



Tisch Food Center Report

# Cooking Outside the Box:

*How a Scratch Cooking Pilot in the Bronx is Reshaping Meals In New York City Schools*

December, 2019





## **Laurie M. Tisch Center for Food, Education & Policy Program in Nutrition Teachers College, Columbia University**

The Center cultivates research about connections between a just, sustainable food system and healthy eating and translates it into recommendations and resources for educators, policy makers, and community advocates. The Center focuses on schools as critical levers for learning and social change.

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# Letter from the Executive Director

*“After bread,’ said the greatest of the French revolutionary statesmen, ‘education is the first need of people.’ The fierce and intrepid common-sense of Danton enabled him to see the vital importance of public instruction, but it enabled him to see that education is not and cannot be the first need of a people. The first need is food.”*

- After Bread, Education: A Plan for the State Feeding of School Children, The Fabien Society, April 1905

That 1905 quote makes the case for feeding school students. While we may believe that the United States accomplished this with the creation of the National School Lunch Program in 1946, over 60 years later we have not yet achieved the essence of Georges Danton’s urging. That is, make feeding students, and feeding them well, a core priority of schools. Eating during a long school day increases students’ readiness to learn. What students eat and their experiences at school meals teaches students a lot about food, health, community, culture, and life.

***Cooking Outside the Box: How a Scratch Cooking Pilot in The Bronx is Reshaping Meals in New York City Schools,*** describes how two New York City (NYC) public school kitchens transitioned to a full scratch cooked menu and how this is leading the way to long-term change in what NYC school students eat at school.

This is a “systems change evaluation.” That means we spent a lot of time in the two kitchens that were in this pilot. We carefully documented what changed and how change happened. We looked at four big elements of change:

- ***Ingredients and Recipes for Scratch Cooking*** showed us what new ingredients were needed to transform to scratch cooking. We also learned about how recipes had to be practical, kid-appropriate, and, of course, meet the nutritional standards of our national school meal programs.
- ***A Kitchen for Scratch Cooking*** helped us understand how the kitchens were set up. We saw walk-in coolers transition from boxes of packaged food to fresh foods in clear bins. We saw raw protein zones that ensured food safety. We saw fresh fruit and vegetable chopping set up in areas visible to students as they went through the serving line.
- ***Cooking from Scratch*** showed us what goes on when school meals are scratch cooked. We saw sauces made from fresh whole ingredients, smoothies made with immersion blenders, and bone-in raw chicken marinated overnight, then cooked the following day.
- ***Feeding the Community*** showed us how serving lines were set up to entice students to try new foods. While teachers, principals, parents, and students were excited about the scratch cooked meals, this was still a big change. Change is hard and change takes time. We learned that constant communication about, and attention to, school meals by everyone in the school community is needed to meet Danton’s vision of “after bread, education.”

If you are from NYC, we hope you enjoy learning what happened during this pilot. We think you will be particularly interested in ***Chapter IX A Path to Expansion***, that shows how we need collaboration, coordination, and investment from government, the Department of Education, and everyone in schools to work toward the Office of Food and Nutrition Services’ goal for all students to get scratch cooked meals every day. If you are from outside of NYC, we hope you are inspired and learn what it takes to move toward more scratch cooking at the schools in your community.

Sincerely,



Pamela Koch, EdD, RD

## Key Takeaways

With parents, students, politicians, and advocates clamoring for better school food, our study shows that the largest school system in the country can successfully turn back the clock and serve scratch cooked meals to students.

Our study also showed that this was no small feat. Instead, moving from many processed foods to entirely scratch cooked meals required complex systems change given the massive size and scale of New York City (NYC) Department of Education (DOE) and Office of Food and Nutrition Services (OFNS).

Successfully transitioning kitchens during the *Return to Scratch Cooking Pilot* was not a given — it depended on political will from the top, creativity from external partners, and buy-in from many DOE departments and school community members. As with any pilot, the initial model evolved over time, from a focus on individual kitchens to exploring how to introduce some scratch cooked items citywide. While the focus of this study was not on economic outcomes, our findings show that food and labor costs have the potential to be cost neutral at scale.

The ultimate goal is for all NYC students to have full scratch cooked meals year-round. The New York City Council has called for DOE to give them a plan and timeline for fully transitioning to scratch cooked food service.

Our research shows that in order to scale further, the city will have to make a serious investment in kitchen infrastructure, staff training and advancement, coordination of internal and external stakeholders, and promoting school meals in partnership with community partners. All of these elements are critical to the long-term systems change involved in shifting how we feed our city's children in the coming years.



Scratch cooked meal.

# Executive Summary

## Introduction

The New York City (NYC) Department of Education (DOE) assumed responsibility for school meals in 1918 (Ruis, 2017). In the hallways of the NYC DOE Office of Food and Nutrition Services (OFNS) there are photographs of kitchens from the 1920s–1950s depicting school food workers preparing meals from scratch, which continued through the 1990s. However, in the 1980s when the United States Department of Agriculture (USDA) decreased school meals funding, particularly for kitchen equipment and upgrades, and the U.S. food supply transitioned to processed foods, many school food programs transitioned to serving more pre-made processed products. This trend toward processed food products continues. Since the early 2000s there has been significant discussion, demands and actions by health and nutrition professionals, researchers, school personnel, parents, and advocates to move away from highly processed and packaged foods, and go back to scratch cooked meals.

In 2004, the NYC DOE OFNS, the largest school food service provider in the country, initiated the first of many student meal initiatives, SchoolFoodPlus. NYC also made food access and the food system a priority in 2007 by establishing a Food Policy Coordinator in the Mayor’s Office. The passing of the Healthy Hunger Free Kids Act (HHFKA) in 2010 created a national spotlight on nutritious school meals. Advocacy and initiatives aimed at school meals increased exponentially over the past decade. One hundred years since the then “Board of Education” assumed responsibility for school meals, the time was right for a radical strategic change and the development of the Return to Scratch Cooking Pilot (RSCP).

Since a full scratch cooked menu had not been produced in NYC kitchens in two decades, a scratch cooking pilot in a few kitchens was essential for providing the understanding and strategies to achieve the goal of all kitchens moving toward more scratch cooking in the future. Additionally, OFNS decided that an external partner, experienced with implementing full scratch cooking for all school meals (e.g., breakfast, lunch, supper, snack) under the HHFKA guidelines would facilitate their success. Thus, OFNS entered a partnership with Brigaid, a for-profit school food consulting company, founded by Chef Dan Giusti. The Bronx was selected for the RSCP because it is one of the poorest of 62 NY state counties, with the highest incidence of diet-related disease. From its inception in early 2017, the purpose of the RSCP was to inform and guide citywide expansion of scratch cooked food service for all NYC public school students. From 2017–19, Brigaid consulted, then partnered, with OFNS toward achieving this goal.

***This evaluation of the RSCP had three goals:***

- 1) Document the systems change that occurred in the two kitchens that were part of the RSCP during the 2018-2019 school year.
- 2) Understand how a wide range of stakeholders experienced the RSCP.
- 3) Based on lessons learned by the RSCP, provide implementation guidance to facilitate expansion of scratch cooked food service\* for all NYC students.

For this report, for expansion of scratch cooking, we use the definition of **scratch cooked food service**,\* from City Council Int. No. 1676 (Introduced August 14, 2019). This definition is, “food service that prioritizes the preparation of meals or snacks on a daily basis at or near the site of consumption with ingredients in their most basic form.”

\* The definition for scratch cooking used as a reference in this report is not the OFNS definition. As the pilot evolves the OFNS definition is evolving with it.



Serving line.

## Scratch Cooking Systems Change

A systems change approach was employed because radical change in an organization of NYC DOE OFNS's magnitude requires a deep evaluation of the systems that would be disrupted for the innovation to affect sustainable change. Systems are dynamic and alive, as they are constantly changing and adapting. Systems change research examines the three parts of a system; *elements*, *interconnections*, and *purpose*.

For this evaluation there are four *elements*:

- 1) ***Ingredients and Recipes for Scratch Cooking***: Identifying and procuring new ingredients and recipes for scratch cooked meals.
- 2) ***A Kitchen for Scratch Cooking***: Selecting and setting up kitchens with the physical infrastructure for receiving, storing, and preparing raw ingredients, including raw proteins, for scratch cooked meals.
- 3) ***Cooking from Scratch***: Hiring and training kitchen teams to store, prepare, serve, and manage scratch cooked meals. OFNS contracted Brigaid to introduce a chef in school kitchens to lead scratch cooked meals.
- 4) ***Feeding the Community***: Serving, informing, collaborating with, and gathering feedback from school stakeholders about scratch cooking.

Within these elements there are four *interconnections*:

- 1) ***Policies***: Policies are at multiple levels of the system including federal, state, city, organizational, and school that influence the management of school meals and still need to be complied with, even as the systems change.
- 2) ***Practices***: Practices are the necessary tasks that occur throughout the system from planning, to preparing, to serving meals.
- 3) ***People***: People are all the people who play a role in the system including: OFNS leaders and school-based staff, students, principals, teachers, school staff, parents, and others in the school community.
- 4) ***Promotion***: Promotion is the communication and marketing that builds awareness, support, and enthusiasm for the systems change. Promotion could be internal to OFNS for employees and external from OFNS for the school community. Promotion also includes food and nutrition education that is supportive of school meals.

The *purpose* was to provide scratch cooked food service in NYC DOE kitchens.



Fresh fruit.

## Evaluation Methods

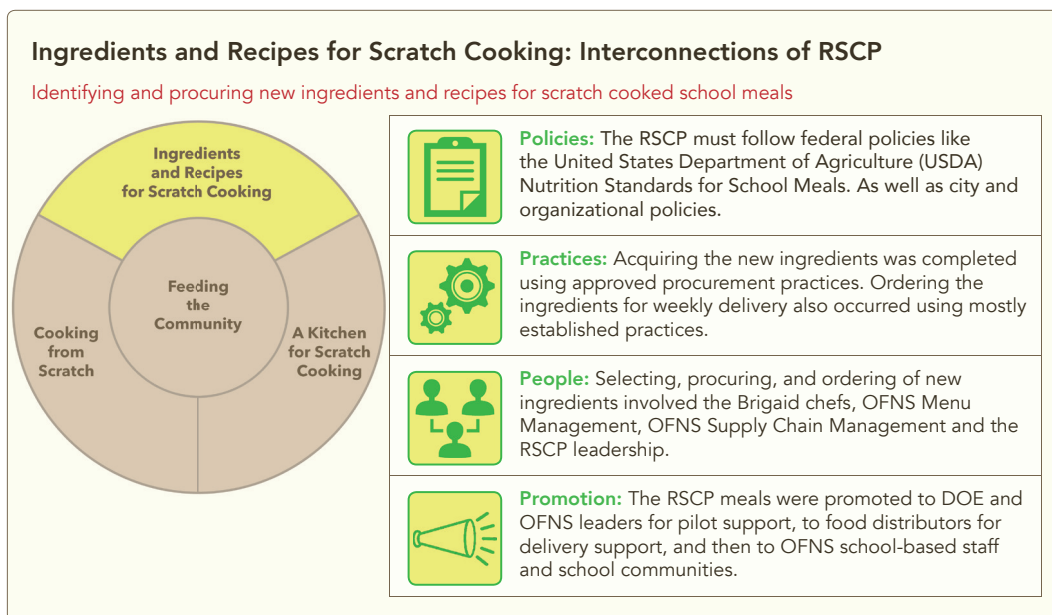
This qualitative evaluation captured the development of the RSCP during the 2017–18 school year and the implementation during the 2018–19 school year. This pilot took place in two sites, called Site A and Site B. Site A implemented the full scratch cooked menu for the full school year for four co-located high schools. Site B started in February with a partial scratch cooked menu, then served a full scratch cooked menu from March to June. Site B served one K–8 school. There were seven sources of data collected and analyzed for this evaluation:

- 1) **Interviews:** Conducted and analyzed 57 interviews with 11 key players and 43 school stakeholders.
- 2) **Kitchen Observations:** Conducted five two-day observations; observations occurred from early morning until the last lunch was served, and documented the procedure of preparing and serving scratch cooked meals in the pilot kitchens.
- 3) **Document Review:** Reviewed over 200 RSCP documents including recipes, meeting agendas, job descriptions, training manuals, and metric reports.
- 4) **Attend Meetings:** Attended approximately 15 meetings at OFNS headquarters, the pilot schools, and other locations in which the RSCP was discussed.
- 5) **Photographs:** Took, organized, and analyzed 3,000+ photographs of the kitchens, equipment, food, food preparation, and food presented on the serving lines.
- 6) **Student School Lunch Attitude Surveys:** Collected and analyzed 358 student surveys with 4<sup>th</sup> and 7<sup>th</sup> grade students at one of the pilot sites that were administered pre and post scratch cooked meals.
- 7) **Community Dinner Satisfaction Surveys:** Collected and analyzed 558 surveys at a Community Dinner served during parent-teacher conferences at one of the RSCP sites.



## Ingredients and Recipes for Scratch Cooking

The first element of systems change for the RSCP was creating menus for breakfast, lunch, supper, and snack in compliance with the USDA Nutrition Standards for School Meals and the more restrictive NYC and OFNS nutrition standards. Selecting and ordering the ingredients for the RSCP recipes also required understanding OFNS procurement *policies* and *practices*. This process involved *people* from OFNS Menu Management, Supply Chain Management, and Information Technology as well as Chef Dan Giusti and Chef April Kindt from Brigaid. The *promotion* of the long term strategy and benefits requires buy-in among DOE and OFNS stakeholders.



### Key Findings

- Planning involved understanding and working within existing policies.** Planning the RSCP menu involved understanding all of the federal, state, city, and OFNS policies impacting which ingredients could be used to prepare recipes and when those recipes could be served on the monthly menu. The menu, recipes, and ingredients were developed by Brigaid and finalized collaboratively with OFNS Menu Management and Supply Chain Management departments.
- Procuring ingredients was a complex process.** Ordering the ingredients for the RSCP in time for September 2018 school meal production was a critical task that began with menu planning. OFNS and Brigaid then used strategic approaches to procure new items, negotiate cost and delivery with contracted distributors, and abide by ordering dates and product ordering minimums. The ordering process also included forecasting meal production based on recipe popularity. This process was ongoing from months before the first students at an RSCP school sampled the entrée, and through months into students and teachers experiencing the RSCP. The Brigaid Regional Chef led the ingredient ordering process and was the primary contact for OFNS.

- **Partnering with Brigaid facilitated rapid initiation of the pilot.** Brigaid had a year of student feedback on the recipes they used in New London, CT. Most of the initial recipes used in the pilot were Brigaid recipes. Tasting the RSCP recipes with OFNS staff occurred as part of introducing the menu. OFNS school-based staff and students were not involved with approving the initial menu.
- **Combining OFNS and Brigaid recipes accelerated later in the pilot.** More synergy with recipes occurred as OFNS and Brigaid had more time to work together. Additionally, as OFNS's Menu Management became more involved in scratch cooking, some Brigaid recipes were replaced by OFNS recipes, and OFNS recipe preparation instructions were revised by Brigaid. This allowed for the development of scratch cooked recipes that could be used in more of the OFNS menus across NYC schools than just the Scratch Cooked menu.



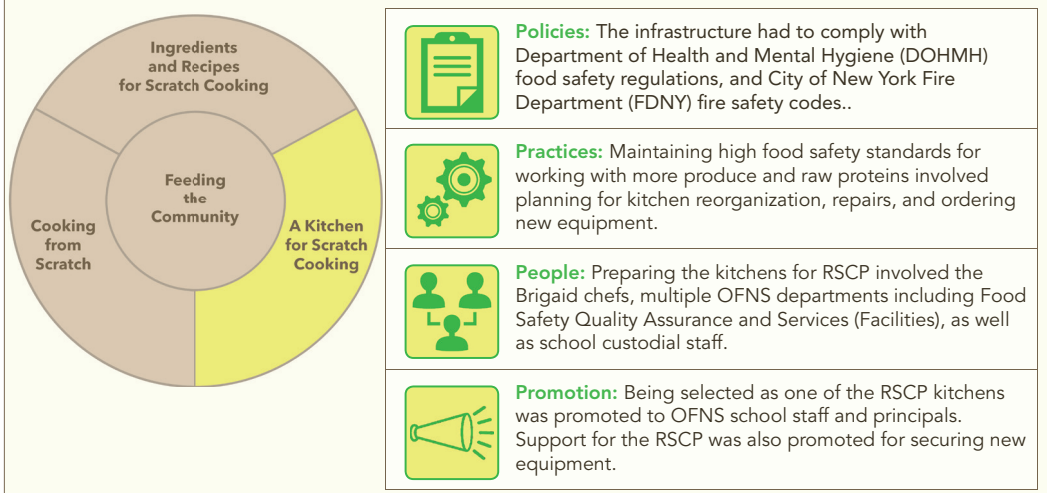
Smallwares.

## A Kitchen for Scratch Cooking

The second element of change for the RSCP was identifying and organizing the kitchen to store, prepare, and cook recipes made from an increased volume of raw products, including raw proteins, in compliance with all Department of Health and Mental Hygiene (DOHMH) and Fire Department of the City of New York (FDNY) **policies** (regulations and codes) for food and fire safety. Meeting, and exceeding, the requirements necessitated kitchen upgrades, plumbing and electrical work, ordering of special large equipment (especially dishwashers) and smallwares, deep cleaning of all surfaces, and creating designated food production zones. Performing this work involved **practices** for approving expedited work orders so that the kitchen organization supported the new food production. The **people** involved represented multiple levels within DOE and OFNS from directors of School Services (Facilities) and regional supervisors, to school custodians, and tradespeople. Finalizing the RSCP kitchens also meant **promoting** the RSCP to the school community, including OFNS school-based staff, principals, and custodians who would share responsibility for performing the work.

### A Kitchen for Scratch Cooking: Interconnections of RSCP

Selecting and setting up kitchens with the physical infrastructure for receiving, storing, and preparing raw ingredients, including raw proteins, for scratch cooked meals.



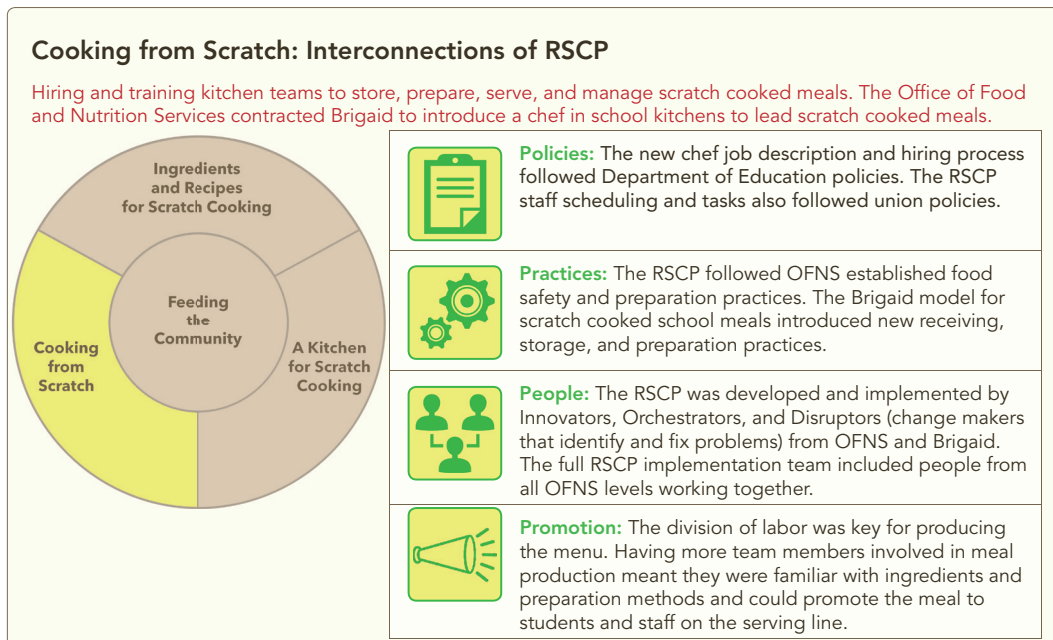
### Key Findings

- Selecting kitchens for RSCP involved many people and many kitchen features.** Kitchen assessment included the Brigaid consultants, OFNS leadership, Bronx superintendents, and Bronx principals. The kitchens were assessed for kitchen infrastructure and facilities, and for meeting food and fire safety codes, which was key for passing inspection. Additionally, discussions with school principals to determine if they would be responsive and supportive of the evolving implementation process were important for selection.
- Preparing RSCP kitchens was a long, detailed process.** Preparing the RSCP kitchens required months of planning. Then there was a systematic reorganization of work spaces into more clearly defined zones (e.g., raw protein, produce prep, hot zone). There were systems developed for daily coordinated communication between multiple departments to manage the workflow of kitchen repairs, equipment delivery, and installation. Kitchen preparation also included deep cleaning of all food storage, preparation, serving, and eating spaces, as well as office cleaning and reorganization. The preparation was led by the Brigaid consultants and necessitated involvement from DOE building facilities, OFNS staff from multiple levels, school custodial staff, and tradespeople for electrical and plumbing expertise.
- Using designated zones for kitchen tasks was a key to success.** Producing scratch cooked school meals in RSCP kitchens reinforced the importance of zones to create a kitchen structure that allowed for safe, efficient, and timely meal service. Zones made it clear to everyone in the kitchen that specific tasks were done in specific places. Zones were key to maintaining food safety practices. Zones were also key for having space for the current day's meal preparation, side-by-side with advanced preparation for items to be served on future days. The zones were introduced and implemented by the Brigaid consultants.

- **Using raw proteins took multiple systems changes.** OFNS had not used raw protein in any of their kitchens for several decades before this pilot. Meeting all the fire safety codes was accomplished through kitchen inspections and upgrades. Achieving all the food safety standards for working with raw proteins was accomplished through designated kitchen storage, production spaces, and supplies for raw protein. Commercial dishwashers were also donated and installed for additional food safety protection. Meeting, and working toward exceeding, fire and food safety standards was prioritized by OFNS leadership and Brigaid consultants. Brigaid consultants worked with OFNS Training and Food Safety Quality Assurance to implement and train all staff on food safety protocols.

## Cooking from Scratch

The third element of systems change for the RSCP was hiring and training consultants, chefs, and staff to prepare, cook, and serve the raw ingredients in the reorganized kitchens in compliance with all of the DOE and OFNS employment *policies*, and according to the meals program recordkeeping requirements. Training for the new food handling and recipe production *practices* occurred on-the-job by Brigaid. New *people* were also hired like the Brigaid consultants, an executive chef for each kitchen, and additional school lunch helpers to support the increased tasks. *Promotion* of the new foods began with educating OFNS school-based staff about the new ingredients and cooking techniques, and incorporating them into the morning huddle agenda.



## Key Findings

- Creating the executive chef position took coordination and a long chain of approvals.** Implementing the Brigaid model of hiring a chef for each RSCP school meant creating a new position within the NYC DOE. This required OFNS to receive DOE Human Resources and Budgeting approval for advertising, interviewing, and hiring for the new position. Maintaining maximum flexibility for this position was essential since the roles and responsibilities were expected to evolve and change throughout the pilot.
- Hiring the executive chef necessitated creating a new interview process.** Hiring for the executive chef introduced a new extensive process adapted from the Brigaid model that included traditional interview questioning. Additionally OFNS created brand new procedures for observing the potential chefs' culinary skill and creativity over two days of preparing sample meals in a NYC public school kitchen. Brigaid consultants and senior OFNS leadership were involved in the interviewing process to jointly select the best candidates for the RSCP.
- Training OFNS school-based staff for scratch cooking was mostly done on-the-job.** Training OFNS school-based staff to produce scratch cooked meals involved communication of skill levels, coordination of scheduling according to seniority, and one-on-one on-the-job training. The training was led by the Brigaid consultants and reinforced by an OFNS kitchen leadership team composed of the new executive chef, school food service manager, and cook. The personalized training facilitated skill development, with employees working more independently and two employees being promoted during the RSCP.
- Preparing recipes multiple times built OFNS staff confidence.** OFNS's scratch cooked menu had a three-week rotation. This allowed OFNS staff to prepare the same recipes multiple times over the school year, which is the normal OFNS practice. As OFNS staff had more exposure to each recipe they were able to successfully perform more and more tasks on their own with little guidance from the executive chef, school food service manager, and cook.



Making tomato sauce.

- ***Serving scratch cooked food service for an entire school year was achieved in New York City public schools.*** The partnership between OFNS and Brigaid safely served PreK-12 students scratch cooked meals made from raw proteins including chicken, turkey, beef, and whole eggs.
- ***Managing the evolution of the RSCP in two kitchens required continuous strategic alignment.*** Throughout the pilot, strategies and procedures were aligned and re-aligned to meet the objectives set by the RSCP leadership team. The pilot was able to be successful because the leadership from both Brigaid and OFNS worked in collaboration to re-balance responsibilities among the kitchen leadership team, to clarify roles, and streamline accountability.
- ***Transitioning from an executive chef to a culinary manager will work for expansion.*** The RSCP leadership team learned a lot about what it takes for scratch cooking to be successful in NYC public schools. While the executive chef was essential for the initial pilot of scratch cooking, future schools would be able to successfully scratch cook meals with a kitchen leadership team led by a culinary manager that would replace the executive chef and school food service manager. A culinary manager would be a person who had some food service and culinary expertise, but not necessarily a full chef. This culinary manager would work with a cook and assistant cook. This structure would be more aligned with OFNS organizational structure and is essential for expanding scratch cooked food service.



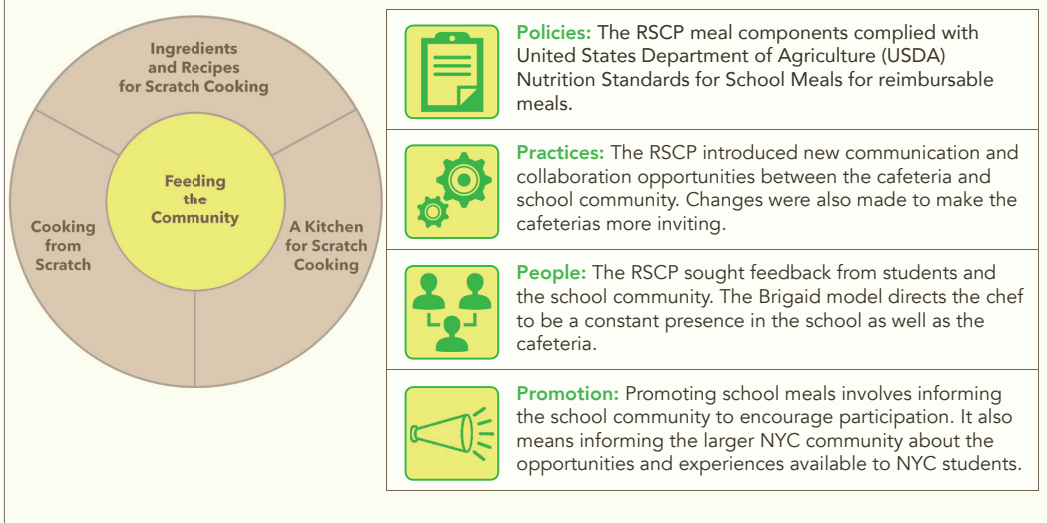
Serving line.

## Feeding the Community

The fourth element of systems change for the RSCP was addressing the perception of, and stigma around, school meals and gaining buy-in from the entire school community of students, staff, principals, and teachers for school meals. Encouraging school meal participation did not require changing DOE or OFNS *policies*, as the existing policies already allowed teachers and principals to purchase school meals. However, the schools established different processes for implementing these *policies*. In making the food appealing and available to the entire community, the RSCP also worked to make the cafeteria welcoming and implemented new *practices* around school dining, and collaborating with school partners. The community included all the *people* associated with the school including parents. *Promoting* the RSCP occurred throughout the RSCP schools as well as through local and national media.

### Feeding the Community: Interconnections of RSCP

Serving, informing, collaborating with, and gathering information from school stakeholders about scratch cooking.



### Key Findings

- Involving school communities in promoting school meals was part of the model, but was not implemented consistently across all schools.** Informing the school community about their school meals is an important and ongoing process shared by OFNS and the school leadership for maintaining student participation. The Brigaid model stresses menu awareness and ongoing feedback for tailoring recipes to the school community. When OFNS leadership identified that school meal participation was declining, they worked with the school to post the breakfast and lunch menu throughout the schools and announce the menu as part of morning announcements.
- Creating a physically attractive as well as a caring and calming cafeteria environment makes meals more enjoyable.** One of the sites added an additional eating space that was smaller and quieter to give an additional option for students and staff. Many teachers and students ate together in this space. The K–8 site used the cafeteria public announcement system to encourage students to try the meals and share their opinions with other students. Once in a while OFNS school-based staff came out of the kitchen and into the cafeteria to hear what students thought about the meals. These provide examples of meeting the need for an atmosphere where the school community enjoys eating together. Constant interaction between students, school lunch aides, principals, and chefs can foster this environment.

- ***Encouraging teachers to buy school lunch creates school meal ambassadors.*** Teachers participated in a luncheon a few days before school started to try some of the scratch cooked menu items. During the luncheon teachers learned how they could purchase school meals during the school year. Teachers also learned about the changes to the menus, about the ingredients being used, and had the opportunity to ask questions of OFNS and Brigaid leadership. Many teachers purchased school meals throughout the entire school year and encouraged students to eat school lunch.
- ***Respecting OFNS school-based staff integrates them into the school community.*** Having everyone in the school respect the work of OFNS school-based staff as culinary professionals can be achieved with ongoing communication that informs students and parents about how OFNS prepares food with care and expertise. While this did not happen consistently throughout the school year at the two pilot sites, some examples were teachers touring the kitchen, and OFNS staff coming into the cafeteria demonstrated the benefits of building this respect for OFNS school-based staff.
- ***Hosting parents for events when school meals are served makes them feel connected.*** At each pilot school there was at least one event for parents during parent-teacher conferences. At one site, parents were able to taste samples of some of the scratch cooked items. Most parents said they really liked the items, as collected by “dot voting” on a poster. At the other site, there was a Community Dinner in which parents and students received a full meal. Through a survey parents and students reported that they were highly satisfied with this meal, thought it was better than other school meals they had previously eaten, and overwhelmingly agreed that this meal should be on the menu for all NYC schools.
- ***Integrating school meals into educational experience builds excitement.*** Integrating school meals into the educational experience for students takes the commitment and coordination of all school and OFNS staff. This is important to build excitement about school meals. The Brigaid model encourages that the executive chef regularly interact with students and the school community to gather feedback on school meals. At one of the pilot sites, a small step was taken with a Community Based Organization (CBO) where the CBO staff member facilitated tastings of scratch cooked recipes in the cafeteria and in some of her educational sessions. The staff member also created a new salad dressing recipe with students that was introduced on the salad bar. Thirdly, the staff member translated the scratch cooked recipes served at the Community Dinner for parents to be able to make these recipes at home.

However, *Ingredients and Recipes for Scratch Cooking*, *A Kitchen for Scratch Cooking*, and *Cooking from Scratch* took precedent over *Feeding the Community* in this pilot. Only initial steps on integrating school meals with education were accomplished. Yet, the example above describing the relationship with a CBO shows the possibility and potential of this kind of integration.



## Metrics

Metrics are used to measure how a new initiative compares to pre-existing benchmarks. The most standard metric for school meals is student participation, i.e., taking the school meal. In addition to student participation, OFNS and Brigaid also identified other important metrics to track, because of the vast systems change undertaken for this pilot.

**Student participation** is measured as a percentage, and calculated as the number of meals served divided by average daily student attendance. For this pilot, student participation declined when compared to the previous school year. While a 5% to 7% increase in student participation was expected, the data revealed about a 10% decrease across the two sites. Year-to-year student participation data may have unexplained variations as student participation data are collected in different ways across DOE schools.

**Food, supply, and labor costs** vary by student participation, or the number of meals served. When more students take meals, costs increase and vice versa. Because there are certain fixed food, supply, and labor costs, increased student participation is more cost effective. This report presents data on percent increase or decrease for food, supply, and labor costs, as compared to the previous school year. These costs are reported per 100 meals. This accounts for the impact of fluctuating student participation on those costs. In this pilot, food, supply, and labor costs showed promising trends.

Over the 10 months of the pilot, **food costs** showed an increase of 6% at Site A. Site B served scratch cooked meals for five months. At Site B, food costs decreased by 12%. This decrease at Site B may be due to what was learned at Site A. Additionally, food costs would be expected to decrease as scratch cooked ingredients are purchased at higher volumes across the entire school system.

**Supply costs** increased at Site A by 16% and decreased by almost 10% at Site B. Like food costs, this decrease at Site B could be attributed to what was learned at Site A.

**Labor costs** were expected to increase by 40% over the previous year. For both sites, labor costs averaged 120% higher than the previous year. A closer look at the data over the 10 months of the pilot at Site A uncovered a downward trend. During the first three months of scratch cooking (September to November), labor cost averaged 176% higher than the previous year. However, the last three months of the pilot (April to June), labor costs averaged 64% higher than the previous year. The final month (June), had labor costs 28% higher than the previous year, below the projected increase of 40%. This implies that as OFNS school-based staff become more skilled at scratch cooking, initial increases in labor costs can decrease.

Overall these metrics show attention needs to be paid to the entire school community working on increasing student participation. Additionally, these data show that food costs have the potential to further decrease (beyond the decreases shown at Site B) as OFNS continues to learn from scratch cooked recipes menu development. Scratch cooking requires more labor and is expected to increase labor costs. This increase can be minimized through initial and ongoing training of OFNS school-based staff. Finally, since food, supply, and labor costs are calculated accounting for student participation, if student participation increases these costs could be expected to be lower.

## A Path to Expansion

The third goal of this evaluation is, “based on lessons learned by this pilot, provide implementation guidance to facilitate expansion of scratch cooked food service across all New York City schools.” As stated previously, “**scratch cooked food service**”<sup>\*</sup> means food service that prioritizes the preparation of meals or snacks on a daily basis at or near the site of consumption with ingredients in their most basic form” (from City Council Int. No. 1676, Introduced August 14, 2019).

When the RSCP was first conceived, it was envisioned as a 20+ year plan to implement a full scratch cooked menu at DOE schools. However, societal, policy, and advocacy trends accelerated the rate of expansion of scratch cooking.

The ultimate goal of providing scratch cooked food service for all students in all schools, both during the school year and for summer meals will take a multi-pronged approach. This includes policies and financial investment from government, as well as coordination and collaboration across many stakeholders. To reach this goal there are four interrelated phases of expansion.

### Phase 1- Expansion within OFNS

Scratch cooking started as a vision of a few in OFNS upper administration. To expand scratch cooking, to reach the goal of all meals meeting the definition of scratch cooked food service, necessitates all OFNS departments and all employees at all levels to be involved in, excited about, and committed to scratch cooking. The following key milestones demonstrate how what was learned in this pilot can pave the way for all students to eat scratch cooked meals.

#### Achievements

- More OFNS departments engaged in scratch cooking including Menu Management, Supply Chain Management, Training and Staff Development.
- Brigaid role evolved from working primarily with Stephen O’Brien, Director of Strategic Partnerships and Policy, to working directly with several OFNS departments.
- Food safety regulations and fire safety codes were achieved in the two pilot kitchens.
- Positive feedback from students, teachers, and principals about meals inspired further expansion.
- This pilot provided the experience necessary to continue to expand scratch cooking.

<sup>\*</sup> The definition for scratch cooking used as a reference in this report is not the OFNS definition. As the pilot evolves the OFNS definition is evolving with it.

### *Recommendations*

- Continue to develop scratch cooked recipes that can be served across menus.
- Expand culinary training for scratch cooked food service for all OFNS school-based staff.
- Continue to solicit feedback from students, teachers, and principals as new scratch cooked recipes are developed.

### *Phase 2 -*

#### *Expand Full Scratch Cooked Menu to More Kitchens*

OFNS plans to and should continue to have more kitchens participate in the full scratch cooked menu. This will allow OFNS to continue learning about implementing scratch cooking in NYC kitchens as well as establishing demonstration and training sites for scratch cooking.

#### *Achievement*

- Committed to implementing full scratch cooked menu in two new kitchens for the 2019–20 school year.

#### *Recommendations*

- Continue expansion of full scratch cooking to new kitchens every school year.
- Transition from Executive Chefs to Culinary Managers for future kitchens on the full scratch cooked menu.
- Utilize the kitchens on the full scratch cooked menu as culinary training sites for all OFNS school-based staff.
- Explore other innovative models, such as a network of central kitchens, for providing scratch cooked food service to schools that have no kitchens or very small kitchens.

### *Phase 3 -*

#### *Systematize Scratch Cooking*

The demand for scratch cooking to expand to other schools and boroughs grew throughout the 2018–19 school year because community members visited the sites and experienced scratch cooked meals in NYC public schools. In order to meet this demand, the OFNS and Brigaid partnership took initial steps to provide some scratch cooked recipes citywide. It is notable that one year after the initial scratch cooked pilot in two kitchens, eight menus, that serve 75% of OFNS school codes — these codes count schools and also include programs that are within schools — have some scratch cooked items. For September 2019 there were five days on which all eight menus served similar scratch cooked entrées. There needs to be a steady increase of more days with scratch cooked items and for this to be expanded to all OFNS menus.

Achieving the goal of all students receiving scratch cooked meals will take a multi-pronged approach with collaboration and coordination among government, DOE, and community stakeholders. This collaborative approach involves deep systems change to the four elements of the RSCP. Therefore recommendations are provided here for the first three elements of systems change for the RSCP (*Ingredients and Recipes for Scratch Cooking*, *A Kitchen for Scratch Cooking*, and *Cooking from Scratch*). Recommendations for the fourth element (*Feeding the Community*) are provided in Phase 4.

### **Achievements**

- Scratch cooked items were offered on eight OFNS menus with five common menu days in September 2019.

### **Recommendations**

#### **Ingredients and Recipes for Scratch Cooking**

- Continue to develop scratch cooked recipes that can be implemented in all DOE kitchens.
- Leverage DOE's immense buying power to obtain competitive prices for whole food ingredients that can be the basis of scratch cooking.
- Track performance of new menu items using food production records.
- Increase procurement contracts that are directly with individual producers versus contracts with distributors that work with a catalog of producers.
- Increase procurement of locally produced ingredients.

#### **A Kitchen for Scratch Cooking**

- Invest in kitchen infrastructure.
- Ensure all kitchens have basic equipment for scratch cooked food service.
- Assess and upgrade the kitchens with the most limited infrastructure.
- Consider having hubs that can either scratch cook complete meals or prepare parts of meals such as baked goods, pizza dough, and sauces made from vegetable-based ingredients.



Blending marinara sauce.

### **Cooking from Scratch**

- Hire and train culinary managers from the pool of current school food service managers that would oversee one or two kitchens instead of the current model of overseeing up to five kitchens.
- Implement more culinary-based training for new OFNS school-based staff and for ongoing professional development for current staff.

### *Phase 4 -*

### *Build Excitement and Acceptance for Scratch Cooked School Meals*

RSCP started one year after OFNS transitioned to universal free lunch. Universal free lunch has the potential to reduce the stigma associated with school lunch to create wider acceptance of school meals as a normal part of the school day. Thus, the time was right to work toward other innovative school meal changes such as scratch cooking. However, the recipes served during this pilot introduced new and often unfamiliar foods to students. The metrics data showed a drop in student participation during this pilot. The qualitative analysis revealed that there was limited communication to the school community about the radical change happening in the kitchens; media attention about this pilot was limited and late in the school year; and there were limited opportunities to collect feedback from students about the recipes. Direct and consistent attention to building students' acceptance of, and excitement about, scratch cooked food is essential for scratch cooking to be successful.

### *Recommendations*

#### **Feeding the Community**

- Provide resources to principals that would enable them to expand time students have to eat.
- Create enjoyable eating experiences for the school community.
- Provide funding and resources to improve the physical cafeteria space.
- Promote use of OFNS school food app for providing information and obtaining feedback.
- Continue the OFNS Partners Meetings, initiated on February 1, 2019.
- Work with schools to promote school meals and provide food and nutrition education connected to school meals and curricular standards.

#### *Evaluation*

- Conduct outcome study on consumption of school meals.
- Evaluate the effects of the RSCP and school partnerships on attitudes toward school meals.
- Conduct outcome study on how scratch cooking impacts kitchen and plate waste.

## Conclusion

OFNS serves about 900,000 meals a day to students in the largest school district in the U.S. Many students eat multiple meals at school making potential positive impacts of scratch cooking on students' diets, health, academic achievement, and sense of community enormous. This pilot showed the feasibility of implementing a full scratch cooked menu in two NYC school kitchens serving five schools. This pilot also showed that introducing more scratch cooked recipes citywide is possible. OFNS already works with many partners, and by working in partnership with CBOs can strengthen food and nutrition education that connects school meals to curriculum and builds excitement for eating new foods. To reach OFNS's goal of all students having scratch cooked meals, both during the school year and summer will take collaboration and coordination with government, DOE, advocates, parents, partner organizations, and students. NYC is already seen as a national model for innovation in school meals and can now be seen as a model for scratch cooking.



Scratch cooked meals

