Buffalo Public School District: Farm to School Implementation Plan

Project Collaborators:

- Buffalo Public Schools Child Nutrition Program
- Cornell Cooperative Extension of Erie County, the Harvest NY team and Eat Smart NY
- Massachusetts Avenue Project
- Buffalo Niagara Medical Campus

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BUILDING YOUR FARM TO SCHOOL TEAM

BACKGROUND

The Buffalo Public School District is the second largest school district in New York State (NYS). This urban school district has 34,000 students with more than 72% of the children on the Direct Certification list. The district has participated in the Community Eligibility Program since 2013, which provides everyone in the district a free meal based upon the percentage of students on the Direct Certification list.

The Buffalo Public School (BPS) Farm to School Coordinating Committee (referred to hereto after as the F2S Coordinating Committee), which is comprised of the BPS Child Nutrition Program, Cornell Cooperative Extension, Massachusetts Avenue Project, and the Buffalo Niagara Medical Campus, was established in the winter of 2014. The F2S Coordinating Committee came together with the shared goals of supporting regional farmers by increasing the procurement of local farm goods, providing BPS students with access to nutritious locally sourced farm goods and educating the school community about F2S.

Efforts spearheaded by the BPS Child Nutrition Program had been initiated in former years to implement a F2S program, in both select schools and district wide. Despite marginal successes, previous efforts were met with many challenges. In an effort to move forward, the F2S Coordinating Committee applied for and received a USDA Planning Grant, with a start date of December 1st, 2014.

Activities the F2S Coordinating Committee completed during the grant timeline of 12/1/14-11/30/15

- Held bi-monthly team meetings, with sub-team meetings occurring more frequently.
- Hosted a press event to announce the grant. Speakers included Congressman Brian Higgins, BPS Board members, Bridget O'Brien Woods (BPS Food Service Director), and two Youth Advisors Council (YAC) leaders.
- Hosted a participatory community engagement event. Over 100 people attended and included such stakeholders as parents, students, teachers, food service staff, farmers, distributors, and interested community members.
- Completed a SWOT analysis (<u>see APPENDIX A</u>).
- Selected 10 of the District's 65 schools and 1 control school to serve as pilot schools to launch F2S efforts. Careful attention was paid to ensure the sample was representative of the district at large. Factors considered included: socioeconomic levels, grade levels, type of food service operation (full service kitchen or pre-pack), geography, and overall commitment from the schools.
- Assessed the local food landscape and audited the menu to identify target areas to incorporate local foods.
- Reviewed and analyzed the BPS procurement policy and the wellness policy using WellSat2.0. Results indicated that where the wellness policy itself was vague, the regulations included language that aligned more closely with F2S goals. There was no language in the procurement policy that supported F2S goals.
- Toured pilot schools with varying levels of food service style operations to help determine how best to move forward with local food procurement efforts. The key was to develop a program that would work in each type of food service operation.
- Adapted the Institute of Agriculture and Trade Policy F2S Youth Leadership Curriculum to meet planning objectives for the Buffalo area.
- Drafted a marketing plan and enlisted the support of a local graphic designer. The short term goal was to develop a F2S logo, however marketing work evolved beyond that goal.

- Met with Latina Boulevard Produce, BPS's longtime produce distributor, to discuss the bid process and
 identify opportunities to incorporate local produce into the BPS menu cycle. Issues such as volume
 needed, level of processing required and seasonality were all considerations. Also determined at this
 meeting was baseline data on local food procurement from the previous year. The data was not tracked
 meticulously, so there is concern over the accuracy of this figure and has been omitted from analysis for
 this reason.
- The Co-Project Directors attended the F2S grantee conference in Denver and identified many other districts across the country at varying stages of F2S planning and implementation efforts. Following the conference, we reached out to districts similar in size and scope to BPS to identify best practices for success. Bridget and the lead architect on the BPS commissary redesign (currently in the planning phase) visited Minneapolis Pubic Schools to tour their central commissary and meet with key site stakeholders.
- Met with and surveyed the wellness committees in each of the pilot schools to engage them in the F2S
 effort and solicit their input on what a successful F2S program might look like in their schools.
- Completed a F2S implementation plan, based on the lessons learned from all activities.

ACTIVITIES ABOVE AND BEYOND THOSE ARTICULATED IN THE USDA PLANNING GRANT

- Toured four farms and one produce cooperative with 100+ BPS students. For many of these urban students, it was their first time on a farm. We toured a diversity of farms, ranging from a small Community Supported Agriculture (CSA) farm, a large dairy, a large vegetable farm, and a small urban farm
- Toured one CSA farm with the entire BPS Food Service Department (80+ people). The goal was to engage the department and get it excited about working with raw agricultural products.
- Developed and executed a three month harvest of the month (HOM) pilot program, which ran from September 2015-November 2015. Local items highlighted were kale, Brussels sprouts and potatoes. Activities to execute the HOM broadly included:
 - o Recipe development and testing of four recipes per HOM item for a total of 12 new recipes.
 - o Trained the food service staff on new menu items.
 - Created marketing posters to accompany each HOM item (see Appendix B).
 - Met with produce distributors and local farmers to gauge their ability and interest to provide HOM items.
 - Created HOM kits for each of the pilot schools, which included:
 - Newly developed agriculture and nutrition education (lesson plans for grades K-6 and 7-12);
 - Marketing materials, to include posters, nutrition newsletters, sample letter to parents, and morning announcement blurbs;
 - Scaled down recipes of the HOM menu offerings for in-home use; and
 - Program evaluation tools.
 - Met with the entire faculty and administrative team of each pilot school to introduce the HOM concept and kits.
 - Selected one control school in which to serve the HOM recipes, but with no other support activities.
 - Hosted a back to school kickoff event, which attracted over 200 parents, students, school support staff, and farmers. New HOM recipes were served, the American Dairy Association and Dairy Council attended and provided many activities, and other community organizations dedicated to local food systems development tabled and provided hands-on activities.

- Conducted taste-test during lunch periods in every pilot school during the entire 12 week duration of the HOM pilot. Students were asked to vote "yes" or "no" on the new recipe being offered.
- o Partnered with D'Youville to conduct an independent 3rd party evaluation of the HOM program.
- Surveyed the food service staff and the teachers about varying aspects of the HOM pilot program and brainstormed ways to improve the program moving forward.
- Applied for, and received, a NYS Department of Agriculture and Markets grant to extend the HOM program over 10 academic months. At the completion of the NYS grant, which is November 2016, there will be 13 HOM kits created for use by BPS and other NYS school districts.

ALREADY COMMITTED MEMBERS

BRIDGET O'BRIEN WOOD: BUFFALO PUBLIC SCHOOLS, FOOD SERVICE DIRECTOR

Bridget is responsible for the effective management of a \$37,000,000 budget and staff of 550 in a multi-union environment. She oversees the efficient and quality meal service of 28,000 lunches, 25,000 breakfasts, 5,000 snacks, and 14,000 summer meals daily. She is currently assisting in the architectural planning and renovation of existing school food service units in addition to a central commissary. Bridget is charged with balancing student preference and budget constraints while maintaining compliance with USDA and NYS Department of Health. She has a Bachelor of Science Degree in Human Nutrition and Food Service from Colorado State University.

CHERYL THAYER, CORNELL COOPERATIVE EXTENSION HARVEST NY TEAM, AGRICULTURAL ECONOMIC DEVELOPMENT SPECIALIST

Cheryl is a Senior Resource Educator with the Cornell Cooperative Extension Harvest New York Team, a regional team that serves 16 counties in Western NY. As one of the team's Agricultural Economic Development Specialists, Cheryl aims to increase investment and jobs in agricultural and food systems to enhance the viability of farms through expansion, value-added production, diversification, and distribution of locally produced farm goods. Through a coordinated effort, Cheryl partners with economic development organizations, government entities, Cornell extension faculty, and agricultural producers to develop programs designed to strengthen the regional food system, both in direct-to-consumer and wholesale markets. This is accomplished by analyzing the economic feasibility and marketability of NYS grown agricultural products and designing programs and projects that mitigate systemic barriers to profit maximization and market growth. Cheryl previously worked for Aramark in their Business Services Department. In addition to other duties, Cheryl was responsible for the procurement and contract negotiation of multi-million dollar food accounts. Cheryl has been co-directing F2S planning efforts in Buffalo, alongside Bridget O'Brien Wood. She earned her Bachelor of Science from the Pennsylvania State University, and her Masters of Public Affairs from Cornell University, where she studied Food and Agriculture Policy.

SARA JABLONSKI: CORNELL COOPERATIVE EXTENSION OF ERIE COUNTY, URBAN 4-H EDUCATOR

Sara is the Urban 4-H Educator at Cornell Cooperative Extension of Erie County where she has worked since October 2013. She conducts youth development programming in Buffalo, primarily with teenagers, to help them develop and implement community improvement projects. Her main role on the Buffalo F2S team is youth engagement. She co-facilitates afterschool meetings of the Youth Advisors Council, a group of teen leaders from across the Buffalo Public School District. She is also working on the education component of the F2S program by helping develop materials teachers can utilize for classroom education around F2S. She has an MS in Community Food Systems from Michigan State University, through which she studied how to intentionally engage communities

to address food system challenges. Previously, she served in the Peace Corps in Guatemala where she worked with women and elementary school students to build gardens using sustainable methods.

JONATHAN MCNEICE: BUFFALO NIAGARA MEDICAL CAMPUS (BNMC), HEALTHY COMMUNITIES PLANNER

Jonathan's primary focus is to build on the momentum and successes of the Healthy Kids, Healthy Communities initiative undertaken by BNMC and its partners in 2010 and developing a plan to strategically move this initiative forward. In addition, Jonathan contributes and collaborates on other projects that are focused on developing a healthier community on campus and in the surrounding communities. Trained as an Urban Planner, Jonathan's past work experience spans the public, private and not-for-profit sectors. As a student at University of Buffalo, he co-authored Buffalo's community gardens plan "Queen City Gardens" which led to a substantial increase in the number of gardens in the City. He also contributed to a plan for active transportation for youth called "Kid Corridors: Taking Steps to School". In the non-profit world, Jonathan was a founder of a Canadian organization that incubated the Halton Fruit Tree Project which salvages over 10,000 lbs of organic fruit per year that otherwise would go to waste and redirects it to those most in need. In the public sector, Jonathan has worked for two progressive cities on planning, transportation and public health initiatives. At the City of Edmonton, Jonathan worked on a dynamic project that led to the adoption of the City's first food and urban agriculture strategy. At the City of Toronto he took part in the innovative Toronto Urban Fellows program that had him working across city departments on public health and transportation issues.

REBEKAH WILLIAMS: MASSACHUSETTS AVENUE PROJECT (MAP), YOUTH EDUCATION DIRECTOR

Rebekah is responsible for hiring and supervising approximately fifty Buffalo teenagers each year, develops lesson plans and curriculum, and conducts lessons with MAP's youth in social and environmental justice, social change marketing, policy change, youth organizing, and urban farming. Rebekah represents MAP in several collaborative partnerships with the Northeast Sustainable Agriculture Working Group, the Western New York Environmental Alliance, the Crossroads Collective, as well as with the Buffalo F2S initiative. Rebekah also serves as a co-facilitator of the YAC, a city-wide collaboration of Buffalo students, administrators, health leaders, and the district's Food Service Director, working together to improve Buffalo's school meals. Rebekah completed two years of training with the Buffalo Montessori Teacher Education Program, and she has a Bachelor's degree from Empire State College in Social Structure, Theory and Change with a concentration in Community Studies and Development.

BECKY O'CONNOR: CORNELL COOPERATIVE EXTENSION OF ERIE COUNTY, EAT SMART NEW YORK PROJECT MANAGER

Becky O'Connor is the Eat Smart New York (ESNY) Western Region Project Manager. ESNY is Supplemental Nutrition Assistance Program Nutrition Education (SNAP-Ed). ESNY provides free nutrition education for SNAP participants and low-income individuals, and offers collaboration and support for community agencies, organizations and schools. Becky is part of the F2S Community Outreach and Nutrition Education program work teams, and has been involved in planning of F2S nutrition education since March 2015.

SHEILA BASS, CORNELL COOPERATIVE EXTENSION OF ERIE COUNTY, EAT SMART NEW YORK LEAD NUTRITIONIST

Sheila has over 11 years of experience working collaboratively with organizations and school districts throughout Erie County, specifically BPS. She works in areas of direct nutrition education in classrooms, community environmental initiatives, including Healthy Corner Store and Smarter Lunchroom projects, afterschool programs, and develops community garden projects for grades 2 -12. She has extensive experience in program delivery,

training, adaptation, and review of approved USDA curricula. Sheila has 14 years of experience evaluating program impact using an evidence-based approach.

MALLORY HOHL: CORNELL COOPERATIVE EXTENSION OF ERIE COUNTY, EAT SMART NEW YORK NUTRITIONIST

Mallory has been working with CCE Erie as a nutrition educator since May 2015. She earned her Bachelor's degree in Biochemistry from Canisius College and her Public Health degree, with a concentration in environmental health, from the University of Buffalo. Through ESNY, Mallory is able to empower youth, families, adults, and seniors by providing them with nutrition education and interactive learning opportunities focusing on nutritious eating and physical activity. She especially enjoys working with youth, but appreciates the flexibility ESNY offers in working with many different people. As a member of the F2S Coordinating Committee, Mallory has been able to curate a curriculum that was used in the pilot schools. She has been instrumental in developing educational materials focusing on the HOM crops. She loves living in Buffalo with her husband and two dogs, Blair and Evie.

CHRISTINA KASPRSAK: CORNELL COOPERATIVE EXTENSION OF ERIE COUNTY, EAT SMART NEW YORK NUTRITIONIST

Christina is a native Buffalonian and loves exploring her hometown city and watching its resurgence. She enjoys working with at-risk population to help SNAP recipients maximize their benefits. She particularly enjoy working with kids in BPS and seniors. She is passionate about supporting obesity prevention efforts. Christina holds a BS in biomedical sciences, a BA in political science and an MS in nutrition science. Additionally, she is a board certified lactation consultant. Her professional background includes health care (United Healthcare), community nutritionist (WIC program), research (Roswell Park research apprentice), and customs brokerage. Her personal interests include yoga, running, hiking, volunteering, animal fostering, cooking, and DIY projects.

ADVISORS

We do not have a formal advisory committee, but there has been a number of people that we have relied of for their expertise on an as-needed basis. Listed below are their names and affiliations.

- Kathy Border EdD, RD: Assistant Professor of Dietetics, D'Youville College, Member of BPS Nutrition
 Committee
- Tom Willson: Latina Boulevard Produce
- Adrienne Romanowicz: BPS parent and a new member of the F2S Coordinating Committee
- Derek Nichols: Grassroots Gardens and a new member of the F2S Coordinating Committee
- Assunta Ventresca: BPS Director of Health Related Services

NEEDED MEMBERS AND ADVISERS

We have had some success in engaging the school wellness teams, which are comprised of teachers, students, parents, and school administration. Moving forward, we intend to make a more concerted effort to work through the wellness teams to better engage all F2S stakeholders. The strength and commitment of each wellness team varies dramatically across schools, which is a potential barrier to our success. Discussions with the District Wellness Team Lead are already underway on how best to partner with these important groups and align interests around F2S efforts and programming in each school.

The YAC is an excellent representation of the student body in BPS. YAC members have been involved in various F2S planning efforts to date, and we plan to develop opportunities to continue to engage them in F2S program efforts going forward.

DETAILS AND LOGISTICS

STRUCTURE

The F2S Coordinating Committee is a group of individuals from multiple community organizations that formed in early 2014. Collectively, the committee pursued a USDA planning grant to kick start F2S efforts in BPS. The committee is overseen by the BPS Child Nutrition Services Program. For the past year, the committee has been codirected by Bridget O'Brien Wood and Cheryl Thayer. Under the guidance of Bridget, we collaborate with the district wellness committees, the District Parent Coordinating Council, the BPS Nutrition Committee, and the BPS School Gardens Committee, where applicable and able. New members are invited to join the committee on an asneeded basis. Moving into 2016, we've broken the F2S Coordinating Committee into Program Work Teams (PWT's) that will meet more frequently than the entire committee. Members have self-selected to serve in any of the following PWT's: agricultural development; youth engagement; nutrition; and community engagement. As our project evolved and the team grew, we found entire committee meetings to last hours, with little ability to make it through all of the agenda items. Through the newly formed PWT's, committee members are empowered to chair a PWT and help guide the development of the F2S program in a more effective and efficient manner.

NAME

The Buffalo Public Schools Farm to School Coordinating Committee

RESPONSIBILITIES & POWER

The F2S Coordinating Committee makes all of the large decisions regarding the direction and future of the F2S program in a collective and participatory nature. During the planning grant period, it was the team's charge to ensure that activities outlined in the planning grant were carried out. In addition, the Committee took on additional responsibilities outside those stated in the grant. Decisions about how best to prepare, train, and cook the new HOM items were at the complete discretion of Bridget and her Food Service Management staff.

RELATIONSHIP BUILDING

Prior to forming the F2S Coordinating Committee, many of the individuals that serve on the committee had worked together on other projects related to food access, agricultural economic development, nutrition, and youth development. In addition, 6 of the committee's members work together for Cornell Cooperative Extension of Erie County (CCE Erie). Collectively, the team works very well together, with each of us bringing different, yet equally important, expertise to the table. We are excited to welcome our newest members, who include an actively engaged BPS parent and Grassroots Gardens, a community organization that enables community-led efforts to revitalize the city and enhance quality of life through the creation and maintenance of community gardens.

MEETINGS

The F2S Coordinating Committee is accountable to the BPS Child Nutrition Program. The team met at minimum twice per month, with smaller group meetings occurring more frequently. Meetings were almost always held at the Central Food Commissary and were facilitated by either Bridget or Cheryl. As we move forward into the next

phase of our F2S program, we will be meeting in smaller PWT's, which will be led by the chair of each respective work group. Larger committee meetings will occur at minimum once every 6 weeks and will be facilitated by Bridget and/or Cheryl.

TEAM BUILDING RESOURCES

- Getting Started, National Farm to School Network: http://www.farmtoschool.org/get-started
- The USDA Farm to School Planning Toolkit: http://www.fns.usda.gov/sites/default/files/f2s/F2S Planning Kit.pdf

ESTABLISHING VISION AND GOALS

BACKGROUND AND CURRENT STATUS

Plagued in decades past by economic distress, poverty and job loss, Buffalo is argued to be on the cusp of a resurgence, supported by the entry of new industries and the subsequent creation of thousands of jobs. Despite the positive direction in which our Queen City is headed, high rates of poverty, food insecurity and childhood obesity are still prevalent throughout Buffalo. Contrary to these issues of food access within the City, Buffalo is nested in a rich agricultural region of NYS, known for the thousands of farms that grow a diversity of fruits and vegetables. By harnessing the power of F2S, the F2S Coordinating Committee is dedicated to bridging this unfortunate dichotomy.

In 2007, BPS participated in a F2S pilot program with two local farmers who provided locally grown potatoes, apples and pears throughout the school year to supplement menu offerings to students. The farmers delivered produce to the central commissary, where it was redistributed to the 60+ school buildings in the District. The District experienced a number of challenges with the F2S program, ultimately resulting in the discontinuation of the effort.

In May 2012, the BPS Board of Education approved a District Wellness Policy that committed BPS to provide school environments that "promote and protect health, wellness and the ability to be successful by encouraging healthy eating, physical activity and positive health behaviors for all students, parents and staff." One of the Wellness Policy Nutritional Goals is to develop a F2S initiative. In addition, the BPS Nutrition Committee has been an active group since inception and strongly supports the F2S initiative. Further, there was strong interest from community organizations to collaborate with BPS on F2S planning efforts.

Given the District's commitment through the newly established Wellness Policy, the active Nutrition Committee, the strength of the BPS Child Nutrition Program, and strong community support, the timing seemed perfect to revisit F2S programming in the district. However, given the identified prior challenges associated with rolling out a F2S program in such a large school district, the project team felt strongly that embarking on a sound planning process was critical to developing a successful and sustainable district-wide F2S program.

LONG TERM VISION (5-10 YEARS)

- Renovate the BPS Central Commissary and train food service staff to support scratch cooking.
- Expand the HOM program beyond produce, to include protein and grains.
- Integrate agriculture and nutrition education in grades K-12.
- Develop well-maintained gardens in more than 50% of the district's schools.
- Establish the F2S program as an integral part of the BPS school day and Buffalo community.

NEAR TERM GOALS AND OBJECTIVES (1-2 YEARS)

- Expand HOM to all academic months in 11 pilot schools by the end of 2016. Note we added our original control school as an official pilot school, giving us 11 in total moving forward.
- Expand the HOM program district wide in 2017-2018.
- Purchase 35% of produce from NYS farms.
- Increase student and teacher knowledge about agriculture and nutrition through teacher-implemented classroom lessons, field trips, increased use of gardens as learning tools, and culinary activities.

SCHOOL ENVIRONMENT AND STUDENT POPULATION

BPS is the second largest urban school district in NYS, with 34,000 students. The school is populated by a diversity of ethnicities and cultures. The specific demographics are: 49% Black or African American; 21% White; 18% Hispanic or Latino; 8% Asian or Native Hawaiian/other Pacific Islander; 3% Multiracial, and 1% American Indian or Alaska Native.

PROGRAM CONTEXT

CHILD NUTRITION PROGRAMS

BPS participates in the:

- National School Lunch Program, which serves 28,000 lunches daily.
- National School Breakfast Program, which serves 25,000 breakfasts daily, through a combination of breakfast in the classroom and full cafeteria service.
- Community Eligibility Program.
- Fresh Fruit and Vegetable Program, which 44 schools participate in.
- Afternoon Snack Program, which provides 5,000 snacks.
- Summer Food Service Program, which provides 14,000 summer meals.

STATE AND LOCAL INITIATIVES

- The NYS Department of Agriculture and Markets released an RFP for a Farm to School Competitive Grant Program, with awards made in late 2015. BPS was awarded \$43K to expand the HOM program for 10 months.
- The Pilot Project for Procurement of Unprocessed Fruits and Vegetables, which NYS is one of eight states participating in the pilot, could be a potential opportunity to source more NYS locally grown produce.
- The BPS District Wellness Policy, which committed the District to provide school environments that promote and provide a full range of learning and health support systems to each child. Specifically one goal of the Wellness Policy is to develop a F2S initiative.
- Currently there are 20 schools with a school garden. The BPS Garden Committee is actively promoting and providing support to start up new gardens, which will be planted with HOM items in mind.
- All schools will have a salad bar available throughout the meal service for lunch by the end of 2016.
- The BPS Nutrition Committee also established a 2013 goal to implement a F2S program. The Nutrition Committee supports and partners with parents and faculty within the district to convey the goals of the F2S program.

POLICY CONTEXT

There are no known policies at this time that bolster our F2S efforts in NYS. However, the New York School Nutrition Association is requesting an increase in the NYS reimbursement of school meals tied to purchasing New York-grown and raised foods. The NYS Farm to School Procurement Incentive would reimburse school districts an additional 5 to 25 cents per meal, based on how much of the school district's food purchasing budget was spent on New York grown foods each year. If included in the NYS budget, this incentive could significantly support our F2S efforts moving forward.

The minimum purchase threshold of \$10,000 serves as a barrier to our ability to work directly with farms of all sizes. Given the volume of produce needed to service the District and the low dollar amount of the threshold, essentially all purchases are subject to the formal bid process, with the purchase of NYS grown/raised items being facilitated by and at the discretion of, the distributor who wins the bid. This hinders our ability to forge personal relationships with farms with whom we'd like to source from.

VISION AND GOAL SETTING RESOURCES

- The USDA Farm to School Planning Toolkit: http://www.fns.usda.gov/sites/default/files/f2s/F2S_Planning_Kit.pdf
- Farm to School Toolkit; Gretchen Swanson Center for Nutrition: http://toolkit.centerfornutrition.org/
- Farm to School Assessment Tool; Minnesota Department of Health:
 http://www.health.state.mn.us/divs/hpcd/chp/cdrr/nutrition/docsandpdf/self assessment.pdf
- Tips for Writing Goals and Objectives; Tulane University:
 http://tulane.edu/publichealth/mchltp/upload/Tips-for-writing-goals-and-objectives.pdf

DEFINING LOCAL AND FINDING LOCAL

DEFINITION OF LOCAL OR REGIONAL

The broad definition of local we've been following is anything grown in NYS. That said, we've intentionally tried to keep the geographic territory locally sourced items come from within 200 miles, which includes all of Western NY and the Finger Lakes. Defining local was a challenge for our team, particularly as we border Ohio and Pennsylvania so closely. However, as a team, we decided it was important to support our state's economy by keeping our food dollars within the confines of NYS. That was how we ultimately decided on the broad definition.

LOCAL OR REGIONAL AGRICULTURAL PRODUCTS

About 23% of NYS's land area, or 7 million acres, is used by 36,000 farms to produce a diverse array of products. Milk is NY's leading agricultural product, accounting for half of the State's total agricultural receipts. Further, NYS is a competitive producer of many fruits and vegetables, with a few national rankings bulleted below.

- #2: Apples, Maple Syrup and Pumpkins
- #3: Dairy, Wine & Grapes, Cabbage, Cauliflower, Corn Silage
- #4: Tart cherries, fresh market Sweet Corn, Squash, Pears
- #5: Fresh market vegetables, Onions
- #7: Cucumbers, Floriculture crops
- #8: Strawberries
- #11: Tomatoes, Potatoes

Fortunately, much of the large scale production of these items occurs in Western NY, aptly positioned right in our backyard. As a result, we have had no trouble locating farmers that could supply BPS's HOM needs for September-November. That said, we are hoping to develop deeper connections with our F2S partner farms. We've been successful in doing so with our hyper-local farm partners, but we are falling short with the farms known only by the distributor. Given the size of these farm and the fact that most are strictly wholesale, we're not getting the overall level of excitement or commitment that we'd like. Developing relationships with farmers beyond our immediate local area is something we hope to improve upon in the next phase of our F2S program.

SOURCES OF LOCAL FOOD

EXISTING SUPPLIES, CONTRACTS, AND PROCUREMENT SYSTEM

Currently, BPS has food contracts with U.S. Foods Premier Contract, Midstate Bakery, Upstate Milk Cooperative, and Latina Boulevard Produce. Wegmans, a regional grocer, distributes produce for the Fresh Fruit and Vegetable Program. Upstate Milk Cooperative and Latina Boulevard Produce are the only contracts that provide local foods at this time.

The BPS Food Service Department and Purchasing Department will begin dialogue with the remaining vendors to investigate further opportunities to purchase NYS food products. The intent of these conversations is to make changes in the bid language to include local foods beyond dairy and produce.

SUPPLIERS

Latina Boulevard Produce has been the District's long time provider of produce, winning the formal bid annually. It has solid relationships with many NYS farmers, largely in the Western NY and Finger Lakes regions, which is the foodshed within which we prefer to source our products. There is a large vegetable cooperative 20 miles south of Buffalo, which has provided some HOM items. In the coming years, the cooperative plans to expand its product line and possibly its season. It is our hope to source more product from the cooperative, either directly or through an intermediary, as it expands. When asked about sourcing directly from the cooperative, we were told that it would prefer to sell through an intermediary rather than have to adhere to the delivery requirements of such a large district, despite the fact that it has a small fleet of trucks.

In the coming year, we have a number of different farm tours planned. It is our intention to visit some of our partner farms and cultivate new relationships through the process. Through Latina Boulevard Produce and our partners in Cornell Cooperative Extension, we have ample access to local farms that can supply our needs. However, the personal connection and shared commitment to F2S goals is something we need to continue to foster.

LOCAL SOURCING RESOURCES

- The Farm to School Census; USDA's Food and Nutrition Service: http://www.fns.usda.gov/farmtoschool/census#/
- Cornell Cooperative Extension: http://cce.cornell.edu/localoffices (as to speak with agricultural economic development person/farm business manager, or check their website to see if they have a Buy Local guide)
- USDA National Farmers Market Directory; USDA's Agricultural Marketing Service: https://www.ams.usda.gov/services/local-regional
- NYS Farmers Market Directory: https://data.ny.gov/Economic-Development/Farmers-Markets-in-New-York-State/qq4h-8p86

- NYS Farm Product Dealership License; NYS Ag and Markets: http://www.agriculture.ny.gov/AP/Farm Product Dealer List.pdf
- Hudson Valley Bounty: <a href="http://www.hudsonvalleybounty.com/eat-locally?title=&field-products-value=&tid[]=3&tid_1[]=8&city=&distance[postal_code]=&distance[search_distance]=&distance[search_units]=mile
- Good Agricultural Practices Certified Farms (GAP), searchable by State:
 https://apps.ams.usda.gov/ReportServer05 69/Pages/ReportViewer.aspx?%2fGAP-GHP%2fG05+ +By+Location++-+Auditees+that+Meet+Acceptance+Criteria&rs:Command=Render
- USDA Local Food Directories; Agricultural Marketing Services: https://www.ams.usda.gov/services/local-regional/food-directories
- The USDA Farm to School Planning Toolkit: http://www.fns.usda.gov/sites/default/files/f2s/F2S Planning Kit.pdf

BUYING LOCAL FOODS

BACKGROUND AND PROGRESS TO DATE

BPS's total food budget for the 2014-15 school year was \$11,430,000. Through a combination of local produce and dairy purchases, the District spent 20.4% on NYS farm goods. The total produce budget for 2014-15 was \$1,510,624, of which BPS spent \$165,573 on NYS grown fruits and vegetables, which were served through the National School Lunch Program. NYS produce purchasing accounts for 1.4% of the total food budget and 11% of the total produce budget. This was the amount purchased prior to the District's formal commitment to purchase more locally sourced items and was at the complete discretion of Latina Boulevard Produce. Locally sourced items accounted for in this total figure include:

- Apple slices and whole apples
- Tomatoes
- Bell peppers

- Broccoli Crowns
- Cucumbers
- Onions
- Kale

- Cabbage
- Potatoes

In addition, BPS purchased \$2,165,313 in local dairy products, which accounts for 19% of the total food budget. Since NYS is a top producer of dairy products, sourcing fluid milk and other dairy products from NYS is a default process. As such, when focusing on our F2S local purchasing goals, we've elected to parse out local food purchases as they relate to dairy and other farm foods separately.

In September 2015, the HOM program officially launched, at which time the District embarked on a more proactive effort to source NYS-grown items, as seen in Table 1.

HOM Item	Total lbs	Total \$'s spent
Kale-grown by Agles (Eden) processed by C&P (Lockport)	1,216	\$2,797
Brussel Sprouts-grown by Hansen's Farm (Stanley) processed by Fingerlakes Fresh Food Hub (Groton)	2,925	\$12,578
Potatoes-grown by Guilian Farms (Livonia) & Williams (Marion) processed by Martins (Brockport) and C&P (Lockport)	3,123	\$7,807

Table 1: HOM items purchased during pilot

LOCAL PROCUREMENT GOALS

NEAR TERMS PROCUREMENT GOALS (1-2 YEARS)

- Expand HOM to all academic months in 11 pilot schools by the end of 2016. Expand the program district wide in 2017-18.
- Purchase 35% of produce from NYS farms

LONG TERM PROCUREMENT GOALS (5-10 YEARS)

- Renovate the BPS Central Commissary and train food service staff to support scratch cooking, utilizing more NYS grown/raised items.
- Expand the HOM program beyond produce, to include protein and grains as well

PROCUREMENT

PROCUREMENT RULES

BPS follows NYS General Municipal law, sections 103 and 104 and USDA Child Nutrition Program Code of Federal Regulations.

The lowest small purchase threshold BPS has to adhere to is \$10,000. This low amount, given the size of the district, makes it challenging to purchase directly from farmers, and leads to almost all purchases being formally bid out annually and supplied by the produce distributor that wins the bid.

INCIDENTALLY/ACCIDENTLY

All milk purchased by BPS comes through Upstate Niagara Cooperative, which is a farmer-owned cooperative consisting of over 360 family-owned dairy farms throughout Western NY. As a result of the ease and affordability of purchasing NYS milk, we've intentionally kept total milk purchases out of our local procurement goal of 35%. Including milk purchasing in this target would not give an accurate representation of local sourcing procurement efforts both to date and moving forward.

BY USING RELATED SPECIFICATIONS

By adding language for geographic preference to our produce distributor bid, BPS will continue to expand its local food purchasing. Opportunities for adding language to specify NYS produce in the Fresh Fruit and Vegetable Program RFP will be considered as well.

BY APPROACHING ONLY LOCAL VENDORS

The volume of produce needed and the number of schools within the district make it challenging to source directly from farmers. The smaller farmers simply do not have enough product to meet BPS's needs while the larger farmers deal directly in wholesale markets and do not want to be responsible for distribution. A local produce cooperative was specifically targeted as a possible supplier of hyper-local produce, but given the delivery requirements of BPS, it was too much of a challenge for the Coop to take on, despite the fact that it has its own fleet of trucks. The Coop prefers to have its product delivered to the district via Latina Boulevard Produce. The small purchase threshold also complicates the district's ability to source directly from farmers. As the HOM

program expands across the district, it is likely that all of the HOM purchase requirements will exceed \$10,000 and be subject to the formal bid process, making it even more difficult for BPS to work directly with farmers.

In addition, the raw produce items are largely being processed by a third-party, which is all being coordinated by the produce distributor. Currently, the food service staff neither has the time, equipment or skill-set to process raw agricultural products into the needed forms. The third-party processor has been responsible for dicing, cubing, shredding, wedging, and chopping the HOM items into user-friendly forms. In the absence of the produce distributor, Bridget and her team would have to coordinate the logistics between the farmers, processors and distributors; a task better handled by the produce distributor at this time.

THROUGH DOD FRESH

DoD is not used at this time to purchase locally grown items.

BY APPLYING A GEOGRAPHIC PREFERENCE

A geographic preference was applied to the three HOM items in the 2014-15 produce bid. The following language was used:

"Buffalo Public Schools will give geographic preference to locally, New York State grown unprocessed produce in determining the award. For purposes of determining the award, any vendor providing New York State grown produce will receive a 1% discount on their bid pricing. This is for bidding purposes only and will not affect the actual bid price. Vendors are responsible to provide information."

Moving forward, a geographic preference will be specified in the bid for all HOM purchases. As part of the geographic preference, the F2S Coordinating Committee is considering requesting that the NYS farm be able to provide a farm tour for BPS students and necessary information to create our 'Know Your Farmer' profiles.

THROUGH FOOD DONATION

The District did not receive any locally grown food donations.

DELIVERY, PROCESSING AND STORAGE

DELIVERY

Delivery of local products comes through Latina Boulevard Produce (or whomever is awarded the produce contract). They deliver both to the central commissary and to individual schools. There are 30 schools in the district that receive a direct weekly delivery from the produce distributor. The central commissary receives multiple deliveries, depending on the menu and the need.

PROCESSING

Constraints such as time, skill-set of employees and lack of necessary equipment has rendered third party processing of fresh produce essential at this stage. Listed below is a cost breakdown of what the HOM items would have cost if Latina Boulevard Produce had sourced with no geographic preference in place, the cost of the raw NYS agricultural product they purchased from the NYS farms, the added cost of processing, the cost of shrinkage through processing, and the total price paid by the district.

HOM Item	Hypothetical price/lb w/o geographic preference	Price/lb for NYS w/o processing	Cost of processing /Ib	Cost of shrinkage associated with processing/lb	Total price paid by BPS: Includes cost of local item + processing/lb + shrinkage
Kale	\$1.00	\$1.00	\$0.5	\$0.80	\$2.3
Brussels	\$1.5	\$1	\$1.5	\$1.80	\$4.3
Potatoes					
Red B	\$0.5	\$0.4	\$1	\$1.10	\$2.5
Yukon	\$0.35	\$0.3	\$1	\$1.20	\$2.5

Table 2: HOM processing breakdown

As you can see from the chart, there were times when it was more cost effective to purchase NYS, but the added cost of processing and shrinkage increased the price on each item considerably.

In the coming year, analysis will be conducted to determine the cost effectiveness of training food service staff to handle some of the processing in-house, with the cost of specialized equipment being a key consideration. Processing that can be done during the slower summer months, by way of freezing and/or cryovacing will also be considered.

STORAGE

Storage presents an issue with the increased use of fresh agricultural products. Many of the schools have limited refrigeration and freezer space on site. Many schools that received a direct delivery from the produce distributor had to add a delivery day to accommodate the extra produce involved with the HOM program. The HOM program has added a storage burden on the schools that are preparing these items in-house, as opposed to the pre-pack schools, which are receiving a unitized meal prepared in the central commissary. There is, however, plenty of storage space in the central commissary to support 30 of the schools with food storage. Our goal in the future is to renovate the central commissary to support and accommodate all district schools, not only with their food storage, but with their menu item preparation as well.

KEY PLAYERS AND TRAINING NEEDS

Building on the relationships established with Latina Boulevard Produce and the F2S Coordinating Committee, NYS produce will be added to school menus according to seasonality, with quantities and processing needs conveyed to the distributor with ample time to meet the needs of each school.

BPS Food Service supervisors will provide ongoing training for the food service staff which will be necessary for the recipe development and preparation. Even when the fresh produce item is delivered already processed, there may be times when additional cutting, cleaning, etc., is necessary to prepare the recipe for the school meals. Monthly meetings will be held to get feedback from the school food service staff on student acceptability, service issues, product quality, and delivery concerns.

LOCAL PROCUREMENT RESOURCES

Procuring Local Foods For Child Nutrition Program; USDA's Food and Nutrition Service:
 http://www.fns.usda.gov/sites/default/files/f2s/F2S Procuring Local Foods Child Nutrition Prog Guide .pdf

- Finding, Buying and Serving Local Food Webinar Series: USDA's Food and Nutrition Service: http://www.fns.usda.gov/farmtoschool/procuring-local-foods
- Program Specific Procurement Regulation; USDA Food and Nutrition Services: http://www.fns.usda.gov/farmtoschool/usda-procurement-regulations
- Procurement Geographic Preference Q&A's I and II; USDA Child Nutrition Division:
 http://www.fns.usda.gov/sites/default/files/SP03_CACFP02_SFSP02-2013os.pdf | 1
 http://www.fns.usda.gov/sites/default/files/SP03_CACFP02_SFSP02-2013os.pdf
- Geographic Preference; USDA Farm to School Program: http://www.fns.usda.gov/sites/default/files/F2S geo pref.pdf
- Geographic Preference Primer; School Food Focus: http://www.fns.usda.gov/sites/default/files/FOCUS GP Primer.pdf
- Using DoD Fresh to Purchase Local Produce; USDA Farm to School Program:
 http://www.fns.usda.gov/sites/default/files/F2S using dod.pdf
 http://www.fns.usda.gov/sites/default/files/FINE Toolkit.pdf
- The USDA Farm to School Planning Toolkit:
 http://www.fns.usda.gov/sites/default/files/f2s/F2S Planning Kit.pdf

American Farmland Trust Farm to Institute New York State: http://finys.org/

MENII PLANNING

BACKGROUND AND PROGRESS TO DATE

The F2S Co-Project Directors met with the owner of Latina Boulevard Produce to determine opportunities to incorporate local produce into the school menus. Factors discussed were the NYS growing season, especially the limited availability of produce during September-November, and the quantity of produce required to meet the needs of 11 pilot schools servicing over 6,000 students. NYS produce items that were not currently on the menu that would attract the attention of students and families were selected. The availability of processing of these items was also discussed prior to selection. The HOM program began with Kale for September, Brussels sprouts for October and potatoes for November.

The F2S Coordinating Committee researched recipes and worked with the BPS Food Service Chef to perfect recipes that would showcase our NYS harvest to the students in grades Pre-K-12 each Thursday from September to November. Each of the 12 newly developed recipes were served with students in the 11 pilot schools during HOM Thursdays.

BUDGETING AND FORECASTING

The BPS Food Service Department utilizes a district menu cycle and historical average daily participation data to forecast food quantities for menu planning. Working within the formal bid process, collaboration with the successful vendors results in ensuring food items are available for the meal service throughout the district. Monthly meetings with cook managers in the schools will result in adjustments made throughout the year to modify the menu and/or the quantities based on student acceptance. The experienced food service staff has been able to successfully manage these menu changes within the confines of the budget. Incorporating local foods into our school meal program is a priority that the budget will accommodate.

To date, local produce has been comparably priced to non-local items, and in some circumstances, less expensive. However as Table 2, above, indicates, the added cost of processing the produce into user-friendly forms has been considerable. Additionally, the preparation of fresh agricultural produce requires additional staff time and training. Moving forward, we intend to meticulously track the cost of terminal market prices against locally sourced HOM items, with processing costs parsed out separately, and measure that cost against the costs associated with the time and training incurred to have BPS Food Service staff prepare the raw agricultural products into the needed forms.

Another consideration to be evaluated is whether or not students are eating more of the featured HOM items since children can only benefit from healthy foods if they actually eat them. We've found through preliminary evaluation that the combination of new HOM menu items, promotion and awareness, and taste tests has resulted in more students trying the new items than those in the control school that were merely served the new HOM items with no additional interventions to encourage consumption. Additional costs, within reason, can be absorbed by the district to purchase, serve and promote NYS farm goods, assuming students are consuming more and throwing less in the garbage.

MENU AND RECIPE DEVELOPMENT

BPS utilizes a four week menu cycle. The menu for the 11 pilot schools was adjusted to include the HOM menu items on Thursdays in September, October and November. Each week a different recipe was introduced to the students. The recipes were developed to accommodate variations in kitchen equipment, skill of food service workers and larger quantity preparation. Because BPS provides cafeteria style service and prepack meal service, the recipes were adjusted to accommodate both service styles. Taste tests were conducted by the F2S Coordinating Committee prior to the start of the program to ensure a quality product for all students regardless of cafeteria setting. The three month pilot of HOM resulted in an additional \$23,182 in expenditure on NYS foods. Expanding this program to a full school year for all schools in the district would result in an estimated additional \$324,548 spent on NYS foods.

BPS will continue to work with the pilot schools for the next 10 months of the school year to develop HOM recipes, training programs, marketing materials, nutrition education materials, and evaluation tools. Upon the completion of this 10 month program, the district intends to expand the HOM program to all 65 schools through the district menu cycle.

Seasonality is a challenge in NYS. Peak production of produce occurs largely during the summer months, at which time school is not is session. This limits the variety of produce we can offer to the students. To mitigate this challenge, we have introduced cold-hardy crops and storage crops, many of which are completely new to the BPS menu, which is a strategy we will continue to employ as the HOM expands to all 10 months. Volume typically is not a problem, as the Western NY region is known for its large-scale production agriculture farms. Additionally, there are a few items, such as apples, which could easily be sourced entirely from NYS, but surprisingly, price has been a limiting factor in that effort.

SERVICE AND PROMOTION

BPS provided toolkits and a brief overview of the F2S pilot program to all 10 pilot schools. Each kit contained curriculum, fun facts for morning announcements, recipes, newsletters, and posters. The control school only received the HOM menu and was not offered any of the other components of the kits. Students weren't even aware F2S menu items were being offered in their cafeteria.

Another promotional strategy was the addition of a F2S page to the BPS Food Service website, complete with all of the items in the tool kit. This page was created to allow teachers to access the HOM materials at their convenience. As part of the F2S curriculum, kale seeds and pots were provided to every classroom so students and teachers could see kale growing while they were tasting the variety of recipes featured in the cafeteria.

Every pilot school gave stickers to students who tried the HOM item. Students were then asked to vote by casting ticket ballots for "thumbs up" or "thumbs down" on the taste of the featured HOM recipe. Votes were tallied and recorded in each school. Additionally, posters promoting each HOM were developed. See Appendix B for samples of these posters. Every Thursday during the three month time period a F2S team member was assigned to one of the 10 pilot schools to encourage the students to try the HOM menu item during lunch. This encouragement varied from coming to the table with samples to standing in the cafeteria line and suggesting that students try the new menu items.

In September 2015, a F2S kick-off event was held to promote the HOM program to be featured in September, October and November. All pilot school communities were invited to come to a dinner featuring a sampling of the F2S menu items. Over 200 parents, students, faculty and administrators attended this event. The F2S Coordinating Committee, in addition to the American Dairy Association & Dairy Council, the BPS Garden Committee, and the YAC collaborated with Fuel Up to Play 60 to make this a successful event for the F2S pilot school communities.

The following activities have been successful in helping us achieve our F2S goals and will continue as we move forward: sticker distribution, student voting, increased marketing materials, website development, and district wide events.

ASSESSMENT AND ADJUSTMENT

The three month HOM pilot program included several opportunities for assessment and adjustment. For full results on these evaluation metrics, please refer to the Evaluation section. Students in grades 3 and 5 and high school students, during their health or gym class, were asked to take a pre and post survey to determine their level of knowledge of the produce used for the HOM program. Food taste tests occurred every Thursday, where students were able to vote if they liked the HOM item or not. Moving forward, the surveys will be redesigned to support more meaningful results. In addition, conducting taste tests every week was an enormous time commitment for the F2S Coordinating Committee and food service staff. However, each week the number of students who were voting increased in all schools. Orders and production of the products were increased to meet the needs of each school. Students requested certain HOM menu items be added to the district menu and two items, Kale Apple Salad and Tic Tac Toe Salad, were added to the four week menu cycle in March 2016. Given the importance of the taste testing, we are reevaluating how we will continue students taste tests in a more efficient and scalable fashion.

Teachers were surveyed in December 2015 to determine how the materials were utilized in their classrooms and to solicit their feedback regarding the pilot program. Surveys indicated that classroom materials were not readily utilized by a majority of the teachers. The F2S Coordinating Committee will provide alternate materials and methods of providing education such as: infographics, newsletters, know your farmer templates, etc.

Food service staff were also surveyed at the end of the program to determine the quality of the training they received, the quality of the produce and recipes, and the overall level of support they received from their school teachers and parents. Prior to F2S, most vegetables on the district menu were either frozen or canned. Adjustments in scheduling of the food service staff were necessary to allow extra time to prepare the produce for

the menu. Food service staff training and schedule adjustments were critical to the success of this program. Monthly training specific to HOM will continue. HOM recipes will be reduced from four per month to two per month, with each recipe being added to the menu twice monthly.

D'Youville College professor, Kathleen Border, provided college students to survey the BPS students in the pilot schools twice during the HOM program. Ms. Border provided the evaluation and summary of these student interviews as well as the pre and post student survey analysis.

MENU PLANNING RESOURCES

- The Food Buying Guide for Child Nutrition Programs; USDA's Food and Nutrition Service: http://www.fns.usda.gov/tn/food-buying-guide-for-child-nutrition-programs
- Menu Planning Resources: USDA Food and Nutrition Service: http://healthymeals.nal.usda.gov/menu-planning/menu-planning-tools
- Pecks to Pounds: Maryland Department of Agriculture:
 http://www.fns.usda.gov/sites/default/files/f2s/F2S Planning Kit.pdf
- Recommended Kitchen Equipment for From-Scratch Cooking; Wisconsin Farm to School Program: http://www.cias.wisc.edu/foodservtools/4-Incorporate-local-foods/recommended-kitchen-equipment-for-from-scratch-cooking.pdf
- Minneapolis Farm to School: http://nutritionservices.mpls.k12.mn.us/f2s program
- The Lunch Box: http://www.thelunchbox.org/
- Fresh from the Farm: The Massachusetts Farm to School Cook Book: http://www.massfarmtoschool.org/wp-content/uploads/2012/05/farm_to_school_cookbook.pdf
- A Guide to Taste Testing Local Food in Schools: Vermont Food Education Every Day: http://vtfeed.org/materials/guide-taste-testing-local-foods-schools
- Farm to School Taste Tests in School Cafeterias; Appalachian Sustainable Agriculture Coalition: http://growing-minds.org/documents/farm-to-school-taste-tests.pdf/?9d7bd4
- The USDA Farm to School Planning Toolkit: http://www.fns.usda.gov/sites/default/files/f2s/F2S Planning Kit.pdf

FOOD SAFETY

BACKGROUND AND PROGRESS TO DATE

BPS has more than 400 food service staff employed to service 34,000 students in 65 school buildings. All 35 supervisors and cook managers, who oversee the 65 school food service operations, successfully met the prescribed requirements of the SERVE-SAFE Food Production Manager Certificate course. These food service professionals provide ongoing training to their subordinates in food safety. In April 2016, 65 cooks and food service workers will take the SERVE-SAFE course. Upon successful completion at least one person in each school will be SERVE-SAFE certified to oversee and ensure safe food handling in all school food service operations throughout the district. SERVE-SAFE courses will be offered annually. HACCP training is ongoing.

STATE AND LOCAL HEALTH REQUIREMENTS

All BPS Food Service operations are inspected regularly by the local Department of Health and are found to be in compliance with local and federal laws. BPS does not plan to purchase directly from farmers. All NYS grown

produce will be purchased through our produce distributor, Latina Boulevard Produce. Latina Boulevard Produce sources from GAP (Good Agricultural Practices) certified farmers.

FOOD SAFETY IN THE KITCHEN

Food preparation procedures will not be changing at this time. The schools and central commissary are equipped to receive, store and prepare the NYS farm items for service in the Child Nutrition Program menu.

Training

Most HOM items are delivered to the schools washed, peeled, sliced or diced to expedite the production process, reducing the amount of labor needed to prepare the recipes. Even with this processing, there are many times further slicing/chopping or cleaning are required for a quality product.

The food service staff are trained monthly in familiarizing themselves with the HOM fresh food product, understanding the recipe, ingredients and preparation along with taste testing of the final product. Staff then go back to their schools and train their own staff in the proper receiving, storage and preparation of the HOM items. Training is specific to the type of service and available equipment in each school kitchen. HOM training will continue monthly for the pilot schools. These training sessions will be perfected and duplicated (possibly videoed) for the remaining schools when F2S goes district wide.

FOOD SAFETY IN THE SCHOOL GARDEN

Currently there are 20 school gardens with more schools applying for grants to the BPS Garden Committee. The BPS Food Service Department does not utilize produce from the gardens. However, the school community (teachers, parents, students) will be planting produce to coincide with the HOM program. The harvest from the school gardens will be consumed in the classroom, at the garden, or at home.

TRAINING

The BPS Garden Committee provides funding, training and workshops for schools to plant and maintain school gardens, to ensure all produce is safe to consume.

FOOD SAFETY ON THE FARM AND DURING TRANSPORT

BPS relies on our produce distributor to ensure that produce obtained from NYS farmers is safe for consumption.

TRAINING

Visits to farms will be conducted annually. Training sessions will be provided to food service staff to increase their knowledge in the area of farm food safety. This information will be shared with the District community.

LIABILITY

The Buffalo Board of Education Purchasing Department requires all vendors to provide a certified copy of liability insurance policy with all successful bid awards.

TRACEABILIY

As part of the GAP audit, Latina Boulevard Produce and the farms they source from are required to have a traceability program in place.

FOOD SAFETY RESOURCES

- SERVE-SAFE Manual 6th Edition; National Restaurant Association: https://www.servsafe.com/customer-assistance/support-documents
- Farm to School Food Safety FAQ's; USDA Food and Nutrition Service: http://www.fns.usda.gov/farmtoschool/fags-food-safety
- Produce Safety Resources; USDA and the National Food Service management Institute: http://nfsmi.org/ResourceOverview.aspx?ID=394
- Best Practice for Handling Fresh Produce in Schools; USDA and the National Food Service Management Institute: http://nfsmi.org/documentlibraryfiles/PDF/20100826093915.pdf
- The USDA Farm to School Planning Toolkit: http://www.fns.usda.gov/sites/default/files/f2s/F2S Planning Kit.pdf

PROMOTING OUR PROGRAM

BACKGROUND AND PROGRESS TO DATE

With the USDA F2S Planning Grant, we have experimented with a range of promotional strategies that have connected us to all the F2S stakeholder groups. An early step in the planning process happened when our youth leadership group, the YAC, organized a rally in April 2014 to promote salad bars in BPS. The group followed up this rally by speaking at the BPS Board meeting, at which it asked for more salad bars in schools and for the approval of the Board to submit our USDA F2S Planning Grant.

Clearly, that effort was successful, since the F2S Coordinating Committee was able to submit the grant and, ultimately, receive funding from the USDA. Once our grant was awarded, the F2S Coordinating Committee held a press event in February 2015 to announce our award, followed by an information session that brought together a broad group of F2S stakeholders including BPS Food Service staff, teachers, students, parents, farmers, and community organizations.

We have also brought students and food service staff together with farmers by organizing two farm field trips to local farms in June and August 2015. On a third trip, teen leaders from the YAC traveled to the farm that supplied our kale for our September HOM program. The group interviewed the farmer then created a video highlighting the farm. This video is featured on our Buffalo F2S website.

Other key promotional pieces that we have created are the Buffalo F2S logo, HOM program materials and website. The HOM program and Buffalo F2S website serve to engage teachers, students, parents, and food service staff in sampling and learning about local foods being served in the cafeteria.

Other outreach activities we have conducted include:

- Meetings with School Wellness Teams and school-based parent facilitators, to engage each group in promoting the HOM program.
- Meeting with BPS Food Service staff, Sept 2015, to train them in HOM recipes.
- F2S kickoff party in partnership with Fuel Up to Play 60, September 2015.
- Teacher appreciation at F2S pilot schools, December 2015.

OUTREACH

Our central outreach strategy moving forward will continue to be the HOM program because of its ability to engage multiple stakeholders in the school community, especially students, teachers, and food service staff.

Future plans will focus on how we can more intentionally engage students and teachers, along with parents and the broader community, in HOM. Integral to our outreach strategy is enhancing the Buffalo F2S website.

STUDENTS

The F2S Coordinating Committee will continue promotion of HOM items to students by: taste testing during the lunch period, increasing the visibility of HOM signage, increasing the regularity of morning announcements about the new food items, holding school-level events related to F2S such as wellness education days, and offering recipe demonstrations.

Revising the taste testing program is necessary moving forward to ensure maximum youth participation and minimize staff and volunteer time. During our planning period, the F2S Coordinating Committee team members and school-level volunteers were in schools weekly for a total of 12 weeks encouraging students to try recipes and vote in favor of or against the recipes. While this method was effective at raising student awareness of F2S, the process was too labor intensive. We will continue to test out different approaches to taste testing that make visible students' opinions of the new food items, such as having tally sheets on cafeteria walls or displaying the buckets in which students place their votes. We will also work to get parents, teachers and students to volunteer to help with collecting students' opinions of HOM items.

Another outreach strategy we hope to implement with students is to educate them about the farms and farmers who are supplying their food. We will develop "Know your Farmer" information on the lunch line about the farmers that are supplying the HOM items featured that week, including facts about the farms and farmers, and photographs of the farms. We will also make this information available on information sheets that students can take home to share with their families.

Please note that the YAC, serves as a group of F2S ambassadors who educate their peers about F2S and help with taste testing. The work of this group will be discussed in further detail in the Education and Curriculum section.

PARENTS

We hope to engage parents in F2S by increasing their access to F2S recipes and other educational materials. Our primary goal with parents is for as many parents as possible to receive the HOM recipes. Potential strategies for providing parents with recipes include: incorporating recipes in newsletters that go home to families, e-mail blasts with the recipes, and/or providing children with recipes in classrooms that they can then bring home. In addition, we aim to provide nutritional and agricultural information to students about each HOM item, with the expectation that these will also reach families.

Our team aims to have the Buffalo F2S website be a resource utilized regularly by parents. Currently, we have information for our September through November 2015 HOM featured on our website, including recipes and educational materials. However, we have had low use of the website to date, so we are working on redesigning the website to make it more user-friendly. We will use well-designed sites as models, such as the Minneapolis Public Schools F2S website, to inspire our redesign.

TEACHERS

In December 2015, the F2S Coordinating Committee administered surveys to faculty and staff at the 10 F2S pilot schools by inviting them to a F2S luncheon. We had 285 responses, out of a total of approximately 670 faculty and staff. The main purpose of the survey was to determine whether or not teachers utilized the curriculum developed by our team, which will be discussed in the Education and Curriculum, below. The survey also asked about faculty

and staff's opinions of the F2S program in general, and these results will guide our action steps with teacher outreach.

In terms of program awareness, the survey results showed that only 12% of respondents said they were not aware that a F2S program was happening at their school. Still, many respondents would have appreciated more information about F2S. In response to the open-ended question "How can we improve Farm to School?" 162 people responded, of which 21 respondents noted that there should be more communication about the program, in general. In addition, 11 respondents requested easier access to the curriculum.

Our goal with teachers is thus to increase program visibility. Redesigning the Buffalo F2S website aims to make access to F2S information easily accessible for teachers. Other strategies to increase program visibility include: HOM posters, bulletin boards featuring HOM information and recipes, morning announcements, and promotion through the school-based Wellness Teams. Specifically reaching out to Home and Careers teachers to encourage them to utilize HOM items and recipes can further increase student and teacher awareness about F2S. One Home and Careers teacher has already reported preparing a recipe with Brussels sprouts.

SCHOOL ADMINISTRATORS AND BOARD

In 2012, BPS released a comprehensive District Wellness Policy which established local policies for all issues related to wellness in the school community, based on the Whole School, Whole Community, Whole Child model of the Centers for Disease Control. In the nutrition section of the policy, there is limited mention of F2S. The Policy simply issues a recommendation that BPS have a F2S program.

To ensure the integration of F2S into the District's policies, we will work with the BPS District Health Council to advocate to the Board to include more specific recommendations in the Wellness Policy related to F2S. Our recommendations will include: a target of 40-50% of local purchasing, requirements regarding holistic agricultural and nutrition education be offered through curriculum, school gardens, and other hands-on F2S learning experiences.

FOOD PRODUCERS

Our outreach to food producers consists of working through our distributor, Latina Boulevard Produce, to identify farmers who can supply fresh produce to our program. In addition to working through our produce distributor, outreach efforts will include visits to farms and tabling at events where potential farmers may be in attendance.

Beyond simply identifying farmers as suppliers to our program, we also aim to establish relationships with two thirds of farmers who provide produce for HOM items. A farmer relationship, for the purposes of our program, means that we are able to connect with the farm to learn the history of the farm and get at least one photograph of the farm or farmer. We will use this information on the "Know Your Farmer" signs and information sheets that we will place on the lunch line. These "Know your Farmer" sheets can serve as a model for how other districts can share farmer information with students.

If F2S farms are within 45-50 minutes of the City of Buffalo, F2S Coordinating Committee members, along with teen leaders of the YAC, will attempt to travel to the farms to meet farmers and shoot video of the farms.

SCHOOL FOOD SERVICE STAFF

Bridget will hold regular meetings with her staff to train them on the preparation of the HOM items as well as the promotion of the items on the lunch line. During these sessions, she will solicit feedback from staff about what is working, what could be improved and how the staff might help encourage students to try new foods. Further, the F2S Coordinating Committee will continue coordinating farm field trips for food service staff.

MEDIA AND COMMUNITY

The F2S Coordinating Committee will hold at least two events per school year that are open to the entire community as a way to raise awareness about F2S. Press releases and invitations to local politicians will go out for these events to increase public knowledge about our efforts. These events will also promote F2S to students, parents and teachers. One such activity will be an "Iron Chef/Chopped" style-competition, per the Food Network, whereby local chefs will compete to produce recipes for HOM. This event will be open to the entire community and be highly publicized.

The Buffalo F2S website will also serve as a source of information about our program to the entire community, both locally and across the country.

PROMOTING OUR PROGRAM RESOURCES

- Buffalo Farm to School Website: http://buffalofarmtoschool.org/
- Centers for Disease Control Whole School, Whole Community, Whole Child model: http://www.cdc.gov/healthyschools/wscc/index.htm
- Minneapolis Public Schools Farm to School website: http://nutritionservices.mpls.k12.mn.us/f2s program
- The USDA Farm to School Planning Toolkit: http://www.fns.usda.gov/sites/default/files/f2s/F2S Planning Kit.pdf
- Vermont Harvest of the Month: http://www.vermontharvestofthemonth.org/

SCHOOL GARDENING

BACKGROUND AND PROGRESS TO DATE

The BPS Garden Committee was formed in late 2011 through a partnership with the BPS District and Grassroots Gardens of Buffalo, a local non-profit. Since its formation, the BPS Garden Committee has helped 20 BPS schools establish gardens. The Garden Committee is led by staff and volunteers from Grassroots Gardens of Buffalo. The Garden Committee utilizes the training support of Grassroots Gardens to help schools establish and maintain gardens.

GETTING BUY-IN

In addition to Grassroots Gardens staff, members of the Garden Committee include the Director of Health-Related Services for BPS and teachers from schools with gardens. The Garden Committee's teachers are invested in seeing their gardens utilized and integrated into their schools. Support varies from garden to garden, but gardens are generally supported by at least one teacher at each school, in addition to parents, students, and maintenance staff. One school, City Honors, has a dedicated garden manager who engages students and the school community in the garden while also leading garden maintenance.

PLANNING AND DESIGN

GOALS AND END USES

The goals of the BPS Garden Committee are to: 1) guide schools and their surrounding communities to take control of their gardens, so that they are maintained throughout the garden season, with minimal support from the Garden Committee, 2) ensure integration of garden-based learning into the curriculum of each school with a garden, especially beyond the subjects of nutrition and science, and 3) help students understand the processes involved with food production from seed to table.

Given these goals, the Garden Committee does not have a set number of gardens it aims to develop. Rather than aiming for every school in the District to have a garden, it is working to see that all the established gardens are well maintained and utilized in ways that reach the goals listed above. The Garden Committee expects to gradually add school gardens, at a rate of 2 to 4 gardens per year, so that gardens are built intentionally by schools that are invested in their success.

In terms of the goal of garden-based learning, the Garden Committee hopes that a wide range of classrooms, from Pre-K through 12th grade, and science to math, can find educational value in the garden. Therefore, every student at the school would eventually be using the garden at some point. Gardens are located at elementary, middle and high schools, so it will be up to every school, in partnership with the Garden Committee, to decide the best ways to integrate the garden into the school's curriculum.

Regarding harvest use, the Garden Committee does not expect produce from the gardens to go into school lunches due to the relatively small size of garden harvests compared to the amount of food needed to serve the entire student population. Instead, the Garden Committee hopes that students will participate in the harvesting process to understand how food is grown. Since many students come from low-income households, the Garden Committee hopes that the harvested produce will go home with students and help feed families.

SIZES AND SITES

When new schools decide to build gardens, the Garden Committee prepares a kit with instructions and materials for starting gardens. The kits explain the importance of placing gardens in spaces with adequate sun and close proximity to water. After considering these factors, gardens are then located wherever is most convenient or accessible to the schools. Some gardens are located on vacant lots, some within the schools' outdoor courtyards, and some on donated property. One school's garden is moveable raised beds because of the lack of permanent space for the garden. In the planning of each garden, the Garden Committee encourages coordination between teachers and maintenance staff to determine the best garden site.

LAYOUT, SOIL, AND GARDEN BEDS

The layout of each garden varies based on the needs and space availability of the school. The Garden Committee requires that all gardens be planted above ground in raised beds, with imported soil, because most soil in the City of Buffalo is contaminated with heavy metals. The Garden Committee also recommends schools to place garden beds 5 to 6 feet apart to allow for riding mowers to mow between beds. The garden toolkits prepared by Grassroots Gardens come with lumber, soil, mulch, and compost, to meet the needs of each school's garden goals.

CROPS AND LIVESTOCK

The growing season in Western NY lasts from late April through early November. Specifically, Buffalo, NY is in Hardiness Zone 6. We are able to grow one cycle of a wide range of annual and perennial vegetable crops, along with many berries and fruit trees.

In terms of which crops to plant, each school decides what type of garden it will grow. Some gardens plant flowers and native plants to attract local pollinators, while the majority are food gardens. Further, the gardens cater to the age groups at the schools.

To choose crops, in previous seasons, teachers selected from the variety of crops provided by Grassroots Gardens at its annual plant distributions. In future seasons, Grassroots Gardens will solicit orders from each school to know what they prefer to plant, and then order the crops specific to the requests of each school. Teachers plant crops that they think will provide the most educational and nutritional benefit based on the age and interest of their students. They often use themes such as the Three Sisters companion planting strategy of Native Americans tradition or themed gardens such as pizza gardens and native plant gardens.

The F2S Coordinating Committee will also work more closely with the Garden Committee and Grassroots Gardens to provide school gardens with seeds of the HOM foods. Depending on the timing of the growing season and the school year schedule, not all crops will be grown or harvested at the same time as the HOM items are featured on the school menu. Regardless, signage in the gardens that utilizes F2S marketing materials featuring each HOM item will create a linkage between the gardens and the Buffalo F2S program.

GREENHOUSES, HOOP HOUSES AND OTHER STRUCTURES AND SPACES

Because permanent structures with foundations are not allowed on City of Buffalo lots, school gardens located on City property do not have plans to build any permanent structures. Gardens on school property are allowed to have such structures, but no gardens currently have plans to do so. The only season extension strategy being proposed is by one elementary and middle school, which plans to build a cold frame for one of its raised beds.

SUPPLIES

Supplies needed for gardens include shovels, hoes, rakes, wheelbarrows, and gloves. Schools have acquired supplies for their gardens through various means. Grassroots Gardens lends supplies to gardens on a one-time basis. Some school engineers have their own supplies that they let gardens use. Some schools have purchased their own dedicated garden supplies through garden grants. In a few schools, parents have leant or donated supplies to the schools.

FUNDING

Startup funding for each garden averages about \$350. Much of this funding to date has come from a USDA grant awarded to Grassroots Gardens through the Community Food Projects grant for a program titled the 'Buffalo Neighborhood Food Project'. Additional funding has come primarily from Grassroots Gardens, which provides all community gardens across Buffalo, including school gardens, with a variety of garden supplies including seeds, soil and garden bed materials. Additional funding has come from outside community organizations, such as Lawyers for Learning, and mini-grants pursued by individual schools through organizations such as Lowe's and Kitchen Gardeners International.

For future garden development, the Garden Committee is currently applying for additional grants. One potential large funding source is from the Whole Foods Foundation. The Garden Committee also encourages schools to pursue donations and independently apply for their own small garden grants. The BPS Food Service Department has also agreed to provide seeds of HOM menu items for each school garden.

MAINTENANCE, STAFFING, AND TRAINING

Ongoing maintenance, including weeding, watering, fertilizing, and pest management, is done by teachers, students, and, in some cases, maintenance staff, during the school year. In the summer, finding enough people to maintain the gardens is a significant challenge. Potential strategies for improving summer garden maintenance include: scheduling weekly or biweekly garden work days to encourage neighbors to help take care of the garden; get families to sign up to adopt gardens for an entire week in the summer; and incorporating garden maintenance into summer youth groups.

When school gardens are just starting, Grassroots Gardens organizes community work days to bring teachers, students, and community volunteers together to accomplish large tasks. Grassroots has coordinated one event that focused on building raised beds, which 50 people attended.

Regarding training, Grassroots Gardens has so far been the main source of training for school gardens. It has hosted workshops on a variety of topics including garden curriculum, how to build raised beds, and pest and disease management. It has offered these trainings on weekends and afterschool, both on site at school gardens and at a local garden store, Urban Roots.

In the future, Grassroots Gardens hopes to increase teacher access to training opportunities by hiring a staff person to train teachers, alongside students, within schools during the school day. This garden educator will train teachers how to properly maintain gardens while also encouraging schools to incorporate garden learning into their curricula in innovative ways.

USING GARDEN PRODUCE

Total pounds of produce harvested from school gardens during the 2014-15 school year was approximately 6,000. Currently, some garden produce is used for taste testing, both in the garden and the classroom, and in Home and careers classes. The majority of produce is sent home with students. There are no plans to sell produce at this time.

One future use for the garden produce includes aligning harvest to coincide with the HOM, and labeling them with F2S signage, to strengthen the connection between school gardens and F2S. Another future use is to send more produce home to students, in a more organized way, through a type of backpack program. Students may receive bags of produce to take home on the weekends to supplement the family food supply.

A final possible use is to increase utilization of produce in Home and Careers classes. While this has happened in a few cases, greater encouragement of this use by the Garden Committee and the school wellness team could greatly enhance this link, and student exposure to new foods and recipes. HOM recipes used in the School Lunch Program will be shared with classroom teachers for students to create in the Home and Career classes.

SCHOOL GARDENING RESOURCES:

- Buffalo Public Schools Garden website: http://www.buffaloschoolgardens.com/
- Grassroots Gardens of Buffalo website: http://www.grassrootsgardens.org/

- Pelion Community Garden at BPS 195 City Honors: http://www.facebook.com/PelionCommunity-garden/
 https://www.facebook.com/PelionCommunityGarden
- Kitchen Gardeners' International: kgi.org/
- Lowe's Toolbox for Education: http://www.toolboxforeducation.com/
- Lawyers for Learning: http://www.lawyersforlearning.org/
- The USDA Farm to School Planning Toolkit: http://www.fns.usda.gov/sites/default/files/f2s/F2S Planning Kit.pdf

EDUCATION AND CURRICULUM INTEGRATION

BACKGROUND AND PROGRESS TO DATE

Our main education strategy has been to develop weekly lessons for HOM items for September through November 2015. The lessons were developed by Eat Smart NY nutrition educators in partnership with a 4-H educator to cover four themes: how the crop grows, who grows it and where, how it gets from the farm to the school, and nutrition information. We designed two sets of lessons, one set for grades K-6, another for grades 7-12, with the expectation that teachers could adapt the lessons to fit their classrooms' needs. Lessons were designed to last 10 minutes so that teachers could quickly fit them into their school day, ideally in the morning. Unfortunately, fewer teachers used this resource than anticipated. However, most classrooms across the 10 pilot schools conducted the very first lesson, which was planting and maintaining kale seeds in small pots within the classroom.

Another key component of F2S education has been training the afterschool teen leadership group, the YAC, on F2S topics. YAC is a 4-H club of Cornell Cooperative Extension of Erie County that is facilitated in partnership with the Buffalo Niagara Medical Campus, Grassroots Gardens of Buffalo and the Massachusetts Avenue Project. YAC is made up of 12 middle and high school students from across BPS. F2S education in this group has been done through the Institute for Agriculture and Trade Policy's F2S Youth Leadership Curriculum. YAC has conducted various lessons in this curriculum including: preparing a F2S elevator speech, learning the steps in the food system, understanding the National School Lunch Program and where school food comes from, identifying locally grown foods, and interviewing the BPS Food Service Director. YAC continues to learn about F2S issues and advocate for healthier schools. One of YAC's significant accomplishments has been advocating for, and getting, salad bars in all high schools. YAC has also been involved in sampling HOM items before they go out to schools. YAC members also created a video of the kale farm that supplied our kale in September 2015.

It is also important to note that BPS is working on bringing the Coordinated Approach to Child Health (CATCH) to the district's students. CATCH is a program working towards preventing childhood obesity through a coordinated approach of the school environment (the classroom, child nutrition program, physical education), parents and broader school community. CATCH programs focus on making nutrition learning and physical education fun. It is a program providing training, equipment and materials for PreK- middle school grades and also after-school programs. There are currently 12 schools that are utilizing this program during the 2015-16 school year. The plan is to expand CATCH throughout the district over the course of the next five years.

To increase F2S educational opportunities, the F2S Coordinating Committee has plans to expand its work in the areas listed directly below.

CLASSROOM ACTIVITIES

The teacher survey we administered in December 2015 provided insight into how to better bring F2S into the classroom. While more than half of surveyed teachers (61%) were aware that F2S lessons were developed, only

27% of teachers who responded to the survey said they utilized any part of the curriculum. The main reasons given for not using the curriculum included lack of awareness about the specifics of the curriculum (43%) and lack of time to complete lessons (29%). Some teachers noted that improved access to the curriculum would have made it easier to use. Others who worked with younger audiences, such as pre-kindergarten and kindergarten, noted that the curriculum was too advanced for these ages.

Our proposed solution to the challenge of lack of awareness of the curriculum is to provide easier access to lessons via the Buffalo F2S website. As noted above in the "Promoting our Program" section, improving the website is a key outreach strategy to reach parents and teachers. Part of improving the website will involve making the link to F2S lessons highly visible to teachers.

Our solution to the challenge of lack of time for completing F2S lessons will be to create fewer and shorter lessons that will make it easier for teachers to include in the school day. For example, instead of having four full lessons per month, we are working to create infographics for each HOM item that focus on two key aspects of the featured products: nutritional information and agricultural information. We will conduct ongoing evaluation of these resources to determine whether or not they are useful and utilized by teachers, then make adjustments as necessary. It is also possible that teachers will be more willing to make time for F2S lessons if the lessons are aligned with Common Core Standards. Our nutrition educators, in collaboration with volunteer teachers, will thus work to align our lessons with Common Core Standards.

Beyond teacher incorporation of F2S lessons into the classroom, we are also looking to develop partnerships with food system stakeholders who can help bring F2S to life in the classroom through gardening, culinary activities and field trips. These stakeholder groups include: farmers, chefs, and extension educators, both 4-H and nutrition. The goals for developing such relationships are described in the following sub-sections.

GARDEN ACTIVITIES

The BPS Garden Committee is continually working to help teachers incorporate school gardens into their classroom learning. As the HOM program continues, the Garden Committee will identify garden lessons that involve the HOM featured items. It also aims to incorporate garden-based learning across a broad variety of subjects, not just science and health, but also mathematics, social studies, ELA, and beyond. To implement these garden lessons, the Garden Committee hopes to take a co-facilitating approach between classroom teachers and outside organizations, whereby organizations take the lead in planning lessons, then co-lead the lessons with teachers. After a lesson is taught once, the partner teachers in the schools then share the lessons with other teachers. Organizations with which the Garden Committee has partnered to provide lessons include Buffalo Audubon Society, Grassroots Gardens of Buffalo, and the Eat Smart NY program of CCE Erie. Additional potential partnerships include the 4-H and Master Gardener programs of CCE Erie. In exchange for receiving support to teach garden-based lessons in their classrooms, participating teachers will also identify Common Core Standards met by the classroom lessons.

CULINARY ACTIVITIES

To bring HOM recipes to life, the F2S Coordinating Committee plans to incorporate food demonstrations into our F2S program. Our team plans to build a partnership between local chefs and the BPS Food Service Department to hold an "Iron Chef/Chopped" style event whereby local chefs compete to create recipes using HOM items. Before the contest, chefs will first learn about the National School Lunch Program, and thereby the limitations on what they can cook. Then chefs will compete to prepare recipes that students like. The event will not only be open to students but also teachers, parents, and other stakeholders across the school district.

After this event, we will seek continued partnerships with local chefs to provide cooking demonstrations during the lunch period. It is also possible that our Eat Smart NY nutrition educators will provide cooking demonstrations at lunch times to motivate students to try the new foods being offered through HOM.

Given the large size of the school district, we will focus on offering activities that reach entire schools, not individual classrooms. We will aim to roll this program out with our 11 pilot schools by offering one cooking demonstration a month, rotating through the 11 schools. The BPS Food Service Department will help by getting materials prepared for the chefs, then chefs will do demonstrations in the cafeteria during the lunch period.

FIELD TRIPS

So far, the team has coordinated one field trip for four F2S pilot schools, in addition to a field trip for food service staff. Students, teachers and staff all appreciated the opportunity to see farms, so the F2S Coordinating Committee will continue to coordinate field trips for students. Ideally, we will be able to take students to farms supplying food to our HOM program. When this is not possible because of distance, we will travel to other local farms.

Because the school district is so large, we will not be able to take all students on trips. As grant funding becomes available, we will make field trips available to as many schools as possible. Each school's wellness team will decide which students will go on the trips.

AFTER SCHOOL AND SUMMER ACTIVITIES

The primary afterschool activity related to F2S will continue to be meetings of the YAC. As YAC continues to promote wellness for BPS students, it will work to promote the Buffalo F2S program to peers across schools. One way we hope to continue to involve YAC in F2S is through taste testing of HOM recipes.

As facilitators of YAC, our goal for the group is to continue to expand to include students from more schools across the district. We currently have 12 students representing 6 schools. We would like to have 15 students that represent at least half of BPS high schools (of which there are 19). We will work toward this goal by continuing to participate at District events where we can promote YAC's work and by continuing to strengthen YAC members' leadership abilities through local, state and, when possible, national events.

EDUCATION AND CURRICULUM INTEGRATION RESOURCES

- Chefs Move to Schools: http://www.chefsmovetoschools.org/
- Institute of Agriculture and Trade Policy Farm to School Youth Leadership Curriculum: http://www.iatp.org/issue/farm-to-school
- The USDA Farm to School Planning Toolkit: http://www.fns.usda.gov/sites/default/files/f2s/F2S Planning Kit.pdf

EVALUATING YOUR EFFORTS

BACKGROUND AND PROGRESS TO DATE

We've undergone a few attempts at evaluation, with plans to ramp up those efforts in the coming year. Below, Table 3 highlights evaluation efforts to date, challenges we've encouraged with the methodology and plans for the future. Full details on each evaluation effort are noted in the sections below the table.

Evaluation	Challenges	Moving Forward
Baseline local produce purchases for the 2014-15 school year, as reported by Boulevard Produce	Boulevard didn't itemize local purchases by item, rather it was a lump sum total.	Require Latina Boulevard Produce to track local produce purchases by item and lb, so we can more effectively track progress and identify potential opportunities to increase local purchases.
Teacher surveys regarding the food systems and nutrition curriculum that was offered during the HOM pilot	Low response rate from teachers, despite that a free lunch was offered during survey announcement to all teachers in the pilot schools.	We relied on the administration in each school to disseminate the survey to teachers. Moving forward, we will email the survey link to teachers directly in each school.
Student voting for each HOM recipe during the 12 week pilot	Surveying students during lunch required a tremendous amount of human capital from the F2S team. We struggled to get parent, teachers and student engagement in the effort. This model is not replicable as is when the HOM program goes district wide.	We are trying to engage the parent facilitators, teachers in the lunchroom and student volunteers to assist with this effort. Rather than 4x per month, we'll only survey students 2x month.
Student pre and post-tasting surveys	The primary limitation of the results would be when students replied "yes" to the first question (Do you know what this is), incorrectly named it, then subsequently thought the vegetable they had tasted and liked was incorrect.	If we did pre and post surveys again, we'd work with the evaluator to redesign how questions were asked, so as to conclude with more meaningful results.
Kale and Brussels sprouts taste test survey analysis	No known limitations.	No suggested changes in survey instrument.
Food service survey	The Food Service Staff in all of the pilot schools were asked to evaluate the food service training, HOM recipes, school support, and overall F2S program.	Food Service Staff provided valuable feedback that was used to modify the F2S program, such as reducing the recipes to from 4x to 2x each month. These meetings and surveys will continue as we move forward to expand the program.

Table 3: Evaluation Efforts

STUDENTS OUTCOMES

Kathy Border, of the Dietetics Departmental at D'Youville College, conducted surveys to obtain feedback on two of the HOM items, kale and Brussels sprouts.

Items	# of students surveyed (pilot: control)	Pilot school-avg % that tried the item	Control school-avg % that the item
Kale	467:112	49%	20%
Brussels Sprouts	332:58	62%	38%

Table 4: Table 4: D'Youville HOM Student Survey Results

As the results in Table 4 suggest, in the pilot schools, in which classroom and cafeteria inventions were present, there was a significantly higher percentage of students that tried the HOM items. This suggest that interventions, such as curriculum, marketing and promotion, and encouragement from the food service staff, contributed to the student's willingness to try the new menu offerings. Students were motivated to try new items due to" "I tried it" stickers, parents, teachers, and principals. Factors discouraging children from trying the new items were: if they did not see them on the cafeteria line, if they brought their own lunch and if it did not look familiar or appealing to them.

HOM Recipe	Students surveyed	Like	Dislike
Tic Tac Toe Salad	1,813	67%	33%
Crazy Kale Chips	2,215	60%	40%
Kale & Beans	1,463	63%	37%
Sweet Kale Apple Salad	1,817	74%	26%
Cheesy Brussels sprouts	1,820	67%	33%
Roasted Brussels sprouts	1,955	64%	36%
Brussel sprout slaw	1,963	67%	33%
Roasted Brussels sprouts	1,515	68%	32%
Spud Salad	1,997	74%	26%
Baked Potato Wedges	2,569	89%	11%
Smashed Taters	2,067	81%	19%
Roasted Ruby Red Potatoes	2,211	84%	16%

Table 5: HOM Taste Test Results

Table 5 indicates the results from the student voting conducted weekly by the F2S Coordinating Committee and the BPS food service staff. Using a simple ticket based system, students in the 10 pilot schools voted as to whether or not they liked or disliked the new HOM menu offering. Based on these numbers and production records reported from the food service staff, there was an increase in the amount of students taking the HOM item as the HOM month progressed, and a slight percentage increase in the amount of students that reported "liking" the item from week to week. Moving forward, we will continue to survey the students through taste testing, as we found it to be a valuable way to engage and excite the students.

Additionally, we will measure student knowledge about gardening, agriculture, and nutrition using post-test surveys after distinct one-time events, such as field trips and cooking demos. When possible, we will use pre and post surveys for classroom interventions such as teacher lessons related to HOM items.

TEACHER AND ADMINISTRATOR OUTCOMES

Teacher outcomes we will measure include: attitudes about integrating F2S topics into curriculum, utilization of F2S curriculum, number of Home Economics classrooms making F2S recipes, and utilization of garden in-classroom learning.

The teacher survey we administered in December 2015 serves as a baseline for measuring teacher attitudes about F2S and utilization of curriculum. We will assess these outcomes through follow up surveys after we refine our outreach approach to teachers.

To assess the number of Home Economics classrooms preparing F2S recipes, we will first collect baseline data about the number of Home Economics classrooms currently preparing F2S recipes then follow up with surveys to these classrooms after we reach out to these teachers.

Finally, we will assess incorporation of gardens into classroom learning first through a focus group with teachers, then through a pre and post survey to assess changes in teacher practices.

FOOD SERVICE OUTCOMES

Utilizing our monthly training sessions to communicate with the school food service staff is key to adjusting the program to meet the needs of the staff while also maintaining a high quality HOM menu for our students. Food service staff will be surveyed to determine quality of training, recipes, students' acceptance, and school environment/support for F2S program.

This information will be used to adjust the recipe menus, methods of providing training and promotional effects on a school by school basis. Because there are so many variables from school to school, programs cannot be one size fits all. Utilizing 11 pilot schools during these next 10 months will provide the District a good basis to implement the F2S program to all schools.

FARMER/PRODUCER OUTCOMES

The amount/percentage of the total food budget that's used to purchase NYS grown/raised farm foods will be tracked and the percent change will be calculated using baseline projections from the 2014-15 school year. At this time, we are reluctant to commit to a more sophisticated survey that tracks changes in net farmer income as that data is often difficult to collect. If an opportunity presents itself to dig in deeper about the individual farmer impact, we will certainly take advantage of it.

PARENT/FAMILY OUTCOMES

Expected parent outcomes include increasing the number of parents that receive F2S recipes, increasing parent awareness of the F2S program and increasing their knowledge about the value of healthy eating. We will assess whether or not parents receive recipes by polling teachers and schools about whether or not they have distributed recipes, and through what means. We will assess parent awareness of F2S and the value of healthy eating through parent surveys offered through school and at F2S events.

COMMUNITY OUTCOMES

No evaluation efforts are currently underway or in development to assess community impacts. Research conducted by Todd Schmidt of the Cornell Dyson School of Applied Economics and Management does offer an

economic multiplier that could be used to translate local food purchases into potential economic activity, but the F2S Coordinating Committee would need to consult with Cornell University researchers before asserting any projected economic impacts using the multiplier effect.

USING EVALUATION RESULTS

Evaluation results will be used to gauge program effectiveness on various stakeholders. We've used data collected to date to make modifications and improvements in how we deliver the HOM program, so as to be the most efficient stewards of District resources and to have the great impact on our goals. At the end of the 2015-16 school year, it's our intention to compile and disseminate an annual F2S report, highlighting what we've done, what we've learned and what changes we'll make going forward.

EVALUATION RESOURCES

- Spark Policy Institute; Farm to School Evaluation Tool Kit: http://sparkpolicy.com/tools/overview-introducing-fts-evaluation/
- Evaluation for Transformation: A Cross-Sectoral Evaluation Framework for Farm to School: http://www.farmtoschool.org/resources-main/evaluation-framework
- The USDA Farm to School Planning Toolkit: http://www.fns.usda.gov/sites/default/files/f2s/F2S Planning Kit.pdf

SUSTAINING YOUR PROGRAM

BACKGROUND AND PROGRESS TO DATE

Following the conclusion of the USDA planning grant, we applied for and received, a NYS Agriculture and Markets grant, in the amount of \$43K, to support our F2S efforts during the 2015-16 and the 2016-17 school years. This funding will provide the support needed to complete HOM tool kits for a full academic year.

It's our intention to apply for a USDA Implementation Grant to further expand our F2S efforts district-wide and to support the purchase of NYS farm goods, above just produce, to include proteins and grains. Once we have a strong program planned and tested across the district, we feel that our reliance on grant money will wane.

In terms of equipment and facilities support, BPS has retained an architect to begin the renovation process of the current central commissary to implement scratch cooking utilizing local foods. The redesign includes cost estimates for the new equipment needed for scratch cooking methods utilizing raw agricultural farm products. These additional costs are forecasted and included in the 2016-17 budget.

INSTITUTIONAL SUPPORT

BPS is dedicated to their commitment to purchase locally produced farms goods. As such, local food purchases will become a permanent part of the school food budget in years to come. We hope to incorporate language that supports our F2S goals in the BPS Procurement Policy and the Wellness Policy. However, changes of that magnitude require Board Of Education approval and will take time to secure.

In addition to the F2S program we're delivering throughout the school district, F2S will be integrated into a number of additional programming efforts currently under way in the district; each of which complement our F2S goals. They include:

- All of the BPS School Wellness teams are being trained in the CDC's Whole School, Whole Community, Whole Child model. They have been tasked to build capacity in their school environment to improve health and learning for the students through collaboration. F2S activities have become the focus for the school wellness teams and they are setting goals that coincide with our F2S goals.
- The District Health Council along with the Nutrition Committee are working together to include F2S changes to their school and district policies and procedures. The current Wellness Policy is being updated to set goals that coincide with our F2S vision.
- CATCH program is expanding and will ultimately be in every school within five years. This program is funded through the United Way and will support F2S goals.
- The BPS Garden Committee is seeking grant funding to expand school gardens beyond the current 20 schools, which will strengthen the F2S HOM program through added awareness, education and promotion.

By engaging the school support staff, teachers, food service staff, and community members, we are solidifying our commitment to F2S in Buffalo and ensuring that it's not merely a special initiative, but rather an integral part of our school community. We intend to develop and grow the program for years to come in a gradual and intentional manner.

GRANTS

At this time, we plan to finish our grant with NYS Agriculture and Markets and apply for a USDA F2S Implementation grant. Beyond that, we're not sure that we'll need continued grant support to move forward with the F2S program. Through the support of USDA and NYS, we're developing a program that's both scalable and replicable across the district. The grant money at this time is largely funding the training and community partner support to plan and execute the program during these key development years. The intention has always been for the program to be become self-sustaining and not reliant on grant money. Beyond that, if needed, we'll explore grants on an as needed basis for special projects that further strengthen our long-term F2S goals.

DONATIONS AND FUNDRAISING EVENTS

We do not intend to ask for donations from parents and individual community members. The district community largely, is fairly low-income, and we would not feel comfortable soliciting monetary donations. We are hoping to build our volunteer base to support our growing F2S program and will count that sweat equity as in-kind donations.

To date, we've received donations of garden supplies from local farm businesses. Additionally, the District received 10 salad bars from the Chef Ann Foundation, Let's Move Salad Bars to School initiative. An additional six salad bars have been secured through Fuel Up to Play 60 grants. As we move forward and our needs become more transparent, we will continue to solicit donations from local businesses.

PARTNERSHIPS

Key partnerships to sustaining our F2S program include:

 National and State funders, specifically USDA F2S Program and the NYS Department of Agriculture and Markets

- American Dairy Association and Dairy Council
- Fuel Up to Play 60
- D'Youville College Dietetics Department
- SUNY at Buffalo, School of Leadership
- Let's Move Salad Bars to Schools
- Grassroots Gardens
- BPS Garden Committee
- F2S Coordinating Committee
- Parent, student and community volunteers

RESOURCES

- USDA Know Your Farmer Know Your Food Initiative: http://www.usda.gov/wps/portal/usda/usdahome?navid=KYF_GRANTS
- Funding Farm to School; National Farm to School Network:
 http://www.farmtoschool.org/Resources/Funding-fact-sheet-web.pdf
- NYS Department of Agriculture and Markets Current Funding Opportunities: http://www.agriculture.ny.gov/rfps.html

APPENDIX A: BPS SWOT ANALYSIS

STRENGTHS

• Infrastructure Assets:

- Central commissary that supports 45 schools on a routine basis. Serves as a one stop drop for local farmers. Central commissary created system efficiencies and reduced waste in individual schools
 - 20 schools are not supported wholly by the central commissary. These schools have cook/kitchen managers, ample storage space, etc. They usually get a direct shipment from produce vendors and are serviced once a month by the central commissary for delivery of commodity products.
- Distribution system: deliveries are already being made to each school, some more frequently than others. Would be relatively easy to incorporate F2S goods with existing delivery schedule and possible to add additional deliveries to those 20 that aren't supported by the commissary on a weekly basis.
- Ample storage space in the central commissary to hold product for distribution.
- Space in central commissary for processing equipment, such as blast freezers, that could possibly be used to preserve farm goods into academic calendar.

• BPS Food Service Department

- Strong leadership/support from BOW, FSD for BPS
- o Past F2S experience-lessons learned and best management practices identified
- Purchasing power (both a strength and a weakness). Serves 28K lunches, 25K brkfts/day. Needs a lot of product!
- BPS Food Service has strong fund balance
- o New BPS website-potential vehicle to deliver information
- o 100% community eligibility program-signals that the majority of kids are already eating school lunch, which serves an opportunity to increase consumption of healthy food across the district
 - High % of community eligibility also creates system efficiencies and reduced paperwork.
- o Central menu planning and ability to create district wide menus that incorporate farm goods
- BPS Programs/Committees/Policies that support F2S effort
 - Board support
 - o All high schools have salad bar
 - Health Services Department (Sue Baldwin and Sue Ventresca)
 - BPS wellness policy very strict (favors high nutrition standards)
 - School wellness teams
 - o Nutrition committee
 - YAC youth leaders
 - o Existing school gardens and opportunities to develop more. Serve as hands on educational tool.
 - o BPS parent interest
 - District has seen a gradual improvement in student nutrition over the years. Slow, but positive direction.

Core Planning Team

- o History of partners working together
- o CCE Past experience in F2I
- Team skill set in food systems development

- o Ability to use one another's' organizational assets, i.e. meeting spaces
- o Strong connection to ag community and student body

WEAKNESSES

- BPS bureaucracy
- Board dysfunction
- Purchasing power-quantity needed may hinder the ability of farmers in participating
- Lack of skilled kitchen workers presents a challenge concerning handling raw, unprocessed farm goods.
- Varying levels of kitchen facilities in schools and lack of kitchen/prep equipment
- BPS students/families lack of nutrition knowledge/familiarity of fresh farm goods
- Lack of parent interest/support
- Have to follow municipal law-put out to bid if contract's over \$10K and lowest bid wins contract
- Lack of understanding regarding ability to purchase NYS product given state mandated purchasing regulations
- Lack of nutrition education (NOTE: look into HOPS: healthier options for public school children-FL based pilot). SNAP educators provide this service to Erie County, but have limited capacity and can't service the entire district.
- Processed foods being introduced to students and appealing to them (i.e. mama's noodles). Competes with healthier food items
- Uncertainty regarding available funds to move forward into implementation
- Delivery/pick up from farms unable to sell through distributor and/or drop off at central commissary.

OPPORTUNITIES:

Favorable "buy local" climate

- Growing interest in knowing where one's foods comes from and supporting efforts that may mitigate climate change impacts
- Increasing trend in institutional procurement of local food

Local Community Support/Initiatives

- Initiatives/organizations such as 1 Region Forward, Buffalo and Erie County Food Policy Council, UB Food Lab strongly support F2S efforts
- Urban ag efforts in the City of Buffalo are on the rise, which can create opportunities for education and awareness with stakeholders.
- Support from national and local policy makers, favorable political climate
- Opportunities for partnerships to provide:
 - 0 1
 - nutritional education
 - Technical assistance and training to BPS food service staff on how to handle and prepare raw/minimally processed foods.
 - Technical assistance to growers interested in scaling operations to serve a larger, wholesale market [BPS], becoming wholesale market ready and implementing season extension practices at the farm level.
 - Technical assistance to implement an educational program around composting
- Incorporate applicable lessons learned from Smarter Lunchroom research, when made available.

• Food hub currently in development, which complements F2S mission and may serve as an answer to infrastructural challenges that hinder the ability of small farms to participate in BPS F2S efforts (given their massive purchasing needs).

Agricultural

- Strong agricultural production-NYS 5.4B industry with over 35K farms, 1044 of which are in Erie County
- Existing cooperative farm models that may be able to service a portion of BPS needs
- Growth in organizations providing local value added products that may be easier for limited resource kitchens to use (i.e. flash frozen, fresh cut).

Federal and State Level Support/Policies

- Utilizing strategies such as geographic preference to increase ability to purchase NYS grown
- Encourage bringing back USDA programs, such as Healthier USA Challenge, Team Nutrition and Power Eaters, as they complement and strengthen F2S mission and objectives.
- Strong federal/state support from F2S leaders
- Tapping into best management practices and lessons learned from around the country and NYS

THREATS:

- Short growing season that doesn't coincide with school's schedule
- Climate change provides unpredictable weather patterns that can affect ag production
- Politician and board member turnover could affect F2S interest in supporting and expanding F2S efforts. This turnover can also affect federal/state level support and funding opportunities.
- Farm level capacity-many small and mid-size farms that can't service BPS needs on their own
- Program sustainability may be a challenge when funding's opportunities become exhausted. Also serves as an opportunity to design a sustainable program.
- Farmers perception regarding profitability of F2S as a desirable market opportunity
- Price changes/fluctuations in terminal market prices
- Development pressure/farm loss
- USDA commodity entitlement program makes purchasing local meats, cheeses, grains challenging (BPS receives \$1.5M/year). How can local farmers compete with these items?
- Big food service distributors can typically outbid small(er) regional distributors that likely source more local farm goods.

APPENDIX B: F2S PROMOTIONAL MATERIALS







