Local Plates, Global Minds

A case study in local food procurement for public institutions
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Purpose of the Study

Procurement of local food in public institutions has grown rapidly over the past decade due to federal government initiatives. While guides and technical reports exist to support program growth, sharing the stories of schools who begin local food procurement helps paint a picture of the barriers they face and successes they achieve.

This project worked with Boston Public Schools to tell their story of increasing local food procurement in their school district.
The Healthy, Hunger-Free Kids Act of 2010 established the Farm to School program to provide technical assistance and grant funding to public schools for activities that increase access to and education about local foods. As of 2019, about 75% of all U.S. schools surveyed participate in some form of Farm to School programming [1].

Due to this growth, Farm to School support efforts have emerged. These include the National Farm to School Network (a non-profit information and advocacy hub), university extension schools, and state- and local-level food, nutrition, and/or agriculture non-profits.

The push for Farm to School programming is based on potential economic, health, environmental, and educational benefits.

Local food procurement may have economic impacts by eliminating the cost of middlemen and supporting import substitution, which occurs when community members buy food from farmers in their area, retaining money within the community. It may also improve employment rates near the farm region through the multiplier effect [2]. In addition, if local food in schools increases meal participation rates, school districts could experience economic benefits.

It is unclear whether local food systems and local food procurement improve the health of communities. Some school districts have effectively marketed nutritious local foods, leading to increased consumption of fruits and vegetables and increased knowledge of nutrition [3]. However, research has yet to support the claim that local food is necessarily better for health.

Similarly, there is a dearth of data on whether local food better promotes environmental sustainability as compared to non-local food. There is some research indicating that students produce less waste if they prefer what they are eating, so if local food is a strategy for schools to offer more appealing meals, it could lead to less plate waste [4].

Schools often use the Farm to School program to establish educational activities that allow students to learn about nutrition and agriculture, such as planting school gardens and integrating Farm to School programming in curricula. In addition to increasing direct knowledge about local food, this hands-on learning may increase general academic achievement and support children's social and emotional growth [3].
The aim of this research was to identify the challenges and successes in increasing local food procurement in Boston Public Schools. The objectives of this research were to:

1. **Identify key stakeholders involved in local food procurement;**
2. **Design and implement a semi-structured interview guide with key stakeholders; and**
3. **Extract information from interviews to support conclusions.**

General themes from this case study can be translated to other institutions, where they may be helpful in identifying potential strategies to increase local food.
Interviewees
First, key stakeholders were selected (n=11); stakeholders included Boston Public Schools (BPS) staff and former staff (n=6), consultants who provided technical assistance (n=3), and food producers (n=2).

Interview Guide
The interview guide was developed with BPS staff and included 12 questions with probes (Appendix A). Additional questions were available for specific stakeholder groups. Interviews lasted about one hour and were conducted on Zoom.

Analysis
All interview notes and recordings were coded and analyzed for important concepts and themes. Document analysis was conducted on relevant materials to further support emerging themes.

Limitations
Limitations of this research include that not all stakeholders were available for an interview, and that interviews were not transcribed.
Overview

In 2018, BPS received a grant from the Henry P. Kendall Foundation to increase local food procurement, support staff training, and promote local food consumption through marketing to students. This was part of a larger effort to improve the healthfulness and sustainability of school meals. These efforts include the “My Way Café” model, in which finishing kitchens and salad bars are added to schools without kitchens, students are given more choice for lunch, and food is cooked on-site. Integrating local procurement was just one of BPS' effort to improve school food offerings.

Large size

BPS includes 125 schools with 57,000 students spread across nearly 50 square miles.

CEP district

Under the Community Eligibility Provision (CEP), BPS provides every student free breakfast and lunch within a tight budget.

Schools without cooking capacity

For now, about half of BPS schools have no cooking capacity and rely on ready-to-heat and serve, packaged meals. By 2022, it is expected that all schools will be equipped to cook.

New England location

Boston benefits from New England farms, orchards, dairies, and seafood producers, but many products are only seasonally available.
Within New England, the Henry P. Kendall Foundation focuses on strengthening the local food system by providing grants to organizations working to increase the production and consumption of local and sustainably-produced food [5].

The Boston Public School proposal *Better: Bite by Bite* described three main pillars that would support the implementation of local food at BPS: procurement, training, and marketing [6].

**Procurement**
Evaluate pricing, menus, distribution, storage, and relationships with producers.

**Training**
Improve staff capacity to prepare fresh, local ingredients: receive, store, and prepare local food, and manage food waste.

**Marketing**
Promote local food through special labels and student engagement, using dining rooms as teaching spaces.
Key Findings

A number of key ingredients helped BPS find success in procuring local food for schools meal. While BPS has unique characteristics that presented specific challenges and shaped the choices they made, these key ingredients may prove useful for any institution looking to increase local food procurement.
Culture
A culture that prioritizes persistence, enthusiasm, creativity, and flexibility, held together with the glue of teamwork.

Communication and Roles
Clear and regular communication and clear roles for all stakeholders.

Human Talent
Everyone involved is committed to implementing change. Exceptional stakeholders are identified to take on key roles.

Organization
A well-defined structure for managing and implementing processes, nimble enough to adapt to changing needs.

Planning
The ability to carefully plan local food procurement within the existing budget.

Funding
A funding mechanism that is supportive, flexible, and sustainable.
Results

As BPS begins year four of their efforts to increase local foods in school meals, they have reached a point of transition. The first few years represented an introductory period in which many challenges emerged and BPS faced a steep learning curve in addressing those challenges. However, they have now crested the curve and are entering a period of sustainable growth of the local food program.

The following section delves into stories uncovered during interviews, starting with an introduction of the stakeholders involved and the importance of relationships and attitude. We then describe details about the process BPS went through to establish a local food program: defining local food, assessing baseline and developing a tracking system, selecting and increasing local food, and establishing training and marketing. We highlight the challenges that emerged, and actions and strategies that helped or hindered progress. BPS turned many of these challenges into successes, while some have become ongoing barriers.
Stakeholder Introduction

Executing the grant required collaboration within Boston Public Schools Food and Nutrition Services (FNS) and across other school departments. Additional support was provided by external stakeholders. Positive attitudes helped build the strong relationships which were integral to the success of this program.

Food And Nutrition Services
Staff at FNS developed the vision for this project, provide oversight, and implement activities. The staff include:

Executive Director
Deputy Director
Director of Special Projects
Procurement and Contracts Manager
Nutrition Manager
Procurement Specialists
Kitchen Managers and Chefs

Other Boston Public Schools Departments
The Office of Finance provides accounting support.

Vendors
BPS contracts with large food distributors including Revolution Foods, Russo's*, Garelick Farms, and New England Food. **Producers such as farmers play key roles in helping procure local food.**

External Support
As part of the grant, BPS received support from external stakeholders with expertise in expanding local food procurement in public institutions. Support primarily came from representatives of the University of Massachusetts Amherst and Minneapolis Public Schools and from a private consultant.

*Russo's was an integral part of the process described in this report but as of October 2021 is no longer in business.*
**Focus and Attitude**

“I think it actually captivated people to think about what they could do, and what this would mean for children...people have said to me, ‘This is the most interesting part of the work I do.’”

**Director of Special Projects**

**Positive Mindset**
As the project manager, the Director of Special Projects at FNS brought an enthusiastic, problem-solving mindset to the district’s new work to increase local foods. Virtually every person interviewed mentioned her passion, and most of her colleagues could not help but catch at least a bit of her infectious energy.

The Procurement and Contracts Manager was also highlighted as a particularly passionate team member who was pivotal to FNS’ success implementing local food. The team worked well together, and that was clear even to stakeholders outside the department.

**Shifting Focus**
Introducing local food into BPS meals required an initial shift of focus for the district. Previously, BPS mainly focused on serving healthy food that met nutrition requirements within a tight budget.

FNS’ Executive Director strongly supported the decision to increase local food in meals. Without enthusiasm and leadership from the top, this project would not have been successful, since the new work represented a major change in usual business.

The Director of Special Projects created an atmosphere for creative problem-solving.
Roles and Goals

Early Trial and Error
In the beginning, some stakeholders described feeling unclear about their role and how to move forward. The grant proposal included hiring a half-time procurement specialist; however, FNS decided instead to hire two part-time graduate students to take on this role. Other work was divided across FNS staff and external partners.

Some staff did not initially know how to add the local food work to their existing role. Staff may have been excited about the work, but felt unable to prioritize it without extra time or compensation for their efforts. Additionally, the amount of work at the beginning seemed overwhelming, and the graduate students were not sure which task to accomplish first.

Ultimately, this flexible, intuitive approach was a major benefit as it allowed FNS to easily shift when a strategy did not work out, but it involved some stress and confusion early on.

Initially, FNS may have been too open and flexible with their plans, and it was easy to get pulled in many different directions.
In coordination with the University of Massachusetts Amherst dining, BPS started by defining local foods. While local food seems like a basic concept, there is no one definition. It was important for BPS to determine their definition of local food in order to move forward with their goals. Stakeholders found it challenging to decide what made sense in BPS' context. Ultimately, BPS decided on the following definition.

**Local is:**
- Foods identified as grown/raised/harvested anywhere in the New England region or off its shores (CT, MA, ME, NH, VT, RI)**. While NY could be considered “local,” FNS will identify it as NY within the mix of purchases though separate that from the current definition. Potentially, FNS will revisit NY if it is determined to be an exceptionally rich source of foods.
- Foods have a verifiable source that meets the Boston Schools definition -- either by direct purchase or from the distributor.
- Prepared foods made in New England, if 50% or more of ingredients are from New England (e.g. applesauce).
- Aligns with Good Food Purchasing framework that values local economies, health, valued workforce, animal welfare, and environmental sustainability. [7]

* will refine definition over time as FNS becomes increasingly knowledgeable, including the potential to add tiers of most preferred/hyper local, etc.

**intend to secure source list from vendor(s)
IDENTIFYING LOCAL
A major initial challenge was identifying which foods truly met the BPS definition. Some vendors did not always track where their produce came from or mixed produce from different regions. Processed foods may have been made with locally-grown ingredients but produced elsewhere; these foods would not be acceptable under FNS’ definition, even if the company self-identified as local.

VENDOR MEALS
It was challenging to determine the origin of food included in the meals from Revolution Foods, the vendor providing prepared meals to schools without full kitchens who only had capacity to heat and serve these pre-prepared meals. Nearly two-thirds of BPS schools relied on Revolution Foods prepared meals in the 2018-19 school year. Revolution Foods was not able to provide details on whether their food met the definition of local or not, so these meals would not count in local food data even if there may have been some local food in those meals. However, FNS was able to work with Revolution Foods to encourage them to increase their use of local foods, without any official tracking of their progress.

EXCLUDING NEW YORK
FNS’ decision to exclude New York from their definition of local brought challenges, because the state has made considerable progress in increasing local food in public schools. This is primarily due to a statewide reimbursement program that provides an additional 25 cents per meal for districts who reach at least 30% local food. Due to this program, large food companies have created products that meet the New York local definition that are low-cost and widely available. If FNS had included New York in their local food definition, they may have been able to gain access to this plethora of local products, which could have facilitated their efforts.

Food vendors all had their own definitions of local, so the district spent a great deal of time initially determining which of the foods FNS already purchased could truly be considered local under the district’s definition.
Assessing Baseline and Developing a Tracking System

Once BPS had defined local foods for their purposes, they needed to establish baseline data in order to develop specific goals related to local food procurement. With limited data, this was a difficult task. The following were major obstacles:

- Creating processes from scratch
- Receiving clear information from vendors
- Dealing with redundancy across departments
**BASELINE ESTIMATE**
One of the Procurement Specialists established baseline data and created a data tracking system. This student, along with their FNS colleagues, determined that the district's total **local food baseline was 28% by weight including milk, but just .91% by weight excluding milk.**

For some, it was daunting knowing the baseline estimate of local food excluding milk was low. Some interviewees described that a goal was established to increase local food by 2% each year, though others did not name such a specific goal and instead explained that FNS simply endeavored to increase local food procurement.

**DIFFICULTIES TRACKING**
The Procurement Specialist then worked to create a local food tracking system. **The tracking system needed to be developed from scratch, a major challenge.**

Each vendor provided information in a different way, so BPS staff had to get used to how local food is indicated in each invoicing system. BPS' main produce distributor, Russo's, only flagged some local food on their invoices, which necessitated looking up every food item code on pricing sheets to verify whether a food was local or not. This complicated the process and added more potential for error in tracking local food.

Additionally, there have been instances where vendors have not wanted to share their invoices with FNS because they already submit them to the BPS Office of Finance for accounting. The double tracking added redundancy and confusion.

However, despite the challenges, **BPS was able to successfully establish an effective local food tracking system** managed by the graduate student Procurement Specialists.
Choosing Produce

A next task for BPS was determining what type of local products to purchase. New England has rich food production traditions, with small and large farms growing a wide variety of fruits and vegetables, dairies producing milk, cheese, and yogurt, and boats fishing for seafood off the coast.

BPS chose to primarily increase procurement of local produce.
REASONS FOR PRODUCE
A wide variety of produce is grown in New England, with many inexpensive items readily available. Russo’s, their produce distributor, already purchased some local produce.

When in season, local fruit was found to be a great option, with BPS initially focusing on apples and moving into melon when the kitchens were fully trained to be able to process whole melons. In terms of vegetables, BPS decided to select mainly root vegetables and squash, which were inexpensive and available all year, as well as corn, tomatoes, and peppers in the early fall. Some other produce has also been selected for special local food days.

**Over time, BPS has learned how to include local food in menus.** The Nutrition Manager explained that they now mix cooked parsnips with carrots to increase familiarity.

DIFFICULTIES WITH PRODUCE
New England has a relatively short growing season, with many products unavailable in winter. Fresh produce could be frozen and stored for use, but BPS kitchens lack the required processing equipment. The produce that is available in the winter—mainly root vegetables—has not always been well-liked by some students, as noted by a stakeholder.

PRICE AS A BARRIER
**Food cost is a barrier FNS faces in their efforts to increase local food.** Some local food is too expensive for BPS to afford. Because meals provided are free to every child, FNS has a tight budget, relying on low reimbursement rates from the federal government of $3.51 per lunch and $2.26 per breakfast.

The Kendall grant funded programming related to local food, but not the cost of local food. Though the expense of local food is a challenge, by including local food in their usual food budget rather than adding on a short-term funding boost, **FNS has built sustainability into their funding mechanism, a vital success.**
By 2020, local food became six times more prevalent in BPS meals.

Increasing Local

Once the tracking system was established, FNS could move forward with their efforts to identify distributors and producers from which they could procure local food. The following were major obstacles:

- Identifying right-fit producers
- Complying with City of Boston procurement regulations
RELYING ON ONE DISTRIBUTOR
Consultants suggested that FNS purchase much of their local produce from Russo’s, rather than purchasing from a mosaic of many different producers.

This facilitated processes for both producers and FNS. BPS includes 125 schools, and the city of Boston is spread over nearly 50 square miles; a small-scale producer would find it incredibly time-consuming to deliver produce to all the schools every week.

It is much easier for each producer to deliver just to Russo’s each week, and for Russo’s to then deliver the conglomeration of produce to BPS schools. FNS has found a balance where Russo’s delivers to some schools, while FNS also provides some internal distribution between schools in order to reduce the burden and cost.

CONNECTING TO PRODUCERS
The University of Massachusetts Amherst helped connect FNS to a large-scale farmer who grew produce and processed it in a way that would be accessible to Boston cafeterias. For example, the producer could peel butternut squash and chop it into cubes, so that BPS schools would only need to empty the bag of cubed squash and roast it.

This farmer was used to working with different types of institutions, including other public school districts, and already sold to Russo’s. This connection was a huge success for the district, and the relationship worked well for both parties.

His relationship with BPS was valuable enough that this farmer started to make changes in his business to benefit them, such as raising black beans and purchasing special technology to process them.
**RED TAPE**
The City of Boston has extensive regulations related to procurement contracts. Using Russo's as the primary distributor, FNS established letters of agreement with each farm, with only Russo's signing the official, complex contract.

While each farm still undergoes considerable work to participate in bidding, set their prices, and commit to specific levels of quality and quantity of the produce they will be selling, removing the contract requirement greatly facilitates the process and better incentivizes small producers to participate. For these reasons, many stakeholders interviewed identified the produce routing through Russo's as a huge win.

**COST OF DELIVERY**
One caveat to routing through Russo's that is important to mention is that this adds costs, compared to direct purchasing from the producer. However, Russo's is able to help with deliveries, whereas if BPS purchased from many small farmers, distribution would be an issue and an additional cost. Therefore, overall, Russo's made the most sense.

**BEYOND PRODUCE**
BPS has expanded beyond produce in its local procurement, contracting directly with other types of producers. Eighty percent of the district's milk was already local. BPS also makes occasional purchases of local whole grains and fish, as outlined in the upcoming success story.

**SUCCESS IN INCREASING LOCAL**
During the 2019-20 school year, about 30-50% of all produce purchased from Russo’s was local, depending on the month, and nearly 6% of all food was local by weight. This is a 614% increase in the share of local food from the 2018-19 school year baseline.

The increase would have likely been even higher if COVID-19 had not cut short in-person meals starting in March 2020, since it was challenging to include local food beyond milk in grab-and-go meals provided at that time.
BARRIER
The city of Boston has extensive procurement regulations that led to a long initial Request for Proposals (RFP); small farms were deterred from bidding for contracts.

SOLUTION
With the help of a consultant, FNS was able to simplify the RFP to seven pages and streamline requirements for producers.
Success Story

North Coast Seafoods has shown amazing creativity in their work with BPS and other schools. North Coast is a large seafood processor and distributor that is vertically integrated, meaning they control the entire business process related to their seafood, from catch to customer. This facilitates the process and allows for higher standards and increased oversight.

Acadian redfish is often thrown away as the fish is too small to process into standard fillet sizes, and there is limited demand for it. The company's Chef and Director of Research and Development saw an opportunity and created a menu item for public schools called “Fish-in-Chips.” Fish-in-Chips is comprised of small Acadian redfish pieces breaded in local Cape Cod kettle chips, providing a nutritious yet desirable lunch for children. It comes frozen, making it easy to cook in a school cafeteria. This innovation has been very popular at public schools in New England, with hundreds of thousands of pounds sold before COVID-19.

North Coast made a commitment to subsidize Fish-in-Chips to ensure the price remains reasonable for school food programs. This means that they sacrifice margin on this product. As a family-owned business, the company believes it is the right thing to do. This subsidy is wonderful for BPS, whose most recent order was for around 2000 pounds. If BPS could find similar local food producers providing creative, fun, and nutritious products for children at a low cost, they would be well on their way to transforming the school food environment.
Training and Marketing

TRAINING
Through the Kendall grant and My Way Café program, BPS increased the number of kitchen staff and improved capacity through training. Local foods required new recipe development. Initially staff had difficulties with consistency of follow-through on recipes across schools.

The new work was not necessarily what kitchen staff had signed up for; many of them were used to just heating food.

Having encountered issues with consistency across schools, BPS has focused on clear communication, and provided more lead time for staff to prepare to implement new recipes.

MARKETING
Virtually every interviewee identified marketing as the weakest pillar and BPS’ current focus. FNS has a strong incentive to increase desirability of its meals: every meal provided to a student comes with federal reimbursement.

To support marketing, BPS hired a company to conduct research to inform imagery and messaging for marking materials, which FNS utilized in posters and bookmarks (see left).

FNS understands that marketing is a piece that needs more focus, and plans on implementing a comprehensive marketing strategy in the upcoming school year.
Increasing local producers
BPS has ambitious plans for the 2021-22 school year to bring in new local producers.

Increasing local food
The FNS team has built more local food into menus, with a goal to rebound from COVID-19 and achieve the highest percentage of local food since the district began its efforts.

Expanding marketing
Plans are in the works for BPS to create engaging marketing strategies to help promote local food to students.

Continuing innovation
Stakeholders involved in BPS' local food efforts are committed to continual improvement. The local food work will require ongoing creativity and problem-solving.

Conclusion
Three years ago, Boston Public Schools began an ambitious project to transform their district's school meals by procuring local food for the first time. This work required flexibility, creativity, and persistence from passionate and skilled stakeholders.
REFERENCES


APPENDIX A

Interview Guide:

Thank you very much for your time today. I am a student researcher from the Friedman School of Nutrition at Tufts University, hoping to learn more about successes and barriers that different people have faced as local food has increased at Boston Public Schools over the past few years with the Kendall Foundation grant. I will be asking you questions about your role and experience related to local foods at BPS, looking back to when your work on this project started. I plan to produce a report that will help BPS better understand how they got to where they are now. I will also be asking about what you see as current challenges that you and/or BPS face related to local foods, and plan to research what other districts have done to address similar challenges, to help present some options to BPS.

This interview will take no more than 1 hour, and please just let me know if you do need to end early.

Before we begin, I would like to ask you:
Is it OK to record this interview?
Is it OK to quote you directly in any report I produce?

General:

1: Involvement/beginning
• Can you please describe your involvement in helping BPS increase local foods?
  o How were you brought on?
• What was your understanding of the program when it started?
  o How was it explained to you?
• What were your thoughts about the program when it started?
• What were challenges that you faced or observed at the beginning of the project?

2: Process
• Who did you work with most? What were those relationships like?
• As time went on, how did you feel that introducing local food was going?
  o What went well?
  o What were major challenges?
• Tell me about how some challenges were addressed or overcome.
• How did your work on this project fit in to your regular work?

3: Outcomes
• What do you feel have been some major successes of this project?
  o Who was involved?
  o What was required to have that positive outcome?
• What issues do you still see?
  o What would you suggest to overcome those?
• What could be done to make this project more successful?
  o What would an ideal “local food in the schools project” look like? Can you think of any examples you have seen – other districts, other partnerships – that could be a good model?
  o What are your ideas for marketing local foods in BPS?
• Do you have any continued involvement in this project? What will it look like?
School staff:

1: Involvement/beginning
• Describe what school meals were like before this project.
• How was this project introduced at BPS? Do you think there was a smooth beginning?
• Describe the level of support for this project at BPS. Was there any pushback?

2: Process
• Please describe the marketing that you have implemented related to local foods, including events.
• What did children think about the new meals?
• Describe whether local food was integrated into different schools differently, and if so, how.
• Please describe what the training on local food preparation involved.
• What infrastructure, logistical, or financial challenges did you or other BPS staff face?

3: Outcomes
• How would you describe the level of impact that local foods had? How different is the school meal environment from before? What are meals like now?
• What does BPS plan on doing with local food procurement moving forward?

4. Data/tracking:
• What were the requirements for data/tracking?
• Describe any challenges related to data/tracking.

Producers/distributors:

1: Involvement/beginning
• Do you have experience working with schools previously?
• How well-organized was BPS in working with you initially on local foods?
• Why were you interested in working with BPS on local foods?

2: Process
• Did any of your plans change along the way, in terms of what was possible to do?
  o Did you have to change any of your prices? Packaging/processing? Products offered?
  o Please describe challenges you may have had with implementing orders related to traceability.

3: Outcomes
• Would you work with more school districts on local foods? What might you do differently in the future, working with a new district?

Support people:

1: Involvement/beginning
• Please describe your previous experience with local food procurement.
• What did you see as BPS’ major challenges at the beginning?
• Tell me about the type of guidance you provided for them initially.

2: Process
• Did your role change over time as BPS became more proficient? How?

3: Outcomes
• What do you think BPS needs to do to move forward with this project?

Is it OK if I reach out to you again with any questions in the future? Is there anyone else you think I should talk to?