



# In Pursuit of Good Food

## Improving School Food at Boston Arts Academy

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Department of Urban & Environmental Policy & Planning



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# Abstract

Boston Arts Academy has been working to improve both the quality and nutritional value of the food served in its cafeteria. Boston Arts Academy is a pilot high school located in Boston's Fenway Neighborhood. The diverse student body is drawn from seventeen Boston neighborhoods. Many of the students are from underserved communities and approximately 65% qualify for free or reduced meals. More than 90% of the school's graduates attend college.

This project explores the many issues surrounding school food, presents examples of innovative programs and suggests ways in which Boston Arts Academy can work within the framework established by the Boston Public School system and federal school food programs to improve its cafeteria food. Key stakeholders were interviewed to determine the current policies and practices. A survey of Boston Arts Academy students' food preferences and behaviors is a key element of this project. The survey results show that students have a desire for fresher and more nutritious foods to be served in the cafeteria. The findings of this project should be relevant not only to Boston Arts Academy, but also to any other school working to improve the food served in its cafeteria.



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# Executive Summary

Boston Arts Academy, a pilot high school with approximately 430 students, is seeking to think creatively about the food offered in its cafeteria. In Boston, food service for the district's 56,000 students is managed by Food and Nutrition Services, a department whose policies and practices are largely guided by the National School Lunch Program and School Breakfast Program.

In Pursuit of Good Food examines school food at Boston Arts Academy through the following lenses: government programs involved in supplying school meals, concern over school meal nutrition and quality, the food service system within the Boston Public Schools, the eating habits and food preferences of Boston Arts Academy students and examples of innovative programs from four urban school districts. A study of the aforementioned topics was

conducted through a literature review of contemporary issues facing school food service, interviews with key stakeholders involved with Food and Nutrition Services, a written survey addressing the food preferences and eating habits of Boston Arts Academy students and a review of innovative programs in four other districts.

The Introduction describes Boston Arts Academy's unique status as a pilot school, the overall goals of the project and provides a broad treatment of the methods used. The Literature Review provides national context for how school food is a relevant and contemporary issue with significant policy implications. Attention is drawn to four central issues within the school food debate: nutritional value, procurement, cost per meal and student participation rates. This report highlights study findings that suggest student meal satisfaction can rise when students are

presented with locally sourced, fresh products. Research has shown that a greater per meal financial investment, in conjunction with increased cafeteria efficiency, can lead to increased levels of consumption and offset the cost of more expensive meals. Federal reimbursement is a key revenue source for school meal programs. By improving nutrition, procuring and serving more locally sourced food, and partnering with non-profit organizations for additional funding, districts often find that their overall participation rates increase.

The Legislative Overview chapter examines federal and state school food programs. This section explains the particular importance of federal programming that sets nutrition guidelines, supports qualified families with meal assistance and subsidizes the cost of food through reimbursements and commodity crops from the agricultural sector. In short, Boston's Food and Nutrition Services Department relies heavily on federal support, primarily through National School Lunch Program and the School Breakfast Program, to carry out its daily operations.

The Local Context chapter considers how Boston Arts Academy's cafeteria fits into the larger structure of the Boston Public Schools. Boston Art's Academy is one of only 35 full-service cafeterias in the city's schools. Additionally, the Boston Public Schools is in a moment of transition as the department attempts to recover from a \$3.5 million deficit. It is likely that, in academic year 2011, the department will be co-managing its food service with an outside consulting or management firm.

The Student Survey chapter presents an analysis of the project's survey of food preferences and eating behaviors administered at Boston Arts Academy in March 2010. Of the 430 students currently enrolled at Boston Arts Academy, 229 completed surveys were analyzed. Students indicated a lack of time for both breakfast and lunch, the Chef in Schools program was well received

and students acknowledged the importance of nutritious meals. Moreover, the study's findings suggest that further research should be done to better understand student perceptions of the cafeteria.

The Innovative Programs chapter supplements the policy research included in this report. These snap-shots offer insights on current programming and initiatives in school districts that have some of the most progressive food policies and practices in the country. The vignettes highlight: Baltimore, MD, Chicago, IL, New York, NY and Worcester, MA. In all cases, engaged students, staff training and dynamic leadership played a role in changing school food policies.

The report's final chapter, Recommendations and Conclusions, includes a summary of the major findings and suggestions for next steps. These recommendations include methods by which Boston Arts Academy can continue to work to address food concerns in its own cafeteria as well as ways that Boston Arts Academy can work to improve food on a district level.

On its own campus, Boston Arts Academy should continue and grow its partnerships with non-profit organizations that work to improve school food. Boston Arts Academy has control over the length of its school day and might explore lengthening the lunch period and incorporating breakfast into the school day.

Student involvement and passion is requisite for systemic change; thus, it is imperative that Boston Arts Academy encourage its students to take ownership of the school's quest for better food. Parents are another key ally in the food meals reform effort; Boston Arts Academy parents have already played a large role in the school's efforts and should continue to do so. Finally, the transition to co-management offers the opportunity to encourage the Boston Public Schools to select a company dedicated to providing fresh and healthy foods.



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## Chapter 1

# Introduction

Boston Arts Academy (BAA), a tuition free pilot school within the city of Boston’s public school system, is a remarkable combination of innovation, instruction, and achievement. Founded in 1998 under the mission to serve as a “laboratory and beacon for artistic and academic innovation,” the school educates approximately 430 students in grades 9-12. BAA shares its building with Fenway High School in Boston’s Fenway neighborhood.

The student learning community at BAA represents a diverse population. Similar to other public schools in Boston, the student body is ethnically diverse (44% Black/African-American, 32% Latino, 17% White, 4% Asian and 4% other during 2008-2009). In the same year, more than 60% of the students were female. Students come to BAA from many city neighborhoods, with Dorchester representing the highest percentage (36%)

and the smallest percentage traveling from Mission Hill and Charlestown (2% respectively). The school offers five majors: Dance, Instrumental Music, Vocal Music, Theatre and Visual arts; which are evenly populated by the student body. The school has lived up to its mission of educating artists; more than 95% of its graduating seniors matriculate at college.

As a teaching and learning laboratory where many students’ schedules revolve around rigorous physical activity, it is clear that their nutrition and eating habits are important not only to themselves, but also to their faculty, administration and staff. The students are surrounded by a culture of activism and have rallied, with their parents, staff and faculty, to advocate for better food in their cafeteria and across the Boston Public Schools (BPS) system.

This report aims to assist BAA parents, staff, faculty, administration and

students in their effort to reform school food. The project, conducted in the Spring Semester of 2010, sought to understand the complex issues that inform school meal programs, including student preferences and behavior as well as the multi-tiered government programs that are responsible for feeding students. To accomplish all of these goals, a variety of methods were utilized.

One of the deliverables BAA was most interested in was an understanding of the Boston Food and Nutrition Services' (FNS) organizational structure. To understand FNS' structure, FNS staff, BPS staff and other stakeholders were interviewed. The semi-structured interviews were scheduled throughout the semester. At least two team members participated in each interview with designated roles of lead interviewer and note-taker. To further ensure that all topics discussed in the interview were properly represented, the interviews were recorded whenever possible. Overall, ten interviews were conducted. Additionally, team members met with BAA's Student Council to hear the students' opinions of the food at their cafeteria and to learn what they would recommend to improve the cafeteria.

Another large aspect of the project, conducting a student survey, was subject to Expedited Institutional Review Board approval. This process led to a five-page survey that addressed student eating habits, their opinion of the cafeteria and the non-profit programming that the school has become involved in, as well as any recommendations they have for improvement in the cafeteria and their general understanding of nutritional principles. The survey was conducted during a 45-minute homeroom period so students had ample time to complete the questionnaire. Once the surveys were conducted, the team collected them and entered the data to be analyzed. All questions were entered, but for the purposes of this project, only a select number of questions were addressed in detail. Much of the data was collected for BAA to use

in the future since they were unsure if they would have the opportunity to conduct such an extensive survey again. The survey yielded a 53% response rate (229 out of 430 possible responses).

The final aspect of the project involved researching innovative programs that have emerged in large, urban districts throughout the country. These districts were identified both in the literature and by interviewees as outstanding programs. These vignettes provide a snapshot of the programming in each of the four districts and provide contact information for BAA and/or FNS to learn more about any particular program.

BAA's interest in providing healthier school food options to its students is not a local issue. School food has been nationally regulated since 1946 and is thought to be a good way to address children's deteriorating health. The nation is in a health crisis. Obesity rates and the incidence of diabetes have increased dramatically and continue to rise, especially among the nation's children. Over the past 30 years, childhood obesity has more than tripled; eighteen percent of the nation's twelve to nineteen year olds are considered obese (Center for Disease Control: National Center for Chronic Disease Prevention and Health Promotion's Healthy Youth! Webpage).

School food began to make national headlines several years ago; this coverage has increased dramatically in the past year. Upon entering the White House, First Lady Michelle Obama turned the nation's attention to school food with the 'Let's Move' campaign and the White House vegetable garden.

A number of documentaries and television shows have highlighted the lack of fresh foods and the convoluted nutritional guidelines that govern the National School Lunch Program. Tony Geraci, Director of the Baltimore Food and Nutrition Services, has produced a documentary; Anne Cooper, is Boulder, CO's self-

proclaimed “Renegade Lunch Lady;” and Jaime Oliver’s “Food Revolution” series on ABC have all increased national awareness of the school meals situation.

Through these media efforts, as well as through more local efforts, such as this project, the hope is that healthy school food will become the norm, and that all students will be served fresh and healthy foods instead of a small minority as is the case today. BAA’s focus on this issue is timely; the Massachusetts General Court recently passed legislation banning junk food from school cafeterias and Congress is poised to act on several bills regarding school food, including the 2009-2010 Childhood Nutrition Reauthorization, which is currently in development.

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## Chapter 2

# Literature Review

Since the late 1930's, school lunch programs have been a staple of the American school day (Dillard, 2008). The National School Lunch Program (NSLP) was formally adopted in 1946 through the National School Lunch Act. The Act had the dual goals of feeding low-income school children and stabilizing United States agricultural markets (Dillard, 2008). The School Breakfast Program followed in 1966 with the passage of the Child Nutrition Act. The Child Nutrition Act established the School Breakfast Program (SBP) and increased funding for meals served to needy students (Dillard, 2008). Critics of national school food programs have argued that the various social and economic goals are in perpetual conflict and have led to a system that provides schools with low quality foods (Dillard, 2008). National proponents of reform also point to issues such as a low federal

reimbursement rate for food products and the presence of competitive foods that reduce participation in the NSLP (Cooper, 2007).

Boston Arts Academy (BAA) has witnessed the challenges facing school food programs in its own cafeteria. BAA's effort to think creatively about cafeteria food stemmed from a specific incident; a student's grandparent visiting the school became ill after dining in the cafeteria. This incident both angered parents and drew attention to an issue that BAA administrators already recognized as a concern within the school community. BAA administrators and parents point to regularly occurring menu items such as pizza and tater tots (L. Nathan, Personal Communication, March 2010) as examples of the poor quality food being served in their school through the NSLP. Despite the fact that nearly 70%

*Non-profit organizations generally agree that the national program is successful in feeding large numbers of children, yet argue that the food is often of poor quality and systemic changes are necessary to provide better food.*

of BAA students receive either free and/or reduced price meals, participation in the NSLP is quite low. The limited participation demonstrates the school food's lack of appeal to the student body. BAA's efforts to improve the quality of its school food program echoes the increased national awareness of children's health and eating habits, along with an emerging concern regarding food quality for the entire population.

The existing literature on the quality of school lunches includes scientific studies, policy reports, and numerous newspaper and magazine articles. Many scientific studies on caloric intake and quality utilize the School Nutrition Dietary Assessment Studies (SNA) I, II and III which were performed in 1991-1992, 1998-1999 and 2004-2005, respectively (Clark & Fox, 2009). The SNA studies were funded by the United States Department of Agriculture's (USDA) Food Nutrition Service and conducted by non-governmental policy research organizations with the help of the USDA's Food Surveys Research Group (Gordon & Fox, 2007). The impetus for these studies was the growing obesity rate compounded with other health issues facing children at increasingly younger ages (Gordon & Fox, 2007).

Policy reports from a variety of sources, including the USDA and liberal advocacy organizations, focus on the effectiveness of federal school food programs. Government reports consistently highlight the national program's ability to serve a very large number of children across the country at relatively low prices as an impressive positive aspect of the program. Non-profit organizations, such as Project Bread and the Food Project, generally agree that the national program is successful in feeding large numbers of children, yet argue that the food is often of poor quality, and systemic changes are necessary to provide better food. At present, the issue of school food is being debated in Washington, D.C., and the momentum toward change is pushing several reforms forward. The



fact that children are facing severe health risks is generally accepted as a serious issue, but the question is how far the government is willing to go to protect our nation's youth.

Growing national concern regarding the American food supply has positively impacted the issue of school food. Hundreds of articles about school food can be found in newspapers and magazines throughout the country. School food has even made it to prime time television with the new show on the ABC network called "Jamie Oliver's Food Revolution." The show features an English celebrity chef working to improve food quality in a West Virginia school district with the highest population of overweight school children in the country. Such national media attention demonstrates that BAA's concerns are shared with many other schools across the United States. The quality issues facing school food service will be discussed in subsequent sections under four general categories: nutritional value of school foods, procurement processes, economics of school food programs, and student participation rates. The literature on these key issues helps support the argument for change at both a local and national level.

## Nutritional Value of School Foods

In order to address concerns about school food quality, one must first define what is considered satisfactory quality. Establishing quality standards is difficult for many reasons. For instance, students do not eat every meal at school, they have varying exercise levels, and many social circumstances exist that can affect a student's eating habits. Nonetheless, some argue that dietary guidance based on regularly updated science can be helpful to determine menu planning in public schools. Currently, schools participating in the NSLP must adhere to a set of nutrition standards and meal requirements that were established in 1995 by the USDA. However, these

*The Institute of Medicine found that students exceeded healthy caloric intake and the recommended number of discretionary calories.*

guidelines are broad, confusing, difficult to enforce and, in some cases, counterproductive (Institute of Medicine, 2010).

The USDA, as part of its congressional requirement to issue new guidance and regulations on Nutrition Standards and Meal Requirements, requested a detailed report with recommendations from The Institute of Medicine (IOM) (Institute of Medicine, 2010). In response, the IOM reviewed data from the SNDA-III study and the Quality of American School-Age Children lunch participation status study (Institute of Medicine, 2010). In its 2009 report, the IOM noted that student consumption patterns did not meet the 2005 USDA dietary guidelines for different food groups (Institute of Medicine, 2010). In particular, the IOM found that students exceeded what should be a healthy caloric intake, mainly due to highly processed grains, while also exceeding the recommended number of discretionary calories (Institute of Medicine, 2010). The IOM's recommendations on nutritional quality focused on increasing the consumption of fruits, vegetables, whole grains, and lean meat while reducing the amount of saturated fat and sodium (Institute of Medicine, 2010). The Institute also recommended a healthy range for a minimum and maximum number of calories (Institute of Medicine, 2010).

The linkage between the national school lunch program and excess saturated fat and sodium intake was highlighted in a 2009 publication of the Journal of the American Dietetic Association. The authors found that while students participating in the NSLP were, in fact, more likely to meet the vitamin levels recommended by the dietary guidelines, they were also more likely to exceed the recommended saturated fat and sodium levels. The study concluded that the NSLP is an important part of participants' diets and provides the opportunity to impact student health by offering healthy food in school cafeterias (Clark & Fox, 2009).

The prevalence of competitive foods in cafeterias also adds to the difficulty of providing healthy food and is one the most commonly cited reasons for students' poor eating habits. An article in *The Journal of American Pediatrics* again used the 2005 SNA-III data and found evidence that competitive foods were a significant problem, particularly in high schools. Competitive foods researched in this study consisted of á la carte items and vending machine food items with low nutritional value. Several studies also noted that schools successful in providing healthy school foods were able to manage the amount and type of competitive foods available to students (Finkelstein, Hill, & Whitaker, 2008).

## Procurement Processes

The nutritional value of school food is inextricably connected to food source and preparation. Public schools that participate in the NSLP receive a portion of their food through the USDA's commodity program. Many proponents of reform believe that the commodity foods program directly or indirectly contributes to the poor nutritional quality of school foods.

In "How Dumping USDA Food Commodities Ruined School Lunches," the author asserts that the economic goals of the commodity program interfere with the social goals of the school lunch program by forcing unhealthy meat and dairy products into school food programs (Dillard, 2009). Moreover, Dillard argues that USDA decisions are strongly influenced by an agriculture lobby that now represents larger corporations instead of small-scale family farms (2009). Dillard's article cites medical journals and nutritional statistics on the quality of commodity foods and details the history and legislative structure of the NSLP. However, it continues to be difficult for those seeking change to argue against the sheer amount of food that the commodities program provides to the nation's schools.

In the late 1990's, a national movement began working towards the decentralization of food production through "eating local" which helped lead to the "Farm to School" program (Vallianatos, Gottlieb, & Hasse, 2004). Farm to School offers a number of benefits, including more nutritious food, community building, food education, and support for small scale farming around urban edges (Vallianatos et al., 2004). Farm to School projects are popping up around the country as school districts begin to integrate them on a larger scale. Many districts in Massachusetts are participating in the state's program, including BAA and the Boston Public Schools (BPS).

A report by The Food Project, a Boston based nonprofit organization, studied the ability to utilize Farm to School programs on a district-wide level. The 2007 study examined the BPS's Department of Food and Nutrition Services (FNS), which manages school foods for all the public schools in Boston. The report includes information on the bidding process, prime vendors, and potential ways to integrate a Farm to School program. The potential for Farm to School was explored by researching the capacity of local farms in supplying the school district and comparing their prices to existing prices. A notable finding was that the delivery capacity of local farmers was less than that of the current large commercial distributors supplying FNS with their food products (The Food Project, 2007). The challenges of distribution and limited capacity are common among many Farm to School programs across the country, and conventional large-scale commercial distributors and federal commodity programs remain the dominant sources of food in most school districts.

## Economics of School Food Programs

Measuring the cost of a healthy school meal has been a subject of inquiry in much of the literature (Wilde

& Kennedy, 2009). Key factors include the multiple tiers of free, reduced, and full priced meals, vending machines and other competitive foods both inside and outside the school cafeterias. All of these issues affect operational decisions as well as the quality of available food and participation rates within schools. Based on two cases, it was found that costs increased with the serving of healthier foods. However, the schools also took measures to increase efficiency. The increase in meal sales and the increased efficiency of operations fully offset the rise in food costs (Wilde & Kennedy, 2009). An important part of the transition to serving healthier foods was capital investment in both equipment and the training of staff (Wilde & Kennedy, 2009).

In addition to systemic changes that could be made to school food programs at both the national and local level, many proponents argue that reimbursement rates should increase in order to serve healthy food. Ann Cooper, a prominent figure in school lunch reform and the self-proclaimed “Renegade Lunch Lady,” argues that reimbursement rates need to double (Cooper, 2007).

*It was found that costs increased with the serving of healthier foods. However, the increase in meal sales and the increased efficiency of operations fully offset the rise in food costs.*

## Student Participation

A key concern is whether participation rates will increase and plate waste or uneaten food will decrease if healthier breakfasts and lunches are served in public schools. Under the current NSLP, participation rates (of both free, reduced price, and full pay) are tremendously important in terms of funding. One consistent argument against serving healthier foods has been that kids simply won’t eat them or will choose other options. However, as discussed in studies of Boston, San Francisco, and Minnesota this argument appears to be unfounded.

A study on plate waste in Boston public schools found that students would, in fact, eat healthier foods. The study shows that participation rates actually rose with healthier

food while plate waste decreased. This study was the first of its kind in Boston and its results reflect the potential to increase food services revenue by improving nutritional quality (Project Bread, 2009).

One of the first school districts to implement Farm to School and healthier lunch initiatives was the San



Figure 1: Food Waste in the BAA Cafeteria

Francisco Unified District. In a case study on the San Francisco Unified School District, researchers compared school revenues and participation rates from the 2002-2003 school year, before implementation, to the 2003-2004 school year, after implementation (Wojcicki & Heyman, 2006). The data was collected from the Student Nutrition Services in the San Francisco Unified School District (SNS), which monitors revenues

and participation rates for each school in the district. The researchers found that, although the results differed between schools and grades, the overall participation rates increased and revenue either remained level or increased (Wojcicki & Heyman, 2006). Researchers recommended that further studies be completed to illustrate the longer-term effects of this type of program (Wojcicki & Heyman, 2006).

The Center for Agricultural and Food Policy at the University of Minnesota performed a case study on the Hopkins school district in Minnesota, focusing on Hopkins high school. The study showed an increase in participation with the addition of more nutritious foods. The high school instituted a salad bar, switched to healthier à la carte items, and revamped the school's catering department (Grainger, Senauer, & Runge, 2005). The Hopkins school district made changes in the school food served as well as the

overall structure of the cafeteria. A major conclusion was that the school could actually maintain consistent revenue with these changes (Grainger et al., 2005). The study has been cited in many other policy reports, which take the position that healthy lunches are economically viable.

## Summary

Public school food service in the U.S. is a tremendously complex topic with a wide variety of issues at the federal, state and local levels. Current debates concerning this topic involve the nutritional value of school food, procurement processes, cost, and participation rates. These areas are of great concern because of their importance in developing and maintaining a national program that provides quality food for American children. These issues are also all interconnected. Their complex relationships reinforce the notion that reform aimed at correcting only one of these issues will not create the most efficient system. For example, increasing reimbursement rates without decreasing competitive foods in the cafeteria could provide better food but may not increase participation rates. Therefore, successful reform must be comprehensive in nature.

While BAA is not able to control the national reimbursement rates or USDA's support for agricultural markets, the literature points to a few areas of school food programs where an individual school does have control. These areas include access to competitive foods inside and outside of the school as well as the overall presentation of the cafeteria. As the school food movement continues to gain momentum, BAA should utilize literature on successful schools as a guide. On a national level, it is clear that some type of school lunch reform is coming and BAA should continue to advocate their position and utilize any opportunities for additional funding.





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## Chapter 3

# Legislative Overview

To begin to understand the systems and processes that have generated the current school food conditions at Boston Arts Academy (BAA), one must begin at the federal level, where the national school meals programs are administered and the guidelines are established for participating districts across the country. Federal legislation provides the bulk of funding for the national school breakfast and lunch programs, sets the dietary standards for school meals, determines who is eligible for free and reduced price status, and authorizes the commodity purchasing and distribution programs. It is within this national structure that the Boston Public School's Food and Nutrition Services (FNS), and therefore the BAA cafeteria, operates. FNS is completely dependent upon federal reimbursements for the revenue to cover its operating costs. Therefore, understanding

how the reimbursable meal system is administered, and what exactly qualifies as a reimbursable meal is essential to understanding how a school district may increase participation rates and potentially improve their food services.

It is also at the federal level where significant reform efforts are currently underway, which if successful, could dramatically alter the parameters in which school district food services and the individual school cafeterias within them are able to operate. To work towards reform within a school district, this national context must be understood so that it becomes clear what is possible at the local level and what is beyond the scope of the school district and subsequently addressed at the federal level.

A series of legislative acts have established national school meal programs

over the past 70 years and have delineated the role the federal government plays in school food provisioning (FTS Network, 2009). The administration of the various school meal programs has been placed under the US Department of Agriculture's Food and Nutrition Service. Every four to five years, federal legislation is reviewed as part of the Childhood Nutrition Reauthorization Act. Although the National School Lunch Program (NSLP) and School Breakfast Program (SBP) are permanently authorized, the reauthorization process allows for a reconsideration of the programs and provides opportunities to change their funding and operation.

Although participation in the NSLP and the SBP is not mandatory for public school districts, the vast majority of districts do participate. Districts that choose to participate receive cash subsidies as well as donated commodities from the USDA. Federal support is based upon how many reimbursable meals a district serves and, in return, it must serve meals that meet federal nutrition guidelines and offer free and reduced priced meals to eligible children (NSLP, 2009).

The nutritional requirements for the NSLP and SBP are based on the 1995 Dietary Guidelines for Americans, which are jointly issued and updated every five years by the USDA and the US Department of Health and Human Services ([Dietaryguidelines.gov](http://Dietaryguidelines.gov), 2010). The most recent guidelines were established in 2005, but the USDA's FNS has yet to update the nutritional requirements of the NSLP and SBP to conform to the 2005 guidelines. The 2010 Dietary Guidelines for Americans are currently in the development stage. The most recent version of Childhood Nutrition Reauthorization (2004) directed the USDA to update the school meal guidelines to reflect the 2005 Dietary Guidelines for Americans, but the USDA has, so far, been unable to do so. Instead the department has contracted the Institute of Medicine to develop a separate set of guidelines specifically for school meals

(Poppendieck, 2010). These most recent guidelines suggest a set of updated nutritional standards, but school districts participating in the NSLP and SBP are not held accountable to meeting them (IOM School Meals Report Brief, 2009). For now, the 1995 Dietary Guidelines for Americans remain the benchmark nutritional requirements that school food services must meet to participate in the NSLP and SBP.

To meet these requirements each school lunch served under the NSLP must contain one third of the recommended dietary allowances of protein, vitamin A, vitamin C, iron, calcium, and calories (NSLP Factsheet, 2009). In addition, no more than 30 percent of the calories may come from fat, and less than 10 percent of the calories may come from saturated fats (NSLP Factsheet, 2009). The meals served under the SBP are subject to the same nutritional requirements as the NSLP, except that each school breakfast served must meet one quarter of the recommended dietary allowances as opposed to one third (SBP Factsheet, 2009).

According to the USDA Food and Nutrition Services' most recent data from 2008, 30.5 million children participate daily in the NSLP in 101,000 public schools, non-profit private schools and residential childcare institutions across the country (NSLP Factsheet, 2009). Children with incomes at or below 130% of the federal poverty level qualify for free lunches and those with incomes between 130% and 185% of the federal poverty level qualify for reduced price lunch. School districts may not charge more than \$0.40 for a reduced price lunch. For the period beginning on July 1st, 2009 and ending on June 30th, 2010, it was determined that an income for a family of four at 130 percent of the poverty level is \$28,665 and at 185% of the poverty level is \$40,793 (NSLP Factsheet, 2009). The local school food authority identifies the children whose families have incomes greater than 185% of the poverty and these children pay full price for school

*30.5 million children participate daily in the NSLP in 101,000 public schools, non-profit private schools and residential childcare institutions*

meals. Each fiscal year, the USDA sets the reimbursement rates for the corresponding academic year. The 2009-2010 reimbursement rates can be found in Table 1. The total cost for the NSLP in the fiscal year 2008 was \$9.3 billion (NSLP Factsheet, 2009).

In addition to the cash reimbursements, schools receive donations of commodity foods from the USDA for every NSLP meal served. These commodity food donations come primarily from U.S. agricultural surpluses, which the USDA purchases and then redirects to school

meal programs. School districts are entitled to a specific dollar value of commodities for each meal served, which is 19.5¢ for FY 2010 (NSLP Factsheet, 2009). Over two thirds of the funds for USDA purchases of these commodities must be used to support the farm sector, as mandated by Section 32 of

the National School Lunch Act (Poppendieck, 2010). The remainder of the funds is not tied to agricultural market conditions.

Federal regulations have made it legal for school districts to exchange commodity donations from the USDA for commercial products from food processing companies and distributors that contain the same ingredients (Poppendieck, 2010). This process, called commodity diversion, allows schools to trade the raw unprocessed commodities they are receiving from the USDA, such as a large shipment of chicken breasts, for a processed good, such as chicken nuggets, thus relieving the school district of processing and preparation duties. While this option saves the school district the time and money it would have spent preparing the commodities themselves, the value of the processed product is higher than that of the unprocessed commodity and therefore

**Table 1: National School Lunch Program Reimbursement Rates 2009 - 2010**

(Source: NSLP Factsheet, 2009)

Category	Reimbursement
Free Lunch	\$2.68
Reduced Lunch	\$2.28
Full Price	\$0.25

the district often receives less food from the trade than they originally obtained from the commodity donation. The processed product is also often less healthy than the original raw product (L.

Zeintek & W. Morgan, personal communication, March 5, 2010). FNS currently makes substantial use of the commodity diversion process to supply its school cafeterias, which further reinforces the heat-and-serve mode of operations.

The SBP operates in much the same manner as the NSLP. In FY 2008, 10.6 million children in 87,000 public schools, private non-profit schools and residential childcare facilities participated in the program (SBP Factsheet, 2009). The same requirements hold for free and reduced price breakfasts as do for lunches in the NSLP. In the same way that USDA sets reimbursement rates for the NSLP, is sets yearly SBP reimbursements. The reimbursement rates for 2009-2010 can be found in Table 2.

Schools and school districts participating in the NSLP and SBP may use two federally approved forms of menu planning to determine the meals served to students. The first is Food-Based Menu Planning, in which specific component and quantity requirements of certain food categories must be met to qualify the meal for the federal reimbursement. For the NSLP, a reimbursable meal must contain five food items from the following four food components: meat/meat alternate, vegetables and/or fruits, grains/breads, and milk (NSLP Menu Planning, 2000). For the SBP, a reimbursable breakfast is required to contain four items from the following the following food components: vegetables and/or fruits; milk; and two servings of meat/meat alternate, two servings of grains/breads OR one serving of each of these components (SBP

**Table 2: School Breakfast Program  
Reimbursement Rates  
2009 - 2010**

(Source: SLP Factsheet, 2009)

Category	Reimbursement
Free Breakfast	\$1.46
Reduced Breakfast	\$1.16
Full Price	\$0.26

***A reimbursable meal  
must include five items  
from the following list:***

- ***Meat/Meat  
Alternate***
- ***Vegetables/Fruit***
- ***Grains/Bread***
- ***Milk***

*In Boston, the regulations require that, instead of serving students each of the five items that have been prepared for the school meal, the student need only select three of the five offered components.*

Menu Planning, 2000). BAA and the entire BPS system uses this form of menu planning.

The second form of menu planning is Nutrient Standard Menu Planning, often referred to as “NuMenus.” This is a newer, computer based form of menu planning in which software is used to determine the nutritional content of a given meal. Instead of using certain quantities of different food components as the benchmarks for a reimbursable meal, NuMenus requires minimum nutrient and calorie levels, based on the 1995 Dietary Guidelines for Americans. As long as these levels are matched or exceeded, the meal will qualify for reimbursement. The NuMenu system allows nutrient fortified processed goods to replace food components such as fruits and vegetables as long as the nutrients are being provided in the meal.

To further complicate the qualification of a reimbursable meal, an Offer Versus Serve (OVS) system has been in place in most school cafeterias since 1970. OVS regulations were introduced to the NSLP in response to concerns over children wasting much of the food served (Poppendieck, 2010). The regulations require that, instead of serving students all of the items that have been prepared for the school meal, the student need only select a certain quantity of what is available for his/her meal to qualify as reimbursable. In a Food-Based Menu Planning System, students must select three of the five offered components, and in a Nutrient Standard system, the student must select two of the meal items offered (Poppendieck, 2010). This means that in a Food-Based System, if chicken nuggets, french fries, apple slices, peas, and milk were being offered, a student could select only the chicken nuggets, french fries, and milk, and the meal would qualify as reimbursable. All high schools are required to implement the OVS system and generally most middle and elementary schools follow suit.

Competitive foods, or those that are available in schools outside the federal meals programs through vending machines or à la carte options, are not governed by federal standards with the exception of the prohibition on “food of minimal nutritional value” in cafeterias during meal times (Poppendieck, 2010). According to the USDA, foods of minimum nutritional value include sodas, water ices, chewing gum, and certain candies (USDA, Foods of Minimum Nutritional Value, 2009). The regulation of all other competitive foods is left to local school food authorities or, in some more recent cases, to state legislatures.

While progressive on many issues, the Commonwealth of Massachusetts’s government has not been particularly proactive on the issue of school food and nutrition. However, bills to limit access to junk food within the public schools have been introduced to the Massachusetts General Court several times, yet none of these bills received legislative attention until 2010. In 2010, both chambers of the Massachusetts General Court passed bills banning junk food and sugary drinks from schools. As of April 2010, the two bills needed to be reconciled, but they were similar in content. These bills are limited in scope as they only apply to the competitive foods available in Massachusetts’s school districts.

Under the federal requirements, states have the authority to require stricter standards for nutrition and quality, but cannot lower the federal standards. While FNS must comply with state and federal nutritional requirements, its internal requirements are already more stringent than anything the state government has proposed (H. Mont-Ferguson, personal communication, March 2010). The Massachusetts Department of Elementary and Secondary Education serves as the distributing agency for all the food supplied by the USDA, including the commodities program. This department places orders with the USDA as well as arranges for the receipt, storage and

*“Even though breakfasts currently meet the USDA guidelines, there were a lot of things we didn’t think were as healthy as they could be... We’d go to schools and routinely see things like chocolate milk, fortified donuts, highly sugared cereals for breakfast and we just knew that schools could do better.”*

*-Elaine Taber, Project Bread*



distribution of food to a wide variety of institutions across the state including schools, daycare centers, soup kitchens, food pantries and programs for the elderly.

The nutritional quality of school meals has recently been placed in the national spotlight with the current Congressional negotiation of the 2009 Childhood Nutrition Reauthorization Act and Michelle Obama's "Let's Move!" campaign to end childhood obesity and improve the health of America's children. Much of the legislation and programming outlined above is currently under review and could potentially lead to large scale, transformative changes to federal school food policy.

The Childhood Nutrition Reauthorization Act has opened a policy window in school food reform, and substantial lobbying efforts to influence the new legislation are underway by organizations such as the School Nutrition Association and the Food Research and Action Center, a leading anti-hunger organization. An increase in funding for school meals is likely with President Obama including an additional \$1 billion for school food in his 2010 budget. However, this increased funding is subject to approval through the Childhood Nutrition Reauthorization Act process (SNA News, 2010).

Michelle Obama's campaign has gained significant national attention and is pressuring both legislatures and school districts to improve school food. A "Healthier US Schools Challenge Program" was created to apply more rigorous standards to participating school meal programs and provide support and assistance to meet these standards. The campaign has increased pressure on Congress to approve President Obama's \$1 billion increase in funding and has aggressively advocated for the adoption of the Institute of Medicine's suggested standards.

Due to the growing national concern over childhood obesity and current federal government action, school food policy could significantly change in the near future. More

*School food policy could significantly change in the near future. More funding will likely be one such change.*



funding will likely be one such change. With an increase in funding, school districts could then improve the quality of the food they serve, the facilities they use to prepare the food, and their management tools and techniques. Another potential shift may be higher standards for the nutritional value and quality of food served through the national meal programs. The current Childhood Nutrition Reauthorization Act will likely include a required updating of the nutritional guidelines to meet a more recent Dietary Guidelines for America standard or the Institute of Medicine's recommendations. By the end of 2010, there should be a clearer picture of what changes will be instituted through the reauthorization.

The food services at BAA, and all other schools in the BPS system, must operate within the constraints of the federal school meals program structure outlined above. While the federal administration does allow a substantial amount of leeway for individual school districts to determine their food service operations, the complete dependence on federal reimbursements and the lack of other sources of significant government funding leaves little money available for improving school food services across the country. The absence of funding, compounded with the lenient federal nutrition standards for reimbursable meals and the decades old shift to low-cost, highly processed food items requiring minimal preparation has allowed school meal programs to reach their current unsatisfactory state. Increasing participation rates among students in the federal meals program can generate additional and much needed revenue that may be reinvested in improving school districts' food services. In order to increase participation rates, however, the meals programs must become more attractive to students, which will likely only occur with an improvement in the quality and nutrition of the food.

Without additional governmental support, obtaining the funding for improved cooking facilities, food

*The absence of funding, compounded with the lenient federal nutrition standards and the decades-old shift to low-cost, highly processed food items requiring minimal preparation has allowed school meal programs to reach their current, unsatisfactory state.*

preparation training for staff, and establishing new distribution networks that allow the sourcing of fresher, healthier, higher quality, and locally produced food products is a substantial challenge. However, on a case-by-case basis, some school districts across the country have been able to significantly improve their food service operations within the constraints of the current federal meals program and the confines of a severely limited budget. These school districts will be illustrated in greater detail in our case vignettes section. BAA may look to these other districts for best practices in improving its own food services. Unfortunately, until the federal government truly recognizes the importance of what is being fed to America's schoolchildren and appropriates the funding necessary for significantly improving school food services nationwide, reform efforts at the individual district level will be difficult and often tenuous at best. Therefore, change will require inspired leaders and devoted organizational coalitions to improve upon the unsatisfactory food the federal meals program provides. The latest round of federal legislative activity concerning school food may yield some substantial changes, which BAA should pay close attention to in order to capitalize on the opportunities for reform as they present themselves.

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## Chapter 4

# Local Context

The previous chapter on federal and state programming provides context for the system within which Boston Arts Academy (BAA) and the Boston Public Schools (BPS) system as whole operate. The analysis illustrates that school districts manage much of their food service operations by a federally set agenda. Consequently, this chapter will explore how the BAA functions within the larger framework of the BPS Department of Food and Nutrition Services (FNS). In particular, this chapter will elaborate upon the FNS structure and draw close attention to the key players and programming that impact BAA's cafeteria.

### BAA Food Operations

Of the 135 cafeterias in Boston, BAA is one of 42 city schools with a full service cafeteria. The BPS system administers USDA's School Meal program through

FNS. In addition to providing meals to BPS students, FNS determines policy for the food service within the school district, including guidelines on competitive foods and nutritional standards. Like most school districts, FNS acts independently from the rest of the BPS administration, with its own budget. Under its business model, FNS revenue from participating school children is intended to cover the expenses of the department's operation.

FNS is structured with a core leadership and managerial staff in the downtown Boston office who administer the program and provide clerical and administrative support to the hundreds of operations staff working at various school sites (The Food Project, 2007).

In the current arrangement, the majority of BAA's communication occurs with FNS staff at the cafeteria level. BAA's cafeteria is assigned three hourly-wage

workers and a cafeteria manager, Debra Franks, who directs daily operations. Ms. Frank's primary role is to coordinate the food and supply purchases for her assigned schools. Under the present model, BAA administrators have little interaction with any FNS personnel who work above the cafeteria manager (See Appendix B for the FNS Organizational Chart).

Students participate in the BAA cafeteria program in two different ways. Firstly, the formal participation



Figure 2: Boston Arts Academy Cafeteria

begins when a student completes the National School Lunch Program (NSLP) application used to determine the amount of meal financial assistance. In 2008-09, 62% of BAA students qualified for free or reduced price lunch (BAA Year End Report, 08-09). Each student receives an ID number that is entered into an electronic database and used to handle meal purchases and administer

discounts. In the second way, since federal assistance for meals is only applicable to complete meals (see Chapter 3 for explanation of Offer Versus Serve), students can also purchase individual items à la carte. Both options produce revenue for FNS.

BAA's cafeteria manager is responsible for creating school meals that reflect the menu developed at the central office in accordance with federal guidelines and product availability. While BAA cafeteria staff do not participate in the menu planning process, the staff do have some freedom in the preparation of set meals. For example, if the menu calls for pasta and turkey sandwiches, the staff can prepare homemade sauce with flavoring and grill the sandwich instead of serving it cold (K. Conrad, personal communication, April 29, 2010). The department is

reimbursed, on a sliding scale (See Table 1 on page 18), for all school lunches and, out of that reimbursement rate, they have approximately \$1 to spend on food once all overhead costs are accounted for (L. Zientek, personal communication, March 5, 2010). According to the FNS website, in the 2009-10 academic year high school meals are served at the prices listed in Table 3.

Table 3: BPS Meal Prices 2009-2010			
Breakfast		Lunch	
Full-Pay	\$1.50	Full-Pay	\$2.50
Reduced	\$0.30	Reduced	\$0.40
Free	\$0	Free	\$0

BAA cafeteria food arrives from three primary sources. According the 2007 Food Project report, the department placed food orders through the Department of Defense Fresh Fruit and Vegetable Program (FFVP), Costa Fruit and Produce Inc., USDA, and the Boston Farm to School beginning in school year 2010.

The FFVP program was established in 1994 in part to increase schools' access to fresh fruits and vegetables. Districts that place orders through the FFVP receive deliveries directly to cafeteria schools and fresh produce is prepared on site at BAA. In school-year 2006-07, FNS allocated \$61,000 toward FFVP products (The Food Project, 2007). FNS also holds a contract with Costa Fruit and Produce, Inc., a distribution company that purchases items from producers and manufacturers and then ensures delivery to individual cafeteria schools for further processing.

Much of FNS's procurement plan is also based on commodity products available through the USDA. MA Department of Education (DOE) serves as the central distributor for commodity products for the state. FNS is responsible for transporting products from MA DOE locations to individual cafeterias.

The model for Farm to School procurement is somewhat simpler than the district-wide model. Kim Szeto, Farm to School coordinator of FNS, works exclusively with Czajkowski Farms in Hadley, MA to provide participating schools with a bimonthly delivery of vegetable of the month produce. Czajkowski Farms requires a \$50 minimum bill per school and Ms. Szeto must pay a rate competitive to what FNS would spend on produce through Costa Fruit or other distributors. When Farm to School began in Boston, in SY 2009, Mr. Czajkowski arranged for all the deliveries to schools. Now

**Table 4: BPS and BAA Breakfast Participation Rates  
2008-2009**

(Source: BPS Food and Nutrition Services)

	% Qualify for Meal Assistance	Breakfast Participation Rate (Based on Average Daily Attendance)			
		Free	Reduced	Paid	Total
BAA/Fenway	62	28	9	1	15
Boston Cafeteria High Schools	68	52	7	3	30
Boston Public Schools	77	61	8	5	42

in its second year, Farm to School works with the Produce Company of New England to handle distribution to the program's six campuses (Interview Zeintek, 2010).

FNS's business model is highly dependent upon student participation rates in their meals programs. In order to receive federal reimbursement for each individual meal, FNS must demonstrate that the students are choosing full meal options from their cafeterias. Given the freedom of choice in food outlets that BAA students enjoy, FNS loses federal funding when students choose off-campus or vending machine options. A noteworthy

fact is that BAA and Fenway Academy, who share one cafeteria, have an open campus policy for some of their students during the lunch period, meaning that students may leave campus during their lunch periods to purchase food elsewhere.

Since the school district receives reimbursement for all qualifying meals served, regardless of level of meal assistance, it is important to the district that participation rates be as high as possible. Nationally, in school year 2009, 62% of all students who qualified for free or reduced meals participated in the school lunch program

<b>Table 5: BPS and BAA Lunch Participation Rates 2008-2009</b> (Source: BPS Food and Nutrition Services)					
	<b>% Qualify for Meal Assistance</b>	<b>Lunch Participation Rate (Based on Average Daily Attendance)</b>			
		<b>Free</b>	<b>Reduced</b>	<b>Paid</b>	<b>Total</b>
<b>BAA/Fenway</b>	62	43	16	4	25
<b>Boston Cafeteria High Schools</b>	68	76	34	9	47
<b>Boston Public Schools</b>	77	87	52	31	67

(USDA Child Nutrition Tables, 2009). From a local perspective, the BAA and Fenway participation rates (not available separately) are below the city and high school averages for both lunch and breakfast. Consistent with national figures, BAA and Fenway participation is highest among students who qualify for free meals. It is interesting to point out that for both lunch and breakfast programs, BAA/Fenway's participation is nearly half the national participation rates among those who qualify for free or reduced meals. One reason for this difference, specifically at lunch, may be due the aforementioned open

campus policy. Additionally some high schools, such as South Boston High, have instituted a Breakfast After the Bell program, in which breakfast is served to students

in their first period class, and have seen a 100% increase in participation (W. Morgan, personal communication, March 5, 2010). Any increase in student participation increases funding for FNS and also serves as a sign that students are opting to fuel their bodies with meals to help get them through the school day.

**Table 6: FNS Expenses Summary  
2008-2009**

(Source: Helen Mont-Ferguson)

Salary: School-Based	7,662,486
Salary: Non-School	2,128,026
Benefits	3,064,135
Salaries + Benefits	12,854,648
Utilities	303,993
Repair/Maintenance	1,284,735
Contracted Services	357,367
Food	12,023,569
Miscellaneous Supplies	555,594
Other	11,267
Equipment: Heavy	43,880
Equipment: Technical	25,098
Adjustments	0
<b>Total Expenses</b>	<b>27,460,151</b>
Revenue	23,929,117
Net Profit (Loss)	<b>-(3,530,973)</b>

### FNS Budget

FNS's operation is structured to be self-sufficient, as it must generate enough revenue to cover expenses while providing food services to 56,000 students. However, FNS has been operating at a deficit, and BPS has covered the budget loss by transferring money from its general fund.

The largest source of FNS revenue comes from federal reimbursement for meals based on participation rates served under the NSLP, School Breakfast Program (SBP) and Afterschool Snacks Program. Other sources of revenue include á la carte food sales, rebates,

a small catering program (H. Mont Ferguson, personal communication, March 2010). At present, 80–90% of FNS funding comes from federal sources (H. Mont Ferguson, personal communication, March 2010).

In planning the budget for the fiscal year, Mont Ferguson and her staff make revenue projections based on participation rates from the previous year and potential



increases in federal reimbursements (H. Mont Ferguson, personal communication, March 2010). FNS uses zero-based budgeting. This method of budgeting does not predict real increases in revenue and attempts to break even. The primary costs of the school food program include food purchases, salaries and benefits, maintenance of facilities, utilities, contracted service, equipment and miscellaneous supplies.

FNS is currently operating at a \$3.5 million deficit, and the department has been in the red for many years. Michael Goar, Chief Operating Officer of BPS, explained this deficit as the result of structural inefficiencies in the food service system that FNS, as it is currently organized, has been unable to “self correct” (M. Goar, personal communication, March 30, 2010). This deficit has been compounded by low participation rates in the school meals programs amongst BPS students (M. Goar, personal communication, March 30, 2010).

Recently, FNS contracted with Root Cause, an external consultant, to develop a recovery plan to tackle the deficit internally. Goar appointed Shamil Mohammed as Deputy Director of Strategic Finance and Technology to coordinate this effort within FNS. The department has been able to reduce its deficit from \$6.7 million to the current \$3.5 million over the past three years. However, according to Goar, the department has accomplished all they can and will not likely be able to reduce the deficit further (M. Goar, personal communication, March 30, 2010). As previously stated, each year that FNS operates at a multimillion-dollar deficit, money from the overall BPS budget, that should be used to fund educational programs and operations in other BPS departments, is diverted to cover the deficit. Goar, who is ultimately responsible for reigning in the deficit, has determined that FNS is hindered by its structural capacity and has decided to contract with an outside, private company to co-manage FNS and erase the deficit. As this report was completed

*The department has been able to reduce its deficit from \$6.7 million to the current \$3.5 million. However, according to Goar, the department has accomplished all they can and will not likely be able to reduce the deficit further.*

*The ultimate goal of co-management is to increase participation in the meals program.*

(May 2010), the plan for co-management was in the development stage and a request for proposal (RFP) was about to be released.

Most importantly, the co-management model requires the hired company to assume the FNS debt and reduce the deficit to zero within one year (M. Goar, City Council Video Library, April 15, 2010). The company could be a consulting firm that would provide advice on infrastructure, service delivery, and managerial improvements to be implemented by the current FNS leadership; or it could be a managerial company that would assume some of the management responsibilities of FNS without replacing any current staff. FNS is seeking a proposal that addresses management structure, improves upon the infrastructure and delivery model, makes better use of the commodity programs, and improves the quality and preparation of the food served in BPS schools (M. Goar, personal communication, March 30, 2010). According to Goar, the ultimate goal of co-management is to increase participation rates in the meals program since participation rates generate income and allow FNS to sustain itself and improve its services to BPS students. Unfortunately, they will not be able to address this goal until after the structural inefficiencies in the FNS system are resolved (M. Goar, personal communication, March 30, 2010).

## Outside Partnerships

FNS's current budget deficit creates a significant obstacle to addressing BAA's desire to rethink food service in its cafeteria. However, partnerships with the non-profit sector have been established that offer the opportunity for BAA to serve as one of the district's models for a school working to make change within the current food service model. Specifically, BAA has been matched with initiatives from two local non-profits, Project Bread and The Food Project.

Project Bread, the leading anti-hunger organization in Massachusetts, has developed several initiatives to bring better food into the BPS system. The Food Project, whose mission is to empower youth from diverse backgrounds through the development of sustainable food systems, led the establishment of the Farm to School program in Boston. Each of these organization's efforts continue to grow, raising awareness about school food in Boston and providing a much needed impetus for improving the quality and nutrition of the food services.

Four years ago, Project Bread worked with BPS to develop the Chef in Schools Program, in which trained chefs prepare and serve a school lunch once a week in select schools. The program started at East Boston High School and has since expanded to eight schools around Boston including BAA. On Mondays during the 2009-2010 school year, Chef Kirk Conrad works with BAA cafeteria staff to use the ingredients available in the school's cafeteria to prepare and serve creative and often healthier meals than the normal cafeteria fare. Additionally, Chef Kirk often incorporates a "vegetable of the month" into his meals, which BAA receives from the Farm to School Program. To emphasize its support for this program, BAA's administration instituted a closed campus for Mondays so that students do not have the option to purchase lunch from outside vendors.

***"BAA students tend to have artistic palates and have been very responsive to the Chef in Schools Program"***  
-Chef Kirk Conrad

BAA is one of ten city schools to participate in Farm to School. BAA joined Farm to School for the 2009-10 academic year, the second year of the program's existence. Farm to School has two main components. First, it works with Czajkowski Farms to select a vegetable of the month that is featured on all Farm to School campuses. Food of the Month preparation is supplemented by visits from Laura Zientek, an AmeriCorps VISTA who is sponsored by the Food Project for 2009-2010. Laura works with students at BAA to encourage them to try the Farm to School program's vegetable of the month. Her work

also includes advising a team of students from BAA and Fenway to promote wellness and making healthy food choices on their campus (L. Zientek, personal communication, 3/5/2010).

While BAA is part of a small group of schools with access to these supplemental programs, it is unclear whether the partnerships will continue under the proposed co-management structure (K. Conrad, personal communication, 4/29/2010). Moreover, poor quality and nutrition of school food is a country-wide, systemic issue and while nonprofits such as these can provide certain services, systemic change will only occur through a reformation of the entire system.

BAA's cafeteria system, the structural framework of FNS, and recent partnerships established by FNS between BAA and local nonprofits, demonstrate that BAA's food system cannot be logically separated from the larger institutional framework of the school district's food services. This reality makes it difficult for BAA to act autonomously in its food choices. Regardless, BAA is acting independently and thinking creatively about complimentary options, which benefit BAA and the greater Boston public school system.

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## Chapter 5

# Student Survey

In order to better understand how students use the cafeteria and perceive the food service at Boston Arts Academy (BAA), an anonymous survey of the student population was conducted. Surveys were distributed to all 430 BAA students. The survey consisted of 74 questions with a combination of multiple choice and open-ended questions. In total, 229 completed surveys were returned for analysis. The study population was divided relatively equally amongst the four grades: 29% of the respondents were freshman, 23% were sophomores, 27% were juniors and 21% were seniors. The majors were also equally represented in the study population: 31% of the respondents were dance majors, 31% were music majors (combined instrumental and vocal), 21% were theatre majors and 17% were visual arts majors. Roughly 38% of the respondents were male and 62% were female, which reflects BAA's overall gender ratio. The final demographic

question asked was about students free or reduced meal eligibility. The responses are as follows: 41% pay full price for school meals, 15% pay the reduced price and 44% receive free meals. This statistic is also representative of the official data available for the number of students who receive free or reduced meals at BAA (62%). Please find the full survey and raw data in Appendices E and F.

Since the survey's participants were primarily minors, it was required that both they and their parent or caregiver sign a consent form to participate in the survey. A consent form specific to this project was distributed approximately two weeks prior to the survey's administration. Additionally, as a pilot school, BAA requires every family to sign a general consent form at the beginning of each school year. These consent forms provide blanket consent for everything

from field trips to studies such as this survey. As an additional consent, families were encouraged by the BAA administration to return the study's specific consent forms.

## Results

The surveys were administered by teachers during the students' 45-minute advisory (homeroom) period. Students had the entire period to complete the survey. The survey design included several open-ended questions to allow students to express their opinions however they chose. Furthermore, open ended questions allowed students to discuss their at-home eating habits, where they went and what they ate when they left campus for lunch, what they would like to see added to the cafeteria menu, and to make general recommendations for changes to the school food program.

It was never intended that this project would analyze and assess all 74 survey questions; instead, the survey included such a wide range of questions to give BAA as much comprehensive data as possible to be used for future research and assessment. The responses discussed in the following sections were selected by the team to highlight some of the results that could be readily applied to BAA's quest for improved food quality and nutrition.

### Breakfast

The survey included two questions that examined the reasons that students were not eating breakfast and why they were not choosing the cafeteria breakfast. These questions were, "If you do not eat breakfast regularly, why not?" and "If you do not eat the cafeteria breakfast, why not?" For both questions, the students were provided with several different answers and instructed to select as many as necessary or provide their own 'other' response. The data shows that approximately 56% of students who reported not eating breakfast regularly chose "not enough

***"I like the school's breakfast, but they need more variety."***

*-BAA Student*

time” as the reason they do not eat breakfast on a regular basis. In response to the question of whether or not they eat the cafeteria breakfast, nearly 46% also indicated “not enough time” as one of the factors.

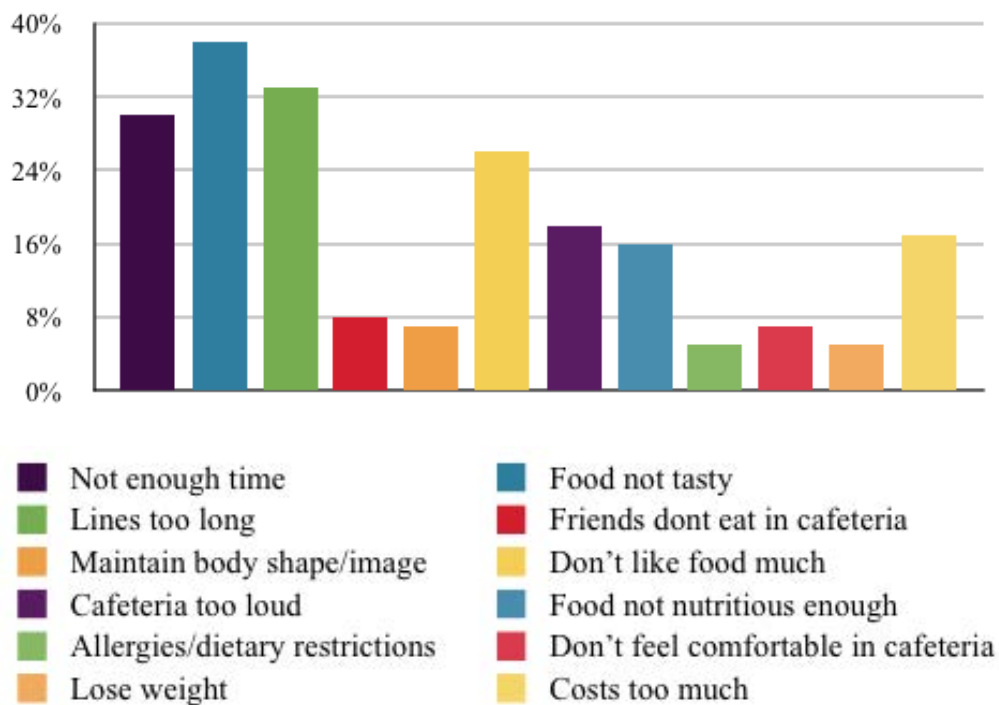
### Lunch

The survey also included two questions that examined the reasons that students were not eating lunch at all and why they were not choosing the cafeteria lunch. These questions were, “If you do not eat lunch regularly, why not?” and “If you do not eat the cafeteria lunch regularly, why not?” Again, students were provided a list of possible choices and instructed to select as many answers as necessary or provide their own answer. Similar to the responses for breakfast, “not enough time” was selected quite frequently; but many students also selected “lines

*“The meals are not nutritious or tasteful.”*

*-BAA Student*

Figure 3: Reasons BAA Students Do Not Eat the Cafeteria Lunch



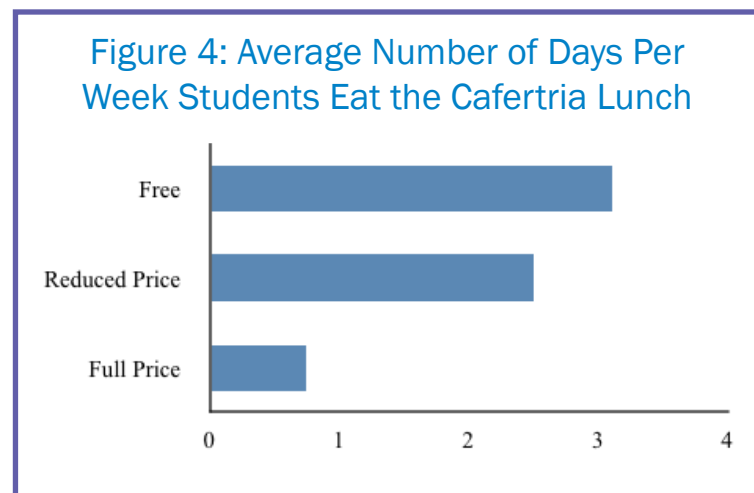
too long” as one of the reasons they do not eat lunch. The same reasons were indicated when asked specifically about the cafeteria lunch, but many students also added that “food not tasty” and “don’t like the food” were reasons they do not eat the cafeteria lunch. These results are shown in Figure 3 (Located on Previous Page).

### Participation in the School Lunch Program

In order to gauge participation in the school lunch program, students were asked to select the number (0-5) of days that they generally eat in the cafeteria. The result of this question is shown in Figure 4. It is important to note that even students receiving free meals are only taking advantage of them approximately three times per week.

*“Most kids go out to eat.”*

*-BAA Student*



### Satisfaction with Cafeteria Food

One of the most important questions on the survey was, “Are you generally satisfied with the cafeteria meals?” The response to this question indicates that students are supportive of their school’s efforts to improve the quality and nutritional value of the food served in their cafeteria: 65% of respondents reported that they are not satisfied with the cafeteria meals and 22% indicated that they are satisfied with the cafeteria meals (13% of

*“Sometimes the food is old, in small portions and cold”*

*-BAA Student*



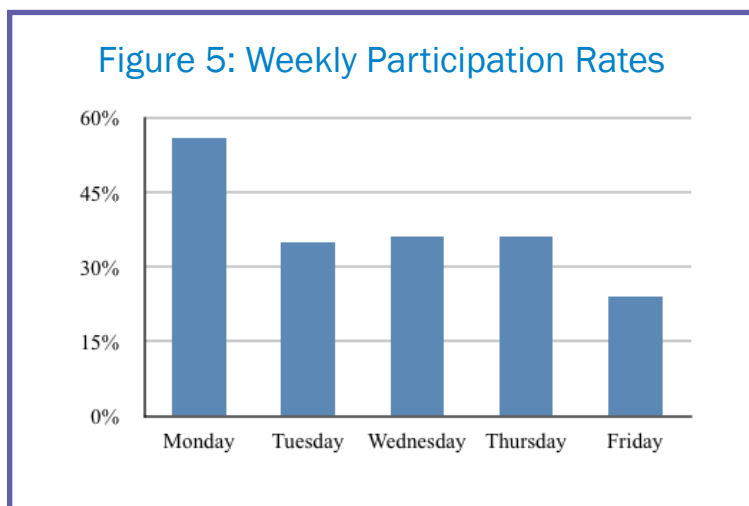
respondents did not reply to this question). Students were also given the opportunity to reply to an open-ended question about the cafeteria meals. “What do you think of the cafeteria meals” offered students a number of lines to express their thoughts; many students (14%) used the words “nasty” or “gross” in their answer to this question.

*“I only like Chef Kirk’s food because it’s freshly cooked.”*

*-BAA Student*

### Chef in Schools Program

To gauge student satisfaction with Project Bread’s Chef in Schools program, the survey asked students which days of the week they generally ate the cafeteria lunch. They were also asked if they were more likely to eat the school lunch on Mondays, when Chef Kirk prepares the meal. Students report a much higher participation rate on Mondays than any other day of the week (See Figure 5).



*“On Mondays, the food is really good.”*

*-BAA Student*

### Open Campus Policy

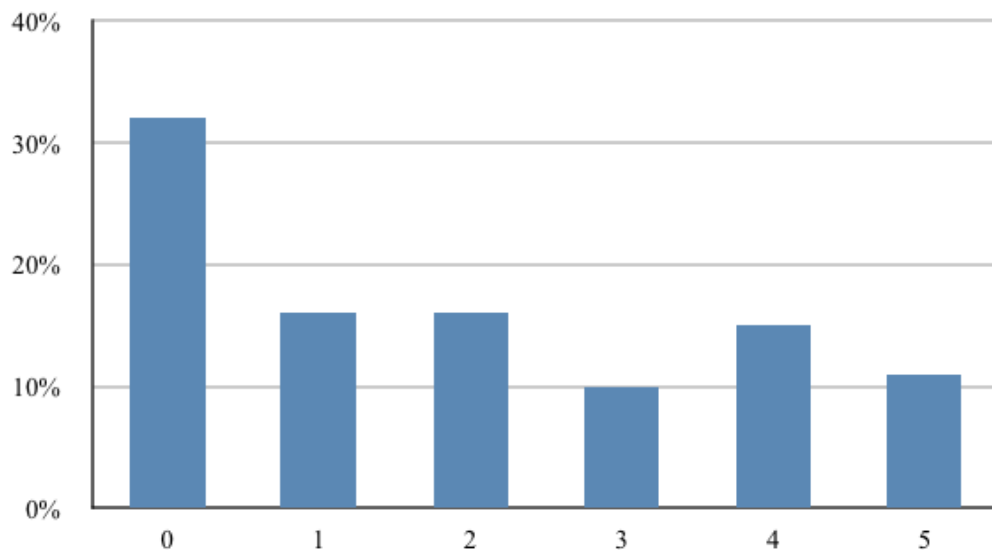
Most BAA students are permitted to leave campus for lunch Tuesday, Wednesday, and Thursday. On Fridays, school ends at lunch time, so while the cafeteria staff prepares and serves a meal, most students do not stay for lunch. To learn more about students eating habits, the questions “During the school week, how many times do you usually go to a store or fast food chain and buy something for lunch?” and “When you go to a store or

***“If our chef isn’t here,  
we aren’t either.”***

*-BAA Student*

fast food chain for lunch, where do you usually go?” were asked. For the first question, students were instructed to select a number (0-5) and the second question was open ended. Students responded that they leave campus an average of 1.9 days per week. Students who identified themselves as receiving reduced price meals left campus the most often, an average of 2.5 days a week. Both students who pay full price and who receive free meals reported leaving campus an average of 1.8 days per week. These numbers are significant because students are only permitted to leave campus a maximum of four days per week because the campus is fully closed on Mondays. Many students reported that when they leave campus they eat at CVS, McDonalds, Burger King, the Hong Kong Chinese Restaurant or the gas station convenience store.

**Figure 6: Number of Days Per Week Students  
Leave Campus for Lunch**



### Vending Machines

Another issue that influences the school meal program is the availability of vending machines. The survey asked “In general, how often do you use the vending machines in the cafeteria?” thirteen percent of the students who responded to the survey reported that they used the vending machines more than once a day, 12% use them once a day, 31% use them 1-4 times per week, 16% used them 1-3 times per month and 13% never use the vending machines (14% of the respondents did not answer this question). A subsequent question asked students, “Do you ever eat food from the vending machine for your meal?” An overwhelming 45% of students indicated that they do in fact, sometimes choose food from the vending machine for their meal.

*“There should definitely be a salad bar; but it would need to have more than just lettuce, cucumber and tomato. It would be nice to have other vegetables, croutons and cheese.”*

*-BAA Student*

### Salad Bar

Many high schools have made a salad bar available for lunch every day. Prior to developing the survey, the BAA Administration expressed a clear interest in providing their students with a salad bar option. To address this issue, the survey asked students “If the cafeteria offered a fruit and salad bar, would you use it?” Students were asked to choose ‘yes’ or ‘no.’ A majority of the students (67%) indicated that they would in fact, use a salad bar. Eighteen percent responded that they would not use a salad bar and 15% of respondents did not answer the question.

### Student Recommendations

Students were given the option to share recommendations for improving their cafeteria; they were asked “What recommendations would you make to improve food service and quality in the cafeteria?” The most common responses suggested healthier, fresh foods as well as increasing the availability of fresh vegetables,

*“Have Chef Kirk here everyday.”*

*-BAA Student*

*“They serve the same things every week, there should be more choices.”*

*-BAA Student*

salads and fruits. Additionally, many students responded that they would like to have Chef Kirk at their school everyday. Another open ended question asked, “Are there types of foods or certain food items that you would like the cafeteria to serve more often?” Salads, fruits and/or vegetables were mentioned by 16% of respondents. While many students suggested healthier food options, some suggested items such as ice cream, pizza, burgers and chicken nuggets.

## Limitations

While the survey had a very large response rate, there are still a number of limitations that could have impacted the results discussed in this chapter. The survey used only self-reported data and no efforts were made to corroborate answers. Students were encouraged by their administration to participate in the survey, but their response was entirely voluntary. It would be expected that the students who feel the most strongly about school food would reply to the survey which may sway some of the results. Approximately 45% of the students’ opinions are not represented in this data set and moreover, not every student who responded to the survey answered every question. Students received little or no guidance in completing the survey, so they could have misinterpreted questions. While the indication is that this survey is representative of the BAA student body, BAA is a unique environment and thus the survey results should not be generalized to discuss the preferences and opinions of students at other high schools. Finally, the survey data was manually compiled, so there was a chance of human error during that process although the data entry process was checked to assure consistency.

## Discussion

This chapter has discussed some of the findings of the student survey. Some of the most important findings are reiterated below.

- Students do not have enough time to eat breakfast in the morning
- The lunch period is too short for many of the students to eat the cafeteria lunch
- Students are generally dissatisfied with the school lunches currently being served
- Students are particularly dissatisfied with the lack of meal options and variety
- Students like the Chef in Schools Program and would like to see it expanded
- Many students are not making use of the school meals programs. The majority are leaving campus for lunch and/or relying on the vending machines
- Many students would like the cafeteria to increase its offering of fresh fruits and vegetables
- Students also support the addition of a fruit and salad bar to the lunch offerings

## Further Research and Analysis

This survey is a first step in understanding the factors that explain student preference and the choices they make. Since the entire survey has not been analyzed, further research could simply take this data and expand its analysis. Additionally, researchers could develop a series of surveys that could capture student preferences and behavior over time. Many of the questions on this survey asked students to generalize their behavior, which is very difficult to do. A longitudinal study could follow students to obtain a more specific data set. Additionally, the Institutional Review Board Approval for this project did not allow the team to interact directly with the students; if this project is continued, conducting student interviews or focus groups could deepen researchers' understanding of student preference and behaviors.



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## Chapter 6

# Innovative Programs

The four school districts profiled in the following vignettes were selected from a list of exemplary programs mentioned in various publications and by individual stakeholders during interviews. An initial list of public school districts was compiled from the academic literature. Additionally, districts that interviewees mentioned as having strong school meals programs were added to the list. The final districts were chosen from the initial list. The districts selected were: Baltimore, MD; Chicago, IL; New York, NY and Worcester, MA. These districts are all Title I schools; have a student populations similar to that of the Boston Public Schools (BPS), and are large, urban districts.

These vignettes provide a glimpse of programs that provide healthy, fresh foods and encourage their students to eat healthfully. The programs highlighted here are by no means an exhaustive list of the

options available to Boston Arts Academy (BAA) and the BPS as they begin to reform school food. These programs can serve as a model for BAA and the BPS and provide important information about the process of improving food district-wide.

There are several lessons to be learned from these districts. Dynamic leadership is a necessity when revolutionizing a complex system. Open communication and universal buy-in amongst all stakeholders are also integral to the success of any new program. Incorporating trained culinary professions into management positions to serve a resource for cafeteria staff demonstrates that there are opportunities for creative meal planning within the current system. Finally, student and parent involvement is imperative to the overall success of a school or district's meal program.



## Baltimore, MD

Tony Geraci, Director of Food & Nutrition  
 Department Website  
[www.bcps.k12.md.us/school\\_info/lunch/index.asp](http://www.bcps.k12.md.us/school_info/lunch/index.asp)

### Student Population

82,866 Total

24, 152 High School

### Eligibility

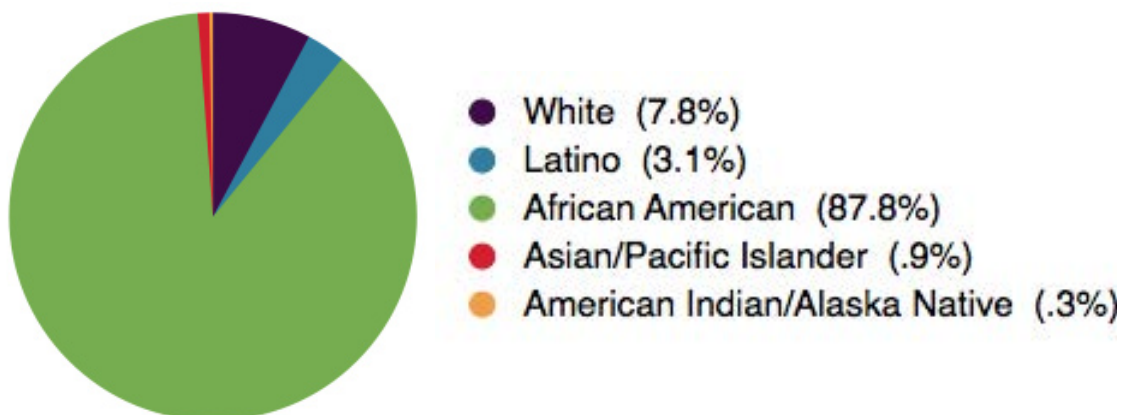
74% Free and

Reduced Price

### Meal Prices

Eligibility	Breakfast	Lunch
Full Pay	Free	\$2.25
Reduced	Free	\$0.40
Free	Free	Free

### Student Demographics





***“The Federal Program offers Washington State Apples at \$56 a case. I can buy Maryland apples for \$6 a case and feed 50,000 more kids a year with the same amount of money.”***

*-Tony Geraci, Baltimore Food and Nutrition Services Director*

### How is Baltimore Revolutionizing School Food?

- The dynamic, outspoken and passionate leadership of Tony Geraci, Baltimore’s Food Service Director allows the district to implement a variety of programs.
- Baltimore consistently and visibly places their students out in front of its mission for healthier food.
- Open communication between food services management, cafeteria staff, faculty, school support staff and students creates an atmosphere where everyone feels a sense of pride in the food served in each cafeteria.
- The Farm to Fork Program highlights the importance of using local produce. In fact, Baltimore now purchases many items from local growers at rates less than those offered by the federal government.
- Improvements in Baltimore’s food quality and programming have been made largely without additional funds from the federal or state government. Tony Geraci makes wide use of funding from alternative sources, such as grant programs, to fund expenditures such as steam tables to make food preparation possible in cafeterias without kitchens.
- The Breakfast in Baltimore Program provides every student with a free grab-and-go breakfast. Breakfast packages include prizes from local sponsors, such as the Baltimore Orioles, to encourage participation.

### Lessons Learned from Baltimore

- Student involvement and high visibility of the program are very important ways to garner support from the community.
- Upper management and cafeteria staff need to have a strong working relationship and common goals.
- Well run school breakfast programs are good for student wellness, and if supported in all schools with federal reimbursements may lead to more revenue for the district.
- BAA/FNS could investigate partnerships with local sports teams for meal prizes.
- With proper planning, it is possible to increase the quantity of locally sourced fruits and vegetables without expanding the overall budget.



## Chicago, IL

Louise Esaian of Chartwell-Thompson Hospitality

Department Website:

<http://www.cps.edu/Pages/home.aspx>

### Student Population

409,279 Total

114,770 High School

### Eligibility

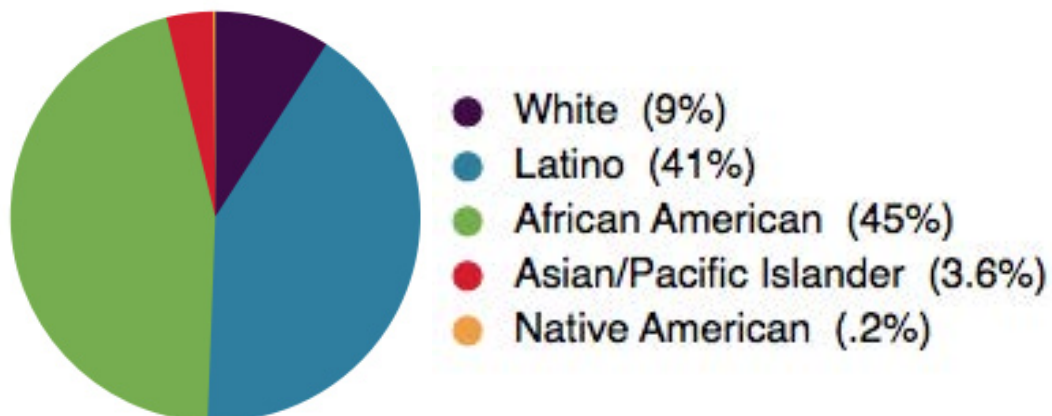
84% Free and

Reduced Price

### Meal Prices

Eligibility	Breakfast	Lunch
Full Pay	\$1.50	\$2.10
Reduced	\$0.30	\$0.40
Free	Free	Free

### Student Demographics



*“Food experts need to be front and center in menu planning to make the most of the 100 pennies available.”*

*-Northwestern Chicago News, 2010*

### How is Chicago Revolutionizing School Food?

- Students are front and center in the effort to improve food in their schools. Most notably, a group of 20 students representing several schools attended a school board meeting to present council members with ideas to improve meals.
- Chicago utilizes two models for their universal breakfast program. Pre-secondary schools practice the Breakfast in the Classroom model while secondary schools use the Grab and Go model.
- Removing kitchen fryers and coordinating daily delivery of fresh fruit promotes healthy meal options in schools.
- The district-wide ban on minimal nutritional value snacks, such as candy and gum, in school vending machines on school property. Additionally, there are nutritional guidelines in place to direct snacks options sold in schools. For example, sodium levels cannot exceed 480 mg per serving and sugar cannot exceed 40% weight per serving.

### Lessons Learned from Chicago

- Students can be empowered activists, create interest around an important issue, and challenge school officials to re-think food options in schools.
- The media often plays a significant role in bringing the issue of school food to the public's attention.
- Chicago offers an example of a school district whose food service is managed by a private company who offers a variety of innovative programming.



## New York, NY

Jorge Collazo, Executive Chef of SchoolFood

Department Website:

<http://www.opt-osfns.org/osfns/default.aspx>

### Student Population

1,038,741 Total

270,168 High School

### Eligibility

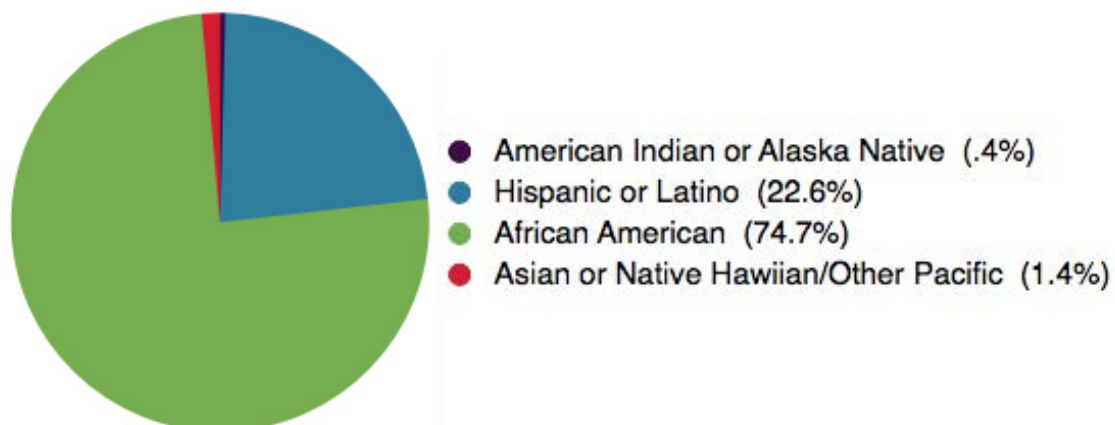
73% Free and

Reduced Price

### Meal Prices

Eligibility	Breakfast	Lunch
Full Pay	Free	\$1.50
Reduced	Free	\$0.25
Free	Free	Free

### Student Demographics



*“Surveying your customers is a critical part of meeting their needs, regardless of what business you are in”*

*-Jorge Collazo, New York City School Food Executive Chef*

### How is New York Revolutionizing School Food?

- New York City parents are active in the school food issue. Most notable is the SchoolFood Partnership that holds monthly meetings and serves as a forum for parents, students, and administrators to discuss issues related to school meals.
- New York schools think carefully about the use of vending machines in schools. The district is pursuing a vendor that will only offer healthy snacks in school machines and limits the hours that vending machines operate during the school day.
- City schools offer universal free breakfast to all students in the district. Age specific promotional events are held monthly to encourage meal participation and provide an opportunity for students to voice their preferences on menu offerings.
- Regional Coordinators must generate ‘profit and loss’ statements to track spending and encourage active oversight of school managers and staff.
- Chef Jorge Collazo works closely with product vendors to order food options that align with the district’s nutritional guidelines and culinary standards. Additionally, service managers, cooks and assistant cooks receive culinary instruction as part of staff training.
- Many middle and high school students are allowed to leave campus for lunch. The district works to compete with fast-food businesses by implementing marketing strategies to encourage participation while delivering healthier options and that replicate the fast-food model.

### Lessons Learned from New York

- Menus can be designed not only around federal guidelines but also by considering students as clients. Additionally, it is important to consider age and ethnic background of the students in a particular school.
- Universal free breakfast promotes healthy eating habits and contributes to overall participation rates.
- New York’s Culinary Concepts Team includes a trained chef for each of the five boroughs to assist cafeteria staff in the menu preparation.
- By targeting parents, the city has managed to impact student participation.



## Worcester, MA

Donna Lombardi, Director of Nutrition Services

Department Website:

<http://worcesterschools.org/>

### Student Population

23,988 Total

6,744 High School

### Eligibility

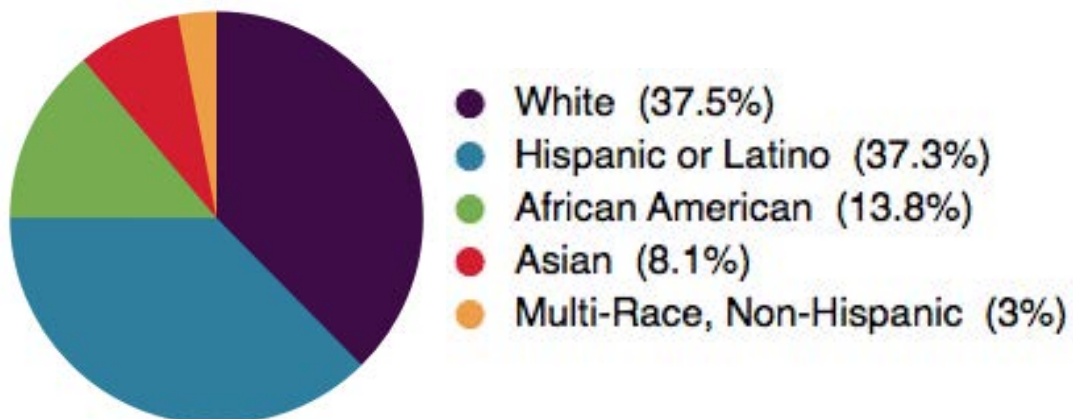
84% Free and

Reduced Price

### Meal Prices

Eligibility	Breakfast	Lunch
Full Pay	Free	\$2.25
Reduced	Free	\$0.40
Free	Free	Free

### Student Demographics



*“The [Farm to School Project] cookbook, which strives to keep school lunch programs within their budgets, has 45 fast and easy recipes... using Massachusetts crops...and preparation and cooking tips for fresh produce.”*

*-Worcester Telegram and Gazette, 2007*

## How is Worcester Revolutionizing School Food?

- Worcester schools promote breakfast by offering Breakfast After the Bell programs in 80% of the city’s schools.
- To date, 75% of the city’s schools offer meals that include dishes made from scratch with fresh ingredients.
- Vending machines and milk containing high fructose corn syrup are banned from school cafeterias.
- Worcester is an active member of the state’s Farm to School program. Donna Lombardi, the Director of Nutrition Services, attributes much of the district’s 15% increase in meal participation to the Farm to School initiative.

## Lessons Learned from Worcester

- By developing relationships between the school district and local farms, the nutritional quality of school foods can be improved at no additional cost.
- Eliminating a-la-carte items makes it possible to deliver more than one choice for the full meal option and thus offers free and reduced pay students more choice.
- Investment in an electronic system that uses swipe cards to checkout simplifies accounting, lessens stigmas associated with free meals, and speeds up the food line by eliminating the need for cash.

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## Chapter 7

# Recommendations & Conclusions

It is clear that improving school food presents an extraordinarily complex challenge involving programs, policies, and systems at multiple scales, ranging from the local to the national. There is a long and often contentious history and many powerful political interests involved in the debate. School food reform is also a major contemporary issue that has recently risen in the national consciousness. The First Lady is calling for healthier lifestyles for children and celebrity chef Jamie Oliver aired a prime time television mini-series dedicated to improving school food in West Virginia. Given the political climate and the heightened awareness amongst the public, substantial school food reform is likely in the coming years. Since school meal programs are ultimately administered at the federal level, there are limitations as to what can be accomplished at the local level. However, improving

school food within the Boston's public schools is possible. Significant inroads have been developed within the Boston Public Schools (BPS) system and Boston Arts Academy (BAA) can continue to play a major role in leading this reform effort.

### District Wide Reform

It is important to recognize that, in large part, individual public schools do not have the ability to independently determine their school's food services. Individual school cafeterias operate as single components of a much larger system, in this case the BPS Department of Food and Nutrition Services (FNS), which itself is a single entity within the statewide system and federal school meals programs. While there are some actions that BAA may take as an individual school that could potentially improve their own

*Thinking creatively about school food is a district wide issue, and BAA need not act alone in advocating for reform.*

food services, the primary locus of action should be the at the district level. All major decisions concerning food procurement, distribution and preparation in BPS are made by FNS. Almost all other cafeteria schools within Boston receive food from the same distributors as BAA and have similar cooking facilities. Thinking creatively about school food is a district wide issue, and BAA need not act alone in advocating for reform.

As a pilot school that is committed to educational innovation and characterized by a student body with an activist mentality, BAA is uniquely positioned to garner support and take a leading role in the school food reform effort in Boston. Its students, staff, teachers, parents, and administration should collaborate as an outspoken public voice to draw greater attention to the important issue of school food in BPS. BAA can become a catalyst for change, raising awareness and amassing support from other schools and the general public to call for more significant action than what is currently being pursued through the co-management strategy.

The Innovative Programs chapter highlights school districts that have worked to improve their food services within the confines of the federal meals program. Significantly, in each case there has been a tenacious and outspoken “champion” who has led school food reform efforts. Tony Geraci in the Baltimore public school system, Chef Ann Cooper, otherwise known as “the Renegade Lunch Lady,” in Berkeley, CA and Boulder, CO, and Jamie Oliver in Huntington, West Virginia are all examples of such a champion. All have been able to improve the nutrition, quality, and service in the districts they have worked. One does not need to be a celebrity to be a champion, however. They need only the will and the determination to organize, be outspoken, and take on school food reform. The BAA community can be that champion in Boston. BAA should look to the districts profiled in the vignettes to see what strategies they have

used and determine if BAA can lead similar efforts in Boston.

Additionally, lobbying the Boston Public School Committee, Massachusetts General Court and the Massachusetts Congressional Delegation for higher standards of nutrition, quality and freshness of school foods could serve as a unique learning experience for BAA students. Students' voices are important to the reform efforts that have occurred to develop innovative and healthy school meal programs. Parents also have extraordinary power in changing school policies. Both these resources should be tapped into when pursuing any of the efforts suggested here.

However, before BAA can become a champion of reform, and before any significant effort to improve its food service can be made, better communication must be established between the BAA administration, its student body and their parents, the cafeteria staff, and the management at FNS. The lack of communication between the BAA community and the FNS management and staff serves to stifle reform efforts, not enable them. As noted in the literature review, it is essential that the cafeteria staff feel they have a stake in improving food quality. This is only possible through open dialogue. School administrators, parents and students alike must talk about their goals for the meal program. They must communicate not only among themselves and also with various employees at the district level.

*Fostering open communication between the BAA administration, its student body and their parents, the cafeteria staff, and the FNS management team is essential.*

While the issue has clearly begun as an "us versus them" situation, both sides need to realize the limitations the other is working with and try to communicate these difficulties to one another. Some in the FNS management have expressed a desire to establish a more consistent and recognized forum for BPS students to communicate with leadership about concerns over school food. BAA should pursue this desire to establish better channels of

communication between students and FNS management. The vignettes presented in this report demonstrate that the best meal services programs are developed through open dialogue and collaboration.

However, FNS's decision to send out a request for proposal (RFP) and establish a co-managed food service may severely constrain any efforts by BAA to generate district wide reform. Although the private sector management company is being brought in to reduce the debt and improve the quality and nutrition of the food served to students, it remains to be seen whether a corporation attempting to earn a profit while cutting a \$3.5 million deficit will place improving quality and nutrition at the top of its agenda. Those in the BPS and FNS leadership who are orchestrating the co-management process, including Michael Goar and Shamil Mohammed, have stressed that the RFP will contain very specific language concerning the improvement of nutrition, quality, and service delivery of school food, and that the co-management company must meet these conditions (M. Goar, personal communication, March 30, 2010 & S. Mohammed, personal communication, 4/29/10). If no company is able to meet these conditions, then the RFP process will be dropped and FNS will return to status quo.

In addition, members of the public, such as Project Bread Director Ellen Parker, have raised concern that the private co-management company will be far less accountable for its actions than a governmental department (E. Parker, City Council Video Archives, 4/15/10). Likely bids will come from multinational corporations, some of which are headquartered in Europe, and whom the public cannot hold accountable through the use of political pressure and votes. The concern is that in the name of reducing the debt and improving the food services, the ability to control and influence what is being fed to Boston's school children is being contracted out to a private company that is not grounded in the

local community. Shamil Mohammed countered this argument, stating that FNS is looking for a partnership, not a complete abdication of power, and that the outside company will bring in its expertise, but the operations will still be implemented by the FNS management and staff, none of whom will be let go (S. Mohammed, personal communication, 4/29/10).

It appears that the co-management decision is final, and now the only question is how it will come to fruition. Although the shift to co-management could ultimately be beneficial or detrimental towards improving school food in BPS, it does provide a unique opportunity for BAA to engage in conversations with decision makers at FNS. The RFP will be released in May 2010, with company selection shortly thereafter. BAA can bring more public attention to the process, lobby for greater transparency in the decision-making, and request that students, staff, and teachers from the individual Boston schools have the ability to participate in the selection of a company committed to serving fresh and healthy foods while at the same time reducing the department's debt. The BAA community can also generate support for an evaluation model to be included in the co-management process, which is being advocated for by Project Bread and would ensure some accountability of the private co-management company towards improving the quality and nutrition of food in BPS.

*BAA can improve its current food services by expanding upon its partnerships with the non-profit sector.*

## Reform Within BAA

Beyond acting as a champion for district wide reform and influencing the co-management process, BAA has the opportunity to pursue efforts to improve its own food services. Perhaps the most feasible route that BAA can take to improve its current food services is to expand upon its partnerships with the non-profit sector. Project Bread and the Food Project have made significant contributions to improving the quality and nutrition of school food in

*BAA ought to pursue its options for establishing a salad bar in the cafeteria.*

BAA and other BPS schools. Although these organizations do not have the capacity to fully revolutionize BAA's meal program, the relationships they have built are important and have already served to improve BAA's food offerings. Advocating for an expansion of the Farm to School program to bring more fresh and local produce into BAA and have Chef Kirk cook more than once a week would increase the quality and nutritional value of the school meals. Additionally, the staff could continue to partner with Chef Kirk as a resource for culinary practices.

A majority of the students surveyed indicated that they would welcome the addition of a salad bar, and this has been done with great success through Farm to School programs in other school districts. BAA ought to pursue its options for expanding the Farm to School and Chef in School programs and for establishing a salad bar in the cafeteria. These initiatives, in turn, would likely increase participation rates.

As a pilot school, BAA has the ability to lengthen or shorten its school days. Many students responded that a lack of time was a major deterrent to eating breakfast and lunch. Further, they felt that the cafeteria lines were too long. If the breakfast and lunch periods were lengthened, BAA students might be able to make better use of the current meal program offerings and participation rates could possibly increase. Furthermore, many high school students forgo breakfast altogether due to time constraints, which is detrimental to their learning capacity for the day. Allowing more time for breakfast in the school day and encouraging students to take advantage of the school breakfast could also improve the academic environment at BAA. Alternatively, FNS has observed significant increases in breakfast participation rates through the implementation of a Grab'n'Go breakfast program, jointly developed with Project Bread in certain BPS high schools. BAA should examine its options in establishing a Grab'n'Go breakfast program for its students.

In order to increase participation rates and encourage students to take advantage of healthier, higher quality cafeteria meal options as they become available, BAA should phase in a closed campus policy. As long as the school has an open campus, a significant portion of the students will leave to purchase food at the abundant fast food and convenience store options nearby. If these students were required to remain at school during the lunch period, BAA would likely see an upswing in lunch participation, especially if improvements were made to the food service in conjunction with the phasing in of the closed campus policy. While it could be a difficult transition at first, after four years the incoming freshmen would accept the closed campus as status quo. Closing the campus would demonstrate BAA's commitment to working with FNS to improve the food within their cafeteria and district wide as it will increase participation rates and compel the students to take advantage of BAA's meal programs. This option should only be pursued, however, if significant steps are made towards increasing the nutritional value and quality of the food served in BAA's cafeteria.

In rare circumstances, FNS has allowed individual schools, such as Boston Day and Evening Academy, to outsource food services for their own individual cafeterias. It is very expensive; the schools that have taken this route are required to pay upwards of \$20,000 to subsidize their program and provide a subsidy to FNS. While not an ideal solution from an economic standpoint, it is an option that remains available to BAA. Furthermore, since BAA shares its facilities and cafeteria with Fenway High School, it would make sense that any reform efforts pursued by BAA would need to be supported by Fenway High School. Sharing the cost of an outside vendor might make that option more attainable if each school were willing to fundraise for and/or include a separate food service company in their budget.

## Conclusion

Significant reform is likely to occur within the BPS's food services in the near future, whether it is generated through the co-management process, new federal policies, funding, and/or guidelines for the National School Meals Programs, or through more grassroots efforts here in Boston. It is up to the BAA community to determine the role it would like to play in improving its own cafeteria's meals and school food services district wide. Whatever the source of reform may be, the BAA community may empower itself by acting as an outspoken public advocate for healthier, fresher, and higher quality food.

When all the legislation, bureaucracy, and politics are stripped away, the basic function of school food services are to provide students with healthy and quality meals that provide them with the energy and nutrition needed to be successful young learners. In its current state, the food service in the BPS system, and therefore in BAA, is not entirely meeting this basic function. One would be hard pressed to find someone willing to publicly oppose an effort to provide Boston's public school students with higher quality and more nutritious food. Long term reform requires an actor with the will to take on the challenge. In looking at the successes of other large urban school districts, there is no significant reason why Boston should not be able to pursue similar efforts. BAA has the potential to be a powerful agent for change in the pursuit of good food.

Good luck!



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Page 46: Better School Foods Blog (<http://www.betterschoolfood.org/media/newsletters/081209.html>) and Baltimore Sun Web-Blogs (<http://www.betterschoolfood.org/media/newsletters/081209.html>)

Page 48: Healthy Schools Campaign ([http://healthyschoolscampaign.typepad.com/healthy\\_schools\\_campaign/chicago\\_public\\_schools/](http://healthyschoolscampaign.typepad.com/healthy_schools_campaign/chicago_public_schools/)) and Stephen Pantalone

Page 50: Ruby Washington/The New York Times (<http://dinersjournal.blogs.nytimes.com/2009/01/14/school-food-chief-is-out/>) and Land O' Lakes (- <http://www.landolakes.com/blog/wp-content/uploads/2009/07/chopping-vegetables-450x423.jpg>)

Page 52: Straight No Chaser Jazz ([http://straightnochaserjazz.libsyn.com/index.php?post\\_category=podcasts](http://straightnochaserjazz.libsyn.com/index.php?post_category=podcasts)) and Boston Arts Academy Online Photos - Farmers Market ([http://bostonartsacademy.smugmug.com/Schoolwide-Events/farmers-market/11417013\\_PrSUZ#802510701\\_uJvDgPag](http://bostonartsacademy.smugmug.com/Schoolwide-Events/farmers-market/11417013_PrSUZ#802510701_uJvDgPag))w

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**USDA FOODS AVAILABLE FOR SCHOOL YEAR 2010 - SCHOOLS and INSTITUTIONS**

List subject to change. Please reference applicable ECOS surveys or contact your State Distributing Agency for the most recent product availability and information

**USDA GROUP (A) PRODUCTS --- Section 6 and 32 Type Donated Commodities (Meat/Fish/Poultry/Fruits/Vegetables)**

**USDA GROUP (B) PRODUCTS --- Section 416 Type Donated Commodities (Grains/Cereals/Cheese/Milk/Oils/Peanut Products)**

**Can ONLY be diverted for processing.**

COMMODITY	PACK SIZE	COMMODITY	PACK SIZE
<b>USDA GROUP (A) PRODUCTS --- Section 6 and 32 Type Donated Commodities (Meat/Fish/Poultry/Fruits/Vegetables)</b>			
<b>BEEF PRODUCTS</b>			
Beef, Ground, Frozen (A608)	40 lb. cartons		
Beef, Patties, Frozen, 100% (A626)	40 lb. cartons		
Beef, Patties, Frozen, VPP (A616)	40 lb. cartons		
Beef, Patties, Lean (A627)	40 lb. cartons		
Beef Patty, Cooked (A706)	40 lb. cartons		
Beef, Crumble (A717)	4/10 lb carton		
Beef, Irradiated (A578)	40 lb. cartons		
Beef Irradiated (A579)	40 lb. cartons		
Beef, Patties 95% LFT (A580)	40 lb. cartons		
Beef, Canned 24 Ounce (A721)	24/24 oz can		
<b>FISH PRODUCTS</b>			
Tuna, Canned, Chunk, Light, Water (A742)	6/66.5 oz cans		
Tuna, pouch 4.3 (A745)	8/43 oz pouches		
Catfish, Fillet Strips (A752)	4/10 lb pkgs		
<b>POULTRY/EGG PRODUCTS</b>			
Chicken, Breaded, Frozen, 7 Piece (A526)	30 lb cartons		
Chicken, Canned, Boned (A507)	12/50 oz cans		
Chicken, Cut-up, Frozen (A515)	40 lb cartons		
Chicken, Diced, Frozen (A517)	40 lb cartons		
Chicken, Fajita Strips (A563)	30 lb cartons		
Egg Mix (A575)	4/10 lb bags		
Eggs, Frozen, Whole 5# (A568)	6/5 lb cartons		
Eggs, Frozen, Whole 30# (A569)	30 lb cartons		
Turkey Hams, Frozen (A548)	40 lb cartons		
Turkey Roast, Frozen (A537)	32-48 lb cartons		
Turkey, Deli Breast, Frozen (A549)	40 lb container		
Turkey, Deli Breast, Smoked (A550)	40 lb container		
Turkey, Taco Filling (A565)	30 lb cartons		
Turkey, Whole, Frozen (A529)	30-60 lb cartons		
<b>BULK MEAT/POULTRY PRODUCTS FOR PROCESSING</b>			
Beef, Bulk, Coarse (A594)	60 lb cartons		
Beef, Boneless Fresh (A704)	Combos		
Chicken, Drumsticks, Chilled (A573)	Bulk Pack		
Chicken, Thighs, Chilled (A531)	Bulk Pack		
Chicken, Small & Large Bulk, Chilled (A521, A522)	Bulk Pack		
Chicken, Chilled, Legs (A518)	Bulk Pack		
Chicken, Light, Bulk (A510)	Bulk Pack		
Eggs, Liquid, Whole, Bulk (A566)	Bulk Tankers		
Pork, Boneless Picnic, Frozen (A632)	60 lb cartons		
Turkey, Bulk, Chilled (A534)	Bulk		
Turkey, Bulk, Ground (A535)	Bulk Pack		
Turkey, Thighs Bulk (A582)	Bulk Pack		
<b>FRUITS (canned, dry, frozen)</b>			
Apple Slices, Canned (A345)	6/#10 cans		
Apple Slices, Frozen (A346)	30 lb carton		
Applesauce, Canned (A350)	6/#10 cans		
Apricots, Canned (A360, A382)	20 lb box		
Apricots, frozen (A358)	20 lb carton		
Apricots, Cups., Frozen (A449)	96/4.5 oz cups		
Cherries, Dry #2 (A292)	8/2# ctn		
Cherries, Dry #4 (A293)	4/4# ctn		
Cherries Red 10 (A363)	6/#10 cans		
Fruit Mix, Canned (A470)	70/4 oz ctn		
Orange Juice, Singles (A299)	6/#10 cans		
Pineapple, Canned, Tidbits (A443)	1.33 oz box		
Raisins, 144 (A504)	30 lb ctn		
Raisins, 30 (A500)	24/ 15 oz pkg		
Raisins 24 (A501)	6/5.75 ctn		
Raspberries, Puree (A373)	400 lb drum (processing)		
Raspberries, Frozen, Drum (A390)	28 lb pails		
Raspberries, Frozen, Pail (A391)	6/#10 cans		
Peaches, Canned, Clingstone, Sic (A408)	6/#10 cans		
Peaches, Canned, Clingstone, Dice (A409)	96/4 oz cups		
Peaches, Cups, Freestone, Frozen (A416)	20 lb carton		
Peaches, Frozen, Freestone (A424)	6/#10 cans		
Pears, Canned, Sliced (A433)	6/#10 cans		
Pears, Canned, Diced (A434)			
Strawberries, Sliced (A380)	30 lb ctn		
Strawberries, Frozen (A375)	30 lb ctn		
Strawberries, Cups, Frozen (A417)	96/4.5 oz cups		

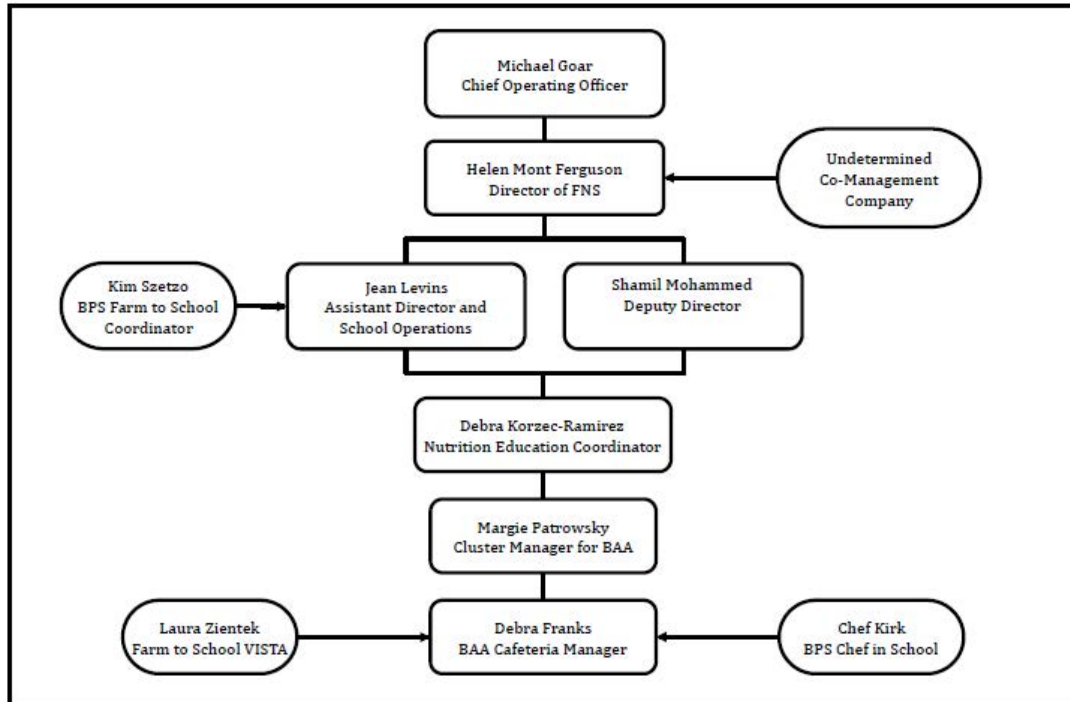
Updated January 2009

USDA FOODS AVAILABLE FOR SCHOOL YEAR 2010 - SCHOOLS and INSTITUTIONS

COMMODITY	PACK SIZE	COMMODITY	PACK SIZE
<b>USDA GROUP (B) PRODUCTS Cont'd</b>			
<b>NATURAL AMERICAN CHEESE</b>			
Cheese, Nat Amer, Barrel 500 (B049)	500 lb FBD BBL (processing)	<b>GRAINS/FLOUR PRODUCTS Cont'd</b>	
<b>CHEESE BLEND PRODUCTS</b>		Corn, Yellow (whole dry kernel) (B136)	2700 lb tote
Cheese 30 LVS (B064)	6/5# loaves	Flour, Bakers Hard Wheat 100, BL. (B280)	100 lb bags
Cheese Blend, Amer/Skim Milk Reduced Fat Y (B119)	6/5# Sliced Yellow	Flour, Bakers Hard Wheat 50, BL. (B275)	50 lb bags
Cheese Blend, Amer/Skim Milk Reduced Fat W (B133)	6/5# Sliced White	Flour, Bakers Hard Wheat 50, Unbl. (B276)	50 lb bags
Cheese, Pasturized Amer, Sliced Wh (B066)	6/5# Sliced White	Flour, Bakers Hard Wheat Bulk, BL. (B285)	Bulk
<b>MOZZARELLA PRODUCTS</b>		Flour, Bakers Hard Wheat Bulk, Unbl. (B286)	Bulk
Mozzarella, Light, Shred. Frozen (B035)	30 lb box	Flour, Bakers Hard Wheat Hearth 100, BL. (B300)	100 lb bags
Mozzarella, Low Moist. Part Skm, Shred., Frozen (B03)	30 lb box	Flour, Bakers Hard Wheat Hearth Bulk, BL. (B301)	Bulk
Mozzarella, Low Moisture Part Skim Lvs, Frozen (B04)	8/6 lb loaves	Flour, Whole Wheat 40 (B351)	4/10 lb bags
Mozzarella, Low Moisture Part Skim, Unfrozen (B077)	Processor Pack (processing)	Flour, Whole Wheat 50 (B360)	50 lb Bags
<b>PEANUT PRODUCTS</b>		Flour, Bakers Hard Wheat (B321)	Bulk
Peanut Butter, Smooth, Drum (B480)	500 lb drum (processing)	Flour, Bakers Hard Wheat 50, Hearth Bulk, Unbl. (B303)	Bulk
Peanut Butter, Smooth 5 (B473)	6/5 lb (cans or jars)	Flour, Bakers Soft Wheat, BL (B323)	50 lb bags
Peanuts, Roasted Runner (B498)	6/10 can	Flour, Bakery Mix, Low Fat (B368)	6/5 lb bags
Peanuts, Roasted, Canned (B500)	6/10 can	Flour, Bread 40, Bleached (B233)	4/10 bags
<b>RICE PRODUCTS</b>		Flour, Bread 40, Unbleached (B238)	4/10 bags
Rice, Brown 25 (B545)	25 lb bags	Flour, Masa 50 Yellow (B345)	50 lb bags
Rice, Medium 50 (B521)	50 lb bags	Grits, Corn, White 40 (B382)	8/5 lb bags
Rice, Medium 25 #1 (B522)	25 lb bags	Grits, Fine, Yellow (B384)	8/5 lb bags
Rice, Medium 25 #2 (B513)	25 lb bags	<b>OIL/SHORTENING PRODUCTS</b>	
Rice, Milled, Long-Grain 25 (B505)	25 lb bags	Oil, Soybean, Low Saturated Fat (B664)	6/1 gal
Rice, Milled, Long-Grain 50 (B506)	50 lb bags	Oil, Vegetable 48 (B665)	9/48 oz
Rice, Parboiled 25 (B507)	25 lb bags	Oil, Vegetable 48 (B666)	8/48 oz
Rice, Parboiled 50 (B508)	50 lb bags	Oil, Vegetable, Bottle (B670)	6/1 gal bottle
Rice, Brown, Long-Grain, Parboiled 24/2 (B537)	24/2 lb bags	Oil, Vegetable, Bulk (B672)	Bulk (processing)
Rice, Brown, Long-Grain, Parboiled 30/2 (B538)	30/2 lb bags	<b>MISCELLANEOUS PRODUCTS</b>	
<b>PASTA PRODUCTS</b>		Sunflower Butter (B477)	6/5 lb
Macaroni 20, Elbow (B430)	20 lb cartons		
Rotini, Spiral (B435)	20 lb cartons		
Spaghetti 20 (B840)	20 lb cartons		
Whole Grain Rotini 20 (B428)	20 lb cartons		
Whole Grain Spaghetti 20 (B836)	20 lb cartons		

## Appendix B: FNS Organizational Chart

Boston Public Schools Food and Nutrition Services – Boston Arts Academy Organizational Hierarchy



## Appendix C: FNS Sample Menu

SchoolMenu.com



### BOSTON BOSTON ARTS ACADEMY

print page



your lunch menu for the week of: May 03 to May 07

monday May 03, 2010	tuesday May 04, 2010	wednesday May 05, 2010	thursday May 06, 2010	friday May 07, 2010
<b>BREAKFAST +</b>	<b>BREAKFAST +</b>	<b>BREAKFAST +</b>	<b>BREAKFAST +</b>	<b>BREAKFAST +</b>
<ul style="list-style-type: none"> <li>Bran Muffin</li> <li>OR</li> <li>Cinnamon Toast Crunch w/Bread</li> <li>OR</li> <li>Strawberry/Banana French Toast Sticks</li> <li>Fruit</li> <li>Milk Variety</li> </ul>	<ul style="list-style-type: none"> <li>Colby Cheese Omelet</li> <li>OR</li> <li>Bagel w/Peanut Butter or Cream Cheese</li> <li>OR</li> <li>Honey Nut Cheerios w/Bread</li> <li>Fruit</li> <li>Milk Variety</li> </ul>	<ul style="list-style-type: none"> <li>Manager's Special</li> <li>OR</li> <li>Blueberry Muffin (c)</li> <li>OR</li> <li>Rice Krispies w/Bread</li> <li>Fruit</li> <li>Milk Variety</li> </ul>	<ul style="list-style-type: none"> <li>Apple Spice Muffin</li> <li>OR</li> <li>Cinnamon Crisp Cereal w/Bread</li> <li>OR</li> <li>Scrambled Eggs in Tortilla Wrap w/Salsa</li> <li>Fruit</li> <li>Milk Variety</li> </ul>	<ul style="list-style-type: none"> <li>Whole Grain French Toast Sticks</li> <li>OR</li> <li>Banana Nut Muffin</li> <li>OR</li> <li>Multi-Grain Cheerios w/Bread</li> <li>Fruit</li> <li>Milk Variety</li> </ul>
<b>LUNCH +</b>	<b>LUNCH +</b>	<b>LUNCH +</b>	<b>LUNCH +</b>	<b>LUNCH +</b>
<ul style="list-style-type: none"> <li>FRESH ENTRÉE:</li> <li>Lasagna w/Veggie Beef Sauce or Garlic Be</li> <li>SUPER SACK:</li> <li>Peanut Butter &amp; Jelly Sandwich on Whole</li> <li>PIZZA OF THE DAY:</li> <li>Cheese Pizza w/Onions</li> <li>Cheese Pizza (h)</li> <li>SUB OF THE DAY:</li> <li>"Fully Loaded" Breaded Chicken Patty w/C</li> <li>ENTRÉE SALAD:</li> <li>Tuna Salad w/School Food Green Salad</li> <li>FRUIT OF THE DAY:</li> <li>Apricot Halves (h)</li> <li>POTATO/SALAD OF THE DAY:</li> <li>Baked Potato Fries</li> <li>OR</li> <li>School Food Green Salad w/Pizza &amp; Sub</li> <li>Milk Variety (h)</li> </ul>	<ul style="list-style-type: none"> <li>FRESH ENTRÉE:</li> <li>Turkey Chili w/Pinto Beans (h)</li> <li>Salsa (h)</li> <li>Shredded Cheddar Cheese (h)</li> <li>Brown Rice (h)</li> <li>Corn Tortilla</li> <li>SUPER SACK:</li> <li>Tuna Salad on Whole Wheat Bread w/Lettuc</li> <li>PIZZA OF THE DAY:</li> <li>Cheese Pizza w/Turkey Sausage</li> <li>Cheese Pizza (h)</li> <li>SUB OF THE DAY:</li> <li>Beef Meatball &amp; Shredded Mozzarella Chee</li> <li>ENTRÉE SALAD:</li> <li>Chef Salad w/School Food Green Salad</li> <li>FRUIT OF THE DAY:</li> <li>Sliced Apples</li> <li>POTATO/SALAD OF THE DAY:</li> <li>Baked Potato Puffs</li> <li>OR</li> <li>School Food Green Salad w/Pizza &amp; Sub</li> <li>Milk Variety (h)</li> </ul>	<ul style="list-style-type: none"> <li>FRESH ENTRÉE:</li> <li>Manager's Ethnic Special w/Meat, Grain &amp;</li> <li>SUPER SACK:</li> <li>Turkey Ham &amp; Cheese on Whole Wheat Bread</li> <li>PIZZA OF THE DAY:</li> <li>Cheese Pizza w/Turkey Ham &amp; Green Pepper</li> <li>Cheese Pizza (h)</li> <li>SUB OF THE DAY:</li> <li>Cheeseburger Sub w/Lettuce, Tomato, Onio</li> <li>ENTRÉE SALAD:</li> <li>Turkey Salad w/School Food Green Salad</li> <li>FRUIT OF THE DAY:</li> <li>Fresh Pear (h)</li> <li>POTATO/SALAD OF THE DAY:</li> <li>Seasoned Potato Wedges</li> <li>OR</li> <li>School Food Green Salad w/Pizza &amp; Sub</li> <li>Milk Variety (h)</li> </ul>	<ul style="list-style-type: none"> <li>FRESH ENTRÉE:</li> <li>Cubano Pork Burrito w/Cheese, Rice &amp; Bea</li> <li>SUPER SACK:</li> <li>Sliced Turkey &amp; Cheese on Whole Wheat Br</li> <li>PIZZA OF THE DAY:</li> <li>Cheese Pizza w/Beef Crumbles</li> <li>Cheese Pizza (h)</li> <li>SUB OF THE DAY:</li> <li>Chunk Turkey w/BBQ Sauce w/Roasted Onion</li> <li>ENTRÉE SALAD:</li> <li>Tuna Salad w/School Food Green Salad</li> <li>FRUIT OF THE DAY:</li> <li>Fresh Banana (h)</li> <li>POTATO/SALAD OF THE DAY:</li> <li>Sweet Potato Fries (h)</li> <li>OR</li> <li>School Food Green Salad w/Pizza &amp; Sub</li> <li>Milk Variety (h)</li> </ul>	<ul style="list-style-type: none"> <li>FRESH ENTRÉE:</li> <li>Stuffed Shells w/Marinara Sauce &amp; Garlic</li> <li>Green Peas (h)</li> <li>SUPER SACK:</li> <li>Turkey &amp; Turkey Ham &amp; Cheese Club w/Lett</li> <li>PIZZA OF THE DAY:</li> <li>Cheese Pizza w/Buffalo Chicken</li> <li>Cheese Pizza (h)</li> <li>SUB OF THE DAY:</li> <li>Fully Loaded New York Style Hot Dog w/Be</li> <li>ENTRÉE SALAD:</li> <li>Chef Salad w/School Food Green Salad</li> <li>FRUIT OF THE DAY:</li> <li>Peaches (h)</li> <li>POTATO/SALAD OF THE DAY:</li> <li>Baked Potato Fries</li> <li>OR</li> <li>School Food Green Salad w/Pizza &amp; Sub</li> <li>Milk Variety (h)</li> </ul>

[http://www.schoolmenu.com/print\\_menu.php?sid=75974&d=May+03%2C+2010](http://www.schoolmenu.com/print_menu.php?sid=75974&d=May+03%2C+2010) (1 of 2) [5/6/2010 12:22:09 PM]



## Appendix D: FNS Participation Rates

SY08-09 Participation																					
FS Type	Grades(Short Name	Student Population					Average Daily Lunch					Lunch Participation					Breakfast				
		FRPL%	ADA	ADA Free	ADA Red	ADA Paid	Total	Free	Red	Paid	Total	Free	Red	Paid	Total	Free	Red	Paid	Par %		
	Bradley	77%	270	169	38	63	200	160	21	19	74%	95%	55%	30%	67	67	0	0	25%		
	Channing	82%	302	205	43	54	216	176	21	19	72%	86%	49%	34%	128	94	16	18	42%		
	Chittick	82%	271	195	27	49	190	161	14	15	70%	83%	53%	30%	86	68	8	9	32%		
	Clap	79%	151	105	14	33	111	89	11	11	73%	85%	78%	34%	46	46	0	0	30%		
	Condon	87%	653	496	71	86	568	521	29	19	87%	105%	41%	22%	467	467	0	0	72%		
	Conley	75%	188	122	19	47	135	116	11	8	72%	95%	57%	17%	85	85	0	0	45%		
	Dever	93%	466	397	35	34	438	394	28	16	94%	99%	81%	45%	227	227	0	0	49%		
	Dickerman	90%	203	174	8	21	184	165	7	12	91%	95%	89%	55%	101	101	0	0	50%		
	East Boston EEC	89%	166	125	22	19	152	117	20	16	92%	93%	90%	82%	121	92	14	14	73%		
	East Zone ELC	88%	117	66	14	37	113	66	13	34	97%	101%	95%	91%	104	99	1	4	89%		
	Elihu Greenwood	80%	321	227	30	64	305	228	28	49	95%	101%	93%	79%	194	194	0	0	60%		
	Eliot	57%	253	125	19	109	165	126	16	23	65%	101%	84%	21%	172	172	0	0	68%		
	Ellis	96%	287	262	13	12	276	267	8	1	96%	100%	59%	8%	224	224	0	0	78%		
	Ellison Parks EEC	83%	175	127	19	29	161	126	14	20	92%	100%	75%	70%	136	136	0	0	78%		
	Emerson	92%	232	193	20	19	205	175	15	14	88%	91%	77%	75%	88	79	4	5	38%		
	Everett	73%	276	168	35	73	235	156	27	52	85%	93%	77%	71%	171	171	0	0	62%		
	Farragut	85%	202	152	21	29	170	145	15	10	84%	96%	74%	34%	105	105	0	0	52%		
	Field	89%	309	245	29	35	285	247	21	17	92%	101%	70%	47%	284	235	24	26	92%		
	Gardner Pilot Academy	83%	305	231	22	52	265	222	20	23	87%	96%	91%	45%	111	79	10	21	36%		
	Grew	84%	225	166	24	35	202	169	20	13	90%	102%	85%	35%	108	77	13	18	48%		
	Guild	88%	263	187	45	32	241	176	39	26	91%	94%	87%	81%	109	81	16	12	42%		
	Hale	83%	166	121	17	28	134	117	10	7	81%	96%	58%	26%	91	72	6	13	55%		
	Haley	83%	274	166	7	102	168	140	5	22	61%	85%	80%	22%	86	84	0	1	31%		
	Hamilton	89%	153	119	17	17	127	109	12	7	83%	91%	71%	38%	78	66	5	6	51%		
	Haynes, Rev. Michael E.EEC	83%	189	137	21	31	173	132	19	22	92%	96%	93%	68%	155	155	0	0	82%		
	Higginson	88%	154	120	15	19	145	116	13	16	94%	97%	86%	84%	142	142	0	0	93%		
	Holmes	84%	188	141	17	30	158	139	11	8	84%	98%	71%	28%	82	82	0	0	43%		
	Hurley	76%	299	198	28	73	218	204	10	4	73%	103%	36%	6%	179	179	0	0	60%		
	Jackson-Mann	76%	767	497	89	180	595	434	61	101	78%	87%	68%	56%	381	275	37	69	50%		
	John F. Kennedy	88%	347	284	20	42	339	284	16	38	98%	100%	79%	90%	214	214	0	0	62%		
	Kenny	75%	243	165	18	60	197	140	14	43	81%	85%	79%	72%	71	71	0	0	29%		
	Kilmer	47%	240	81	29	131	187	70	21	95	80%	87%	73%	78%	36	33	1	3	16%		
	Lyon	45%	116	38	14	64	58	36	8	15	50%	93%	57%	23%	44	32	2	10	38%		
	Manning	39%	142	47	9	86	66	41	6	19	46%	87%	68%	22%	54	37	5	13	38%		
	Mason	71%	199	114	28	57	141	97	18	26	71%	85%	67%	45%	128	119	3	6	64%		
	Mather	84%	530	395	50	85	414	328	37	49	78%	83%	73%	57%	182	182	0	0	34%		
Mattahunt	87%	523	414	42	67	442	370	32	41	85%	89%	75%	60%	312	312	0	0	60%			
McKinley Elementary	55%	218	113	7	98	210	210	0	0	96%	191%	0%	0%	207	207	0	0	95%			
McKinley Elementary	87%	176	142	11	23	150	129	7	14	86%	91%	66%	61%	73	73	0	0	42%			
Mendell	44%	149	50	16	83	72	39	10	23	49%	79%	64%	27%	23	12	4	6	15%			
North Zone ELC	53%	162	68	18	76	108	56	16	36	66%	83%	83%	47%	60	32	9	20	37%			
O'Donnell	88%	242	187	27	28	218	172	21	25	90%	92%	79%	88%	204	159	21	24	84%			
O'Hearn	52%	226	97	19	109	114	79	16	19	50%	82%	83%	17%	68	61	3	4	30%			
Otis	94%	301	254	27	32	232	206	18	8	77%	81%	69%	33%	94	92	0	1	31%			
Patrick Kennedy	86%	242	176	32	34	204	160	26	18	84%	91%	80%	53%	150	115	18	16	62%			
Pauline Shaw	87%	248	194	21	33	219	175	19	25	88%	90%	89%	75%	100	77	9	15	40%			
Perkins	84%	194	156	7	31	192	192	0	0	99%	124%	0%	0%	181	181	0	0	93%			
Perry	67%	234	124	32	77	121	98	14	9	52%	79%	43%	12%	29	29	0	0	12%			
Philbrick	57%	142	73	9	61	75	60	4	11	53%	83%	52%	18%	59	59	0	0	41%			
Quincy	77%	783	516	88	178	580	487	47	47	74%	94%	54%	26%	234	234	0	0	30%			
Roosevelt	45%	423	151	35	237	172	115	20	37	42%	77%	58%	18%	66	51	6	8	17%			
Russell	86%	349	269	30	50	305	252	21	32	87%	94%	69%	65%	231	206	10	16	68%			
Sarah Greenwood	89%	377	306	28	43	373	305	28	40	90%	99%	98%	93%	378	313	26	39	100%			
Stone	87%	140	105	16	19	127	100	14	13	91%	96%	86%	67%	63	49	5	9	45%			
Sumner	79%	477	339	35	103	349	322	16	11	73%	95%	43%	11%	220	220	0	0	46%			



SY08-09 Participation

FS Type Cafeteria	Grades/ Elementary	Short Name	FRPL %	Student Population					Average Daily Lunch					Lunch Participation					Breakfast				
				ADA	ADA Free	ADA Red	ADA Paid	Total	Free	Red	Paid	Total	Free	Red	Paid	Total	Free	Red	Paid	Par %			
Cafeteria	Elementary	Agassiz	93%	494	429	32	33	404	368	22	14	82%	86%	69%	44%	260	260	0	0	53%			
		Curley K-8	74%	647	435	46	167	529	460	19	51	82%	106%	41%	30%	524	521	2	0	81%			
		Garfield	84%	217	166	16	35	182	152	12	17	84%	92%	80%	49%	175	164	3	8	81%			
		Harvard/Kent	93%	438	378	32	29	394	348	26	21	90%	92%	83%	69%	247	247	0	0	56%			
		Hennigan	83%	545	418	35	92	432	361	23	49	79%	87%	65%	53%	361	355	2	5	66%			
		Hernandez	77%	382	256	37	88	261	215	21	25	68%	84%	58%	29%	199	199	0	0	52%			
		Holland	88%	652	527	46	79	521	501	9	10	80%	95%	20%	13%	498	498	0	0	76%			
		Lee	79%	561	377	67	118	412	310	50	52	73%	82%	75%	44%	379	379	0	0	68%			
		Lyndon	41%	475	150	44	28	202	123	25	54	42%	82%	56%	19%	63	54	4	6	13%			
		Marshall	91%	598	504	38	56	478	438	21	20	80%	87%	55%	33%	408	408	0	0	68%			
		McKay	94%	669	552	74	43	572	495	54	24	85%	90%	73%	51%	158	135	17	6	24%			
		Murphy	58%	821	386	91	344	422	299	44	79	51%	77%	48%	23%	279	278	0	0	66%			
		Ohrenberger	69%	420	250	37	132	279	223	19	38	67%	89%	52%	29%	279	278	0	0	66%			
		Orchard Gardens	75%	622	438	31	153	583	583	0	0	94%	134%	0%	0%	397	397	0	0	64%			
		Trotter	86%	354	284	23	48	264	242	11	11	74%	85%	47%	23%	184	184	0	0	52%			
		Tynan	87%	297	235	22	39	244	210	17	17	82%	89%	74%	44%	187	187	0	0	63%			
		Elementary Total	80%	8,192	5,785	671	1,736	6,180	5,326	373	480	75%	92%	56%	28%	4,472	4,389	43	41	55%			
		High	Boston Arts Academy	62%	634	323	70	242	161	139	11	11	25%	43%	16%	4%	98	89	6	3	15%		
			Boston Latin	30%	2,326	493	214	1,619	712	379	119	214	31%	77%	55%	13%	165	133	18	14	7%		
			Brighton High	82%	993	724	89	180	505	463	30	12	51%	64%	34%	7%	408	408	0	0	41%		
			Burke High	79%	586	422	37	127	235	214	13	8	41%	51%	35%	7%	114	112	1	1	20%		
			Charlestown High	81%	825	594	68	162	462	443	17	2	56%	75%	25%	1%	528	528	0	0	65%		
			Dorchester Ed Complex	73%	744	477	63	205	285	263	16	7	38%	55%	26%	4%	164	126	11	27	22%		
			East Boston High	76%	1,132	763	95	274	598	504	48	46	53%	66%	50%	17%	286	254	9	23	25%		
			English High	78%	677	487	43	147	371	354	13	4	55%	72%	31%	2%	375	349	9	17	55%		
Hyde Park High	70%		848	530	63	255	508	468	22	19	60%	88%	34%	8%	392	392	0	0	46%				
Latin Academy	50%		1,579	608	179	793	569	418	75	76	36%	69%	42%	10%	174	147	20	8	11%				
Leadership Academy	74%		553	358	51	145	233	208	15	10	42%	58%	29%	7%	150	137	9	4	27%				
Madison Park High	57%		2,532	1,302	131	1,099	1,893	1,798	22	74	75%	139%	13%	7%	1,069	1,013	8	48	42%				
New Mission High	67%		379	218	34	127	141	120	7	14	37%	55%	19%	11%	94	86	3	5	25%				
South Boston High	72%		871	542	81	247	365	341	16	9	42%	63%	19%	4%	188	188	0	0	22%				
West Roxbury High	76%		1,102	699	134	269	450	403	37	10	41%	58%	28%	4%	473	473	0	1	43%				
High Total	68%		15,781	8,538	1,352	5,891	7,488	6,513	460	515	47%	76%	34%	9%	4,678	4,435	94	150	30%				
Middle	Dearborn Middle	88%	340	281	17	42	263	257	4	2	77%	91%	23%	5%	141	141	0	0	41%				
	Edison Middle	85%	334	252	30	52	225	195	19	11	68%	78%	63%	21%	175	175	0	0	53%				
	Edwards Middle	89%	345	274	34	37	263	220	21	13	73%	80%	60%	34%	290	290	0	0	84%				
	Frederick, Lilla G	86%	569	457	32	80	413	363	18	32	73%	79%	57%	40%	112	112	0	0	20%				
	Gavin Middle	85%	387	295	33	59	284	257	17	9	73%	87%	53%	15%	188	179	4	5	49%				
	Iring Middle	83%	592	434	59	99	361	315	31	15	61%	73%	53%	15%	167	167	0	0	28%				
	King Middle	83%	209	159	15	35	147	132	8	6	70%	83%	56%	16%	67	55	5	8	32%				
	Lewenberg Middle	84%	266	198	25	42	164	148	10	6	62%	75%	41%	13%	79	79	0	0	30%				
	Lewis Middle	91%	208	177	12	19	160	151	6	3	77%	85%	51%	16%	56	55	0	1	27%				
	McCormack Middle	89%	557	451	42	63	431	384	29	18	77%	85%	68%	28%	177	177	0	0	32%				
	Midred Avenue School	84%	502	374	47	81	386	335	27	24	77%	90%	58%	28%	298	298	0	0	59%				
	Rogers Middle	81%	463	311	66	87	369	294	48	28	80%	95%	73%	31%	183	183	0	0	40%				
	Trinity Middle	85%	614	471	52	91	382	347	24	11	62%	74%	46%	12%	137	135	0	1	22%				
	Umanal Barnes Middle	90%	530	432	46	52	462	390	40	32	87%	90%	87%	62%	176	176	0	0	33%				
	Wilson Middle	82%	331	247	22	62	237	183	4	50	72%	74%	20%	83%	151	150	0	0	45%				
	Middle Total	86%	6,247	4,814	532	901	4,537	3,972	306	259	73%	83%	58%	23%	2,397	2,373	10	15	38%				
Cafeteria Total	78%	30,219	19,136	2,555	8,528	18,206	15,812	1,139	1,255	60%	83%	45%	23%	11,548	11,196	146	206	38%					
Satellite	Elementary	Adams	89%	245	194	24	27	206	178	16	11	84%	92%	69%	42%	117	103	7	7	48%			
		Alighieri	86%	125	95	13	18	92	88	3	1	74%	93%	25%	8%	82	82	0	0	66%			
		Bates	75%	270	170	31	69	167	163	2	3	62%	96%	5%	4%	94	94	0	0	35%			
		Beethoven	64%	278	142	36	100	191	129	25	37	69%	91%	70%	36%	119	119	0	0	43%			
		Blackstone	92%	560	479	35	45	487	433	11	43	87%	90%	29%	96%	455	448	2	6	81%			



## SY08-09 Participation

FS Type	Grades/(Short Name)	FRPL%	Student Population				Average Daily Lunch				Lunch Participation				Breakfast			
			ADA	ADA Free	ADA Red	ADA Paid	Total	Free	Red	Paid	Total	Free	Red	Paid	Total	Free	Red	Paid
	Taylor	76%	478	330	34	114	404	306	28	69	85%	93%	84%	186	186	0	0	39%
	Tobin	87%	406	338	15	52	365	340	6	19	90%	101%	42%	135	135	0	0	33%
	Warren Prescott	56%	400	198	26	176	208	193	2	12	52%	98%	9%	66	66	0	1	17%
	Winship	80%	224	155	24	43	193	157	20	17	86%	102%	80%	110	110	0	0	49%
	Winthrop	88%	290	232	24	35	257	222	17	18	89%	96%	70%	172	172	0	0	59%
	Young Achievers	72%	332	196	42	93	229	185	27	17	69%	94%	66%	155	155	0	0	47%
	Elementary Total	77%	18,853	13,021	1,750	4,082	15,000	12,310	1,143	1,548	80%	95%	65%	9,499	8,789	288	422	50%
	High	74%	344	231	19	94	76	75	0	0	23%	33%	1%	22	22	0	0	7%
	Boston Evening Academy	72%	169	115	6	48	83	82	1	0	50%	73%	22%	28	28	0	0	17%
	Boston International High Sch	86%	34	30	0	4	26	26	0	0	82%	96%	0%	25	25	0	0	78%
	Compass	60%	204	96	26	81	68	68	0	0	33%	70%	0%	69	69	0	0	34%
	Health Careers Academy	86%	19	16	0	2	15	15	0	0	85%	101%	0%	15	15	0	0	86%
	Juvenile Resource Center	52%	82	41	2	39	78	77	0	0	96%	195%	6%	70	69	0	0	85%
	McKinley Prep	75%	345	219	35	91	164	147	12	6	49%	67%	34%	30	30	0	0	9%
	Quincy Upper Arlington	69%	341	208	29	105	93	89	2	1	27%	43%	8%	26	26	0	0	8%
	Snowden International	35%	69	24	0	46	25	25	0	0	36%	120%	0%	25	25	0	0	36%
	University High (ABCD)	85%	1,606	980	116	510	628	604	16	8	39%	89%	8%	309	308	0	1	19%
	High Total	85%	254	163	33	38	220	179	23	18	87%	98%	70%	105	105	0	0	41%
	Middle	75%	54	39	1	14	39	38	0	1	72%	98%	15%	39	38	0	1	71%
	Harbor Middle	95%	33	30	1	2	29	29	0	0	96%	103%	10%	27	27	0	0	90%
	McKinley Middle	67%	263	117	20	125	107	89	14	4	56%	81%	69%	28	28	0	0	15%
	Middle School Academy																	
	Quincy Upper School																	
	Middle Total	80%	604	369	55	179	396	336	37	24	66%	95%	41%	197	196	0	1	33%
	Satellite Total	76%	21,064	14,370	1,922	4,771	16,024	13,250	1,196	1,577	76%	92%	55%	10,006	9,294	289	423	48%
Grand Total		77%	51,283	33,507	4,476	13,300	34,230	29,062	2,335	2,832	67%	87%	52%	21,554	20,490	435	629	42%



## Appendix E: Student Survey

### Boston Arts Academy/Tufts University Food Survey

Good Morning!

Thank you for volunteering to participate in our survey. As you know, we are a group of graduate students at Tufts University studying food service within the Boston Public Schools. Our goal this morning is to learn about your eating habits as well as your satisfaction with the breakfast and lunch programs at the Boston Arts Academy. Thank you for taking the time to help us out!

Kaleigh, Becky, Alison, Stephen and Ben  
Baa2010@elist.tufts.edu

Demographic Information (Circle One)				
<b>Class Year</b>	Senior (2010)	Junior (2011)	Sophomore (2012)	Freshman (2013)
<b>Major</b>	Dance	Music	Theatre	Visual Arts
<b>Gender</b>	Female		Male	
<b>For Breakfast and Lunch do you...</b>	Pay Full Price?	Pay Reduced Price?	Receive Free Meals?	

General Eating Habits (Circle One)							
During an average week, how many days do you eat <b>breakfast</b> ? (anywhere: school, home, etc)							
0	1	2	3	4	5	6	7
During an average week, how many days do you eat <b>lunch</b> ? (anywhere: school, home, etc)							
0	1	2	3	4	5	6	7
During an average week, how many days do you eat <b>dinner</b> ? (anywhere: school, home, etc)							
0	1	2	3	4	5	6	7
In general, how many <b>snacks</b> do you eat each day?							
0-2		3-5		5-7		7 or more	

Nutrition (Circle One)				
How many times a day do you usually eat...				
Grain? (bread, cereal, rice, etc)	0-2	3-5	5-7	7 or more
Vegetables? (tomato, zucchini, carrots, etc)	0-2	3-5	5-7	7 or more
Fruit? (apple, grape, orange, etc)	0-2	3-5	5-7	7 or more
Dairy? (milk, cheese, yogurt, etc)	0-2	3-5	5-7	7 or more
Protein? (meat, beans, peanut butter, etc)	0-2	3-5	5-7	7 or more
Please list five foods you believe to be highly nutritious:				
1) _____				
2) _____				
3) _____				
4) _____				
5) _____				

Preferences and Opinions (Circle One)			
What qualities in food are most important to you?			
Price of Food	Taste	Nutrition	All are equally important
Is the nutritional quality of a food item generally a major factor in your food choices?			
Yes	No	Sometimes	

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Do you believe you have healthy eating habits?		
Yes	No	
Would you be willing to pay more for more nutritious foods?		
Yes	No	Maybe
Do you usually eat in the cafeteria?		
Yes	No	
Do your friends usually eat in the cafeteria?		
Yes	No	
Do you believe there is a negative perception of students who eat cafeteria meals?		
Yes	No	
If <b>YES</b> , please explain:		
_____		
_____		

<b>Breakfast</b> (Circle One or Provide Answer)					
During the school week, how many times do you usually eat breakfast?					
0	1	2	3	4	5
During the school week, how many times do you usually <b>eat the cafeteria meal</b> for breakfast?					
0	1	2	3	4	5
During the school week, how many times do you usually <b>eat food from home</b> for breakfast?					
0	1	2	3	4	5
During the school week, how many times do you usually <b>go to a store or fast food chain</b> and buy something for breakfast?					
0	1	2	3	4	5
When you <b>eat the cafeteria meal</b> for breakfast, what do you usually eat?					
_____					
What do you <b>like</b> about the cafeteria breakfast?					
_____					
What do you <b>not like</b> about the cafeteria breakfast?					
_____					
When you <b>eat food from home</b> for breakfast, what do you usually eat?					
_____					
When you <b>go to a store or fast food chain</b> for breakfast, where do you usually go?					
_____					
When you <b>go to a store or fast food chain</b> for breakfast, how much do you usually spend?					
\$0-5	\$5-10	\$10-15	\$15 or more		
When you <b>go to a store or fast food chain</b> for breakfast, what do you usually eat?					
_____					
_____					

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If you <b>do not eat breakfast regularly</b> , why not? (Mark all that apply; if necessary, add additional answers on the lines provided)	
<input type="checkbox"/> Not enough time <input type="checkbox"/> Lines too long <input type="checkbox"/> Maintain body shape/image <input type="checkbox"/> Don't like breakfast food <input type="checkbox"/> Friends don't eat in the cafeteria <input type="checkbox"/> _____ <input type="checkbox"/> _____	<input type="checkbox"/> Cafeteria too loud <input type="checkbox"/> Allergies/dietary restrictions <input type="checkbox"/> Lose weight <input type="checkbox"/> Costs too much <input type="checkbox"/> Don't feel comfortable in the cafeteria <input type="checkbox"/> _____ <input type="checkbox"/> _____
If you <b>do not eat the cafeteria breakfast</b> regularly, why not? (Mark all that apply; if necessary, add additional answers on the lines provided)	
<input type="checkbox"/> Not enough time <input type="checkbox"/> Food not tasty <input type="checkbox"/> Lines too long <input type="checkbox"/> Friends don't eat in the cafeteria <input type="checkbox"/> Maintain body shape/image <input type="checkbox"/> Don't like breakfast food <input type="checkbox"/> _____ <input type="checkbox"/> _____	<input type="checkbox"/> Cafeteria too loud <input type="checkbox"/> Food not nutritious enough <input type="checkbox"/> Allergies/dietary restrictions <input type="checkbox"/> I don't feel comfortable in the cafeteria <input type="checkbox"/> Lose weight <input type="checkbox"/> Costs too much <input type="checkbox"/> _____ <input type="checkbox"/> _____
After breakfast, when do you feel hungry again?	
8:00 – 9:30 (Academic Block 1/Dance/Visual Arts)	9:30 – 11:00 (Academic Block 2/Academic Block 1)
11:00 – 11:45 (Advisory/Tutorial)	

<b>Lunch</b> (Circle One or Provide Answer)					
During the school week, how many times do you usually eat lunch?					
0	1	2	3	4	5
During the school week, how many times do you usually <b>eat the cafeteria meal</b> for lunch?					
0	1	2	3	4	5
During the school week, how many times do you usually <b>eat food from home</b> for lunch?					
0	1	2	3	4	5
During the school week, how many times do you usually <b>go to a store or fast food chain</b> and buy something for lunch?					
0	1	2	3	4	5
When you <b>eat the cafeteria meal</b> for lunch, what do you usually eat?					
_____					
_____					
When you <b>eat the cafeteria meal</b> for lunch, do you generally eat the entire meal?					
Yes			No		
If <b>no</b> , what foods do you generally leave and why?					
_____					
What do you <b>like</b> about the cafeteria lunch?					
_____					
What do you <b>not like</b> about the cafeteria lunch?					
_____					
When you <b>eat food from home</b> for lunch, what do you usually eat?					
_____					
_____					

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When you <b>go to a store or fast food chain</b> for lunch, where do you usually go?	
_____	
When you <b>go to a store or fast food chain</b> for lunch, how much do you usually spend?	
\$0-5	\$5-10      \$10-15      \$15 or more
When you <b>go to a store or fast food chain</b> for lunch, what do you usually eat?	
_____	
If you <b>do not eat lunch regularly</b> , why not? (Mark all that apply; if necessary, add additional answers on the lines provided)	
<input type="checkbox"/> Not enough time <input type="checkbox"/> Lines too long <input type="checkbox"/> Maintain body shape/image <input type="checkbox"/> Don't like lunch food <input type="checkbox"/> Friends don't eat in the cafeteria <input type="checkbox"/> _____ <input type="checkbox"/> _____	<input type="checkbox"/> Cafeteria too loud <input type="checkbox"/> Allergies/dietary restrictions <input type="checkbox"/> Lose weight <input type="checkbox"/> Costs too much <input type="checkbox"/> Don't feel comfortable in the cafeteria <input type="checkbox"/> _____ <input type="checkbox"/> _____
If you <b>do not eat the cafeteria lunch</b> regularly, why not? (Mark all that apply; if necessary, add additional answers on the lines provided)	
<input type="checkbox"/> Not enough time <input type="checkbox"/> Food not tasty <input type="checkbox"/> Lines too long <input type="checkbox"/> Friends don't eat in the cafeteria <input type="checkbox"/> Maintain body shape/image <input type="checkbox"/> Don't like lunch food <input type="checkbox"/> _____ <input type="checkbox"/> _____	<input type="checkbox"/> Cafeteria too loud <input type="checkbox"/> Food not nutritious enough <input type="checkbox"/> Allergies/dietary restrictions <input type="checkbox"/> I don't feel comfortable in the cafeteria <input type="checkbox"/> Lose weight <input type="checkbox"/> Costs too much <input type="checkbox"/> _____ <input type="checkbox"/> _____
After lunch, when do you feel hungry again?	
12:15 – 1:05 (Seminar)	1:05 – 2:35 (Arts Block 1/Academic Block 2)
	2:35 – 3:05 (End of Arts Block 1/Arts Block 2)

<b>Cafeteria</b> (Circle One or Provide Answer)	
Do you generally eat the cafeteria lunch on Mondays (when Chef Kirk cooks)?	
Yes	No
Do you generally eat the cafeteria lunch on Tuesdays?	
Yes	No
Do you generally eat the cafeteria lunch on Wednesdays?	
Yes	No
Do you generally eat the cafeteria lunch on Thursdays?	
Yes	No
Do you generally eat the cafeteria lunch on Fridays?	
Yes	No
Are you more likely to eat the cafeteria lunch on days that you cannot leave campus?	
Yes	No
Are you generally satisfied with the cafeteria meals?	
Yes	No
Have you tried the Harvest Vegetable of the Month that Chef Kirk prepares?	
Yes	No
If <b>yes</b> , have you found a new vegetable that you like? (Squash, Zucchini, Collard Greens, etc)	
Yes	No
Which one(s): _____	

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Are there types of food or certain food items that you would like the cafeteria to serve more often?	
Yes	No
If <b>yes</b> , please list them:	
_____	
_____	
If the cafeteria served more fresh and non-processed foods (fruits, vegetables, whole foods, freshly cooked meals, etc), would you be more likely to eat the cafeteria meals?	
Yes	No
If the cafeteria offered a fruit and salad bar, would you use it?	
Yes	No
What do you think of the cafeteria meals?	
_____	
_____	

Vending Machines (Circle One or Provide Answer)				
In general, how often do you use the vending machines in the cafeteria?				
More than once a day	Once a day	1-4 times a week	1-3 times a month	Never
What do you generally buy from the vending machines?				
Food/Snacks		Drinks		
Do you ever eat food from the vending machine for your meal?				
Yes		No		
During an average school week, how much money do you spend at the vending machines?				
\$0-1	\$1-2	\$2-3	\$3-4	More than \$4
What <b>foods</b> do you generally purchase from the vending machines?				
_____				
_____				
What <b>drinks</b> do you generally purchase from the vending machines?				
_____				
_____				

Comments (Optional)
What recommendations would you make to improve the food service and quality in the cafeteria?
_____
_____
_____
Do you have any additional comments, recommendations or opinions?
_____
_____
_____

Thank you very much for your time!!

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## Appendix F: Raw Survey Data

. tabulate question1 - Grade

Question 1	Freq.	Percent	Cum.
1	58	29.15	29.15
2	46	23.12	52.26
3	53	26.63	78.89
4	42	21.11	100.00
Total	199	100.00	

Year	Count	%
Freshman	58	29%
Sophomore	46	23%
Juinnor	53	27%
Senior	42	21%
unanswered	30	
Total	229	100%

. tabulate question2, major

Question 2	Freq.	Percent	Cum.
1	67	31.16	31.16
2	66	30.70	61.86
3	45	20.93	82.79
4	37	17.21	100.00
Total	215	100.00	

Year	Count	%
Dance	67	31
Music	66	31
Theatre	45	21
Visual Arts	37	17
unanswered	14	
Total	229	100

. tabulate question2, sex

Question 3	Freq.	Percent	Cum.

1	125	62.19	62.19
2	76	37.81	100.00
<hr/>			
Total	201	100.00	

Year	Count	%
Female	125	62
Male	76	38
Unanswered	28	
Total	229	100

. tabulate question4, free or reduced

Question 4	Freq.	Percent	Cum.
1	85	40.48	40.48
2	32	15.24	55.71
3	93	44.29	100.00
<hr/>			
Total	210	100.00	

Year	Count	%
Full Price	85	41
Reduced Price	32	15
Free	93	44
unanswered	19	
Total	229	100

. tabulate option33a - not enough time/breakfast

Option 33a	Freq.	Percent	Cum.
1	129	79.63	79.63
2	33	20.37	100.00
<hr/>			
Total	162	100.00	

Year	Count	%
Yes	129	0.563318 77729257 6

Year	Count	%
No	100	0.436681 22270742 4
Total	229	1

. tabulate option34a - not enough time/lunch

Option 34a	Freq.	Percent	Cum.
1	105	67.74	67.74
2	50	32.26	100.00
Total	155	100.00	

Year	Count	%
Yes	105	0.458515 28384279 5
No	124	0.541484 71615720 5
Total	229	1

. tabulate question64 - salad bar

Question 64	Freq.	Percent	Cum.
1	154	78.97	78.97
2	41	21.03	100.00
Total	195	100.00	

Year	Count	%
Yes	154	0.672489 08296943 2
No	41	0.179039 30131004 4
Not answered	34	0.148471 61572052 4
Total	229	1



. tabulate question68 - do you eat food from the vendi

Question 68	Freq.	Percent	Cum.
1	103	52.82	52.82
2	92	47.18	100.00
Total	195	100.00	

Year	Count	%
Yes	103	0.449781659388646
No	92	0.40174672489083
Not answered	34	0.148471615720524
Total	229	1

. tabulate question58 - unsatisfied with lunch

Question 58	Freq.	Percent	Cum.
1	51	25.63	25.63
2	148	74.37	100.00
Total	199	100.00	

Year	Count	%
Yes	51	0.222707423580786
No	148	0.646288209606987
Not answered	30	0.131004366812227
Total	229	1

. tabulate question52 - do you each lunch on monday

Question 52	Freq.	Percent	Cum.
1	114	55.61	55.61
2	91	44.39	100.00
Total	205	100.00	

. tabulate question53 - do you eat lunch on Tuesday

Question 53	Freq.	Percent	Cum.
1	73	35.10	35.10
2	135	64.90	100.00
Total	208	100.00	

. tabulate question54 - do you each lunch on Wednesday

Question 54	Freq.	Percent	Cum.
1	75	36.41	36.41
2	131	63.59	100.00
Total	206	100.00	

. tabulate question55 - Thursday

Question 55	Freq.	Percent	Cum.
1	75	36.23	36.23
2	132	63.77	100.00
Total	207	100.00	

. tabulate question56 - Friday

Question 56	Freq.	Percent	Cum.
1	48	23.76	23.76
2	154	76.24	100.00
Total	202	100.00	

. tabulate question66

Question 66	Freq.	Percent	Cum.
1	31	15.66	15.66
2	28	14.14	29.80
3	72	36.36	66.16
4	37	18.69	84.85
5	30	15.15	100.00
Total	198	100.00	

Year	Count	%
Lines too long	31	0.135371 17903930 1
Maintain	28	0.122270 74235807 9
1-4 times/week	72	0.314410 48034934 5

Year	Count	%
1-3 times per month	37	0.161572 05240174 7
never	30	0.131004 36681222 7
no answered	31	0.135371 17903930 1
Total	229	1

Why dont you eat breakfast

How often use vending machine

Year	Count	%
more than 1 a day	32	0.139737 99126637 6
once a day	229	19.08333 33333333
1-4 times/week	18	0.078602 62008733 62
1-3 times per month	42	0.183406 11353711 8
never	10	0.043668 12227074 24
no answered	12	0.052401 74672489 08
Total	12	0.052401 74672489 08

Year	Count	
	6	0.026200 87336244 54
	15	0.065502 18340611 35
	34	0.148471 61572052 4
	14	0.061135 37117903 93

## Appendix G: Interviewees

Kirk Conrad, Chef, Project Bread Chef in Schools Program

Michael Gore, Chief Operating Officer, Boston Public Schools

Justine Kahn, Director of Child Nutrition Outreach, Project Bread

Helen Mont Ferguson, Director, Food and Nutrition Services

Shamil Mohammed, Deputy Director, Food and Nutrition Services

Will Morgan, VISTA, Food Database Manager

Linda Nathan, Headmaster, Boston Arts Academy

Deidre O'Halloran, Health and Wellness Coordinator and Director of Student Activities,  
Boston Arts Academy

Elaine Tabor, Director of Education Policy, Project Bread

Laura Zientek, VISTA, Farm to School Education