u> Egg & Cheese Tortilla</p> <p><u>Lunch</u> Turkey Hot Dog Steak Fries  Watermelon Fresh Veggies Salad Greens Whole Wheat French Bread</p>	<p>24 <u>Breakfast Special</u> Cheesebread</p> <p>NEW! <u>Lunch</u>  Teriyaki Chicken & Edamame  Fresh Broccoli Banana Fresh Veggies Salad Greens Whole Wheat French Bread</p>	<p>25 <u>Breakfast Special</u> Apple Cherry Cinnamon Bread</p> <p><u>Lunch</u> Tater Tot Hot Dish Peas M&M Cookie Fresh Veggies Salad Greens Whole Wheat French Bread</p>
<p>28 <u>Breakfast Special</u> Banana Chocolate Chip Bread</p> <p><u>Lunch</u> Lite Turkey Corn Dog  Coleslaw Baked Beans Peaches Fresh Veggies Salad Greens Whole Wheat French Bread</p>	<p>29 <u>Breakfast Special</u> Cheesebread</p> <p><u>Lunch</u> Chicken & Gravy Mashed Potatoes Green Beans Orange Wedges Fresh Veggies Salad Greens Whole Wheat French Bread</p>	<p>30 <u>Breakfast Special</u> Cinnamon Toast Waffle with Apple Topping EARLY RELEASE DAY</p> <p><u>Lunch</u> Chicken Patty Sandwich Potato Triangle Banana Fresh Veggies Shredded Salad Greens Whole Wheat French Bread</p>	<p>These Choice Bar vegetables will be locally sourced while the season lasts:</p> <p> Cabbage (Shredded Salad Greens) Carrots • Cucumbers Onions • Peppers • Zucchini</p>	

Figure 5: Sample Menu from SPPS

The breakthrough moments in produce procurement followed a similar process as with milk. Interviews with the school district, distributors, and farmers helped the Learning Lab team understand all parties’ desires and constraints and revealed an opportunity to create closer partnerships among these three supply chain links within a regional context. Realizing this opportunity, the Learning Lab, IATP and SPPS developed a formal bidding process and created a Request for Proposals (RFP) for distributors to supply local produce for the 2009/2010 school year.

The RFP asked for pricing for locally sourced items according to SPPS’ definition of local, which they considered to be a 200-mile radius from Saint Paul, including areas of Minnesota, Wisconsin, Iowa, and North Dakota—in pre-specified quantities and processed, diced, and chopped as needed. It also asked for the names of the farms that supplied the produce to be identified and for the bottom line prices that would be paid to these farms in order to increase transparency in the supply chain and ensure fair pricing. This fixed price, forward contract¹⁰ enabled—for the first time—transparency all the way to the farm gate by requiring the

¹⁰ A fixed price forward contract is a transaction in which a seller agrees to deliver a specific product to a buyer at some point in the future at a specified price.

specialized distributor to track and report local purchases (Figure 6). The two distributors that SPPS most frequently purchased from, Produce 1 and Produce 2, responded to the RFP. SPPS decided to contract with Produce 1, locking in the price of the pre-specified local produce. However, since the RFP only covered pre-specified locally grown produce, SPPS continued to do weekly bids for all of their other produce needs with Produce 1, Produce 2, and any other vendors they chose.¹¹

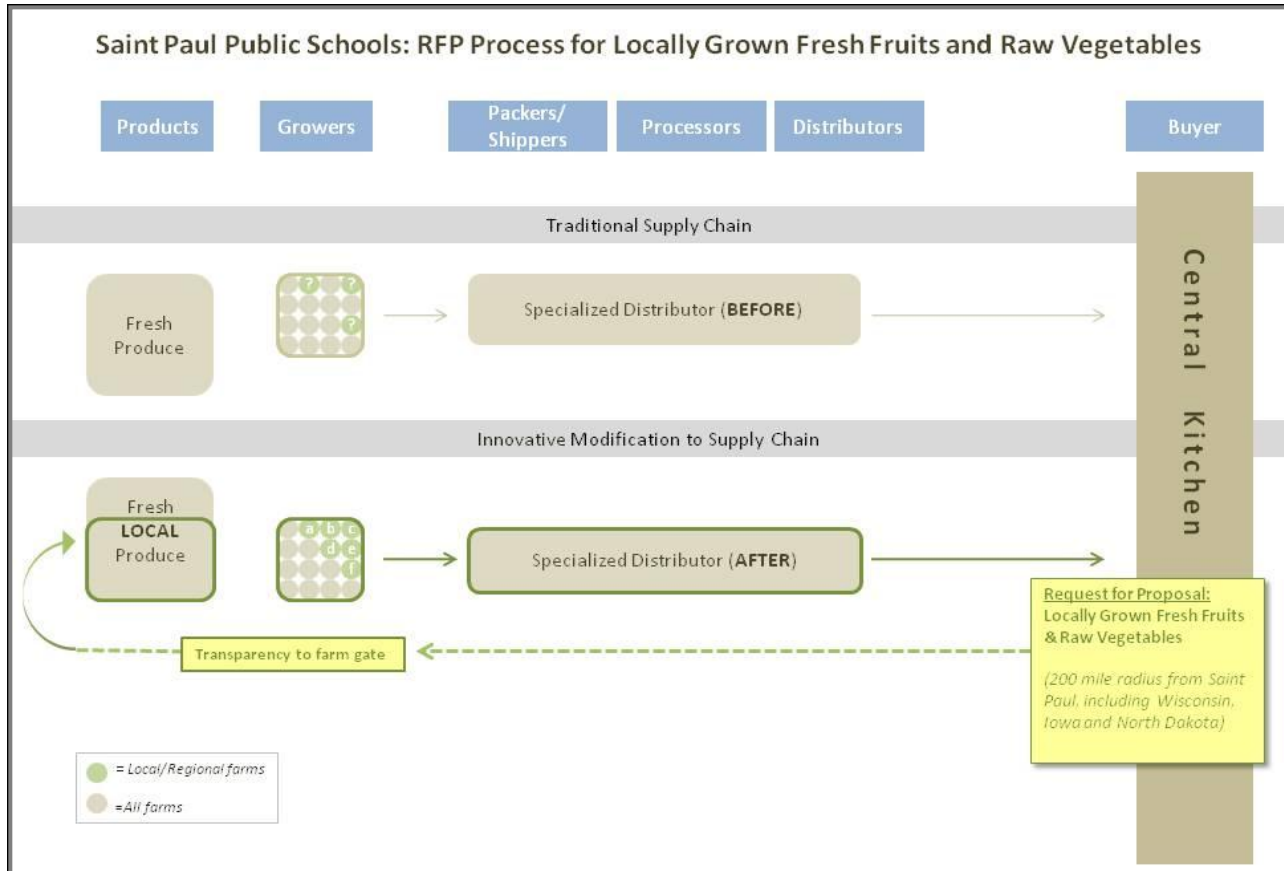


Figure 6

As a result of these efforts, SPPS spent a minimum of \$129,700 in local produce purchases in September through December of 2009, which was about 40% of the total produce purchased during that period. Their local purchases were comprised of apples from a local grower/packer/shipper and 15 items specified in the RFP including broccoli, carrots, corn, potatoes, watermelon, and zucchini, which were all sourced from six farms less than 100 miles away and provided through Produce 1. As Figures 7 and 8 demonstrate, while local produce purchases were significant at the height of the Minnesota growing season, these purchases represented just 7% of all produce purchases when spread out over the whole year.

¹¹ With the exception of locally sourced apples that were labeled as such, other distributors that the school district purchased from may have sourced local produce, but they did not identify and label the origin of the products, and therefore, SPPS could not track it.

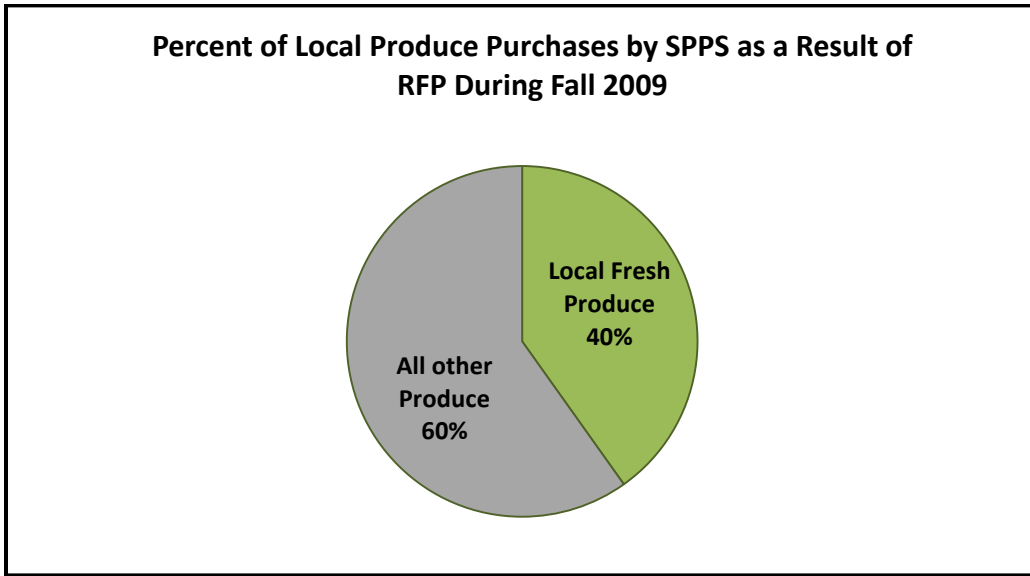


Figure 7

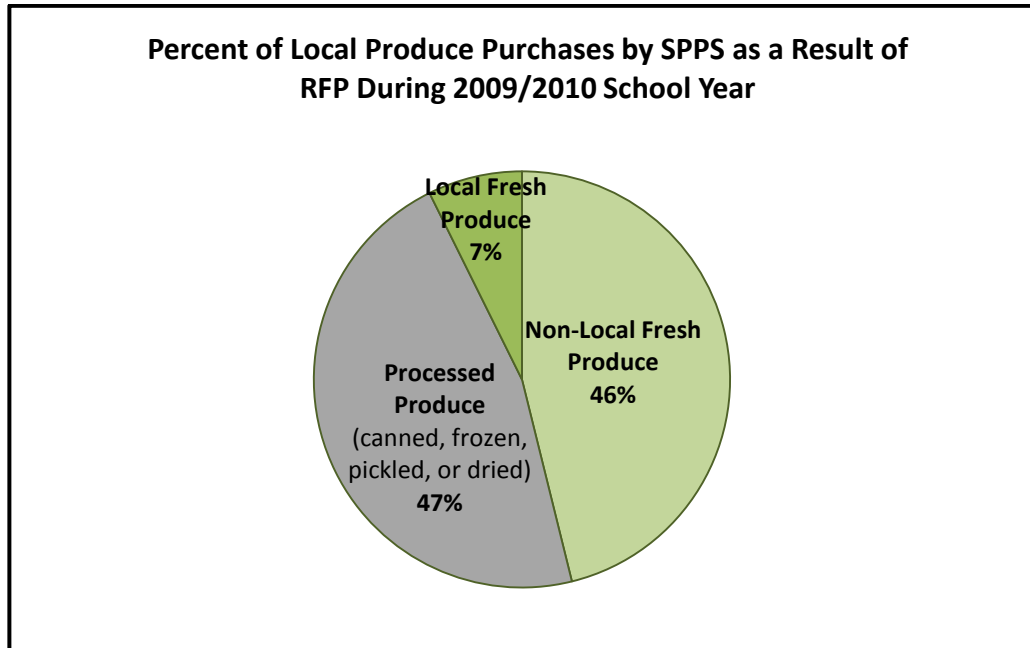


Figure 8

After the close of the RFP, the Learning Lab conducted another round of interviews by phone to circle back with the produce vendor and the farmers supplying the school district to see how the RFP worked from their perspectives. This iterative interview process provided an opportunity for more learning to take place, including what farmers would need from the relationship to have it be worth their while over the long term. Even though the business relationship was between SPPS and the distributor, the interviews helped to solidify a more direct relationship between the farmers and the school district and foster a more transparent,

and thus more equitable, supply chain. To learn more, see [Learnings From the Lab: Sourcing Local Produce in Saint Paul, Minnesota](#) [PDF].

Bread

Goals: Increase purchases of whole grain items, including whole grain rolls and buns; obtain smaller size rolls (2" long slider rolls, appropriately sized for elementary school children), ideally whole grain; and explore the potential to work with local bakeries and use locally sourced grain.

At the start of the Learning Lab period, SPPS purchased rolls and buns from Bakery 1, a subsidiary of a large multinational food corporation. Bakery 1 delivered 100% white rolls and buns in institutional pillow packs (36-count bulk packages) direct to schools. SPPS also purchased sweetened breads, including French toast cinnamon swirl bread from Bakery 1 and bagels for the breakfast program from Bakery 2, a broadline distributor¹². SPPS baked whole grain pizza crust and French bread from scratch using 51% white whole wheat¹³ flour in their central kitchen and delivered it to the schools. Altogether, in 2007/2008, SPPS spent about \$265,000 for all breads, including sliced bread, rolls, buns, and bagels which accounted for 3.5% of the total food expenditures. Of that, \$185,000 (69% of all bread) was for buns and rolls, none of which were whole grain.

The SFLL team set to work interviewing bread vendors in the Twin Cities area. They interviewed one very large bakery with suitable pricing, adequate capacity, and a willingness to work with SPPS on an acceptable formulation. However, the bakery was only willing to deliver to the SPPS central commissary, not each school. Two local artisanal vendors only offered frozen product through distributors, at prices beyond SPPS' means. SPPS' current vendor, Bakery 1, did not respond to numerous requests for interviews.

After months of inaction by Bakery 1 in this area, the Learning Lab had a breakthrough moment – the recognition that while SPPS' business (and therefore procurement power) was fairly significant for regionally produced milk and produce, it was fairly small for the multinational food corporation that supplied SPPS with bread. This led the Learning Lab to turn to the larger FOCUS collaborative, initiating a survey of member districts. The survey was used to learn about the school districts' bakery item purchasing and procurement practices and explore their experience and interest in purchasing whole grain bakery products, with the overall goal of the survey to create sufficient incentive to bring large firms to the table and build collective power to push Bakery 1 into action. The survey was sent to 21 school districts, with fourteen school districts responding to the survey, resulting in a 67% response rate. Results showed that most of these school districts purchased bakery items with some kind of whole grain content. All surveyed school districts were interested in introducing or increasing the whole grain

¹² A broadline distributor services a wide variety of accounts with a wide variety of products, usually carrying a full line of grocery products, including dry and frozen foods, perishable foods, equipment, and supplies.

¹³ White whole wheat is a variety of wheat with all of the nutritional benefits of the more traditional red whole wheat, but without the strong, tannic taste usually associated with whole wheat.

percentage in their bakery items and most desired to purchase whole grain bakery items with 51% or higher whole grain.

In spring 2009, Bakery 1 appeared to be in agreement to formulate whole grain buns for unbranded (institutional) sales according to the FDA definition of whole grain, and it offered to coordinate efforts between the district and the plant that supplies the Saint Paul region to create and test samples of the whole grain buns and have SPPS test them in the Summer Foodservice Program. SPPS requested 60% white whole wheat flour because food service staff thought this would be a good starting point for students who were accustomed to the French bread and pizza crust made with 51% white whole wheat. Bakery 1 created a 60% white whole wheat formulation, but decided that 60% white whole wheat was not palatable without offering samples to the school district or conducting student taste-tests. It then changed the formulation to 53% white whole wheat and provided a written commitment to provide the reformulated whole-grain rolls and buns in the 2009/2010 school year. Unfortunately, as the 2009/2010 school year approached, there continued to be a disconnect between what was promised and what was delivered.

Then in fall 2009, a corporate-level salesperson from Bakery 1 contacted SPPS to request a meeting. The representative explained that the company had declined earlier interview requests because it had little to say or offer. In the interim, the company had decided to expand its unbranded sales line, and it requested help in communicating more effectively with school districts. However, after several face-to-face discussions it was realized there was a surprising lack of clarity about how the FDA defines “whole grain.” In fact, based on its misunderstanding of the definition, Bakery 1 had developed a whole wheat bun which was not palatable. Additionally, there was misunderstanding regarding the nature of “white whole wheat.” The Learning Lab brought in a grains scientist to explain the terms “whole grain”¹⁴ and “white whole wheat,” and to share helpful results of whole-grain bread taste tests conducted with school children.

Ultimately, with the help of FOCUS and its member districts, SPPS was able to negotiate with Bakery 1 to transition from 100 percent white to 53% whole grain (white whole wheat) hamburger, hot dog, and hoagie buns in institutional pillow packs. Samples were finally provided in January of 2010 and received positive responses from students and SPPS food service staff. These products are now available not just to SPPS, but to the school market nationwide. Figure 9 shows the early effect this transition has had on SPPS purchases, with 9% of buns being whole grain in the 2009/2010 school year.

¹⁴ Quite simply, it means that 51% or more of the item's total product weight is whole grain. U.S. Department of Agriculture and Agriculture Research Services. (1997). *Pyramid Servings Data: Results from USDA's 1995 and 1996 Continuing Survey of Food Intakes by Individuals. Section 3. Methodology; Development of the Pyramid Servings Database*. West Beltsville, MD: Beltsville Human Nutrition Research Center.

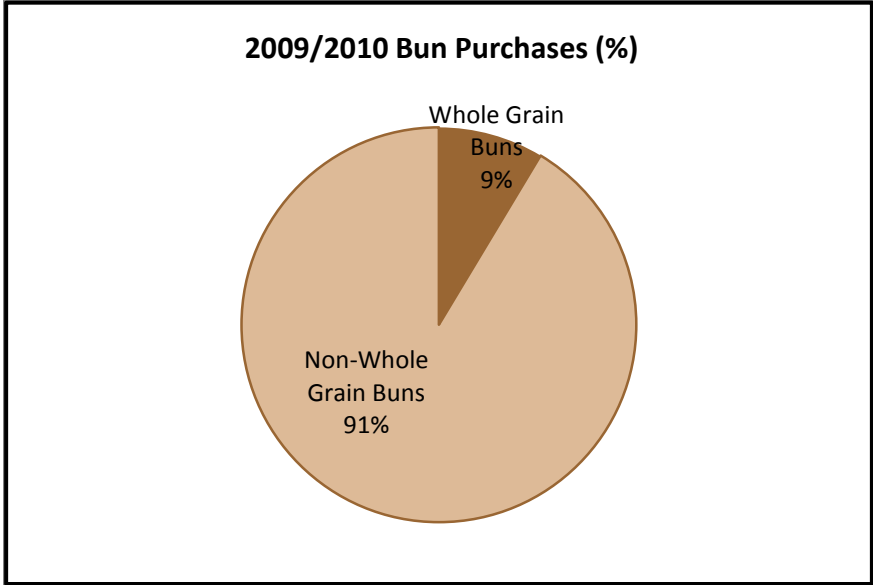


Figure 9

It is likely that whole grain bun purchases will increase significantly in coming years, as the expenditures on all buns has ranged from approximately 50% to 70% of SPPS' bread purchases between 2006 and 2010. Figure 10 highlights the percentages of all bread purchases by category in the 2009/2010 school year. This figure not only illustrates the potential for the expansion of whole grain bun purchases, but also other whole grain bread products, generally.¹⁵

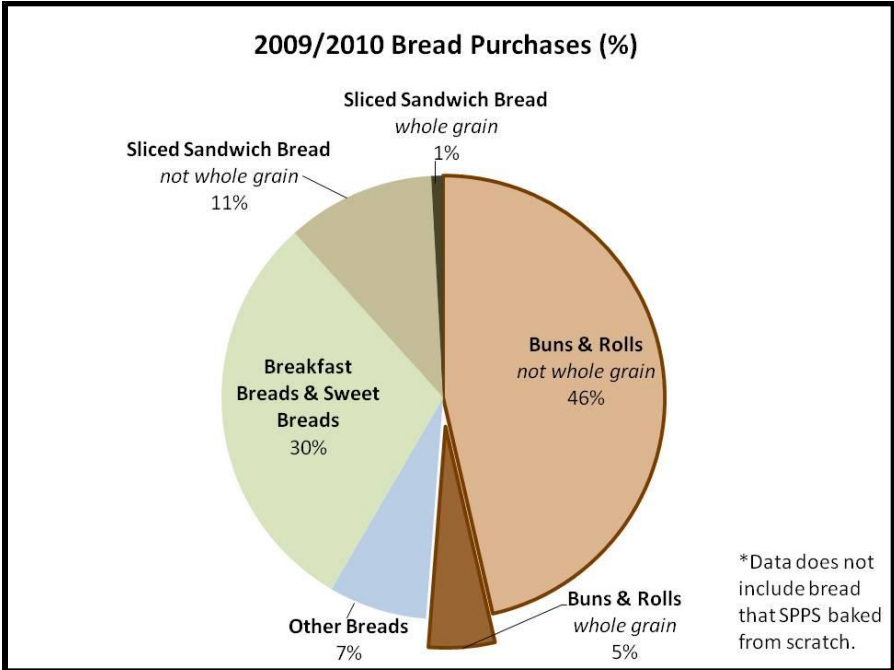


Figure 10

¹⁵ Estimates for whole grain bread purchases are based on purchase data records indicating “whole grain”, “whole wheat” or “wheat.” Actual percentages of whole grain bread purchases are unknown.

As a result of work spurred by the Learning Lab, School Food FOCUS featured bread in its first Real School Food Showcase¹⁶ in March 2010 and created a [Bread Science Brief](#) [PDF] to educate school food service and industry about whole grain bread.

Poultry

Goal: source chicken with lower sodium and fat, and a cleaner ingredient label with fewer additives; source more locally grown and sustainably produced poultry through Minnesota-based poultry operations.

At the start of the Learning Lab period, SPPS purchased a variety of chicken products, over 50% of which were in highly processed forms, including nuggets and patties. All chicken arrived at the central kitchen pre-cooked and frozen so that the school district never handled raw product. In 2007/2008, its major sources were 7 different broadline distributors (90% of all chicken purchases) and USDA commodities (10% of all chicken purchases). In the same school year, SPPS spent approximately \$866,000 on all poultry products, of which approximately \$616,000 or 70% was chicken. Chicken represented 8% of SPPS' total food expenditures.

As with bread, the Learning Lab quickly realized that because of the concentration in the poultry industry, change in poultry based on one school district's pressure was highly unlikely and that while SPPS' market power in the region was significant for milk and produce, it was fairly small for the large agribusiness firms that supplied the school district with poultry. As a result, FOCUS started to pursue this issue from a national vantage point across FOCUS school districts in the hope of increasing pressure on the poultry industry across the country and to create sufficient incentive to bring these large firms to the table.

FOCUS conducted a survey of its participating districts to learn about current poultry purchasing practices across the country, with SPPS acting as one of the leaders pushing to explore a coordinated effort toward more healthful poultry products nationwide. The survey was sent to the 21 FOCUS districts involved in the collaborative at the time, and 18 districts responded (86% response rate). The survey identified the common poultry product characteristics highly desired by school food service. Results of the survey were consistent with SPPS' desire for more sustainable and healthful poultry products. Specifically, food service respondents ranked as "somewhat important" or "very important" chicken nuggets made with whole muscle meat (83.3%), minimal to no fillers or additives (88.9%), and whole grain breading and no hydrogenated oils or added saturated fats (88.9%). They also ranked as "somewhat important" or "very important" fully cooked bone-in poultry portions with minimal fillers or additives (94.4%); fully cooked Rotisserie-style whole birds, legs, thighs, and breast pieces

¹⁶ The Real School Food Showcase was the centerpiece of the 2010 FOCUS Annual Meeting. It was designed to catalyze concrete conversation about the kinds of healthful and sustainable food desired by school food service professionals and strategies for obtaining it. The Showcase featured a small selection of exemplary chicken and whole grain bread products available for institutional purchase, carefully chosen by the Showcase committee for their desire to work toward FOCUS core ideals. For more information visit: http://www.schoolfoodfocus.org/?page_id=466#showcase

(94.4%); no arsenical additives in the feed (94.1%); companies that actively promote the health and safety of their poultry production workers (88.2%); and no non-therapeutic use of antibiotics (82.4%).

With these understandings in hand, a group of FOCUS food service leaders and FOCUS staff conducted individual vendor interviews with major poultry producers and USDA representatives at the 2009 Annual National Conference of the School Nutrition Association to explore the possibilities for change within the industry. They shared results of the survey and a FOCUS poultry brief, and they highlighted the procurement power of the FOCUS participating districts – over 27 million pounds chicken and almost 6 million pounds of turkey. These meetings demonstrated the great potential for food service to take collective action to push for change in the school food market.

Inspired by the unique challenges with poultry experienced by the SPPS Learning Lab, FOCUS subsequently convened a Chicken Specifications Committee. The Committee drafted criteria for “gold standard” chicken and invited vendors who met these standards to the 2010 Real School Food Showcase. This effort demonstrated how work initiated in the SPPS Learning Lab helped FOCUS—as a whole—think structurally and strategize how to shift a whole industry in a more desirable direction through leveraging collective power. SPPS’ early engagement with this area demonstrates an important step in what has become a long and challenging—but hopefully constructive—FOCUS engagement with the poultry industry and USDA Foods around this topic.

Ultimately, SPPS was successful in sourcing raw, fresh chicken—instead of precooked frozen chicken—from a local poultry producer (Poultry 1). The Learning Lab identified Poultry 1, a major Midwestern producer based in Minnesota, just 75 miles from the city center, and held a vendor interview, discussing pricing options for various chicken parts and touring the processing plant. SPPS chose chicken drumsticks because the price was right, as the company had them in surplus (averaging just 22 cents per piece, roughly half what the district pays for the whole-muscle pre-cooked commodity chicken it buys through a processor), the district’s plan for seasoning and baking them was simple, and portioning would be straightforward.

The district made a pilot purchase of just 400 drumsticks (120 pounds) to test the product in one school in the spring of 2010. To prepare for the pilot, SPPS staff drafted preparation guidelines and protocols for cooking raw chicken from scratch. While the total quantity of raw, fresh chicken purchased was relatively small in the initial pilot, this particular success marked a significant transformation in what SPPS food service saw as possible within their operation and underscored their commitment to sourcing chicken with lower sodium and fat, and a cleaner ingredient label with fewer additives.

Based on the success of their pilot, the district chose to scale up their offering of fresh chicken to every school in the district. To accomplish this, the district made a three-minute instructional video, in addition to the guidelines and protocols mentioned above. Looking forward, the

school district plans to purchase 9,000 pounds of raw chicken per menu day and serve it every other week starting spring 2011.

Overall, as Figure 11 illustrates, SPPS was very successful over the 18-month Learning Lab period in shifting chicken purchases away from highly processed forms that are chopped and formed (such as the classic chicken nugget) to less processed forms, including heat and serve whole muscle meat (such as precooked rotisserie chicken or fajita chicken) and naked protein whole muscle meat that is simply cooked, cut, and frozen without further processing, and intended for incorporation into recipes (such as diced chicken breast)¹⁷. Although this shift is not a direct result of the Learning Lab’s research, it demonstrates SPPS’ overall desire to increase scratch cooking as a strategy to serve more healthful products. It also helped position the district to prepare for doing more scratch cooking with fresh, raw chicken.

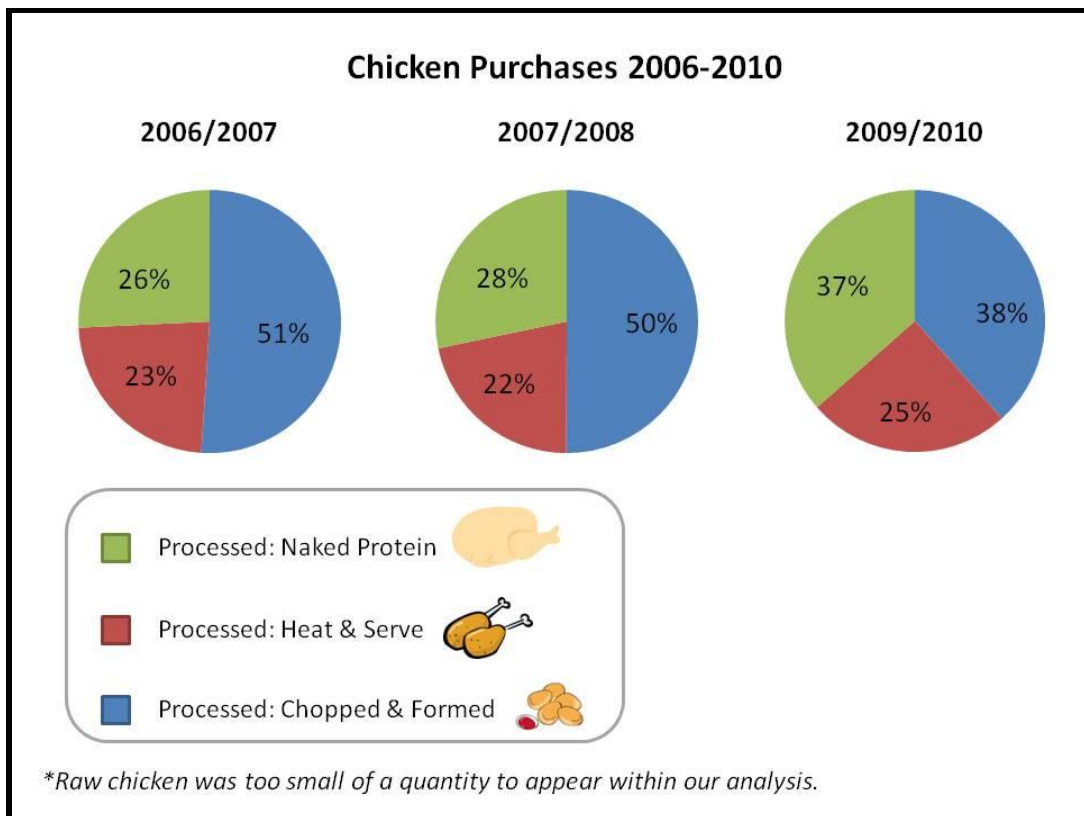


Figure 11

¹⁷ We used our best judgment in categorizing processed chicken products into the categories of naked protein, heat and serve, and chopped and formed, based on our analysis from the title of the product in SPPS purchase records. However, the categorization is necessarily imperfect without direct analysis of ingredient lists.

Other Achievements

Because of work done in the Learning Lab, SPPS began to source specialty produce from a consortium of local, small-scale Hmong growers in an effort to purchase additional products locally, to support family farmers, and to celebrate the culture of the Hmong students in the district. Furthermore, SPPS discussed product specifications and avenues for partnership with regional bison suppliers and tested recipes for dishes made with bison.

VI. Lessons Learned

After the 18-month Learning Lab period, progress was clearly made on each procurement change goal. And while it is not in the scope of this analysis to document, School Food FOCUS, researchers, and evaluators will continue to monitor progress on SPPS' procurement change goal to assess the viability of the changes made over time.

While many of the procurement change goals are still in progress, the SPPS Learning Lab identified certain constraints that make deep, substantive and lasting changes in procurement challenging, as well as strategic opportunities that facilitate change. These lessons learned can inform future efforts within SPPS and within other school districts.

Constraints

Seasonality

Minnesota's short growing season limits year-round procurement of fresh produce.

Scale

The large scale and complexity of SPPS' operation makes it difficult to deal with new, multiple, or smaller vendors of any kind because of increased transaction costs and complicated distribution channels. Therefore, it is not feasible for SPPS to source directly from multiple and small-scale producers to obtain the quantity and variety of products needed.

USDA Foods

USDA Foods, while providing necessary and important commodities for use in school food, creates significant barriers to local procurement. SPPS' USDA Foods entitlement is approximately \$1 million a year, and the majority of this is spent on center of the plate items including cheese, chicken, and beef. Despite the success with chicken drumsticks, shifting a significant amount of these dollars towards local non-commodity products, while maintaining a price-point that the school district can afford, is likely to prove extremely challenging.

Capacity of SPPS' Food Service Operation

SPPS lacks the skilled labor and facilities to routinely purchase raw, fresh, and whole produce and animal products on a large scale without some kind of initial processing to ensure ease of use and training for food service staff. Since SPPS also lacks the delivery capacity to distribute bread, milk, and other items from the central kitchen to the school sites without major changes and investments, they must rely on vendors to serve this role. This often limits their options to

purchasing from vendors who have the capacity to both minimally process products and deliver to individual school sites across the district.

Operating School Food Service with a tight budget

Despite its commitment to healthy foods, SPPS must factor in students' preferences to maintain high participation rates, causing it to serve popular foods seen by some as less than optimally healthy (for example, chocolate milk instead of white milk only and 53% white whole wheat instead of 100% whole grain bread). Because healthful, local and sustainably grown foods often—but importantly, not always—cost more, it is challenging for SPPS to repeatedly buy them in large quantities for sustained periods of time. When they do make the decision to do so, it often necessitates a trade off with something else.

Pace of change

The Learning Lab was resource intensive with regard to time and expertise. Because of this, the pace and scope of successes that SPPS achieved during its 18-month Learning Lab period is unlikely to be maintained into the future and would prove difficult for other food service operations to replicate independently. However, it is hoped that SPPS and their district partner will continue with this type of approach incrementally and at a slower pace in their effort to serve more healthful, more regionally sourced, and more sustainably produced food in the school meal program.

Opportunities

Conduct vendor interviews

One valuable strategy for making changes in school food procurement was conducting vendor interviews. Interviews were used to collect specific data about the current situation with a specific category of food and its supply chain as well as possible future arrangements. The interviews also provided the opportunity to research production, processing, and distribution infrastructure, which play key roles in supplying specific foods in the way schools need them. These understandings are essential for school districts to know what changes are even possible. The SPPS Learning Lab found that interviews were invaluable as a learning tool, provided the opportunity for mutually beneficial exchanges of information, and even served as impetus for change. For more information, see the document mentioned above, [Learnings from the Lab: The road to school food system change: Enacting a vendor strategy](#) [PDF].

Develop customized Request for Proposals that specify regionally sourced products

Another strategy the SPPS Learning Lab used to change its procurement practices was to create a customized RFP that was specific to locally grown fresh fruits and raw vegetables. The RFP provided a fixed price, forward contract, asked for the names of farms that supplied the produce, and requested information about the bottom line prices that would be paid to farmers in order to ensure fair pricing and transparency in the supply chain all the way to the farm gate. The RFP also helped to institutionalize a process that ensured a more consistent supply of source-identified local products. For more information, see the document mentioned above,

Learnings from the Lab: Sourcing Local Produce in Saint Paul, Minnesota [PDF] which includes SPPS' customized RFP for locally grown fresh fruits and raw vegetables.

Influence the supply chain through collective procurement power

Opportunities for change in school food procurement are often determined by the realities of the complex local, regional, national, and international supply chains that school districts operate within. All of these can be resistant to a single district trying to make changes independently. With SPPS, it was evident that even a large school district is small when it comes to influencing certain international and national supply chains or in providing sufficient demand to justify reformulation or a change in product offerings. Therefore, collaboration as a collective voice backed by a demonstrated procurement power among school districts—regionally or nationwide—is one practical way to increase the likelihood of influence.

Choose attainable goals while maintaining sight of the larger objective of more healthful, regionally sourced, and sustainably produced foods in school meals

At first, choosing procurement change goals by product felt reductionist to Learning Lab members because it centered on making specific procurement decisions instead of focusing on more holistic and broad-based change. However, it worked well as an organizing strategy and as a way to tackle larger issues step by step. Ultimately, this strategy proved very effective in leading to broader alternative structural solutions. As one member of the Learning Lab explained, the small successes kept feeding energy into the group and provided a feeling of making progress toward larger goals.

Conclusions

Reflecting on SPPS' four goals, it is important to highlight the differences that emerged between them. While produce and dairy were relatively quick and easy wins, bread and chicken were much harder and took a lot more time because change was intertwined with larger systemic changes in industry and policy. While this seems obvious from this end of the process, it was far less obvious at the beginning of the Learning Lab. In short, not everything can be achieved within an 18-month period, and assessing the scale at which change is possible is an important component of being able to move forward.

Learning Lab team members attribute success to the co-learning and knowledge co-creation processes that the lab was built on. Working on priorities identified by SPPS and using a participatory research approach ensured the relevance of the results, which in turn may increase the sustainability of the changes over time. Furthermore, the Learning Lab recognizes that each member of the team brought critical knowledge and skills to the process: SPPS brought knowledge of its operations and the dedication to change; the Learning Lab manager and researchers brought research expertise, and the time, effort and resources needed to gather critical information and contacts; the school district partner brought local knowledge and content area expertise and helped to leverage the school district's visibility both locally and nationally; and the evaluators added to the dynamic learning environment and provided opportunities for critical reflection. The iterative sharing of information, including monitoring of

outcomes and adjustment of strategies, enabled successful navigation through a challenging process.

Ultimately, SPPS was successful in bringing many concrete changes to their school cafeterias during this period, and it credits this success to bringing together the right people, with the right skills and knowledge, to reach creative solutions. SPPS' Food Service Director explained, "We have a far greater appreciation for partnerships and leveraging what we're trying to accomplish with the help of others. Yes, we accomplished our goals — and we also see the further possibilities because of the connections we've made. These successes give me great hope that we can make inroads into even more changes in healthy food for kids in this country."

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