

# Pre K-12 School Food:

## Making It Healthier, Making It Regional

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### EXECUTIVE REPORT

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# INTRODUCTION

The PreK-12 School Food: Making It Healthier, Making It Regional project investigated highly successful meal program operations in six school districts (see Table 1) to understand the practical details of bringing healthier and more regional foods into the cafeteria. We asked school food authority (SFA)<sup>1</sup> staff at the district and school level about how they make the operational changes necessary to support their multifaceted goals: to serve foods that meet the nutrition regulations of the Healthy, Hunger-Free Kids Act (HHFKA) and to offer more fresh and made-from-scratch items, while avoiding certain undesirable ingredients (such as preservatives and other additives) and supporting local food producers. We also asked students and staff about their attitudes toward healthy and regional foods in the school meals program. In this executive report, which summarizes our findings, we aim to offer a nuanced understanding of the strategies at play to ensure all students can not only access healthy foods but also enjoy eating them, and at the same time ensure the well-being of the school district community.

We conducted this research in six school food authorities (SFAs) in school years (SY) 2016-17 and 2017-18. See Table 1 for details of the participating SFAs. (For more details on how the research was conducted, see Appendix II.)

**TABLE 1: DEMOGRAPHIC CHARACTERISTICS OF PARTICIPATING SFAS**

SCHOOL FOOD AUTHORITY	LOCATION	STUDENT ENROLLMENT	STUDENTS QUALIFYING FOR FREE OR REDUCED-PRICE LUNCH	LUNCH PARTICIPATION RATE
Des Moines Public Schools Food and Nutrition (DMPS)	Iowa	32,979	74%	66%
Gwinnett County Public Schools School Nutrition Program (GCPS)	Georgia	180,000	52%	68%
Jefferson County Public Schools Food and Nutrition Program (JCPS)	Kentucky	100,063	68%	68%
District 5 of Lexington and Richland Counties Student Nutrition (D5)	South Carolina	17,301	35%	68%
Orange County Public Schools Food and Nutrition Services (OCPS)	Florida	186,332	68%	60%
Prince William County Public Schools Food and Nutrition Services (PWCS)	Virginia	89,901	40%	62%

<sup>1</sup> "School food authority" is the official terminology for the entity that runs a school or schools' meal programs. Usually SFAs align with school districts and oversee the meal program in all schools in that district. Most decisions about the program are made by the SFA district office (e.g., about menus, staffing, vendors, and communications), with school-based staff responsible for execution.

## SFA LEADERSHIP VISION

School staff, community advocates, funders, and businesses are increasingly coming together to serve students foods that are both healthier and produced closer to where they are consumed. By providing more healthful and regionally sourced meals, SFAs can generate positive benefits for a range of stakeholders. Students already participating in the meal program eat foods that are better for them. As the quality of meals improves, more students may choose to eat at school, improving both students' health and the school cafeteria's bottom line. Preparing more fresh foods may boost morale among cafeteria staff and create more opportunities for job training and advancement. Lastly, purchasing more regional and healthful foods could affect the food system more broadly, encouraging greater regional production and supporting local businesses.

SFA staff interviewed for this project consistently demonstrated a forward-thinking and health-driven mission for their meal programs. All participating SFAs are in compliance with federal nutrition regulations for school meals. While they acknowledged challenges with these rules, especially related to acceptance of whole-grain pasta and meeting sodium restrictions, their commitment to student health both pre-dates and exceeds the Healthy, Hunger-Free Kids Act (HHFKA). A major priority, often due to parent and community concern, is reducing or removing unwanted ingredients, such as MSG or artificial food dyes. Providing more fresh produce and scratch-made items is seen as a way of controlling these unwanted ingredients as well as improving the quality of the foods. "Instead of buying cans with sodium, we're buying more fresh produce which is healthy for our kids," noted the D5 director.

**TABLE 2: SFA REGIONAL PURCHASING DEFINITIONS & ITEMS**

SCHOOL FOOD AUTHORITY	DEFINITION OF REGIONAL PRODUCTION	EXAMPLES OF REGIONAL ITEMS
D5	Within South Carolina	Chicken filet, blueberries, sweet potatoes, collard greens
DMPS	Within Iowa	Chicken drumsticks, apples, corn
GCPS	Within Georgia and neighboring states	Wheat, pumpkins, green beans, broccoli, carrots
JCPS	Within 150 miles of the JCPS Nutrition Center	Chicken drumsticks, winter squash, zucchini, peppers
OCPS	Within Florida	Corn, green beans, oranges, cucumbers
PWCS	Within Virginia	Chicken drumsticks, apples, corn, Bibb lettuce, strawberries, watermelon

Serving fresher foods aligns with purchasing regionally-sourced items. Many stakeholders who were interviewed, from SFA senior staff to front-line kitchen workers, characterized regional food as both healthier and of higher quality. In GCPS, one senior staff member noted that they source produce regionally because it offers "higher quality food from the standpoint of taste and nutrition, as well as supporting our local farmers and our local economy." This sentiment was echoed across many of the interviewed SFAs, which are making significant efforts to serve regional produce as much as possible. In many cases regional purchasing reaches beyond produce to include proteins, most often chicken, as well as staple items like wheat and manufactured products such as tortilla chips. (See JCPS and D5 case studies for two approaches to serving regional chicken.)

Ultimately, all of these efforts serve the goal of providing healthy meals that will appeal to students. "If they're going to eat a salad we're going to make sure they like it. You can't get too far ahead of the kids," noted the OCPS director, reflecting the way that SFAs thoughtfully and deliberately work to transform their menus in order to make them more healthful and appealing, while staying on top of guidelines, trends, and community concerns.

## INTEGRATING HEALTHY & REGIONAL FOODS

The SFAs in this project have been and continue to be dedicated to maximizing health, quality, and student participation. So, while some nutrition regulations and the farm-to-school movement may be relatively new, procuring and serving healthy and regional foods fits in to the already existing processes these SFAs have for constantly updating and refining their meal program.

In our exploration of the operational changes that SFAs make to support successful service of healthy and regional foods, we found five critical areas of attention: facilities and equipment, staffing, menuing and meal preparation, student participation, and program promotion. Each SFA engages in a variety of activities in each of these areas, and the steps necessary to integrate healthy and regional foods are a part of broader ongoing efforts as SFAs update their physical space, train and hire staff, decide menus, and encourage students to eat at school.

### THE RIGHT TOOLS FOR THE JOB FACILITIES & EQUIPMENT

- District-level SFA staff and most cafeteria managers feel that their facilities and equipment are adequate for their tasks.
- Serving more produce can require more fresh storage and preparation space, as well as additional equipment such as sectionizers and dicers.
- Maintaining kitchen equipment and facilities allows for different types of food preparation, which often facilitates healthier and regional offerings and enhances food quality overall.

District-level SFA staff and most cafeteria managers interviewed feel that their facilities and equipment are adequate to their tasks; however, some cafeteria workers disagreed. SFAs have had to adjust to serving more produce, and staff acknowledged that this can require more fresh storage and preparation space, as well as additional equipment.

Kitchens in GCPS, D5, and PWCS have acquired a variety of small equipment to support fresh produce preparation. A cafeteria manager in PWCS observed that sectionizers, tools that cut up fruit, “are excellent to increase your speed on preparing things.” In addition, new equipment can help meet regulations and add flavor. The chef at GCPS found that “with the sodium regulations, it was important to get every school some microplanes, so they could zest their own orange over some fresh vegetables to give it flavor. That was not something that we maybe would’ve done in the past.”

Some schools have experienced challenges in terms of the space needed to store and prepare produce. A PWCS cafeteria manager remembered, “The first time I got watermelon in I didn’t even consider where I was going to put it all. It was a challenge, but I figured it out. Cantaloupe is one of the hardest days. If you’ve cut 75 cantaloupes, where do you put 75 cut-up cantaloupes?” In JCPS and DMPS, increasing numbers of students served and types of meals offered (i.e. afterschool snacks or supper) also contribute to this problem. “We’re all feeding more kids—we need bigger stock rooms, we need bigger freezers, we need bigger walk-ins,” said one JCPS cafeteria manager.

Overall, maintaining kitchen equipment and facilities is a regular concern of district-level SFA staff, not only to allow for different

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- JCPS CAFETERIA MANAGER

types of food preparation but also to improve the quality of what is produced. “We’re trying to update our equipment, so when we get in more fruits and vegetables we can cook them better,” said the director in D5. This SFA and PWCS have both prioritized adding combi-ovens to their kitchens, which kitchen staff agreed helped with properly cooking menu items.

DMPS, OCPS, and JCPS use a centralized production model to allow for more efficient, in-house preparation of entrees as well as regional produce. (See the JCPS case study for more details on a central kitchen model.) Bulk production can remove the need for some pieces of equipment in individual schools while maintaining SFA control over a menu item’s ingredients and freshness.

## A BALANCING ACT MENU CHANGES & FOOD PREPARATION

- SFA staff constantly adjust menus, often involving taste testing by students.
- SFAs must balance many concerns, including student acceptance, healthfulness, variety, and kitchen logistics, when creating menus.

SFA staff constantly tweak their menus, trying to figure out healthier and more appealing items to fit current student tastes. Each SFA follows its own process to develop and introduce new foods to the menu. In some SFAs, such as JCPS, DMPS, and GCPS, chefs play a large role in developing new recipes, testing them, and figuring out how to present them on the lunch line. OCPS and PWCS both use “food shows” to get feedback from students and parents on items they are considering for the menu (see more on food shows in Appendix I). Despite testing in advance, some items require a period of adjustment by the student body and/or tweaking by the SFA, while others (for example, a similar item with lower sodium) may be introduced with no reaction from the students. (See the DMPS case study for more on menu development.)

Cafeteria staff must also adjust as new foods and preparation styles are added to the menu. Menu planners must be careful to balance the number and type of items available on a given day, so as not to overtax the kitchen staff. Even if desirable in terms of health and quality, preparing more than one scratch or fresh item on the same day may not be logistically feasible. In the context of increasing numbers of meals served and chronic understaffing (see below), a day with too many or too complicated offerings may mean the attention and time for execution for each goes down, and thus the overall meal quality may suffer. (See the PWCS case study for more details on scratch cooking.)

Menu planners must also negotiate providing enough variety for the students, while making sure familiar foods are available. Cafeteria staff reported student reluctance to try new things unless prompted, noting that many gravitate towards the familiar although they respond positively to new foods once they taste them. As such, many cafeteria managers stressed the responsibility they feel to expose students to foods they might not otherwise have access to, especially when it comes to fruits and vegetables.



## THE HANDS THAT FEED CAFETERIA STAFFING

- Everyday kitchen work is demanding, and menu changes create added pressure in the cafeteria environment. Chronic understaffing compounds these challenges.
- Although “change is hard,” cafeteria staff pride themselves on their ability to serve hundreds of meals every day.
- SFAs use a variety of strategies to hire, retain, and train cafeteria staff.

Changes to make menus more healthful and regional take place in the context of a very busy work environment. Kitchen staff, especially managers, have many responsibilities, and introducing new food items and preparation styles adds to the workload, especially those that require more in-house food preparation. District staff and managers often said that “change is hard,” but they are motivated by their commitment to the students.

As noted by the GCPS procurement coordinator, the cafeteria staff are the ones executing the meal program’s aspirations. Those working in the kitchens feel this responsibility, both in terms of what they are expected to do and in their concern for the students. Many managers noted the difficulty of their job, such as this cafeteria manager in D5: “Kitchen work is hard. You don’t just cook food. You have to clean it, you have to prep it, you have to cook it, you have to serve it, you have to break it down. It’s a lot of work.” And this work increases when staff are asked to prepare more fresh foods, especially if these recipes diverge significantly from the common practices and skills of the team—“it’s more work than opening a box to make a kale salad,” acknowledged the director in D5. Not only do such tasks take longer, but figuring out new processes requires a period of adjustment, as a cafeteria manager from PWCS commented: “When there’s a change you have to figure it out, there’s no book or help, you learn over time.” (See the GCPS case study for more on rolling out changes to cafeteria staff.)

However, almost all of the staff we spoke to were motivated to incorporate changes that they see as beneficial to students due to their feelings of responsibility to promote students’ well-being. In general, most cafeteria managers considered it positive that the food is healthier and noted that the students have adjusted to the HHFKA regulations. That said, some did mention increased amounts of food waste as a negative consequence of the changes to the menu initially, and in some cases, continuing.

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- CAFETERIA MANAGER IN D5

In many of the kitchens we visited, kitchen difficulties are exacerbated by understaffing. Nearly all of the SFAs reported difficulties in keeping cafeterias fully staffed, for a range of reasons: inability to offer competitive wages and adequate hours; lag time between hiring and starting work due to background checks; lack of local transit to bring workers to understaffed schools; retention issues; and short- and long-term absences. DMPS and OCPS also noted the challenges of responding to the variety of languages present in their communities, especially among those in the relevant labor pool. Retention and short-term absences are themselves exacerbated by understaffing, as overworked staff look for other opportunities, or get sick or injured.



SFAs have implemented various strategies in order to find and hire workers. OCPS and PWCS hold regular job fairs, especially at schools that need staff. DMPS is working with immigrant and refugee organizations to help place newer community members in supportive kitchen environments. D5 and GCPS have turned to a third-party staffing service, which, in the case of GCPS, also helps minimize health care costs for the worker. And OCPS and JCPS have recently increased their starting wage, making cafeteria jobs more competitive in the local market.

Training is also seen as a way to address staffing issues, both to improve the skills of those hired and to encourage retention. SFAs offer training at the beginning of the year and throughout (per professional development requirements), covering topics from hygiene to customer service to recordkeeping. In the past few years, several SFAs have included more training specifically related to skills needed to serve fresh produce and other foods, such as sanitation, using a knife, measuring, and reading a recipe. For example, JCPS developed a new model for its annual training, in which “half the day was classroom stuff we had to cover, and the other half was in the kitchen, doing hands-on cooking, working with equipment, scaling recipes.” DMPS and OCPS both use short videos to help workers better understand how to prepare and serve new items. D5 partners with a nearby university hospitality program, bringing in professional chef-trainers to work with staff on preparing whole foods. (See the D5 case study for more on this training partnership.)

But many district-level staff as well as managers noted that it can be a challenge to find enough time for training, especially to formally teach new skills and to communicate the rationale for introducing new types of foods and preparation. Managers acknowledged that they do a lot of on-the-job training with their workers, providing oversight especially as they follow recipes and cut produce. In some SFAs, workers are incentivized to attend extra trainings by the opportunity to increase their pay and move to higher levels. (See the OCPS case study for more details on one such program.)

## SCHOOL LUNCH STIGMA CHALLENGES TO STUDENT PARTICIPATION

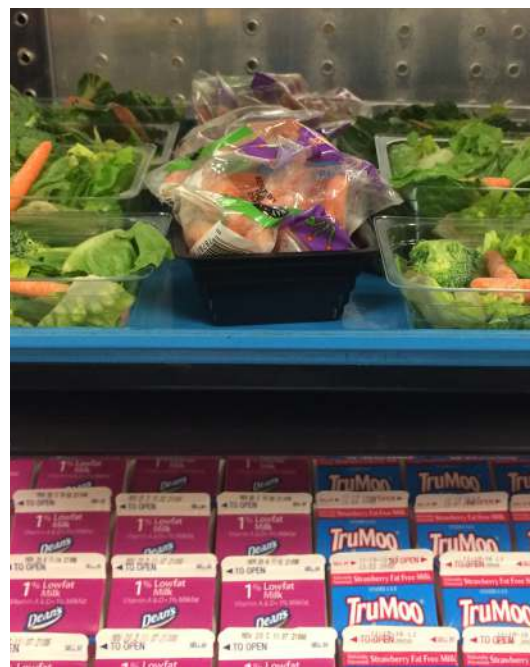
- SFAs don’t face problems only or specifically with getting students to eat healthier foods but also with student participation in the meal program as a whole, due to enduring stigma and stereotypes of school food.
- Most student criticism of school food offerings focused on variety and quality, as well as the notion of “fake” food. In every district, students wanted higher quality and “real” food, with the texture and at the temperature they expect for that type of item.
- The concept of “healthy” is replaced by students with the concept of “freshness” and is a critical quality that they look for in school food.

Students across grade levels have varying opinions about their schools’ meal programs, reporting liking or even loving certain foods, while other foods or aspects of the meal program cause more concern. Most student criticism of menu items focused on variety and quality, as well as the notion of “fake” food. In every district, students wanted higher quality and “real” food, with the texture and at the temperature they expect for that type of item.

When asked their opinions on the meal program, students reported not only their own direct experiences but also many anecdotes based on the experiences of others. These stories resembled “urban legends”: incidents such as mold on an item, an expired date on a carton of milk, or a seemingly undercooked chicken patty spread not only from student to student but also over social media. These stories mix with enduring negative representations of school food in popular culture to present a challenge outside of the control of SFAs but critical to understanding how students perceive the meal program in general. As one cafeteria manager eloquently explained: “I hate that [pop culture] stereotype of what a lunch lady is, slopping the food on the tray. That’s not who I am, that doesn’t represent me, that doesn’t represent my staff, and it definitely doesn’t represent what I’m doing to feed these kids.”

These representations of school food and food service staff build up over time and shape the experience of school food for students. As one SFA staff member explained, “I’ll talk to the kids in the cafeteria and say ‘What do you think of school lunch?’ and sometimes you hear ‘It’s not good,’ ‘It’s gross.’ And I say ‘What’s gross?’ and they can’t tell me because it’s not true. That’s how they feel they’re supposed to respond because that’s how the nation is responding to it, with all the negative publicity that school meals get in general.” Students expressed these contradictions in interviews, enthusiastic about favorite foods and cafeteria staff while also skeptical of the program overall. Similarly, observation by the research team and interviews with school food service staff indicated that students do consume much of what is available to them and have been receptive to new offerings. Overall, students are eating, and often enjoying foods, but remain critical about the meal program in ways that seem in part tied to an enduring stigma of school meals.

The cafeteria environment and structure of lunch in the school day often do not support a positive eating experience for students, further shaping their overall sense of the meal program and adding to the burden of school food stigma. Lunch periods are often short, and if the lunch line is long, students are left with little time to eat. Given that lunch might be their only break during the school day, students often prioritize socializing over eating. Furthermore, cafeterias are almost universally described as loud and often as unpleasant and unfair in terms of the experience. “It’s chaotic, when you first get in here [...]. Everybody’s trying to get food and in line,” said one high school student. A student in another district remembered, “I was waiting [in the lunch line], and the bell rang. And I was like, ‘Can I get a pass to class?’ They didn’t give me a pass, they didn’t give me lunch. I didn’t eat that day. And it was like I want to eat and I can’t.” Another student put it more succinctly: “Lunch kind of scares me. So I don’t go in line.” The setting and timing for lunch are crucial to understanding students’ lived and felt experiences of the meal program and thus their disposition toward eating at school at all, let alone eating the healthy foods offered.



We found that students, in general, were not against the idea of healthy foods but were more concerned with the taste of the food, and emphasized qualities such as “freshness” and “realness.” Most students did not have a conception of “local” foods similar to that of the SFA (i.e., produced within a certain area) and even after learning that definition did not believe that the cafeteria served those types of foods. However, students liked the idea of local for its relationship to freshness; for example, one student, when asked the top thing she’d like to see changed in the program, said, “I think it’d be more locally grown food [...]. Fresh grown food that’s brought in, that’d be nice.”



School food stigma can be compounded by student unfamiliarity with certain foods, further impacting participation. SFA staff across districts expressed the importance of what students eat at home in how their attitudes toward school food are shaped. As one senior SFA staff identified, “If it doesn’t look like something they’re familiar with then it’s a huge challenge for us to get them to come around.” A cafeteria manager similarly observed, “If they’re not used to eating fresh fruits and vegetables at home, it makes it harder when we’re trying to serve it here.”

However, many staff reported that they observe acclimation to these new items over time, particularly as students are regularly exposed to them. Time is viewed as having helped in adjusting to HHFKA guidelines in particular. Many staff



theorize that students forget about foods they used to have (and younger students never come to expect them), and have also become used to eating produce. As one cafeteria manager pointed out, “First couple of years when it was a requirement it was hard to get them to take [fruits and vegetables]. But now it’s becoming more normal [...]. Don’t get complaints like I used to. Even the crust on the chicken, it’s [whole] wheat, even the cookies – low fat. Over time, they still buy them.” However, one common exception and continuing challenge to this process of acclimation over time is whole-grain pasta, which seems to cause issues with student acceptance across districts.

## SPREADING THE MESSAGE ABOUT GOOD FOOD

- SFA staff see marketing of their program and outreach to key audiences as crucial activities and thus invest resources to advertise the overall quality of the program, educate on and encourage healthy eating, and try to get students excited about lunch at school.

(See Appendix I for examples of marketing strategies.)

- School food marketing initiatives are an important contribution to reshaping the image of school food, but more investment is required to bridge the gap between the good food served at school and media messages and other factors that shape students’ experiences of the meal program.

Addressing the enduring stigmas of school food and creating a welcoming cafeteria environment are an important part of encouraging meal program participation in general and promoting worthwhile program changes like increasing healthy and regionally sourced foods. As demonstrated, students’ attitudes about the meal program shape their experience of eating and willingness to try foods that support their health and well-being. SFA staff see marketing of their program and outreach to key audiences as crucial activities, leading to various efforts to advertise the overall quality of the program, to educate on and encourage healthy eating, and to try to get kids excited about lunch at school.

Much of SFA advertising highlights where foods came from. Staff put up posters and hang signs to show they purchase regionally and to promote specific items. SFAs also often indicate regional items on electronic and paper menus. These marketing and outreach activities are intended to increase awareness and encourage positive perceptions of the quality of school foods among parents and school community as well as the students. Some of these efforts combine nutrition education with marketing of regional purchasing, such as bulletin boards featuring nutrition trivia about local items. SFAs also utilize social media and other electronic communication to promote the program and raise awareness of their activities around healthy and regional foods, through Facebook, Twitter, cell phone apps, and email newsletters.

SFAs use a variety of activities to encourage excitement about and engagement with the meal program. These include offering promotions such as giveaways and raffles, bringing students into the cafeteria for tours or cooking clubs, and having focus groups and food shows to get student feedback. Often these marketing efforts overlap with health education and include teaching activities that align with classroom curricula. (See Appendix I for more detail on specific marketing activities.) PWCS and D5 also work to engage teachers by targeting them through promotions or recipe cards, recognizing the influence they hold on students. As the D5 director described, “If kids see the teachers are eating it then they’re more likely to want to eat it.”

In addition, offering samples of new or unfamiliar items on the line is a common practice in many school cafeterias. It not only draws attention to particular items but is also considered an important part of giving students exposure to



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- FORMER PWCS DIRECTOR

new foods, especially healthy ones. "They'll try anything and we always give them samples. I think that's the best way to get it started," noted a cafeteria manager in D5.

Providing opportunities for taste testing may have the added benefit of creating more contact between cafeteria staff and students. As described by the DMPS executive chef, providing tastes "gives staff the opportunity to interact more with the kids—'Hey, you need to try this' or 'Sample this' or 'We made this special for you,' so they really get involved with promoting it." Cafeteria staff further contribute to student health education in ways beyond the lunch line, from setting up displays in the cafeteria to offering nutrition education materials and activities to classroom teachers, at health fairs, and through wellness committees. This illustrates the vision of some SFA staff to expand the role of the cafeteria in schools, as explained by the former PWCS director: "Our goal is to get each grade level into the kitchen once a year. The cafeteria is a big part of the school. It's a shame if it isn't utilized as a learning laboratory." (See Appendix I for more examples of these strategies.)

While SFAs work hard to promote the extensive work they are doing to feed students, the impact of their advertising seems unclear. Students expressed a general lack of awareness of local foods being served, even when these promotions are on display in the lunchroom. Given the challenges of stigma, stereotypes, and the cafeteria environments described above, much more work needs to be done to address the disconnect between what the SFA sees itself doing and what students see. However, it requires a great deal of effort for school food service staff to do such marketing, given their many responsibilities, and for these messages to get across to students, given how much else goes on at schools and the strength of school food stigma. Ultimately, school food marketing initiatives represent an important contribution to re-shaping the image of school food, but in many cases more investment will be required to bridge the gap between the good food served at school and the other influences that shape students' attitudes toward their meal programs.



## CONCLUSION + RECOMMENDATIONS

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SFAs across the country are making their meals healthier and sourcing more regional foods. These efforts fit into ongoing SFA efforts to serve high-quality meals that will appeal to students while at the same time presenting some unique challenges. Based on the findings of this study, as reported in brief in this report, we offer several recommendations for various stakeholders who would like to support the success of SFA efforts to purchase and serve healthier and more regional foods.

### SCHOOL FOOD SERVICE STAFF CAN:

- Advertise qualities of their meal program that will align with what students are interested in, such as “freshness.”
- Encourage open communication and mutual support between staff in the district SFA office and in the schools, as well as involving school principals and faculty in positive relationships to the extent possible.
- Ease the process of introducing new items and processes in the school kitchen by considering the potential impact on kitchen staff. Pilots offer the opportunity to test out changes and learn about impacts and any unanticipated effects on a small scale.
- Remember that it will take time for students and staff to adjust to change.
- Be aware of the way labor issues are affected by the menu and vice versa. Understaffing and inadequate training may relate to expectations for food preparation and result in subpar cooking execution, food appearance, and/or customer service.
- Remember that, despite any stigma, you do important work and are appreciated by many parents, students, and other community members!

### FUTURE RESEARCHERS SHOULD CONSIDER:

- What equipment, facilities, and types of training do SFAs find most critical to serving healthier and more regional foods?
- How do the cafeteria staff’s conditions and experiences as workers impact their ability to prepare, serve, and encourage students to eat healthier and more regional foods?
- How does school lunch stigma develop and endure?
- What kinds of marketing and outreach by the SFA staff will effectively and efficiently appeal to students?
- Are there ways to educate students about the meal program as well as food systems and health more broadly?
- How do parents, teachers, and other school staff perceive the meal program, especially changes to serve more healthy and regional foods?

### FUNDERS, POLICYMAKERS & ADVOCATES CAN:

- Recognize the importance of time and multiple exposures in the process of encouraging students to eat healthier foods.
- Support applied nutrition education as part of the school environment and curriculum.
- Support efforts to make low-sodium, whole-grain, produce-forward meals the norm outside of school as well as within.
- Recognize the unique nature of each SFA and each school. Each has its own strengths, concerns, and idiosyncrasies, so problems and solutions will differ. No ‘best practices’ will work everywhere, and most will have to be tailored to the context in which they are applied.
- Recognize the many constraints that SFAs face: budgets, equipment, staff, stigma, regulations, and more. These will vary between districts and between schools, so outsiders should get to know the program(s) they work with to understand what changes are most feasible.
- Build relationships with SFA staff, offering support to those in the daily process of doing the work to maintain and improve the meal program. They are both the experts and the implementers, and they hold the keys to what changes can happen and how.
- Try not to contribute to the stigmatization of the program by focusing too much negative attention on what needs to change about school food.
- Support initiatives that provide more financial resources for schools, such as increasing the reimbursement rate and providing free meals for all students.

*"We are up to this challenge.  
It's always fun because our  
office maintains a spirit of,  
'we can do this, we can tackle  
this, no problem.'"*

- GCPS ASSISTANT DIRECTOR

## ACKNOWLEDGMENTS

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We gratefully acknowledge all of the school food service staff and students who participated in this project. Thank you for your overwhelming generosity in sharing your time, knowledge, and perspectives.

## APPENDIX I: TOOLBOX

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### Try-It Wednesdays (GCPS)

Every Wednesday, GCPS serves its monthly farm-to-school product—anything from local wheat to pumpkins to Vidalia onions, often in an item baked or prepared in-house. Cafeteria bulletin boards feature the product, and students are offered a taste of the item for free by parent volunteers or cafeteria staff. Multiple opportunities to try the product encourage those who are initially hesitant and help students get used to something new.

### "Chopped" Cooking Competition (D5)

D5 hosts an annual "Chopped" competition, in which teams of students and a cafeteria manager compete to create a healthy lunch using a basket of fresh foods, such as kale and chicken strips. District and local personalities judge the dishes, and the winners get prizes from the vendors sponsoring the event. Parents attend the competition, which has been held both outdoors and in a teaching kitchen, and it receives local TV coverage.

### Truck of the Month (OCPS)

Vendors sponsor an OCPS food truck which visits schools to offer new recipes using that company's products, developed by OCPS in conjunction with the vendor's corporate chefs. Students sample and rate the items, and those that are the most popular are added to the menu. (See more in the OCPS case study.)

### SNAC (JCPS)

Students in JCPS can join the Student Nutrition Advisory Council (SNAC) to test out items that might be added to the menu and give feedback on the meal program. These are run by the cafeteria manager or other school staff, and students participate for two years, so that they become practiced in taste testing. Ultimately, they come to be "ambassadors for the nutrition program," according to the JCPS Nutrition Center manager.

### Flavor Stations (DMPS)

Students in DMPS can help themselves to crushed red pepper, mustard, Italian seasoning, and other low-sodium spices and condiments to personalize the flavor of their meals.

### NEAT (GCPS)

Kitchen staff in GCPS are given an annual stipend for participating in the district's Nutrition Education and Training Program (NEAT). The procurement coordinator develops materials, often related to the monthly farm-to-school item, for the staff to use in cafeteria bulletin board displays, classroom lessons, and hands-on activities.

### Food Shows (OCPS & PWCS)

Every spring, PWCS puts on its annual food show, an evening event at a school, where students and parents sample items the SFA might add to the menu. They fill out machine-scannable forms with their opinion of each item, which the district then aggregates to guide its menu development. OCPS food shows take place in individual schools, during the school day, and a group of students samples items directly from vendors. The SFA uses iPads to collect student feedback.

### Kitchen Tours (D5 & PWCS)

D5 and PWCS take advantage of opportunities to bring students into the cafeteria to see the facilities, learn what the cafeteria staff do, and even try the job out. For example, culinary arts students learned how to make pico de gallo and then took a shift behind the line for a lunch period.



## APPENDIX II: RESEARCH METHODOLOGY

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The PreK-12 School Food: Making It Healthier, Making It Regional project began in November 2015. Participating SFAs were chosen from a pool of 22 districts active with School Food Focus (which has since merged with FoodCorps—see FoodCorps.org). Inclusion criteria were based on the following factors:

- Food procurement changes made to date (i.e., types of changes, how extensive, and future plans)
- Level of engagement with School Food Focus activities (e.g., involvement in other Focus projects, responsiveness of SFA director to requests);
- Free-reduced price meal eligibility rate over 50%;
- Student enrollment (to ensure a range in school district sizes); and
- Variation in school district setting (i.e., a balance between urban and suburban setting)

Ultimately, the SFA participants largely, though not entirely, reflect the selection criteria laid out above. No control SFAs were recruited, since almost all school food authorities are changing procurement practices to some extent to be in compliance with the 2010 Healthy, Hunger Free Kids Act. The SFAs are all in generally sound financial health, and none contract out operations to a food service management company. It is important to note that these SFAs may not be representative of those across the country, so these findings may not be applicable in other contexts.

The research team collected data by phone and over two two-day site visits to each district. (See Table 1 for a summary of all data collected.) We first interviewed the director of each SFA (or his or her designated replacement) via phone. Then, two researchers visited each district, observing in the kitchen and cafeteria of three to six schools suggested by the SFA director. In each school, the researchers interviewed the cafeteria manager and administered a written survey to the cafeteria staff. The research team also completed between one and six interviews with district-level SFA staff in each district.

The observations included at least one school at each level (elementary, middle high) per district. Depending on the timing and length of the visit, the research team observed meal preparation and/or service for breakfast and/or lunch. Each member of the research team completed an observation form detailing the size and quality of the facilities and equipment in the kitchen as well as the general look and feel of the lunchroom. When possible, we noted the food preparation activities conducted by the cafeteria staff, the foods available for the meal and how they looked on the lunch line, and the interactions between staff and students as students took a meal.

The interviewees at the district level included SFA directors, assistant directors, procurement managers, chefs, training managers, marketing managers, and others. These 30-75 minute interviews began with their conception of healthy foods and the SFA's vision for including them in the menu. We then discussed specific efforts made by the SFA in the last five years to serve healthy and regional foods and related changes made to SFA operations in areas such as budget, equipment, training, and advertising. We also asked about the reactions of stakeholders to these changes, focusing on cafeteria staff and students. The interviews with cafeteria managers covered similar topics and lasted between 20 and 45 minutes. In school districts where it was permitted, interviewees were offered a \$25 gift card as an incentive.

The survey of cafeteria staff covered their experience working in the cafeteria in general and with healthy and local foods in particular. It asked about their perception of the quality of food served, including the amount of scratch-cooked, healthy, and local foods offered; the difficulty of their job; student preferences; and the adequacy of training and equipment available to them. The survey took about 10 minutes to complete, and in school districts where it was permitted participants were offered a \$10 gift card as an incentive.

On a second site visit, the research team conducted two to four student group interviews in each district, roughly divided between elementary (5 groups), middle (7 groups), and high school (5 groups). Each group included at least 3

students, and 96 students participated in total. No incentives were provided for participation. During the group interview, students first completed a drawing activity, responding to three to five questions related to healthy foods and their conception of school lunch. Then the facilitator led a conversation covering their understanding of healthy and local foods, whether they saw those foods in their cafeteria, and their opinions on the quality and experience of school lunch.

In four districts, the research team also conducted follow-up interviews with SFA staff. In two districts, the team observed taste-testing activities conducted by the SFA with students, and in one district the research team attended an after-school cooking competition hosted by the SFA.

**TABLE 1. DATA COLLECTION METHODS, SAMPLES, AND TOPICS COVERED**

	SAMPLE	TOPICS COVERED
INTERVIEWS	3-6 cafeteria managers per SFA; 21 total	SFA mission; definition of healthy foods; procurement changes; operations changes; reactions of stakeholders
	2-6 district-level staff per SFA; 26 total	
GROUP INTERVIEWS	2-4 per SFA; 17 groups, 96 students total	Definition of healthy and local foods; healthy and local foods in the cafeteria; opinion on foods served and lunch experience
SURVEY	17-34 per SFA; 147 total	Quality of food; difficulty of job; opinions on healthy and local foods; student opinions; adequacy of training and equipment
OBSERVATION	3-6 schools per district; 23 total	Amount of space; quality of equipment; food prep activities; foods available; food presentation; staff-student interactions
	4 auxiliary SFA events	Participants; activities occurring





# THE PROFESSIONALLY TRAINED KITCHEN

A CASE STUDY OF DISTRICT 5 OF LEXINGTON AND RICHLAND COUNTIES  
FROM THE PREK-12 SCHOOL FOOD: MAKING IT HEALTHIER, MAKING IT REGIONAL PROJECT

## LOCATION

Columbia, SC

## STUDENT ENROLLMENT (SCHOOL YEAR 2016-17)

17,301

## NUMBER OF SCHOOLS

22

## STUDENTS QUALIFYING FOR FREE OR REDUCED-PRICE LUNCH

35%

## LUNCH PARTICIPATION RATE

68%

## KITCHEN SET-UP

Production kitchens  
in each school

## Introduction

District 5 of Lexington and Richland Counties (District 5) makes an effort to balance healthy offerings with other items that appeal to students and involves teachers to extend nutrition awareness and health into the classroom. District 5 has a strong commitment to local food and producing high-quality, fresh meals. In school year 2014-15 District 5 purchased over \$7,000 of regional fruits and vegetables, which comprised 145,914 servings. This included over 72,000 servings of fresh, regional sweet potatoes and 24,000 servings of fresh, regional collard greens.



HOMEMADE CHICKEN ALFREDO, LOCAL COLLARD GREENS, LOCAL SWEET POTATO AND COBBLER MADE FROM LOCAL BLUEBERRIES

## Item in Focus SOUTH CAROLINA SUPREME CHICKEN



District 5 serves a whole-muscle chicken filet made from chickens raised in South Carolina. The product is branded as the “Supreme Chicken” sandwich and comes in a specially-designed foil bag featuring its own logo as well as the Certified South Carolina logo.

The product initially was available only à la carte, but the director added it to the reimbursable meal so that more students could access this popular item. The director sees the sandwich as driving increased participation in the meal program. Staff also like it—as one cafeteria manager noted, “It’s not those round patties that just don’t taste good. The chicken sandwiches, they taste like a chicken.”

Serving healthy and regional food in District 5 requires food service staff to develop new skills. As has been the case in many districts, the absence of scratch cooking and fresh produce preparation has meant that fundamental culinary skills have not been emphasized. But as District 5 procures more fresh foods, staff need the corresponding skills to prepare them. Speaking of the cafeteria staff, the director noted, “One of the things that we identified was they hadn’t worked with whole foods so much. I joked that they had more box cutters than chef knives. So one of the things we’re training is those basic skills of how to cut things.”

District 5 identified a unique strategy to address this skills gap. They partner with the University of South Carolina (USC) Hotel, Restaurant, and Tourism Management program to train cafeteria staff, which allows them to access training resources that they cannot maintain in-house. Chef instructors provide summer and back-to-school workshops, as well as make follow-up visits to school kitchens. These trainings cover basics such as food safety while focusing on the skills needed to cook healthier and more regional foods. For example, one back-to-school session taught staff how to make a kale and strawberry salad new to the menu that fall. The trainers also highlight the reasons why District 5 is adding more food preparation into its kitchens, despite the adjustment it requires from staff.

Staff are paid for their attendance in the summer training workshop, and they report enjoying the experience. One cafeteria manager noted that the director “has really been trying to do farm to school and local produce, so he usually has somebody come in to work with us on that. This will be the third summer where you can go for a week during the summer and get culinary training at the colleges, which is great. I went the first year. Had a ball.”



The USC trainers make an effort to gather staff's ideas and concerns beforehand and provide an empowering educational experience. Learning from a professional chef offers particular value. As one instructor said, "I think having the chef validated staff concerns—talking about different ways you can do different things to help yourself and not be overwhelmed." Staff, especially managers, are encouraged to think like chefs to solve kitchen problems and enhance food quality and presentation. Then, throughout the school year, they are given the space to be creative with cooking within the parameters of guidelines and regulations. For example, to test out the feasibility of using frozen, local blueberries, each kitchen was allowed to make whatever they wanted with the item. This flexibility, along with development of the skills to support it, translates into staff welcoming the addition of more healthy and regional foods.



A NEWLY REDESIGNED HIGH SCHOOL CAFETERIA



## Bright Ideas FROM DISTRICT 5 OF LEXINGTON & RICHLAND COUNTIES

- District 5 partners with the University of South Carolina to provide professional culinary training to cafeteria staff.
- Where possible, District 5 school cafeterias have been designed to maximize flow and minimize wait times for students. One newer cafeteria features high ceilings and a wide variety of seating options to create a bright and dynamic space (see photo).
- In the annual D5 cooking competition, dubbed "Chopped" after the famous TV show, cafeteria managers and students team up in a friendly competition to see which team can create the tastiest lunch from fresh foods. (See Appendix I of the MHMR Executive Report for more on the Chopped competition.)

This report comes from the PreK-12 School Food: Making It Healthier, Making It Regional (MHMR) project and is based on interviews with District Five of Lexington and Richland Counties staff and students conducted from Spring 2016 through Fall 2017. We gratefully acknowledge all those who participated in this project. MHMR was conducted by School Food Focus, which has now merged with FoodCorps, and was funded by the Robert Wood Johnson Foundation. For more than 40 years the Robert Wood Johnson Foundation has worked to improve health and health care. We are working with others to build a national Culture of Health enabling everyone in America to live longer, healthier lives. For more information, visit [www.rwjf.org](http://www.rwjf.org). Follow the Foundation on Twitter at [www.rwjf.org/twitter](https://twitter.com/rwjf) or on Facebook at [www.rwjf.org/facebook](https://www.rwjf.org/facebook).

For more findings from the PreK-12 School Food: Making It Healthier, Making It Regional project, please see the Executive Report.





# THE CULTURALLY-RESPONSIVE CAFETERIA

A CASE STUDY OF DES MOINES PUBLIC SCHOOLS  
FROM THE PREK-12 SCHOOL FOOD: MAKING IT HEALTHIER, MAKING IT REGIONAL PROJECT

## LOCATION

Des Moines, IA

## STUDENT ENROLLMENT (SCHOOL YEAR 2016-17)

32,979

## NUMBER OF SCHOOLS

64

## STUDENTS QUALIFYING FOR FREE OR REDUCED-PRICE LUNCH

74%

## LUNCH PARTICIPATION RATE

66%

## KITCHEN SET-UP

Central Nutrition  
Center with in-school  
finishing kitchens

## Introduction

Des Moines, IA, is a midwestern city with a diversifying population. As its meal program grows, Des Moines Public Schools Food and Nutrition (DMPS) strives to remain connected to its midwestern roots while adapting to its newer community members.

DMPS is committed to supporting local agriculture, including producers and distributors of various types of foods.

For DMPS leadership, sourcing regional products and producing more foods in the district itself contribute to their goal of serving healthy, high-quality meals. At the Central Nutrition Center, where DMPS produces entrees, sauces, and baked goods for use in schools,

the meal program sets its own production standards, such as for sodium levels and use of preservatives. Over the past few years, DMPS has also emphasized serving more fresh produce—by school year 2014-15, over 50% of fruits and vegetables purchased were fresh.

Meal program staff feel that their community has welcomed these changes. Cafeteria managers report that students have become used to more produce in school meals. The annual “Midwestern meal,” which features regionally grown fruits and vegetables and was first served in fall 2014, has been such a hit with students that its Iowa apples and sweet corn have become regular additions to the menu.



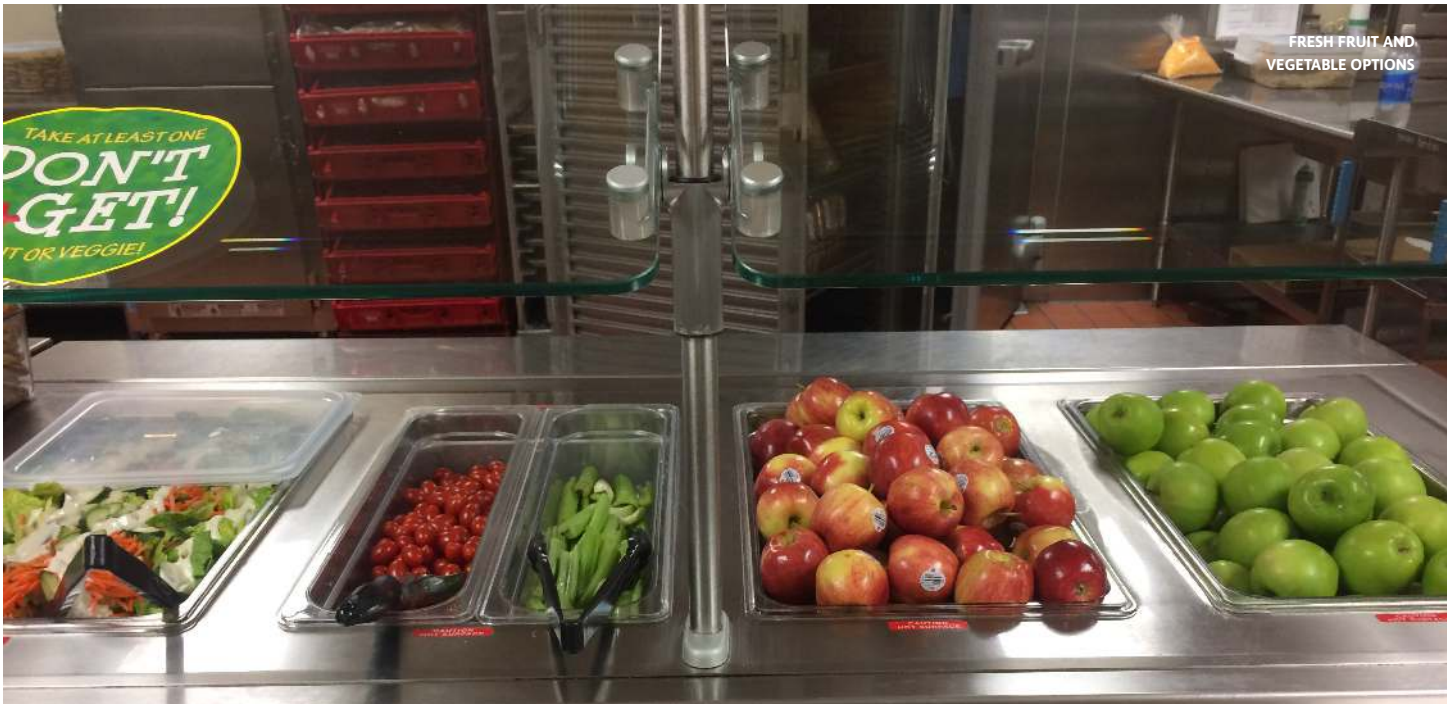
STUDENTS ENJOY RECESS IN THE GARDEN  
AT A DMPS ELEMENTARY SCHOOL

## Item in Focus SWEET POTATOES

**Students have enjoyed local sweet potatoes in various forms—even for breakfast! DMPS developed a spice blend for its breakfast potato, using cinnamon and cumin in place of salt. Students responded well to the new flavors.** “Sweet potato is not everyone’s favorite food. But we presented it in a different manner and put it out there for them to at least give it a taste, give it a try. They would tell you whether they liked it and would like to have it more, or whether they didn’t like it and would give you a reason why,” reported the DMPS Executive Chef.



# Changing Tastes



DMPS acknowledges the need to appeal to changing student tastes while making meals healthy. There is a growing range of ethnic backgrounds among students, and offering more diverse types of foods and flavors allows students to see their home traditions represented on the menu. Further, for all students, popular food trends have shifted away from traditional midwestern offerings like sloppy Joes and casseroles. As the DMPS Executive Chef noted, “The real driving force to changing the menu is the student taste profile. The flavor profiles of our students have really changed from what I would call the plain midwestern palate to requests for more curry flavors, or more Asian spicing.” Also, the student body is increasingly savvy when it comes to the culinary world—something the DMPS Executive Chef chalks up in large part to an increase in food-related TV programming—and students are used to restaurant-quality food from a range of establishments.

In response, DMPS constantly adjusts its menus by developing new recipes and trying different types of options. (For more on menu changes, see the PreK-12 School Food: Making It Healthier, Making It Regional Executive Report.) They pay special attention to what particular groups of students need or want. For example, one school principal noticed that some of the students who had emigrated from Burma went home for lunch because the school meal was unfamiliar, and these students weren’t coming back for the rest of the school day. The DMPS chef learned about cooking techniques and spicing from members of the Burmese community, and DMPS began serving a Burmese rice bowl at schools with a high population of students from Burma.

These new flavors aren’t enjoyed only by certain student groups but across the student body. More diverse flavor profiles have been popular, particularly spicier foods. But DMPS has allowed for flexibility in what each school serves, responding to differences in student demographics by location. A new “build your own bowl” day might feature Asian noodles in a school with a large Burmese population or Spanish rice with refried beans in a school with a high number of Latinx students.

As they update their menu, DMPS solicits feedback from students all along the way, tweaking offerings to suit the student palate. They find students to be open to new tastes and descriptive about what they try, going beyond the traditional “thumbs up” or “thumbs down” to offer details about what they liked or didn’t. DMPS sees an opportunity for even more systematic trials of new items, in which students aren’t swayed by their peers’ opinions or they have the opportunity to try the product over a few days. (For more on taste testing, see the MHMR Executive Report.)

When the DMPS Executive Chef conducts these taste tests and acts as the face of the program, it drives excitement for those students expecting a restaurant experience whenever they eat away from home. Students have asked the chef what TV show he is on and even talked to him about sous-vide cooking techniques. Ideally, when students see him, they get an idea of the expertise and commitment that all DMPS staff bring to their work.



INGREDIENTS FOR BREADSTICKS MADE  
AT THE CENTRAL NUTRITION CENTER



## Bright Ideas FROM DES MOINES COUNTY PUBLIC SCHOOLS

- DMPS uses a “build your own bowl day” to incorporate new flavors while giving schools the flexibility to respond to the preferences of their student body.
- Every fall, DMPS features a “Midwest meal” that includes items grown in Iowa, such as chicken, corn, and apples.
- DMPS creates mobile-ready training videos to make sure staff understand the steps to prepare and present new items.

This report comes from the PreK-12 School Food: Making It Healthier, Making It Regional (MHMR) project and is based on interviews with Des Moines Public Schools staff and students conducted from Spring 2016 through Fall 2017. MHMR was conducted by School Food Focus, which has now merged with FoodCorps, and was funded by the Robert Wood Johnson Foundation. For more than 40 years the Robert Wood Johnson Foundation has worked to improve health and health care. We are working with others to build a national Culture of Health enabling everyone in America to live longer, healthier lives. For more information, visit [www.rwjf.org](http://www.rwjf.org). Follow the Foundation on Twitter at [www.rwjf.org/twitter](http://www.rwjf.org/twitter) or on Facebook at [www.rwjf.org/facebook](http://www.rwjf.org/facebook).

For more findings from the PreK-12 School Food: Making It Healthier, Making It Regional project, please see the Executive Report.





# THE PEER-TO-PEER KITCHEN

A CASE STUDY OF GWINNETT COUNTY PUBLIC SCHOOLS  
FROM THE PREK-12 SCHOOL FOOD: MAKING IT HEALTHIER, MAKING IT REGIONAL PROJECT

## LOCATION

Suburbs of Atlanta, GA

## STUDENT ENROLLMENT (SCHOOL YEAR 2016-17)

180,000

## NUMBER OF SCHOOLS

132

## STUDENTS QUALIFYING FOR FREE OR REDUCED-PRICE LUNCH

52%

## LUNCH PARTICIPATION RATE

68%

## KITCHEN SET-UP

Production kitchens  
in each school

## Introduction

Gwinnett County Public Schools School Nutrition Program (GCPS) serves 180,000 students in the suburbs of Atlanta, GA. This innovative district is committed to regional purchasing, as well as serving more minimally processed items, without undesirable ingredients such as artificial colors and other potentially harmful additives.

For example, in school year 2014-2015, almost 65% of GCPS chicken servings were minimally processed, whole-muscle items, instead of items made from mechanically separated chicken with added fillers. And in the last few years, GCPS spending on produce has doubled, with about 40% of fruits and vegetables grown in Georgia or neighboring states. These 11 million servings include squash, strawberries, green beans, peaches, broccoli, blueberries, carrots, and kale.



## Item in Focus REGIONAL GREEN BEANS



In 2010, GCPS began sourcing regional, fresh green beans year round—but making the switch from a canned product required some effort. The fresh beans require extra prep work by cafeteria staff to make sure there are no stems, and staff needed to learn a new technique to cook them. The meal program prioritized serving the fresh green beans every week so that staff could learn to cook them perfectly and students had plenty of chances to sample them. Initially students were not used to the different flavor and texture, but they have since grown accustomed to the fresh green beans. In 2014-2015 alone, GCPS served 1.5 million helpings.

# Introducing Changes



When GCPS introduces a new item or process to the school kitchen, staff must adjust what they do. Such changes can interrupt established workflows, and there may be consequences that the district-level staff had not anticipated. (See the PreK-12 School Food: Making It Healthier, Making It Regional Executive Report for more on the impact of introducing new items into the school kitchen.)

GCPS eases this process by paying a stipend to managers at nine “Idea Center” schools to pilot changes before they are rolled out district-wide. These schools figure out the details and work out the kinks of any new product, preparation method, uniform, work schedule, etc. Cafeteria staff from the Idea Center may then even introduce it to their peers at other schools.

For example, GCPS wanted to offer smoothies in their high schools. Instead of simply sending a recipe to 20 high schools, two Idea Center schools first tested the recipe and fine-tuned the details, such as how many servings they could fit in an industrial blender. They also realized they needed a shorter straw for the cups they’d ordered and that it took too long to put a sticker on each cup as they’d planned. “We got it down to a science at those two schools, and then those two managers helped us roll it out to all the other high schools,” said the GCPS assistant director.

When kitchen staff roll out changes to one another, buy-in goes up: “Then it’s their peers telling them, ‘You can do this, we are doing it and students are enjoying it!’ When your peers say, ‘This can be done,’ it’s just shifting around how you’re thinking a little bit, so it’s been very, very successful. The buy-in that we’re getting from our schools is just incredible.” This process also saves the district-level staff time—when they need to pilot a recipe or process, they already have a set of managers who are ready and willing, and who understand the testing process. During testing, the managers make realizations that the district-level staff hadn’t yet considered. As the GCPS assistant director said, “It’s pretty amazing what they’ll come up with that we would have never thought of, because we’re not doing it day in and day out.”

LEFT:  
LOCAL CHEDDAR PUMPKINS BECOME  
HARVEST SPICE PUMPKIN BARS IN GCPS KITCHENS



## *Bright Ideas* FROM GWINNETT COUNTY PUBLIC SCHOOLS

- In GCPs, designated “Idea Center” schools pilot changes, work out details, and roll out to peers in return for a stipend.
- GCPs offers a yearly bonus for school food service staff who work on nutrition education projects (such as putting up bulletin boards, leading cooking activities with students, and visiting classrooms).
- “Try-It Wednesday” happens every month in GCPs: The farm-to-school item of the month is sampled every Wednesday, giving students multiple, regularized opportunities to try it.

This report comes from the PreK-12 School Food: Making It Healthier, Making It Regional (MHMR) project and is based on interviews with Gwinnett County Public Schools staff and students conducted from Spring 2016 through Fall 2017. We gratefully acknowledge all those who participated in this project. MHMR was conducted by School Food Focus, which has now merged with FoodCorps, and was funded by the Robert Wood Johnson Foundation. For more than 40 years the Robert Wood Johnson Foundation has worked to improve health and health care. We are working with others to build a national Culture of Health enabling everyone in America to live longer, healthier lives. For more information, visit [www.rwjf.org](http://www.rwjf.org). Follow the Foundation on Twitter at [www.rwjf.org/twitter](http://www.rwjf.org/twitter) or on Facebook at [www.rwjf.org/facebook](http://www.rwjf.org/facebook).

**For more findings from the PreK-12 School Food: Making It Healthier, Making It Regional project, please see the Executive Report.**



# THE CENTRALIZED KITCHEN

A CASE STUDY OF JEFFERSON COUNTY PUBLIC SCHOOLS  
FROM THE PREK-12 SCHOOL FOOD: MAKING IT HEALTHIER, MAKING IT REGIONAL PROJECT

## LOCATION

Louisville, Kentucky

## STUDENT ENROLLMENT (SCHOOL YEAR 2016-17)

100,063

## NUMBER OF SCHOOLS

147

## STUDENTS QUALIFYING FOR FREE OR REDUCED-PRICE LUNCH

68%

## LUNCH PARTICIPATION RATE

68%

## KITCHEN SET-UP

Central production kitchen with finishing kitchens at schools

## Introduction

The financial situation of the Jefferson County Public Schools Food and Nutrition Program (JCPS) is strong, thanks to business-minded leadership, and there is general support in the community for making school food healthier. Local purchasing is a major focus of JCPS, along with moving toward fresh, whole foods. (The district defines local as the region within 150 miles of JCPS.) They first set out toward the goal of procuring

“local, sustainable and regional” foods, then refined their thinking by defining what “healthy” means to JCPS, ultimately deciding to address undesirable ingredients and production practices such as preservatives or overuse of antibiotics.



LEFT:  
LUNCH AT JCPS, FEATURING  
LOCAL SQUASH, FRESH BROCCOLI  
AND BAKED APPLES

## Item in Focus FRESH, REGIONAL CHICKEN DRUMSTICKS

In 2016, JCPS purchased 40,000 pounds of raw, local chicken, raised humanely without antibiotics. Freshly baked chicken is offered twice annually in all schools. Because the chicken enters the school kitchen raw, the district has had to provide extra training in how to handle and cook it, including detailed instructions on recipes. Cafeteria workers note that cooking this chicken is not part of their normal routine and thus

requires extra effort. But JCPS cannot serve the item more regularly, due to the higher cost of fresh, local chicken. Another challenge is that handling raw poultry adds pressure on the staff due to concerns about food-borne illness. However, the school staff have regularly served the product without incident; as one cafeteria manager noted: “We can make anything work.” Meal program staff appreciate that JCPS serves a fresh, local product to students and are dedicated to meeting the challenge.





# The Nutrition Center



The JCPS Nutrition Center is a major asset in JCPS efforts to serve fresher and more regional foods. The Nutrition Center produces entrees, baked goods, and other foods to be served in schools throughout the district, and receives and redistributes food and other products to JCPS schools. An important benefit the meal program staff recognize in the Nutrition Center is that it offers a way to do scratch cooking while maintaining cost and portion control, as well as meeting regulations (especially for sodium). As noted by the JCPS chef, “It’s not scratch cooking at their facility, but it’s still scratch cooking” —meaning that each school does not need the equipment and training to fully cook from scratch, but they are still able to serve foods freshly made to district standards. This bulk scratch cooking also allows JCPS to smoothly incorporate regional produce into the entrees it prepares, such as using local peppers in its chili.

In prioritizing regional purchasing, JCPS has encountered the variations inherent in working with local products, such as the difficulty of aligning meal program needs with availability of products due to factors like seasonality. The Nutrition Center allows JCPS the flexibility to take advantage of the availability of large amounts of produce when in season. The meal program contracted with a local farmer and processor for frozen squash puree, which they use year-round in Harvest Muffins. The Nutrition Center is also a benefit to farmers who have a central location at which to drop off produce without traveling to each school.

This centralized receiving point means that JCPS must organize distribution of food and supplies to schools



across the district, which takes time and resources. Another drawback of the bulk production model is that students do not see scratch cooking happening in the school and thus may question where the foods served are from. But despite these challenges, the Nutrition Center continues to provide JCPS both control and flexibility as they pursue their commitment to purchasing and serving fresh and regional foods.



## Bright Ideas FROM JEFFERSON COUNTY PUBLIC SCHOOLS

- The JCPS Nutrition Center is a centralized facility that purchases and prepares fresh foods with regional ingredients.
- JCPS uses a Student Nutrition Advisory Council (SNAC) to get feedback from students at all grade levels on new items. Students, who each serve for two years, receive SNAC t-shirts and serve as ambassadors for the meals program.
- The JCPS meal program office maintains a large wall map of all its schools. When central office staff eat lunch at a school, they mark the site and date of the visit to ensure that all schools receive a visit from the meal program team.

RIGHT:  
MAP OF ALL JEFFERSON COUNTY PUBLIC SCHOOLS  
HANGING IN THE CENTRAL OFFICE



This report comes from the PreK-12 School Food: Making It Healthier, Making It Regional (MHMR) project and is based on interviews with Jefferson County Public Schools staff and students conducted from Spring 2016 through Fall 2017. MHMR was conducted by School Food Focus, which has now merged with FoodCorps, and was funded by the Robert Wood Johnson Foundation. For more than 40 years the Robert Wood Johnson Foundation has worked to improve health and health care. We are working with others to build a national Culture of Health enabling everyone in America to live longer, healthier lives. For more information, visit [www.rwjf.org](http://www.rwjf.org). Follow the Foundation on Twitter at [www.rwjf.org/twitter](http://www.rwjf.org/twitter) or on Facebook at [www.rwjf.org/facebook](http://www.rwjf.org/facebook).

For more findings from the PreK-12 School Food: Making It Healthier, Making It Regional project, please see the Executive Report.





# THE SKILLS-BASED KITCHEN

A CASE STUDY OF ORANGE COUNTY PUBLIC SCHOOLS  
FROM THE PREK-12 SCHOOL FOOD: MAKING IT HEALTHIER, MAKING IT REGIONAL PROJECT

## LOCATION

Orlando, FL

## STUDENT ENROLLMENT (SCHOOL YEAR 2016-17)

186,332

## NUMBER OF SCHOOLS

196

## STUDENTS QUALIFYING FOR FREE OR REDUCED-PRICE LUNCH

68%

## LUNCH PARTICIPATION RATE

60%

## KITCHEN SET-UP

Production kitchens  
at four schools,  
finishing kitchens  
at others

## Introduction

Orange County Public Schools Food and Nutrition Services (OCPS) feeds one of the nation's ten largest school districts, and the department's well-articulated strategic vision and detailed operating procedures reflect the necessities of operating at this scale. Purchasing regional fruits and vegetables is a major focus of the meal program's leadership, particularly given the availability of produce in the Florida climate. They also see regional purchasing, particularly direct from farmers, as a way to lower costs. In addition to meeting Healthy, Hunger-Free Kids Act requirements, OCPS works to minimize the presence of certain undesirable ingredients (such as food dyes and MSG) in the products they purchase, as well as serve fresher foods within the context of what their production set-up allows. The leadership is particularly concerned with making changes that will be acceptable to students and emphasizes following their lead on food trends.



## Item in Focus TRUCK OF THE MONTH

**As part of the OCPS Truck of the Month program, a vendor will pay to sponsor the meal program's food truck for three months.** The vendor's corporate chef works with OCPS staff to develop new recipes, and the top three are sent out to schools, via a co-branded food truck, for student testing. Taste testing happens during lunch, as part of the regular meal, so all students can participate. Items that get a 70% approval rating are added to the menu. OCPS staff benefit from the experience of working with a professional chef and developing recipes, and they learn more about student preferences through the taste testing. Also, student participation in school lunch goes up after a visit from the truck, both among new and infrequent school lunch eaters. "We found students don't think the cafeteria food is real, but they think the items on the food truck are—even though we make the food truck items in the cafeteria. So we get a lot of new customers on the food truck," said the OCPS Director.



# Encouraging Staff Skills



OCPS leadership see a lack of appropriate skills among their staff as a major barrier to doing more fresh food preparation. Much of the produce they currently buy comes pre-washed and pre-cut. A more skilled staff would allow OCPS to bring in more regional produce, which is cheaper to buy whole, and prepare it in-house. The leadership envision this preparation occurring at their four production kitchens, located at high schools, which could also house industrial-scale equipment to facilitate the process.

Staff at individual schools are also encouraged to improve their skills via the well-developed OCPS training program. School-based workers receive an initial week of training, which includes two days at the headquarters and three days in a school with a trainer. Moving forward, regular in-school training helps them fulfill required professional development hours. After-hours classes are also available to help workers increase their food service skills. All workers enter the OCPS system as “Level 1” School Food Service Assistants, and by completing training courses they can move up to higher levels as well as increase their pay. Workers ultimately can move through the three levels of School Food Service Assistant, and then on to “Lead,” “Manager in Training,” and “Manager.”

The OCPS Training Manager tries to use a mix of teaching techniques, in both the classroom and the kitchen, to appeal to different learning styles. Trainers are also aware of the language diversity among their staff, and so they are looking to produce more materials in Spanish and Creole. These trainings cover a range of topics necessary for kitchen and cafeteria work, including food safety, administration, and food preparation. Knife skills are included in the culinary classes, as well as in some of the required, in-school trainings. For example, as they began to ask kitchen workers to cut more fresh produce, OCPS provided knife gloves and a training on how to use them to all workers.

The OCPS training program not only provides staff with the skills to serve fresher meals but also offers them a monetary incentive to do so. (These are also skills that can translate into marketability in the food industry more broadly.) Workers themselves noted that having the appropriate training makes their job easier to do.

The possibility for career advancement also can help retain skilled workers—several kitchen managers noted that they had staff members intent on working their way up. This is a goal shared by OCPS leadership—as the Training Manager noted, “We try to help staff grow and invest in themselves.”





STUDENTS LINE UP TO TASTE NEW ITEMS FROM THE TRUCK OF THE MONTH



## Bright Ideas FROM ORANGE COUNTY PUBLIC SCHOOLS

- The OCPS training program provides opportunities for career advancement and monetary incentives to encourage staff to develop their food service skills, including fresh food preparation.
- OCPS has large, outdoor campuses, and as such, they utilize golf carts to provide an extra point-of-service. The golf carts offer reimbursable meals to students who prefer not to visit the cafeteria.
- OCPS rigorously collects and analyzes student feedback to make sure cafeteria offerings align with student tastes. In addition to the Truck of the Month program, OCPS conducts several food shows to solicit student opinions on potential additions to the menu. (See more in the PreK-12 School Food: Making It Healthier, Making It Regional Executive Report.) As the OCPS Senior Director puts it, “You can’t get too far ahead of the kids. If you do, you have a trash can full of healthy stuff.”

This report comes from the PreK-12 School Food: Making It Healthier, Making It Regional (MHMR) project and is based on interviews with Orange County Public Schools staff and students conducted from Spring 2016 through Fall 2017. We gratefully acknowledge all those who participated in this project. MHMR was conducted by School Food Focus, which has now merged with FoodCorps, and was funded by the Robert Wood Johnson Foundation. For more than 40 years the Robert Wood Johnson Foundation has worked to improve health and health care. We are working with others to build a national Culture of Health enabling everyone in America to live longer, healthier lives. For more information, visit [www.rwjf.org](http://www.rwjf.org). Follow the Foundation on Twitter at [www.rwjf.org/twitter](http://www.rwjf.org/twitter) or on Facebook at [www.rwjf.org/facebook](http://www.rwjf.org/facebook).

For more findings from the PreK-12 School Food: Making It Healthier, Making It Regional project, please see the Executive Report.





# THE PRODUCTION KITCHEN

A CASE STUDY OF PRINCE WILLIAM COUNTY PUBLIC SCHOOLS  
FROM THE PREK-12 SCHOOL FOOD: MAKING IT HEALTHIER, MAKING IT REGIONAL PROJECT

## LOCATION

Northern VA  
(Metro Washington, DC)

## STUDENT ENROLLMENT (SCHOOL YEAR 2016-17)

89,901

## NUMBER OF SCHOOLS

96

## STUDENTS QUALIFYING FOR FREE OR REDUCED-PRICE LUNCH

40%

## LUNCH PARTICIPATION RATE

62%

## KITCHEN SET-UP

Production kitchens  
in all schools

## Introduction

Long-term leadership and a strong financial condition in Prince William County Public Schools Food and Nutrition Services (PWCS) have created a shared vision for the meal program. They have maintained scratch cooking, which has positioned them well to take on the challenges of providing more healthful and regional foods. The leadership see themselves as always having been committed to serving healthy meals, and there is a sense across meal program staff that they are continuously working to improve.

In the last few years PWCS has prioritized getting rid of undesirable ingredients, including removing all food dyes, and using less-processed proteins, such as a whole-muscle chicken filet. They have added more scratch-cooked items to those they already serve, such as the taco meat and spaghetti sauce they prepare with raw beef. PWCS has been adding more fresh produce, prioritizing local (within Virginia) purchasing, including proteins and manufactured items.



## Item in Focus LOCAL BIBB LETTUCE

In 2011, PWCS began sourcing a locally grown, hydroponic Bibb lettuce. Unlike iceberg lettuce, this item has to be washed and requires more delicate handling, namely tearing instead of cutting the leaves. But staff have gotten used to working with it, and managers find it to be a “really good lettuce,” one that “people love.”



# Scratch Cooking



A SALAD BAR IN A PWCS ELEMENTARY SCHOOL

PWCS never gave up on scratch cooking. From making their own pasta sauces to baking their own rolls, scratch cooking has facilitated their adoption of healthy and more regionally sourced foods. They have maintained the facilities to cut fruits and vegetables, cook raw meat, and bake bread in each school. The meal program is very attuned to equipment needs, recently outfitting all kitchens with combi-ovens to improve execution.

However, this level of food preparation also presents challenges, as kitchens require enough staff members with the baseline skills to execute these recipes. Despite a growing labor pool in the district, schools are understaffed. As PWCS tries to incorporate more fresh and local foods, cafeteria staff note that the food has improved but that their jobs have gotten



harder. PWCS works to mitigate these challenges by making trade-offs to prevent asking too much of staff. For example, they found a light sour cream to purchase so that staff no longer have to mix sour cream and yogurt to make a dressing. (See the PreK-12 School Food: Making It Healthier, Making It Regional Executive Report for more on understaffing and its impacts.)

These strategies do not solve long-term understaffing issues but do create conditions that allow PWCS to provide a strong, scratch-driven meal program where staff feel good about what they



are serving students. Said one cafeteria manager, “I feel really proud working with Prince William County because they give you the resources to do a good job. I just love the way my students here eat. It makes me feel like we’re doing something for this generation.”



## Bright Ideas FROM PRINCE WILLIAM COUNTY PUBLIC SCHOOLS

- As PWCS increases its level of in-house food preparation, it finds ways to ease the burden on cafeteria staff.
- Every March, the PWCS Food Show offers students and parents a chance to taste proposed new menu items and give their feedback on what should be added. (See more in the PreK-12 School Food: Making It Healthier, Making It Regional Executive Report)
- PWCS nutrition staff offer curriculum-related activities to elementary-schoolers. For example, during the “Fraction Fruitapalooza,” students practice fractions by counting orange segments and dividing bananas.
- PWCS purchased 52 tower gardens for schools to incorporate student-grown produce in cafeteria fare.

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