

Process Analysis of Changes in Universal-Free School Breakfast Programs in Guilford County, NC

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Abstract

In 2007-08, the Guilford County Schools (GCS) in North Carolina offered universal-free breakfasts in their School Breakfast Programs (SBPs) in 26 schools. In 2008-09, the GCS changed to eligibility-based SBPs at several schools, while adding a universal-free SBP at one school. This study qualitatively examined the SBP changes. We observed cafeteria operations, conducted focus groups, and collected program records at the four GCS elementary schools with and at six comparison schools without SBP changes. The schools operated comparable before-school cafeteria programs. Parents in focus groups reported high levels of food needs and valued breakfasts generally and the SBP in particular. Parents from a school that lost a universal-free SBP expressed more negative views, while parents from the school that gained a universal-free SBP spoke more positively. SBP participation fell at the schools that lost universal-free SBPs and grew at the school that gained a universal-free SBP.

NOTE: See related CCR 73-2, *Universal-Free and Eligibility-based School Breakfast Programs in Guilford County, NC: Student Outcomes*.

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Executive Summary:

The recent, deep economic recession and earlier increases in food prices have strained family budgets and school systems' nutritional budgets. Thus, even as need among low-income families has increased, school systems have had to consider ways to economize on their nutrition assistance programs. This study qualitatively examines changes in the School Breakfast Programs (SBPs) offered by the Guilford County Schools (GCS) in North Carolina. In the 2007-8 school year, the GCS offered free breakfasts (universal-free breakfasts) to all students regardless of financial eligibility in 26 schools with high proportions of economically-disadvantaged students (Title I schools). In the following year, budgetary pressures and a reinterpretation of state policy led the GCS to change to eligibility-based SBPs at several schools, while adding a universal-free SBP at one other school.

The objectives of this study are to:

- 1) document the characteristics of the GCS schools that experienced changes in their SBPs as well as a set of comparison schools that did not undergo changes,
- 2) examine the year-over-year changes in school meal participation at the schools, and
- 3) investigate the changes in net program costs at the schools.

This study examines data that were collected from observations of cafeteria operations, and focus group interviews, and program records at the four GCS elementary schools that experienced SBP changes and at six comparison schools that did not experience changes.

The non-change comparison schools were selected to be as similar as possible in their 2007-8 characteristics to the schools that experienced SBP changes. In particular, the comparison schools were all Title I elementary schools that had the same calendars, programs, and accreditation status as the change schools. The comparison schools were also selected from the same cities as the change schools. In addition, the comparison schools matched closely in terms of their 2007-8 enrollment levels, proportions of economically-disadvantaged students, and proportions of minority students. Analyses indicate that the change and non-change schools were generally comparable in terms of other characteristics that could be observed in 2007-8 and that most of these characteristics, including the percentages of the student body that were ethnic minorities and economically disadvantaged, remained stable into 2008-9.

Observations were made of one breakfast session and one lunch session in each school. Operations were observed from 10 minutes before the first meal was scheduled to be served until the last child was served. Observations were made about the physical cafeteria facilities, how the children arrived, how they were served, how they were monitored, and other procedures.

The study also conducted focus groups with parents at five of the schools, with the primary aim of identifying parental perceptions of the school meals program. The study also conducted structured interviews with several other individual parents. During these sessions, participants were asked about their general views of the importance and value of breakfast, their familiarity with and knowledge of the school's SBP, their perceived experiences with the

school's SBP and lunch program, their family's food situation, and how the school meal programs help and fit with family food situations.

The meal observations and focus groups revealed many additional ways in which the study schools were comparable. The meal observations indicated that the SBPs at all of the schools operated before classes started and generally involved cafeteria (as opposed to classroom) meals. Students at most of the schools had about the same amount of time to eat, were served similar menus, and followed similar procedures. Discussions in focus groups indicated that parents at all of the schools valued breakfasts, that many reported experiencing household food problems and needing coping strategies, and that many felt that school meals were a useful component in addressing household food needs. However, some differences also appeared. The parents at one of the schools that lost a universal-free program described the most negative experiences, including some of the strongest concerns regarding food quality and the time that their children had to eat. In contrast, the parents at a school that gained a universal-free program related some of the most positive experiences. The focus group results also provide evidence that there may have been delays in some parents discovering that the SBPs at their schools had changed.

The analysis of meal program administrative records indicates that SBP participation among non-kindergarten children decreased at the three schools that switched to eligibility-based programs and increased at the school that switched to a universal-free program. At two of the schools, the participation changes were quite large with one school seeing a 33 percent drop in participation and another school seeing a 14 percent rise in participation. The changes occurred against a backdrop of increasing participation at the comparison schools that continued offering universal-free SBPs. Within the schools with SBP changes, the movements in SBP participation were especially noticeable among paid-eligible students. Kindergarten breakfasts, which continued to be offered for free at all of the study schools, did not exhibit a consistent pattern of change. Similarly, school lunch participation did not exhibit a consistent pattern of change.

State and GCS policy each required that universal-free programs in each school be self-supporting. Concerns regarding the ability to continue to meet these cost conditions led the GCS to make the changes that it did. An analysis of net costs at the schools indicates that two of the schools that lost universal-free SBPs experienced deficits in the year prior to the change while the other elementary school that lost a universal-free program operated near a break-even level. After the change, all of the study schools operated with net surpluses.

Introduction

The School Breakfast Program (SBP) is intended to provide children with nutritious meals to facilitate their school performance and nutritional well-being. The program operates as a federal-local partnership with the federal government providing direct funding and in-kind support and the local school systems (School Food Authorities, or SFAs) operating and administering the programs and often contributing funding of their own. The program offers free and reduced-price breakfasts to participating children from low-income households; it also subsidizes breakfasts for other children. In FY 2009, the SBP served more than 11 million children at a federal cost of \$2.6 billion.¹

The general eligibility guidelines for free and reduced-price breakfasts are the same as the larger National School Lunch Program (NSLP). Children are categorically eligible for free school meals if they live in a household that receives benefits from the Supplemental Nutrition Assistance Program or the Temporary Assistance for Needy Families Program. They are also eligible for free meals if they live in households with incomes below 130 percent of the federal poverty guidelines. Children are eligible for reduced-price meals if they live in households with incomes between 130 and 185 percent of the guidelines. For the 2009-10 school year, the 130 and 185 percent thresholds for a family of four in the 48 contiguous states were \$28,665 and \$40,793, respectively.

Although the SBP and NSLP share the same eligibility criteria, participation in the breakfast program has been substantially lower than participation in the lunch program. The differences in participation arise first from lower participation by schools in the SBP but also from lower participation by students at schools that offer breakfasts. The U.S. Food and

¹U.S. FNS, "Program Information Report (Keydata)," October 2009 <
http://www.fns.usda.gov/fns/key_data/october-2009.pdf > .

Nutrition Service (FNS) reports that the SBP operates in 14 percent fewer schools than the NSLP.² With respect to student take-up, Fox et al. (2001) estimated that 60 percent of students at participating schools ate school lunches on any given day in 1998-9, while only 22 percent of students at participating schools ate school breakfasts. Of the students eligible for free meals, Fox et al. reported that 80 percent ate school lunches, while only 39 percent ate school breakfasts. In their review of the nutritional and health benefits of school breakfast programs, Connell & Fox (2004) cite increased stigma associated with school breakfasts, meal costs, scheduling and transportation coordination problems, and student preferences as reasons for lower participation among students, while Gordon et al. (2007) cite the availability of meals at home and the lack of time to eat at school as reasons. Clearly, the success of the SBP in meeting its nutritional and cognitive development objectives depends on reaching children in need.

Schools have tried to address these student take-up challenges in a variety of ways. One approach has been to offer “universal-free” school breakfasts, that is, to serve free breakfasts to all children at a school regardless of eligibility. Schools can offer free meals using state or local funding, and under special provisions of the National School Lunch Act, schools may be able to reduce their administrative costs by doing so (U.S. FNS 2001). A universal-free policy addresses the stigma for participation among students eligible for free meals and addresses cost reasons for other students. The adoption of universal-free SBPs has been shown to increase participation substantially (see, e.g., Bernstein et al. 2004, Murphy et al. 1998, Peterson et al. 2004).

Some schools, however, that have been offering universal-free breakfasts are finding it more difficult to do so. A recent study by Bartlett et al. (2008) indicates that the full cost of providing a breakfast at an average SFA in 2005-6 exceeded the most generous federal

²U.S. FNS, “Program Information Report (Keydata),” October 2009 <
http://www.fns.usda.gov/fns/key_data/october-2009.pdf > .

reimbursement rate by nearly a dollar. Shortly afterward, the cost pressures on schools increased, with the Bureau of Labor Statistics reporting that wholesale prices for finished food (foods that require no preparation and are ready for sale, i.e. packaged food items) and other agricultural goods increased 5.9 percent between the start of the 2006-7 school year and the start of the 2007-8 school year and a further 9.1 percent by the start of the 2008-9 school year. Prices for intermediate foods (foods that require some preparation before sale) increased at more than twice this rate.³ Entering the 2008-9 school year, school systems were also facing funding shortfalls brought on by the deteriorating economic situation. These budgetary pressures are forcing SFAs to reconsider their universal-free school breakfast policies at precisely the same time that many families are experiencing strains in their own food budgets.

This study qualitatively examines changes in the universal-free SBPs offered by the Guilford County Schools (GCS) in North Carolina. In the 2007-8 school year, the GCS offered universal-free breakfasts in 26 of its Title I schools. In the following year, budgetary pressures and a reinterpretation of state policy led the GCS to change to eligibility-based SBPs at three elementary schools and one middle school, while adding a universal-free SBP at one other elementary school. The changes to eligibility-based programs provide an opportunity to study a contraction in services.

Previous research on universal-free breakfasts has mainly examined expansions in these programs (see, e.g., Bernstein et al. 2004, Murphy et al. 1998, Peterson et al. 2004, and Ponza et al. 1999). The adjustment process in a contracting environment may be different. For example, in a contracting environment, “reduced-price-eligible” and “pay-eligible” students will learn about the change in policy as soon as they are asked to pay for a meal. In an expanding

³U.S. Bureau of Labor Statistics, “Producer Price Indexes Databases” < <http://www.bls.gov/ppi/#tables>>, series WPSSOP3100 and WPSSOP2800.

environment, however, students who are not initially participating may not immediately hear about the new program options.

Our investigation has several specific objectives. First, we document the characteristics of the schools that experienced changes in their SBPs as well as a set of comparison schools that did not undergo changes. Previous research indicates that participation and other outcomes associated with universal-free breakfast programs differ depending on the characteristics of the students, conditions at the school, and when and how the breakfasts are served. These issues are especially relevant because we are only considering a single school system that changed its policies for schools with high proportions of economically disadvantaged students. Understanding the characteristics of the schools and their operations helps us to determine whether their experiences can be generalized.

This descriptive analysis includes demographic, economic, and programmatic information that was available from public sources. However, it also includes primary data that we collected through direct observations of school cafeteria operations and through focus group interviews of parents and teachers. We use the school meal observations primarily to provide context for our analyses and as a further means of establishing the comparability of the schools. We use the focus group interviews to investigate parents' attitudes and needs regarding breakfast and on their program knowledge and perceived experiences.

Second, we examine the year-over-year changes in school meal participation at the schools. A primary analytic goal is to examine how students' consumption of school breakfasts—their participation in the SBP—responds to the change from universal-free provision to eligibility-based provision and pricing. We document the changes for all students and for students in different meal eligibility groups.

Third, we investigate the changes in net program costs at the schools. Cost concerns were the primary driver behind the GCS changes. The GCS uses regular program funds to provide universal-free breakfasts to students in the first and higher grades.⁴ Unlike most other SFAs, the average cost for the GCS of preparing a breakfast has been slightly less than the USDA reimbursement for a free-eligible student. Thus, subsidies from free-eligible students, in some sense, “cover” the costs of providing free meals to other students. The policy of the GCS has been to offer universal-free breakfasts at schools where it expects that the USDA subsidies will meet the program costs. We examine whether the schools were able to operate breakfast programs without losses.

Project Site Background

The GCS system in North Carolina is a moderately large school system, with approximately 71,000 students, 10,000 faculty and staff, and 119 schools. Guilford County has a population of just over 450,000 people and includes the cities of Greensboro and High Point with populations of 237,000 and 98,000 respectively. The GCS has schools throughout the county, including these two cities. The student population is ethnically diverse: 42 percent of the students are white, 41 percent are black, 8 percent are Hispanic, 5 percent are Asian, and the rest are comprised of other groups or have mixed origins. Just under half of the students in the GCS are eligible for free or reduced-price meals.

The GCS operates breakfast and lunch programs throughout the system. The regular prices in effect for the 2007-8 academic year (AY 2007-8) for breakfast were 90¢ for elementary students and \$1.00 for middle and high school students. The reduced price for breakfast was 30¢

⁴The state of North Carolina funds universal-free breakfasts for kindergarten students, and the GCS will continue to provide universal-free breakfasts to this group at its schools.

for all students. Those prices continued into the 2008-9 academic year. Breakfasts include choices of milk, juice, and cereal. In addition, there is a fruit serving and a breakfast entrée.

In AY 2007-8, the GCS operated universal-free breakfast programs in schools in which at least 70 percent of the students were expected to qualify for free or reduced-price meals. In that year, universal-free breakfast was offered in 23 of the school system's 67 elementary schools and in 3 of its 22 middle schools. Universal-free breakfasts were not offered in any of the district's high schools.

The state of North Carolina subsidizes universal-free breakfasts for kindergarten students at selected schools. The GCS receives a 50¢ subsidy from the state for each breakfast that it provides for reduced-price eligible kindergarteners and a one dollar subsidy for each breakfast that it provides for regular-price eligible kindergarteners. All of the GCS elementary schools with "general" universal-free breakfast programs participate in the universal-free kindergarten program. All of the schools with universal-free breakfast also qualify as "severe need" schools which means that they receive more generous subsidies from USDA. For AY 2007-8, the GCS received federal subsidies of \$1.61 for each free-eligible breakfast at the 26 universal-free schools, \$1.31 for each reduced-price breakfast, and 24¢ for each paid breakfast. The GCS calculated that it cost \$1.38 to prepare each meal. Thus, it had positive net revenues of 23¢ per breakfast for each free-eligible breakfast that it served (about 73 percent of the total breakfasts it served). The GCS also had positive net revenues of 47¢ for each breakfast it served to reduced-price eligible kindergarten students (1 percent of the total). Ignoring the foregone revenue from not charging for breakfast, the GCS lost 7¢ for each free breakfast it served to reduced-price eligible grade school children (8 percent of the total), 14¢ for each free breakfast it served to

regular-price kindergartners (3 percent of the total), and \$1.14 for each free breakfast it served to regular-price grade-schoolers (15 percent of the total).

North Carolina allows school districts to operate universal-free SBPs at individual schools if those schools can do so without a loss. During the spring of 2008, the GCS became concerned that these financial conditions might not be met because of higher predicted food prices and increasing participation among the reduced- and regular-price eligible students. The school system predicted that it would suffer net losses in several of its universal-free programs starting in AY 2008-9 and began considering whether and by how much it might reduce the number of universal-free programs.

During the summer of 2008, the GCS decided to alter its formula for selecting schools that would offer universal-free programs. In AY 2007-8, the GCS used calculations of revenues from free and reduced-price meals to calculate whether schools would break even in providing universal-free programs. Starting in AY 2008-9, the GCS only considered revenues from free meals. The GCS used a different projection of participation growth to forecast revenues. As a result of these formula changes, the GCS switched back to eligibility-based programs at three elementary schools and one middle school that had initially been offering universal-free programs. It also began offering a universal-free program at one school that had initially operated an eligibility-based program. The experiences of the elementary schools that changed their programs are the focus of this study.

Selection and recruitment of school sites

Selection/identification of schools. Our analysis uses a pre-post treatment control design. We examine the experiences of four Title I elementary schools in the GCS that underwent changes in their SBPs—the “treatment” schools—and compare those to the

experiences of other schools that did not change their SBPs—the “control” schools. For those comparisons, we wanted to examine schools that were as similar as possible in terms of their other characteristics prior to the change in SBPs.

An initial criterion for establishing comparability was the structure of the schools’ SBPs in AY 2007-8. Three schools switched from universal-free to eligibility-based programs; we label these schools T1, T2, and T3.⁵ As comparisons, we started with the 20 other GCS elementary schools that had universal-free SBPs in AY 2007-8 and continued to offer those programs in AY 2008-9. In addition to the schools that “lost” universal-free SBPs, there was one GCS elementary school, which we label T4, that “gained” a universal-free program. The natural comparison for this school is a school that started with and continued to offer an eligibility-based program. However, in light of our other analyses, we also draw comparisons with a school that maintained a universal-free program.

Another initial criterion was Title I funding status. All of the schools that experienced changes in their SBPs were Title I schools. Accordingly, we limited our comparisons to Title I schools.

Next, we considered school calendars and programs. Each of our treatment schools operated on a traditional 180-day calendar in AY 2007-8 and AY 2008-9, enrolled students on a “regular” rather than a magnet basis, and was accredited by the Southern Association of Colleges and Schools. We restricted our comparison schools in the same way. In particular, from the set of 20 elementary schools that maintained universal-free programs, we excluded two schools with

⁵Besides these three elementary schools, there was one GCS middle school (grades 6-8) that switched from a universal-free to eligibility-based SBP. Two other middle schools maintained universal-free programs. The middle school that switched SBPs was in a different city than the other two schools. It also had lower proportions of black and economically-disadvantaged students and a higher proportion of Hispanic students than the other two schools. Because of these differences, we did not believe that we could establish a suitable comparison.

year-round calendars, another school with a magnet program, and another school that was not accredited.

We also restricted our comparison schools to be in the same cities in which the treatment schools were located. All of the elementary schools that lost universal-free SBPs were located in Greensboro, while the school that gained a universal-free program was in High Point. These two cities differ in size, racial and ethnic composition, and economic circumstances. Also, although the GCS is a county-wide school district, it has only been so since 1993. Prior to consolidation, there were three separate school districts that covered Greensboro, High Point, and the balance of Guilford County.

Applying all of these criteria yielded 10 potential comparison schools for the three schools that lost universal-free SBPs and four potential eligibility-based comparison schools and four universal-free comparison schools for the school that gained a universal-free program. Within these narrower sets, we looked for comparison schools that were similar in size, racial and ethnic make-up, and economic disadvantage to our treatment schools in AY 2007-8.⁶ Size was important because we wanted to examine schools with similar scales of meal operations. Racial and ethnic composition were seen as useful background controls. Economic disadvantage is also an important background characteristic; however, it is also a policy control because it was a key determinant in the school system's selection of schools that would change their SBP status.

In the end we selected four comparison schools, which we label C1-C4, for the three schools that lost programs. Schools C1-C3 are the closest matches for schools T1-T3, respectively. School C4 was a second-best match for both T2 and T3 and was retained as an extra match. School C5 is the closest eligibility-based comparison for school T4, while school

⁶Student demographic data for AY 2008-9 were not available at the time the schools were selected.

C6 is the closest universal-free comparison. The schools T1-T4 and C1-C6 are the schools that we analyze in detail and the schools where we conducted cafeteria observations and focus groups.

Characteristics of the treatment and comparison schools are reported in Table 1. The numbers in Table 1 show that the schools are well-matched in many respects. All of the study schools had majority-minority student bodies in AY 2007-8. The three schools that lost universal-free programs had student bodies that were more than 50 percent black, and two of these schools also had moderately high proportions of Hispanic students. We were able to find comparison schools that matched these characteristics. The one elementary school that gained a universal-free SBP had a student body that was approximately one half black and one quarter Hispanic; these characteristics were somewhat harder to match in the comparison schools. All of the schools had very high proportions of economically disadvantaged students. Economic disadvantage was slightly higher at the universal-free comparison schools (C1-C4 and C6) than at the treatment schools. This difference reflects the GCS selection criteria for changing the schools' universal-free SBP status.

Most of these characteristics, including the percentages of the student body that were black, Hispanic, and economically disadvantaged, remained stable into AY 2008-9. There were, however, some differences in other characteristics. There were changes in enrollments, including a six percent drop in enrollment at school T1 and even larger percentage drops at schools C4 and C5. At the same time, school C3 saw a nine percent increase in enrollments. Also, several of the study schools (T1, T3, C3, and C5) operated pre-kindergarten programs in AY 2008-9 but not in AY 2007-8. Pre-kindergarten students are not included in the average daily membership (ADM) enrollment figures for the schools.

School recruitment. Once the study schools were identified, the research team asked the GCS Administrative Cabinet for permission to contact the schools; the team's request was approved in March 2009.

Recruitment began with an administrator from the GCS sending an introduction letter to the principals of the 10 schools, explaining the purpose of the study and indicating the school system's support. The study's research assistant and a GCS administrative assistant then attempted to reach an identified contact person at each of the schools by telephone and e-mail. Follow-up phone calls, e-mails, and letters were used to contact schools until all 10 had been reached. Once contact was established, the research assistant requested and obtained permission to observe a breakfast session and lunch session at the school, to recruit subjects for a focus group, and to conduct a focus group.

Meal Observations

An initial analytical goal of the study was to examine whether the delivery of school meals and the types of meals served varied across schools. Previous research suggests that participation in school meals and especially in the SBP is sensitive to these delivery issues. For example, in their analysis of the School Breakfast Program Pilot project, Bernstein et al. (2004) reported that SBP participation was *40 percentage points higher* in schools that served breakfasts in classrooms than in other settings. Gordon et al. (2007) found that the time that is available for students to eat, students' ability to choose food items, and the quality of the food itself are important additional determinants of participation. We wanted to verify the extent to which these characteristics were similar across our treatment and comparison schools.

Methods. The study's research assistant observed one breakfast session and one lunch session in each school; the observations at each school were made on different days of the week. For each observation session, the research assistant arrived 10 minutes before the first meal serving to sign in at the front office and locate the cafeteria. Observations initially took place from a table away from the students and notes were guided by the questions listed below:

1. Who brings the children in, a teacher or an assistant?
2. Who monitors the children during the meal?
3. Does the monitor sit at the table or walk around and watch other tables as well?
4. Where do the children eat, in their classroom or the cafeteria?
5. Where are the a la carte items located in the cafeteria line?
6. When do the children get their meal ticket or how do they pay? Is a computer used?
7. Are the children monitored while going through the food line?
8. Does the monitor watch/control what the children are eating (e.g., no dessert only)?
9. How long does the cafeteria operate, and how long are the meal shifts?
10. Who cleans the tables?

As students began to enter the cafeteria, the research assistant relocated to the food line noting the layout of the food, behavior of the students, and payment procedures. Once students were through, the meal line observations resumed to the eating area at which point the following were noted: seating arrangements, noise level and procedures, and any other occurrences. Information was not solicited, but some teachers and food service staff offered it. At the end of the meal the research assistant signed out at the front office.

The research assistant prepared detailed descriptions for each of the meal observations. The detailed descriptions are available in Appendix A. Below we briefly discuss the similarities,

variations, and exceptions in the meal processes that were observed. For these descriptions, we use all 10 of the breakfast observations and nine of the lunch observations.⁷

Cafeteria lay-out and general organization. All of the cafeterias were set up in a similar manner which included a meal line beginning either with utensils or beverages (milk or juice), then the entrée, a la carte items, and finally the cashier. In most schools the meal line was well lit. Serving from the line varied from school to school. At the end of the meal line students handed the cashier a meal ticket at which point the number was either scanned or manually entered into the computer. In one school, however the students scanned their own tickets. In some schools the meal tickets were retained by the cashier, and in others they were given back to the students to use the next day. No vending machines were present in any of the cafeterias.

Summary of breakfast observations. Once students arrived to school from the buses or cars, they made their way into the cafeteria to begin breakfast. There were no teachers assigned to bring in students. Cafeterias operated for 20-45 minutes, with each child being given approximately 10-15 minutes to eat.

For all but one of the schools that we observed, breakfast was served in the cafeteria, and the schools offered milk, juice, and both hot and cold entrees. At the other school, C6, only one grade gets “hot” breakfasts and eats them in the cafeteria each week. The other grades at school C6 get “cold” breakfasts, which they take back to the classroom to eat. The grades that receive hot and cold breakfasts rotate each week.

In most schools, children chose breakfast options straight from the line however, in one school, C2, the entrees were pre-plated for the children. In all but one school, there was no monitoring of food choices. In school C2, however, a food service worker checked trays to make

⁷Lunch operations were observed at the 10th school on the last day of school; this did not appear to be a representative day.

sure that each child took the required items. Most students followed through the line in an orderly manner, and once they had given their meal card, they sat down at an available table in the cafeteria. Monitoring varied from school to school. In some schools teacher assistants, food service workers or janitorial staff walked around the cafeteria to help maintain noise levels.

In most schools, students placed unopened items on a table or window sill when they had finished eating and as they were leaving the cafeteria. It is unclear what happened to those items after breakfast. In a few schools all unopened items were thrown away. Students were allowed to go to their classrooms on their own after the meal.

Summary of lunch observations. All students came directly from their classrooms to the cafeteria for lunch. If students did not already have their meal tickets they were distributed to the students in the classroom. Each school staggered entry times into the cafeteria in order to keep the lines from getting too long.

All but one school allowed 25-30 minutes to eat. At school T1, students were allowed 45 minutes. Few students brought their own lunches, indicating that a high proportion of students are taking advantage of school lunches. Total operating times averaged approximately 2 hours and 15 minutes. Two or three food service staff members were usually available in the meal line in all schools. Monitoring varied. In four of the schools there was no monitoring that was visible. In other schools, the staff helped in the meal line with things such as students' fruit and vegetable choices or younger students' general meal choices. Noise levels were controlled in some, but not all schools.

In three schools, students placed unopened items on a table as they left the cafeteria.

Focus groups and structured interviews

We also conducted focus groups with parents at the study schools. The aim of the focus groups was to identify parental perceptions of the school meals program. A qualitative assessment of perceived program benefits provided a unique and complementary perspective of whether or not parents found value in school meals and thus their willingness to have their children participate. We began by obtaining permission from each school to conduct a focus group there and to recruit parents as participants. Once permission was obtained, flyers were sent home with each student and were also posted in the hallways and on doors where they would be most visible to parents. The flyers invited parents of children who ate or had eaten breakfast at the school to participate in a focus group about the SBP. We also asked each principal to send a ConnectEd (pre-recorded telephone) message to all parents with the recruiting information. In addition, we e-mailed every teacher at the study schools to explain the study, request feedback on the recruitment process, and ask for assistance in distributing the flyers. As stakeholders, elementary school teachers were also invited to participate in the focus groups.

The goal was to recruit 8 to 10 participants from each school for its focus group. Once enough people agreed to participate, a date and time were set in accordance with the requests of the participants and approved by the contact person at the school. Recruitment proved to be more difficult than we had initially planned. We were able to recruit enough parents to run focus groups at five of the 10 study schools (T2, T4, C1, C2, and C5). At two of the schools, we met our initial recruitment targets with nine participants attending each of these focus groups. At the three other schools, we had seven, six, and four subjects, respectively. The focus groups at the five schools were conducted between May 26, 2009 and June 18, 2009.

At four of the other schools, we were able to recruit one or two parents. Rather than organize focus groups for these parents, we conducted individual, semi-structured interviews

with them, covering the same topics as focus group sessions. The interviews were conducted during the summer of 2009. There was one school from which no parents or teachers indicated interest in participating and thus no focus group or individual interview was conducted.

Focus group sessions took place in a common area in the individual school (i.e., media center, classroom). Light refreshments were served, and the discussion was audio recorded by the researcher. At the end of the session, each participant completed an anonymous paper-and-pencil questionnaire that asked about basic demographic, economic, and programmatic information. The same questionnaire was administered at the start of the individual interview sessions. Participants received a \$10 grocery gift card at the end of the session as incentive for their participation.

Participant characteristics. For the most part all focus group participants and individual interviewees were parents of elementary school children participating in the SBP. A total of forty parents and teachers participated in either the focus group sessions (35 subjects) or individual interviews (5 subjects). In school T4, three of the seven focus group participants were teachers without children participating in the SBP. Of the five individual interviews one participant represented a school at which a focus group was held and the other four came from schools at which no focus groups were held. In one focus group two sets of parents attended but only one demographic survey was completed for their household. Thus, household demographic data are available for 38 participants, and summary statistics are reported in Appendix B.

Of the 38 participants, the majority was married 47.4% (18/38), female 88.6% (31/35) African American 65.8% (25/38) and had some college education or less 57.9% (22/38). Although the majority of participants were working 65.8% (25/38) household income level was low with 55.3% (21/38) earning less than \$2000 per month. Another indicator that this was a

low income group is the fact that almost half (42.1%) of the participants lived in households with someone currently receiving food stamps and over half (63.2%) were receiving government medical assistance. 52.6% (20/38) received free breakfast and lunch and 18.4% (7/38) received reduced price lunch, 21.1% (8/38) paid full price. Based on focus group and interview descriptive characteristics we effectively reached our target audience.

Facilitated discussions and interviews. The focus group moderator/interviewer followed an interview guide that facilitated discussions along the following general domains:

1. general views of the importance and valuation of breakfast;
2. familiarity with and knowledge of the school's SBP, including children's participation, knowledge of the type of SBP being operated;
3. perceived experiences with the school's SBP, including the quality and healthfulness of meals, possible barriers to participation, and perceptions of the program;
4. experiences with and perceptions of the NSLP;
5. the family's food situation, especially its needs, possible hardships, and coping strategies; and
6. how the school meal programs help and fit with family food situations.

The complete interview guide appears in Appendix C.

Focus group and individual interview audio tapes were transcribed by an outside transcription service, and the transcripts were content analyzed by members of the research team.

Below we present the common themes and variations that appeared in the responses.

Focus group and interview findings. Parents in all of the focus groups seemed to place a high value on breakfast. These attitudes were similar regardless of whether the school had changed to an eligibility-based SBP, changed to a universal-free SBP, or continued to offer the

same type of SBP. Specifically, parents told us that it was important for children to eat breakfast every morning. Most reported the necessity of breakfast for providing energy, helping students think more clearly, and helping them perform better in school. Although eating breakfast every morning was important to all parents, the importance of eating together varied. Many indicated that it was important to eat together as a family but not realistic on weekdays due to time constraints. Parents reported that they ate larger breakfasts together on the weekend and that they used the time to socialize and bond.

Almost all of the focus group parents had children that participated in the SBP. Most of these parents reported that their children ate school breakfasts three or more times a week and that their children generally liked getting school breakfasts. Among the parents whose children did not participate every day, many reported that the daily menu influenced their decisions. In all, the parents appeared to be familiar with the SBP.

The parents' familiarity could also be seen in their *knowledge* of more detailed aspects of the programs. For example, most parents knew that the students get in line, have specific numbers, and go to tables to eat. The two parents that we interviewed from school T1 also knew that teachers sit with the students at their assigned tables. In addition to mentioning the line, parents from our comparison schools also mentioned that they received menus home every month in the student book bags (although they also commented that the menus did not list all of the daily options), that students had approximately 25 minutes to eat, that students were not allowed to talk, and that students were not monitored in the line. Many of the parents from both treatment and control schools felt that the children were too rushed at breakfast. It was mentioned that teachers sometimes sat with the students during the meal.

Information about changes regarding the SBP was not received by all parents. For school T4, parents did report that their school was now offering free breakfasts but that they learned of this change very late. There was a big concern at school T4 that parents were not adequately informed of the change to universal-free breakfast. Similarly, parents at school C5 reported a great deal of confusion about and the effort needed to go through the process for signing up for free meals. One parent stated “our kids received free lunch and then no one wrote us to tell us that they were no longer receiving free lunch two weeks after school started and we ended up having to pay for it, and we -- hate to say, and we still owe two bills”.

When discussing the SBP, across treatment schools parents reported more intense *perceived program experiences*; T4 school parents were very positive and T2 school parents were very negative. Parents tended to discuss the children’s SBP experiences in three different aspects: 1) food quality, 2) operations hassles and barriers, and 3) costs. Some changes from the previous year were noted by the treatment school parents. Both treatment and control school parents indicated that the foods offered for breakfast were very unhealthy because they were high in sugar (super donut, honey buns, pop tarts, sugary cereals). Specifically, parents in school T2 felt very strongly that the food quality decreased from the previous year reporting that there was not enough hot food, and the food offered was uncooked, poor tasting and old. Other parents expressed concerns that the breakfasts did not offer enough to eat. The SBP options also made it difficult for the parents when the child came home because they were used to many options at school but only got one at home. Control school parents reiterated the concern that the food quality decreased from the previous year. When asked whether they preferred the breakfast or lunch programs, parents at the treatment schools chose the lunch program, explaining that the food was “healthier” [than the SBP] and that there were more options. Control school parent

responses varied. About half of the parents preferred the SBP because they felt that breakfast was the most important meal of the day. The other control parents preferred the NSLP because their children did not like the breakfast food options. One parent stated “I mean breakfast is worthless if the kids are not going to eat it.”

Meal program operations also resulted in barriers to participation for some. Parents at T2 reported that there was not enough time to eat because the buses were late and the lines were long. Control school parents also reported problems with long lines and that they did not like that teachers made the students take all of the SBP food items whether or not they liked the foods. Parents felt that this was wasteful because the food was thrown away. One parent from school C6 was also discouraged about the SBP because her child was not offered a hot breakfast every day.

The cost of the SBP was not discussed as an issue for most schools except T2 and T4. One parent from T4 did not send her child to the SBP because the cost was prohibitive. When she found out it was free (close to the end of the school year) she sent her child. Another parent from school T2 indicated that she heard the cost for the SBP was going to increase.

Positive program experiences with the SBP became more evident among T4 parents as they provided some insights about the SBP not mentioned by other schools (treatment or control). These parents reported that it provided a safe environment where the students were not limited in time. They also liked the fact that students were allowed to eat food in the classroom and were able to save their breakfast to eat later in the day if needed. Overall though, parents in both types of schools felt that breakfast provided necessary energy, saved time in the morning and led to parents having “one less meal they had to worry about.”

Although the majority of focus group and individual interview discussions revolved around the SBP, there was some mention of the NSLP when prompted. All parents were very familiar with the NSLP, more so than the SBP. This was due to the fact that the children were already in school for lunch and they “had to eat.” Similar for most parents was the idea that the NSLP food options were healthier and of better quality than the SBP choices. Although cost of the NSLP was not asked, one parent at school C1 did feel that her child was not getting his money’s worth. When discussing her son’s lunch plate she was concerned because “you’ve got to give them the right amount of serving size.”

Parents in both treatment and control schools reported similar household circumstances and indicated that the SBP helped families stretch their food budget and provided a meal when there was not enough food at home. When discussing how families met their monthly food needs, parents in both treatment and control schools mentioned similar strategies including budgeting, coupon use, freezing foods, making enough for leftovers, using a list, shopping at several stores, buying in bulk and buying low cost foods such as canned foods, tuna and crackers. Many parents also talked of utilizing WIC, government agencies, soup kitchens and churches. One parent from school T2 stated that the while school was in session she did not worry about her food supply rather “I don’t feel the burn of the food problem until break or summer.” Needing to stretch the food budget was a concern for parents in both treatment and control schools because it made it difficult to purchase and provide healthy foods to their families. “Healthy foods are expensive.” Despite the cost most parents still felt their families ate healthy enough and that they liked healthy foods. The healthy foods listed included fruits, vegetables, whole grains, dairy, chicken, fish, beef, non-processed foods and a few parents mentioned organic foods. Aside from the major cost issue, participants felt that parents lacked

the skills and time to prepare healthy foods. In order to deal with these challenges parents reported going to large supercenters to purchase low cost foods and using food stamps.

Parents in both types of schools agreed that the SBP and NSLP helped families meet their monthly food needs. Control school parents felt that these programs served as a substitute to meals at home. Parents at schools T1 and T2 agreed that these programs were a substitute, and parents at school T4 felt that these programs served as a complement to meals served at home. Parents at the treatment schools also indicated, however, that school breakfasts and lunches may be the only meals available to some students. Parents also reported that the availability of school meals reduced uncertainty for students; they saw value in the fact that students would have something to eat every day regardless of their home circumstances.

Distinct from the semi structured interview question guide discussion, we detected a perception that the quality of SBP foods differed based on whether it was a free or paid program. Parents perceived that because they paid so little for the SBP that there was no way they would be provided healthier options because healthy food cost too much. Treatment school parents strongly argued that the foods being offered at breakfast were very unhealthy. They (T4) wanted more nutrition information and healthier options that “fill up” their children. Parents in T2 also indicated that they were getting poor quality foods because they had a free program and that the less money you paid, the poorer the food quality. They also indicated that “paying schools” have more choices. One parent stated “Because we have free breakfast we don’t get the same choices as other paying schools.” Despite negative comments, T2 parents still saw the program as beneficial to helping to meet monthly household food needs. Control school parents also mentioned cost versus quality of food. One parent indicated that money was an issue with the

SBP. “We are free breakfast, so we are budgeted; other schools have more choices because they are not budgeted.”

In summary, the parents that we spoke to valued breakfasts generally. Nearly all were familiar with aspects of the SBP through their children’s participation. Other aspects of program knowledge and perceived program experiences moved in ways one would expect given the changes in the SBPs. For example, it took some time for some parents at school T4 to become aware of the availability of universal-free breakfasts. Perceived program experiences also differed, with more positive experiences being reported at the school that gained a program and more negative experiences being reported at those that lost programs. Despite these differences all parents felt that the SBP was beneficial to children’s performance in school as well as a means for helping families meet their food needs.

Analysis of participation outcomes

We next turn to an examination of the changes in school meal participation at the schools. In Table 2, we report school meal participation totals and other characteristics at the GCS elementary schools that experienced changes in their SBPs and at other GCS elementary schools that did not experience changes. The first three columns of Table 2 list figures for the three schools (T1, T2, and T3) that switched from universal-free to eligibility-based SBPs in AY 2008-9. The next column lists figures for the lone school (T4) that switched to a universal-free program. The next six columns list figures for the matched-comparison schools that maintained their programs, and the final column lists average figures for *all* of the elementary schools in the GCS that maintained universal-free programs.

The top part of the table lists school characteristics, SBP participation, and NSLP participation for AY 2007-8. Specifically, we report the total number of students who were enrolled on an annual ADM basis and the numbers of students who qualified for free and reduced-price meals.⁸ We next list the total numbers of meals served over the year by subsidy status and the total number of days on which meals were served. We then construct participation rates by dividing the numbers of meals by the corresponding numbers of students and the numbers of days that meals were served. For example, the total participation rate (“total participation” in the table) is calculated as the ratio of the total number of meals served and the product of the total ADM enrollment and the number of meal days. The participation rates give approximate indications of the percentages of each type of student that were served meals on an average school day. In the middle part of the table, we report similar figures for AY 2008-9, and at the bottom of the table, we list changes in participation outcomes.

AY 2007-8 characteristics and outcomes. As we have mentioned, all of the study schools had large proportions of economically disadvantaged students. The study schools that initially offered universal-free breakfasts all had student bodies that were 78 percent or more economically disadvantaged. These schools had at least 63 percent of their students qualifying for free meals. The study schools that initially offered eligibility-based breakfasts also served relatively needy populations. At school T4, 75 percent of the students qualified for free meals, while at school C5, 56 percent of the students qualified for free meals.

The figures indicate that the study schools varied substantially in the number of meals served with one of the control schools (C6) serving more than twice as many breakfasts as one the change schools (T3) and another control school (C5). The variation in the number of

⁸ Enrollment levels at schools vary over the academic year as students enter and withdraw. The annual ADM figure sums the enrollments on each school day during the academic year and divides this amount by the number of days that the school was in session.

breakfasts served partly reflects differences in school sizes. However, other factors were at work. Indeed, the school that served the most breakfasts was near the middle of the pack in terms of the total numbers of students and economically-disadvantaged students. Instead, much of the variation in SBP activity can be attributed to differences in participation.

SBP participation rates at five of the study schools that were initially offering universal-free breakfasts in AY 2007-8 were in the range of 40 to 50 percent. However, the participation rates at one of the change schools (T1) and one of the control schools (C6) were each 75 percent, and the rate at another control school (C3) was 85 percent. Across all of the GCS elementary schools that continued to offer universal-free breakfasts from AY 2007-8 to AY 2008-9, the baseline SBP participation rate was 60 percent. In general, the SBP participation rates were higher than the national averages reported by Fox et al. (2001).

SBP participation rates also varied across eligibility groups. At all but two of the study schools, participation was highest among free-eligible students and lowest among paid-eligible students. This pattern appeared despite the schools offering universal-free programs.

NSLP participation was higher than SBP participation at the study schools. It was also much more uniform across the schools, varying within a very narrow range of 82 to 90 percent in AY 2007-8.

Changes in AY 2008-9. From AY 2007-8 to AY 2008-9, there were only modest changes in the percentages of students at the study schools who qualified for free and reduced-price meals. The percentages of both types of students declined slightly at schools T1, T3 and T4. At school T2, the percentage of students who qualified for free meals increased slightly, while the percentage who qualified for reduced-price meals decreased. At the comparison schools that continued to offer universal-free breakfasts, the percentage of students who qualified for free

meals remained roughly the same, while the percentage of students who qualified for reduced-price meals fell slightly.

One of the schools that switched to an eligibility-based program (T1) experienced an enormous 26 percent drop in SBP participation. At this school, SBP participation dropped 22 percent among students eligible for free meals, 33 percent for students eligible for reduced-price meals, and 37 percent for students eligible for paid meals. There were much smaller changes in overall SBP participation at the other two schools (T2 and T3) that switched to eligibility-based programs. Participation at school T2 increased slightly, while participation at school T3 decreased. In contrast, the school (T4) that switched to a universal-free SBP experienced a substantial 14.5 percent increase in SBP participation. At the schools where universal-free SBPs were maintained, the general trend was toward a modest expansion in participation. Overall, the evidence mostly supports the expectation that offering universal-free breakfasts increases SBP participation. At three of the change schools, SBP participation moved in a direction that was consistent with the hypothesis, and at the other change school (T2), the slight increase in SBP participation occurred against a background of larger increases at universal-free schools. That is, the increase in participation at school T2 was less than the changes at its matched comparisons (C2 and C4) and below the trend at other universal-free GCS schools.

In contrast to the SBP outcomes, there was less of a discernable trend in NSLP participation across the schools. The overall rates of NSLP participation fell at two of the schools that switched to eligibility-based SBP programs, but NSLP participation also fell at the school that switched to a universal-free SBP program. Changes at the schools that maintained their universal-free programs were mixed, with some increasing slightly and some decreasing slightly. At least on the basis of NSLP behavior, the schools appear to be comparable over time.

Kindergarten and non-kindergarten breakfasts. The changes in universal-free breakfast policies were limited to non-kindergarten students. Morning kindergarten students at all of the study schools continued to qualify for universal-free breakfasts through the program subsidized by the state of North Carolina. Because kindergarten and non-kindergarten students were treated differently, it is useful to distinguish between their participation trends. We do this in Table 3.

The figures from Table 3 reveal that the numbers of kindergarten and non-kindergarten breakfasts changed in opposite directions at three of the study schools and that kindergarten breakfasts tended to be more volatile (often exhibited larger percentage changes) than non-kindergarten breakfasts. When we focus on non-kindergarten breakfasts and calculate participation rates just for non-kindergarten students, the changes in SBP participation more closely match expectations. Specifically, SBP participation among non-kindergarten students decreased at the three schools that lost universal-free programs and increased at the school that gained a universal-free SBP.

School revenues and costs

The GCS changed its universal-free SBPs mostly because of cost concerns. Although the GCS initially selected universal-free schools on the basis of high percentages of economically-disadvantaged students, the system's underlying goal was to operate universal-free programs in schools where the programs could be expected to pay for themselves. The GCS began considering changes in its universal-free programs in the winter of 2008 after the system's forecast that several universal-free schools were at risk of running deficits. These concerns were heightened by the fact that food price inflation was increasing rapidly. In the summer of 2008,

the GCS received a clarification from the state that schools could only offer universal-free programs if federal reimbursements were sufficient to cover the operating costs.

In Table 4, we calculate the annual revenues and costs associated with each school's SBP. In AY 2007-8, the USDA reimbursed schools 24¢ for each paid-eligible breakfast they served, \$1.31 for each reduced-price-eligible breakfast they served, and \$1.61 for each free-eligible breakfast they served. North Carolina's universal-free kindergarten program reimbursed schools 50¢ for each breakfast they served to reduced-price-eligible kindergarten students and \$1.00 for each breakfast they served to paid-eligible kindergarten students. If the schools operated eligibility-based SBPs, they further would have collected 30¢ for each reduced-price breakfast and 90¢ for each paid breakfast. In AY 2007-8, the GCS estimated that it cost \$1.38 to prepare each breakfast. We apply these rates to the total numbers of breakfasts in different eligibility categories from Table 3 to arrive at each school's actual and potential revenues and costs.

The figures indicate that during AY 2007-8, schools T1 and T3 ran small deficits in their SBPs. Schools T2 and C1 ran narrow surpluses. All of the other universal-free comparison schools ran substantial surpluses. From an economic standpoint, it is also important to consider the opportunity costs of operating the universal-free programs. The figures in Table 4 indicate that, ignoring a participation response, the GCS gave up just under \$24,000 in foregone student revenues at the three change elementary schools and just over \$96,000 at all of its universal-free elementary schools.

The bottom half of Table 4 repeats these calculations for AY 2008-9. For that year, the USDA reimbursement rates for paid, reduced-price, and free breakfasts rose to 25¢, \$1.38, and \$1.68, respectively. Reimbursement rates from North Carolina for the universal-free kindergarten programs remained the same, as did the prices that were charged in eligibility-based

schools. In AY 2008-9, the average breakfast cost in the GCS rose slightly to \$1.41. When we apply these figures we see that all of the schools ran net surpluses. Interestingly, at the new participation levels, the three change schools would have run net surpluses even if they had continued to offer universal-free programs. Because of the increases in participation among paid-eligible students at universal-free schools, the foregone revenue associated with the universal-free program increased to nearly \$113,000.

Conclusions

This study qualitatively examines changes in the school breakfast programs operated by the Guilford County Schools in North Carolina. In the 2007-8 school year, the GCS offered universal-free breakfasts in 26 of its schools. In the following year, the GCS changed to eligibility-based SBPs at three elementary schools and one middle school, while adding a universal-free SBP at another elementary school. This study examines data that were collected from program records, cafeteria operations, and focus group and individual interviews at the elementary schools that experienced SBP changes and at a comparison set of schools that did not experience changes.

Characteristics of the study schools. One objective of our analysis was to document and characterize the circumstances under which universal-free SBPs were eliminated and added by the GCS. It is important to do this because the changes in the SBPs occurred in only a few schools which were all within a single county. As we report, the affected schools were not only designated as Title I schools but also as “very severe need” for the purposes of USDA meal reimbursements. Even within these classifications, the study schools were extremely disadvantaged. The percentages of students that were eligible for either free or reduced-price

meals in the schools that experienced SBP changes ranged from 78 to 82 percent. The percentages of these types of students at the schools that continued to offer universal-free SBPs were even higher, typically closer to 90 percent. Thus, the students at the schools experiencing changes were very disadvantaged, but at the same time, they were not the most disadvantaged in the GCS.

Besides having very high proportions of poor and near-poor students, the schools that experienced SBP changes had other special demographic and programmatic characteristics. Substantial majorities of students at the schools were non-white. Each of the schools also offered (and continued offering) universal-free SBPs to their kindergarten students through a state-subsidized program. In addition, the school system in which the schools operated had unusually low costs of providing breakfasts. The costs, which were below both state and national averages and below the reimbursement rate for free meals at very severe need schools, allowed cross-subsidization from free-eligible students to other students. Taken together, the special economic, demographic, and programmatic characteristics of the study schools suggest that caution should be applied in generalizing from their experiences.

Comparability of schools. Another objective of our study was to find other schools within the GCS that did not experience SBP changes but that were comparable in other respects to our “change” schools. We believe that we were successful in this. As mentioned, the changes in SBPs occurred in schools with high levels but not the highest levels of economic disadvantage. Because of the GCS selection procedures, the schools that kept their universal-free SBPs necessarily had higher levels of economic disadvantage than the change schools. Nevertheless, we were able to identify comparison schools that had levels of economic disadvantage that were only modestly higher than the change schools. We were also able to

match schools on the basis of their calendars, academic programs, enrollment levels, racial and ethnic characteristics, and geographic locations. These characteristics were stable over time, meaning that the schools were also temporally comparable.

The meal observations and focus groups that we conducted revealed other ways in which the study schools were comparable. The meal observations indicated that the SBPs for the schools generally operated before the schools opened and generally involved cafeteria (as opposed to classroom) meals. Students at most of the schools had about the same amount of time to eat, were served similar menus, and followed similar procedures. Discussions in focus groups indicated that parents at all of the schools valued breakfasts, that many reported experiencing household food problems and needing coping strategies, and that many felt that school meals were a useful component in addressing household food needs.

Participation changes. A change from a universal-free to an eligibility-based SBP increases the costs of breakfasts for paid- and reduced-price eligible children, and a simple consumer demand model predicts that the consumption of breakfasts should drop. By the same logic, a change from an eligibility-based to a universal-free SBP is predicted to lead to an increase in the consumption of breakfasts. This expected pattern appears in the data. When we consider participation among students other than kindergarteners (who were not directly affected by the SBP change), SBP participation decreased at the three schools that switched to eligibility-based programs, and SBP participation increased at the school that switched to a universal-free program. At two of the schools, the participation changes were quite large with one school (T1) seeing a 33 percent drop in participation and another school (T4) seeing a 14 percent rise in participation. Participation fell modestly at the other two change schools; however, these decreases occurred against a backdrop of increasing participation at the comparison schools that

continued offering universal-free SBPs. Consistent with expectations, the changes in SBP participation were especially noticeable among paid-eligible students.

Kindergarten breakfasts, which continued to be offered for free at all of the study schools, did not exhibit a consistent pattern of change. Similarly, we did not observe a consistent pattern of changes in school lunch participation. In general, the magnitudes of the school lunch participation changes were much more modest than the SBP participation changes.

Costs. State and GCS policy each required that universal-free programs in each school be self-supporting. Universal-free SBPs could only be offered if the difference in subsidies and costs for breakfasts for free-eligible students offset losses associated with breakfasts for other children. Concerns regarding these conditions led the GCS to make the changes that it did. Consistent with these concerns, an analysis of net costs at the schools indicates that two of the schools that lost universal-free SBPs experienced deficits in the year prior to the change while the other elementary school that lost a universal-free program operated near a break-even level. In contrast, the school that changed from an eligibility-based program to a universal-free program experienced a surplus in its SBP budget. After the change, all of the study schools operated with net surpluses. Thus, the program changes appear to have addressed the budget concerns of the GCS.

Perceived program experiences. Results from the focus groups provide some insights into how the changes in universal-free programs may have affected students' program experiences. Our conclusions regarding these experiences are tentative because they are based on just a few focus groups and a modest number of participants; nevertheless, we were able to detect some patterns in these sessions. The parents at one of the schools (T2) that lost a universal-free program described the most negative experiences. Those parents expressed some

of the strongest concerns regarding food quality and the time that their children had to eat. In contrast, the parents at the school (T4) that gained a universal-free program related some of the most positive experiences, commenting, for instance, on the safe environment that the program provided to children.

The focus group results also provide evidence that there may be delays in some parents discovering that SBPs have changed. In particular, some parents at school T4 indicated that they did not become aware of the availability of universal-free breakfasts until late in the year. Teachers and administrators at this school reported that information about the change was made available and sent home with students, but the parents' discussions indicate that the information was either overlooked or not received. Delays in finding out about the availability of universal-free breakfasts may have reduced participation.

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Table 1. Characteristics of study schools

	SBP changed (treatment schools)				SBP remained the same (comparison schools)					
	T1	T2	T3	T4	C1	C2	C3	C4	C5	C6
SBP	U→E	U→E	U→E	E→U	U→U	U→U	U→U	U→U	E→E	U→U
AY 2007-8 characteristics										
Students (ADM)	451	734	372	563	576	516	381	507	615	530
% black	56%	76%	73%	46%	60%	87%	64%	87%	51%	34%
% Hispanic	17%	9%	14%	24%	23%	6%	22%	8%	12%	19%
% economically disadvantaged	82%	78%	81%	82%	82%	91%	95%	91%	68%	86%
% non-kindergarten	80%	85%	86%	83%	85%	82%	83%	84%	85%	83%
Pre-kindergarten?	No	yes	no	yes	yes	yes	no	no	no	yes
AY 2008-9 characteristics										
Students (ADM)	422	765	359	545	577	510	414	447	531	522
% black	58%	76%	72%	50%	55%	85%	62%	84%	49%	32%
% Hispanic	17%	11%	17%	23%	27%	8%	21%	9%	14%	21%
% economically disadvantaged	80%	77%	80%	79%	81%	91%	92%	92%	68%	88%
% non-kindergarten	86%	85%	85%	84%	86%	82%	79%	86%	87%	86%
Pre-kindergarten?	yes	yes	yes	yes	no	yes	yes	yes	yes	yes
City	GSO	GSO	GSO	HP	GSO	GSO	GSO	GSO	HP	HP

Note: Attendance (ADM) and economic disadvantage data were obtained from the GCS nutrition office; demographic data obtained from NC grade/race/sex reports. All of the schools also operated on a 180-day traditional calendar, enrolled students on a regular (rather than magnet) basis, and were accredited by the Southern Association of Colleges and Schools.

U – universal free SBP

E – eligibility based SBP

Table 2. Student, meal, and participation changes at analysis schools

	SBP changed (treatment schools)				SBP remained the same (control schools)						All (U→U)
	T1 (U→E)	T2 (U→E)	T3 (U→E)	T4 (E→U)	C1 (U→U)	C2 (U→U)	C3 (U→U)	C4 (U→U)	C5 (E→E)	C6 (U→U)	
<u>AY 2007-8</u>											
Students (ADM)	451	734	372	563	576	516	381	507	615	530	437
Free	311	461	248	418	396	417	338	429	343	390	355
Reduced-price	59	113	54	42	78	50	24	34	78	63	42
Breakfasts served											
Total	59,530	52,255	31,533	42,932	40,909	44,099	56,986	44,591	32,678	70,463	46,882
Free	40,765	37,778	22,278	36,885	30,877	37,810	50,021	39,238	23,301	53,721	39,655
Reduced-price	7,664	7,256	4,107	2,914	4,664	3,302	3,172	2,539	3,650	6,717	3,763
"Paid"	11,101	7,221	5,148	3,133	5,368	2,987	3,793	2,814	5,727	10,025	3,464
Days	177	177	177	169	177	180	177	177	179	177	178
Tot. participation	74.6%	40.2%	47.9%	45.1%	40.1%	47.5%	84.5%	49.7%	29.7%	75.1%	60.2%
Free participation	74.1%	46.3%	50.8%	52.2%	44.1%	50.4%	83.6%	51.7%	38.0%	77.8%	62.7%
RP participation	73.4%	36.3%	43.0%	41.1%	33.8%	36.7%	74.7%	42.2%	26.1%	60.2%	49.7%
Paid participation	77.4%	25.5%	41.5%	18.0%	29.7%	33.9%	112.8%	36.1%	16.5%	73.6%	49.2%
Lunches served											
Total	68,483	112,683	56,494	84,955	91,812	79,550	61,743	78,162	90,314	81,383	68,643
Free	48,044	73,627	39,632	66,589	63,711	64,797	54,017	67,808	54,628	61,909	56,354
Reduced-price	8,991	15,890	7,691	6,682	11,642	8,193	3,582	4,597	10,633	8,644	6,102
Paid	11,448	23,166	9,171	11,684	16,459	6,560	4,144	5,757	25,053	10,830	6,188
Tot. participation	84.4%	85.3%	84.4%	83.8%	88.6%	85.6%	90.0%	85.6%	81.6%	85.3%	86.9%
Free participation	85.8%	88.7%	88.8%	88.5%	89.4%	86.3%	88.8%	87.8%	88.5%	88.2%	87.8%
RP participation	84.7%	78.1%	79.1%	88.4%	82.9%	91.0%	82.9%	75.1%	75.7%	76.2%	79.4%
Paid participation	78.5%	80.4%	72.8%	63.0%	89.6%	74.4%	121.2%	72.7%	71.7%	78.1%	86.5%

Table 2 (cont.)

	SBP changed (treatment schools)				SBP remained the same (control schools)						
	T1 (U→E)	T2 (U→E)	T3 (U→E)	T4 (E→U)	C1 (U→U)	C2 (U→U)	C3 (U→U)	C4 (U→U)	C5 (E→E)	C6 (U→U)	All (U→U)
<u>AY 2008-9</u>											
Students (ADM)	422	765	359	545	577	510	414	447	531	522	438
Free	284	502	225	393	418	430	356	381	299	400	359
Reduced-price	52	88	61	38	47	32	26	29	62	58	33
Breakfasts served											
Total	36,045	56,257	29,194	57,469	46,481	50,143	60,578	42,968	28,817	68,597	49,260
Free	26,242	41,455	20,830	45,030	34,319	42,519	49,325	36,307	20,171	51,364	39,793
Reduced-price	3,717	7,124	4,798	4,180	4,289	2,474	4,091	2,387	3,292	7,449	3,543
"Paid"	6,086	7,678	3,566	8,259	7,873	5,150	7,162	4,274	5,354	9,784	5,924
Days	177	177	177	177	177	180	177	178	178	177	178
Tot. participation	48.3%	41.5%	45.9%	59.6%	45.5%	54.6%	82.7%	54.0%	30.5%	74.2%	63.3%
Free participation	52.2%	46.7%	52.3%	64.7%	46.4%	54.9%	78.3%	53.5%	37.9%	72.5%	62.5%
RP participation	40.4%	45.7%	44.4%	62.1%	51.6%	43.0%	88.9%	46.2%	29.8%	72.6%	60.8%
Paid participation	40.0%	24.8%	27.6%	40.9%	39.7%	59.6%	126.4%	64.9%	17.7%	86.4%	71.4%
Lunches served											
Total	63,158	112,077	57,041	80,767	90,544	80,252	63,274	71,648	76,210	80,514	68,822
Free	44,835	77,242	37,317	61,384	65,256	66,200	52,181	59,696	44,548	62,285	55,341
Reduced-price	7,207	13,451	9,384	6,173	8,276	4,981	4,129	4,721	9,337	8,426	5,152
Paid	11,116	21,384	10,340	13,210	17,012	9,071	6,964	7,231	22,325	9,803	8,330
Tot. participation	83.1%	81.4%	88.3%	82.3%	87.2%	87.4%	84.9%	89.0%	79.7%	85.7%	86.9%
Free participation	87.7%	85.5%	92.1%	86.8%	86.7%	85.5%	81.4%	87.0%	82.8%	86.5%	85.4%
RP participation	77.0%	84.9%	85.5%	90.2%	97.8%	86.5%	88.2%	90.4%	83.7%	80.7%	86.9%
Paid participation	71.8%	67.9%	78.7%	64.4%	84.4%	105.0%	120.9%	108.6%	73.0%	85.1%	98.6%

Table 2 (cont.)

	SBP changed (treatment schools)				SBP remained the same (control schools)						
	T1 (U→E)	T2 (U→E)	T3 (U→E)	T4 (E→U)	C1 (U→U)	C2 (U→U)	C3 (U→U)	C4 (U→U)	C5 (E→E)	C6 (U→U)	All (U→U)
<u>Participation changes</u>											
Breakfasts											
Total	-26.3%	1.3%	-1.9%	14.5%	5.4%	7.1%	-1.8%	4.3%	0.8%	-0.9%	3.1%
Free	-21.9%	0.4%	1.6%	12.5%	2.3%	4.6%	-5.3%	1.9%	-0.1%	-5.3%	-0.2%
Reduced-price	-33.0%	9.5%	1.5%	21.1%	17.8%	6.3%	14.2%	4.1%	3.7%	12.3%	11.1%
"Paid"	-37.4%	-0.7%	-14.0%	22.9%	10.0%	25.7%	13.7%	28.8%	1.2%	12.8%	22.2%
Lunches											
Total	-1.2%	-3.9%	3.9%	-1.5%	-1.4%	1.8%	-5.1%	3.4%	-1.9%	0.4%	0.0%
Free	1.9%	-3.2%	3.4%	-1.7%	-2.7%	-0.8%	-7.4%	-0.8%	-5.7%	-1.7%	-2.5%
Reduced-price	-7.7%	6.8%	6.3%	1.9%	14.9%	-4.6%	5.3%	15.3%	7.9%	4.5%	7.5%
Paid	-6.7%	-12.6%	5.9%	1.4%	-5.3%	30.6%	-0.3%	35.9%	1.2%	7.0%	12.1%

Note: Lunches were served on 180 days at all of the study schools in both years. Results for “all (U→U)” schools are averages across all 20 elementary schools that maintained their universal-free SBPs from AY 2007-8 to AY 2008-9.

RP – reduced price

Table 3. SBP kindergarten and non-kindergarten meals at analysis schools

	SBP changed (treatment schools)				SBP remained the same (control schools)						All (U→U)
	T1 (U→E)	T2 (U→E)	T3 (U→E)	T4 (E→U)	C1 (U→U)	C2 (U→U)	C3 (U→U)	C4 (U→U)	C5 (E→E)	C6 (U→U)	
<u>AY 2007-8</u>											
Kindergarten breakfasts served											
Total breakfasts	9768	7121	3088	5465	4550	5842	8962	5222	5036	11174	6313
Free breakfasts	7114	5583	1952	4932	3277	4931	8137	4448	3606	8357	4814
Reduced-price	1370	709	683	239	674	648	459	248	671	1375	465
"Paid" breakfasts	1284	829	453	294	599	263	366	526	759	1442	534
Non-kindergarten breakfasts served											
Total breakfasts	49,762	45,134	28,445	37,467	36,359	38,257	48,024	39,369	27,642	59,289	40,569
Free breakfasts	33,651	32,195	20,326	31,953	27,600	32,879	41,884	34,790	19,695	45,364	34,842
Reduced-price	6,294	6,547	3,424	2,675	3,990	2,654	2,713	2,291	2,979	5,342	3,297
"Paid" breakfasts	9,817	6,392	4,695	2,839	4,769	2,724	3,427	2,288	4,968	8,583	2,930
Non-kindergarten participation											
Total	76.4%	40.4%	49.6%	46.9%	42.0%	49.4%	84.5%	50.8%	29.4%	75.4%	61.9%
<u>AY 2008-9</u>											
Kindergarten breakfasts served											
Total breakfasts	8191	9961	3649	7464	12238	7329	10522	3589	1252	9536	7330
Free breakfasts	5886	6545	2426	5154	7598	5801	8284	2848	669	6924	5658
Reduced-price	815	1484	690	412	1662	199	938	242	245	1031	514
"Paid" breakfasts	1490	1932	533	1898	2978	1329	1300	499	338	1581	1158
Non-kindergarten breakfasts served											
Total breakfasts	27,854	46,296	25,545	50,005	34,243	42,814	50,056	39,379	27,565	59,061	41,929
Free breakfasts	20,356	34,910	18,404	39,876	26,721	36,718	41,041	33,459	19,502	44,440	34,135
Reduced-price	2,902	5,640	4,108	3,768	2,627	2,275	3,153	2,145	3,047	6,418	3,028

Table 3. (cont.)

	SBP changed (treatment schools)				SBP remained the same (control schools)						
	T1	T2	T3	T4	C1	C2	C3	C4	C5	C6	All
	(U→E)	(U→E)	(U→E)	(E→U)	(U→U)	(U→U)	(U→U)	(U→U)	(E→E)	(U→U)	(U→U)
"Paid" breakfasts	4,596	5,746	3,033	6,361	4,895	3,821	5,862	3,775	5,016	8,203	4,766
Non-kindergarten participation											
Total	42.9%	40.0%	47.0%	61.2%	38.8%	56.4%	84.4%	56.7%	33.5%	73.2%	63.9%
<u>Changes</u>											
Kindergarten breakfasts served											
Total breakfasts	-1577	2840	561	1999	7688	1487	1560	-1633	-3784	-1638	1018
Free breakfasts	-1228	962	474	222	4321	870	147	-1600	-2937	-1433	845
Reduced-price	-555	775	7	173	988	-449	479	-6	-426	-344	49
"Paid" breakfasts	206	1103	80	1604	2379	1066	934	-27	-421	139	624
Non-kindergarten breakfasts served											
Total breakfasts	-21908	1162	-2900	12538	-2116	4557	2032	10	-77	-228	1360
Free breakfasts	-13295	2715	-1922	7923	-879	3839	-843	-1331	-193	-924	-707
Reduced-price	-3392	-907	684	1093	-1363	-379	440	-146	68	1076	-269
"Paid" breakfasts	-5221	-646	-1662	3522	126	1097	2435	1487	48	-380	1836
Non-kindergarten participation											
Total	-33.5%	-0.4%	-2.6%	14.3%	-3.2%	6.9%	-0.1%	5.9%	4.2%	-2.3%	1.9%

Note: Results for “all (U→U)” schools are averages across all 20 elementary schools that maintained their universal-free SBPs from AY 2007-8 to AY 2008-9.

Table 4. SBP revenue and cost changes at analysis schools

	SBP changed (treatment schools)				SBP remained the same (control schools)						All (U→U)
	T1 (U→E)	T2 (U→E)	T3 (U→E)	T4 (E→U)	C1 (U→U)	C2 (U→U)	C3 (U→U)	C4 (U→U)	C5 (E→E)	C6 (U→U)	
<u>AY 2007-8</u>											
SBP subsidies from USDA											
Free breakfasts	\$65,632	\$60,823	\$35,868	\$59,385	\$49,712	\$60,874	\$80,534	\$63,173	\$37,515	\$86,491	\$63,845
Reduced-price	\$10,040	\$9,505	\$5,380	\$3,817	\$6,110	\$4,326	\$4,155	\$3,326	\$4,782	\$8,799	\$4,929
Paid breakfasts	\$2,664	\$1,733	\$1,236	\$752	\$1,288	\$717	\$910	\$675	\$1,374	\$2,406	\$831
Total	\$78,336	\$72,061	\$42,483	\$63,954	\$57,110	\$65,917	\$85,599	\$67,175	\$43,671	\$97,696	\$69,605
Kindergarten SBP subsidies from NC											
Reduced-price	\$685	\$355	\$342	\$120	\$337	\$324	\$230	\$124	\$336	\$688	\$233
Paid breakfasts	\$1,284	\$829	\$453	\$294	\$599	\$263	\$366	\$526	\$759	\$1,442	\$534
Total	\$1,969	\$1,184	\$795	\$414	\$936	\$587	\$596	\$650	\$1,095	\$2,130	\$766
Potential/actual SBP student revenues											
Reduced-price	\$1,888	\$1,964	\$1,027	\$803	\$1,197	\$796	\$814	\$687	\$894	\$1,603	\$989
Paid breakfasts	\$8,835	\$5,753	\$4,226	\$2,555	\$4,292	\$2,452	\$3,084	\$2,059	\$4,471	\$7,725	\$2,637
Total	\$10,724	\$7,717	\$5,253	\$3,358	\$5,489	\$3,248	\$3,898	\$2,747	\$5,365	\$9,327	\$3,626
SBP costs	\$82,151	\$72,112	\$43,516	\$59,246	\$56,454	\$60,857	\$78,641	\$61,536	\$45,096	\$97,239	\$64,697
Net revenues from school's SBP											
Net revenue	-\$1,847	\$1,133	-\$238	\$8,479	\$1,592	\$5,647	\$7,554	\$6,289	\$5,034	\$2,587	\$5,675
Net UF revenue	-\$1,847	\$1,133	-\$238	\$5,121	\$1,592	\$5,647	\$7,554	\$6,289	-\$331	\$2,587	\$5,675
Net EB revenue	\$8,877	\$8,849	\$5,015	\$8,479	\$7,081	\$8,895	\$11,452	\$9,036	\$5,034	\$11,914	\$9,301
<u>AY 2008-9</u>											
SBP subsidies from USDA											
Free breakfasts	\$44,087	\$69,644	\$34,994	\$75,650	\$57,656	\$71,432	\$82,866	\$60,996	\$33,887	\$86,292	\$66,852
Reduced-price	\$5,129	\$9,831	\$6,621	\$5,768	\$5,919	\$3,414	\$5,646	\$3,294	\$4,543	\$10,280	\$4,889

Table 4. (cont.)

	SBP changed (treatment schools)				SBP remained the same (control schools)						
	T1 (U→E)	T2 (U→E)	T3 (U→E)	T4 (E→U)	C1 (U→U)	C2 (U→U)	C3 (U→U)	C4 (U→U)	C5 (E→E)	C6 (U→U)	All (U→U)
Paid breakfasts	\$1,522	\$1,920	\$892	\$2,065	\$1,968	\$1,288	\$1,791	\$1,069	\$1,339	\$2,446	\$1,481
Total	\$50,738	\$81,395	\$42,507	\$83,484	\$65,543	\$76,134	\$90,302	\$65,358	\$39,769	\$99,017	\$73,222
Kindergarten SBP subsidies from NC											
Reduced-price	\$408	\$742	\$345	\$206	\$831	\$100	\$469	\$121	\$123	\$516	\$257
Paid breakfasts	\$1,490	\$1,932	\$533	\$1,898	\$2,978	\$1,329	\$1,300	\$499	\$338	\$1,581	\$1,158
Total	\$1,898	\$2,674	\$878	\$2,104	\$3,809	\$1,429	\$1,769	\$620	\$461	\$2,097	\$1,415
Potential/actual SBP student revenues											
Reduced-price	\$871	\$2,137	\$1,439	\$1,254	\$1,287	\$742	\$1,227	\$716	\$988	\$2,235	\$908
Paid breakfasts	\$4,136	\$6,910	\$3,209	\$7,433	\$7,086	\$4,635	\$6,446	\$3,847	\$4,819	\$8,806	\$4,290
Total	\$5,007	\$9,047	\$4,649	\$8,687	\$8,372	\$5,377	\$7,673	\$4,563	\$5,806	\$11,040	\$5,198
SBP costs	\$50,823	\$79,322	\$41,164	\$81,031	\$65,538	\$70,702	\$85,415	\$60,585	\$40,632	\$96,722	\$69,456
Net revenues from school's SBP											
Net revenue	\$6,819	\$13,794	\$6,870	\$4,556	\$3,814	\$6,860	\$6,656	\$5,393	\$5,403	\$4,392	\$5,181
Net UF revenue	\$1,812	\$4,747	\$2,222	\$4,556	\$3,814	\$6,860	\$6,656	\$5,393	-\$403	\$4,392	\$5,181
Net EB revenue	\$6,819	\$13,794	\$6,870	\$13,243	\$12,186	\$12,238	\$14,329	\$9,956	\$5,403	\$15,432	\$10,379

Note: Results for “all (U→U)” schools are averages across all 20 elementary schools that maintained their universal-free SBPs from AY 2007-8 to AY 2008-9.

Appendix A. Detailed descriptions of meal observations

School T1 – breakfast:

Overview. Breakfast was observed on Monday, April 27, 2009. The cafeteria served breakfasts from 7:15am until 7:45am with each student getting 10 minutes to eat. There were 18 tables that sat 6 students each and 8 were filled at all times during the meal so the room did not appear crowded. The food line was very well lit and so was the cafeteria though it did not have many windows.

Transitioning to breakfast. All students except the kindergarteners went directly to the cafeteria upon arrival at school where they entered the breakfast line. Teachers brought the kindergarten classes down to the cafeteria at 8:15am at eat. There were no teachers in the cafeteria when I arrived at 7:15am, but a custodian arrived at 7:35am to monitor the students. The teachers did not come to the cafeteria to sit with their students.

The breakfast line. The breakfast line included one food service staff member who served the breakfasts and another one to cashier. The students were not monitored going through the line, though the cashier made one student that only had juice and milk return for an entrée. The line was set up as follows: milk (white, chocolate, and strawberry) was located first and then the entrees (breakfast pizza, cereal with toast, or yogurt with individually packaged graham crackers). Next were the a la carte items (juice and packaged peanut butter and jelly sandwiches) followed by the plastic utensils. The students then continued to the end of the line where they either recited their account number to the cashier or she looked up their name on the computer. There were no vending machines located in the line or the cafeteria.

Eating procedures. Students entered the cafeteria and sat themselves. They were given approximately 10 minutes to eat and were very quiet while they ate. As more students entered

the cafeteria the noise level rose minimally. A few parents came to have breakfast with their child and sat at a separate table.

End of meal. The students threw their trash away as they finished and proceeded to their classroom on their own. Extra unopened items were put at the end of each table and it is not known what happened to the items after the meal. Once the tables were emptied the custodian cleaned them with a soapy solution.

School T1 – lunch:

Overview. Lunch was observed on Friday, June 12, 2009. The cafeteria served lunches starting at 11:10am with each class taking lunch to the classroom. There were 18 tables that sat 6 students each, however they were folded and placed against the wall to make room for fifth grade graduation practice. The food line and cafeteria were very well lit and the cafeteria itself had many windows.

Transitioning to lunch. The classes were brought in at different times to keep the line from getting too long. Each teacher brought her students into the cafeteria where they stood in line to get their lunch. The few students who brought their lunch came to the line for milk if needed.

The lunch line. The lunch line included two food service staff member that served the entrees and one to cashier. The line was set up as follows: milk was located first (chocolate, white, and strawberry) and then the freezer with ice cream. Next the students told the staff which entrée (pizza, pizza sticks, individual cups with peas, garden salad cups, and individually packaged peanut butter and jelly sandwiches) they wanted and then proceeded to the a la carte items (applesauce cups, individually packaged baby carrots, yogurt, and snack mix). At the end of the line, there was a basket of red apples and ranch dressing packets. There were no extras

observed in the food line. Each student proceeded to the cashier and recited his account number. The meal was then entered into a computer. There were no vending machines in the lunch line or cafeteria. The students were not monitored in the line. It took approximately 1-2 minutes for each child to get through the lunch line. The students took the meals to the classroom for a “pizza party” due to graduation rehearsal in the cafeteria.

Eating procedures. The students sat in their assigned seats and were given 45 minutes to eat. Many parents came and brought ice cream for the classes. There was not a system in place to control noise, however, the students were allowed to talk quietly. Their intake was not monitored by the teachers. The teachers and parents helped children open or prepare anything they needed, and the children would raise a hand to get help. The ice cream was served in the classrooms by teachers and parents after the students finished their pizza.

End of meal. Once finished, the students threw their trash and uneaten food away individually (not as a group) and returned to their desks. They were not observed saving any unopened food. They were then alerted by the teacher when it was time to resume instruction.

School T2 – breakfast:

Overview. Breakfast was observed on Thursday, April 23, 2009. The cafeteria served breakfasts from 7:15am until 8:00am with each student getting 10 to 15 minutes to eat. There were 22 tables that sat 12 students each and since 350 students eat the meal it was a bit crowded. The food line and cafeteria were very well lit.

Transitioning to breakfast. Students headed directly to the cafeteria upon arrival at school and entered the breakfast line. Each student had his account number memorized and told the cashier at the end of the line. The teachers did not come to the cafeteria to sit with their

students.

The breakfast line. The breakfast line included two food service staff members who served the breakfasts and another one to cashier. The line was set up as follows: milk (white, chocolate, and strawberry) was located at the beginning of the line and entrees followed (pancakes with individually packaged syrup, cereal with toast, or yogurt with individually packaged graham crackers). Next were the a la carte items (juice and packaged peanut butter and jelly sandwiches). They continued to the cashier to whom they recited their memorized meal ticket number and the items were entered under their account. If a student did not know his account number, the cashier would look it up by name. There were no vending machines located in the line or the cafeteria.

Eating procedures. A teacher stood at the end of the line to hand out silverware and tell the students where to sit. Two teachers walked around the cafeteria monitoring the students' behavior and the noise level. They were given approximately 10 minutes to eat and the monitors hurried them along. Some parents ate with their children and sat at their own table away from the other children. The two Pre-K classes ate in their rooms. It was not clear how they received their meals.

End of meal. The students threw their trash away as they finished and then went to their classrooms on their own. Once the tables were emptied the monitors cleaned them with a soapy solution.

Other observations. If children were late coming in due to a late bus, they were allowed to get a breakfast and take it to their classroom. Also, kindergarten is the only grade that gets Universal Free Breakfast.

School T2 – lunch:

Overview. Lunch was observed on Tuesday, April 28, 2009. The cafeteria served lunches from 10:45am until 1:05pm with each class getting 25 minutes to eat. There were 22 tables that sat 12 students each and the room appeared very crowded. The food line and cafeteria were very well lit and so was the cafeteria, which had many windows.

Transitioning to lunch. The classes were brought in at different times to keep the line from getting too long and to continuously free tables. The students received their laminated meal ticket in the classroom and were then led to the cafeteria by their teacher where they entered the lunch line. The few students who brought their lunch went directly to their table unless they needed a drink, in which case they entered the line with their classmates. The teachers then left to go back to their classrooms to eat.

The lunch line. The lunch line included two food service staff members that served the entrees and one to cashier. The line was set up as follows: milk was located first (chocolate, white, and strawberry) and then the entrée (quesadilla, beef tips over rice, peanut butter and jelly sandwich, oven roasted potatoes, broccoli and cheese, and a roll) was next. The students then proceeded to the a la carte items (garden salad cups and fruited gelatin). At the end of the line, there were extras by the cashier (marshmallow squares, chips, moon pies, etc.) which the students had to ask specifically for. It was not clear what allowed them to have these items. Plastic utensils were located outside the exit door in baskets on a cart. Each student gave his meal ticket to the cashier who scanned it and entered his meal into a computer. The ticket was handed back to the student. The kindergarten and first grade students were monitored in the line, but grades two through five were not. The food service staff would help them if they had any questions however. It took approximately 1-2 minutes for each child to get through the lunch line. There were no vending machines in the lunch line or cafeteria.

Eating procedures. The students then took seats at assigned tables where they were monitored by three assistant teachers who walked around the cafeteria. The other teachers who stayed ate at a table together in the center of the cafeteria. No noise control system was observed in effect during the meal and the noise level was very high. The students' intake was not monitored during the meal, though the teachers helped children open or prepare anything they needed. The child would raise his/her hand to ask for help. No children were observed returning to the lunch line for more food or drink, though it was not clear if this was because they were not allowed to.

End of meal. Once finished, the students were signaled by a teacher to throw away their trash and uneaten food as a group and return to their table. Any unopened items were placed on the teacher table in the center of the room. It was not clear what happened to the items after the meal. A monitor signaled the tables individually to line up and the teachers returned to the cafeteria for their classes to lead them back to their rooms. Once all students were gone from the table, the custodian would clean it with a soapy solution and ready it for the next class.

Other observations. A special education teacher came to the cafeteria and sat with her four students away from the other tables. No parents were observed joining students for this meal. The safety patrol did not assist with this meal and there are no Pre-K classes at this school.

School T3 – breakfast:

Overview. Breakfast was observed on Friday, April 10, 2009. The cafeteria served breakfasts from 7:30am until 7:55am with each student getting 10 minutes to eat. There were 16 tables that sat 12 students each and 6 were filled at all times during the meal so the room did not appear crowded. The food line was very well lit and so was the cafeteria though it did not have

many windows.

Transitioning to breakfast. Students went directly to the cafeteria upon arrival at school where they entered the breakfast line. There were two teachers and one custodian in the cafeteria to monitor the students. The teachers did not come to the cafeteria to sit with their students.

The breakfast line. The students were only monitored in the line for noise. The breakfast line included one food service staff member who served the breakfasts and another one to cashier. The line was set up as follows: milk (white, chocolate, and strawberry) was located first and then the plastic utensils. Next were the entrees (chicken biscuit, cereal with toast, yogurt or super donut) and then the a la carte items (juice and packaged peanut butter and jelly sandwiches). The students then continued to the end of the line and handed their laminated meal ticket to the cashier. The students keep this card with them at all times and if they did not have it, the cashier looked up their name on the computer. Extra unopened items were put on a desk right outside the exit door of the food line for people who wanted seconds. It is not known what happened to the items after the meal. There were no vending machines located in the line or the cafeteria.

Eating procedures. Students entered the cafeteria and were seated by the three monitors who then walked around the cafeteria. They were given approximately 10 minutes to eat. There were red cups on the tables that indicated “no talking” and classical music was playing. The students were observed to be very well behaved. A few students finished early and were dismissed by a monitor.

End of meal. The students threw their trash away as they finished and proceeded to their classroom on their own. Once the tables were emptied the monitors cleaned them with a soapy solution.

Other observations. The monitors were observed giving the students hugs and the custodian mopped the floor.

School T3 – lunch:

Overview. Lunch was observed on Wednesday, April 8, 2009. The cafeteria served lunches from 10:35am until 12:55pm with each class getting 30 minutes to eat. There were 16 tables that sat 12 students each and the room appeared very crowded. The food line and cafeteria were very well lit and so was the cafeteria, which had many windows.

Transitioning to lunch. The classes were brought in at different times to keep the line from getting too long and to continuously free tables. The students received their laminated meal ticket in the classroom and were then led to the cafeteria by their teacher where they entered the line to get their lunch. The few students who brought their lunch went directly to their table unless they needed a drink, in which case they entered the line with their classmates. The teachers then left to go back to their classrooms to eat lunch.

The lunch line. The lunch line included two food service staff members that served the entrees and one to cashier. The line was set up as follows: milk was located first (chocolate, white, and strawberry) and then the plastic utensils. The entrée (chicken nuggets, turkey bacon wrap, cucumber tomato salad, rolls, and individually packaged peanut butter and jelly sandwiches) was located next. Students then proceeded to the condiments and a la carte items (garden salad cups, applesauce cups, orange wedges). At the end of the line each student gave his ticket to the cashier who then entered his meal into a computer. The cashier returned the ticket to the student who kept it for breakfast the next day. The students were not monitored in the line, but the food service staff would help them if they had any questions. It took approximately 1-2 minutes for each child to get through the lunch line. There were no vending

machines in the lunch line or cafeteria.

Eating procedures. The students then took seats at assigned tables where they were monitored by five assistant teachers who walked around the cafeteria. Classical music was playing in the cafeteria and a system to control noise was in place using red cups to indicate “no talking”. The students’ intake was minimally monitored during the meal and the monitors helped the children open or prepare anything they needed. The child would raise his/her hand to ask for help. No children were observed returning to the lunch line for more food or drink, though it was not clear if this was because they were not allowed to.

End of meal. Once finished, the students were signaled by a teacher to throw away their trash and uneaten food individually and return to their table. They were not observed placing any unopened items in a location other than the trash can. A monitor signaled the tables individually to line up the teachers then returned to the cafeteria for their classes to lead them back to their rooms. Once all students were gone from the table, the monitor would clean it with a soapy solution and ready it for the next class.

Other observations. Several parents joined their children for lunch sat at the table with them. There were no special needs classes at this meal and there are no Pre-K classes at this school. The safety patrol did not assist with this meal.

School T4 – breakfast:

Overview. Breakfast was observed on Wednesday, June 10, 2009. The cafeteria served breakfasts from 7:30am until 8:00am with each student getting 10 to 15 minutes to eat. There were 20 tables that sat 6 students each and most were filled at the meal which made it seem crowded. The food line was very well lit and so was the cafeteria even though it did not have

many windows.

Transitioning to breakfast. Students went to their classrooms to get their laminated meal cards up arrival at school and then headed to the cafeteria where they entered the breakfast line. The card was on a string that each student wore around his neck so he could return it to the teacher. The teachers did not come to the cafeteria to sit with their students.

The breakfast line. The breakfast line included two food service staff members who served the breakfasts and another one to cashier. The principal stood by the cashier to greet the students and monitor the behavior in line. They were also monitored in the hallway by a teacher for noise and in the line by a staff member to make sure each one took the required milk and juice. The line was set up as follows: plastic utensils were located at the beginning of the line and then milk (white, chocolate, and strawberry). Next were the a la carte items (juice and packaged peanut butter and jelly sandwiches). The entrees followed and were handed out by the staff (cereal with toast, yogurt with individually packaged graham crackers, or 2 waffles with individually packaged syrup). The students then continued to the cashier where their meal ticket was scanned and the meal was entered under their account. Students from the safety patrol handed out napkins and straws to students as they walked out of the line. There were no vending machines located in the line or the cafeteria.

Eating procedures. Students entered the cafeteria and were seated by three monitors who then walked around the cafeteria. They were given about 10 minutes to eat and the monitors hurried them along saying “We need your seats” and “Let’s go”. Some parents ate with their children and sat at their own table away from the other children. The Pre-K students ate in their classroom. A teacher from each class retrieved the cooler prepared by the kitchen staff with their breakfasts.

End of meal. The students threw their trash away as they finished except for any unopened milk and other items, which were placed on a table by the trash can. These items were for anyone who wanted seconds. Many students were observed switching milk for a second juice or vice versa. It was not clear what happened to these items after the meal. Students were also observed finishing parts of their meal while walking to or standing beside the trash can and a lot of waffles were thrown away. Students then went to their classrooms on their own. Once the tables were emptied the monitors cleaned them with a soapy solution.

Other observations. If children were late coming in due to a late bus, they were allowed to get a breakfast and take it to their classroom.

School T4 – lunch:

Overview. Lunch was observed on Thursday, April 9, 2009. The cafeteria served lunches from 11:00am until 1:00pm with each class getting 30 minutes to eat. There were 20 tables that sat 6 students each and the room appeared very crowded. The food line and cafeteria were very well lit and so was the cafeteria, which had many windows.

Transitioning to lunch. The classes were brought in at different times to keep the line from getting too long and to continuously free tables. The students received their laminated meal ticket in the classroom and were then led to the cafeteria by their teacher where they entered the line to get their lunch. The few students who brought their lunch went directly to their table unless they needed a drink, in which case they entered the line with their classmates. The kindergarten, 1st, 2nd, and 4th grade teachers left to go back to their classrooms to eat lunch, while the 3rd and 5th grade teachers stayed and ate with their classes.

The lunch line. The lunch line included two food service staff members that served the entrees and one to cashier. The line was set up as follows: plastic utensils were located first and

then milk (chocolate, white, and strawberry). Some a la carte items were next (bottled water and yogurt cups in ice) and then peanut butter and jelly sandwiches. The entrée (corn dog or taco) was next and more a la carte items (cups of rice, cups of corn, and garden salad cups) were next. There were no extras in the food line at this meal. At the end of the line, each student gave his ticket the cashier who scanned it and entered his meal into a computer. Each class had a representative that retrieved the tickets at the end of their lunch period. The students were not monitored in the line; however the food service staff would help them if they had any questions. It took approximately 1-2 minutes for each child to get through the lunch line. There were no vending machines in the lunch line or cafeteria.

Eating procedures. The students then took seats at assigned tables where they were monitored by assistant teachers who walked around the cafeteria. Third and fifth grade teachers sat with their students, but the teachers from the other grades went back to their classrooms to eat. The students' intake was not monitored during the meal, though the teachers helped children open or prepare anything they needed. The child would raise his/her hand to ask for help. There was no system in place to control the noise level and no children were observed returning to the lunch line for more food or drink. It was not clear if this was because they were not allowed to.

End of meal. Once finished, the students threw away their trash and uneaten food individually and returned to their table. They were not observed placing any unopened items in a location other than the trash can. A monitor signaled the tables to line up and the teachers then returned to the cafeteria for their classes to lead them back to their rooms. Once the tables were cleared, two students from each class would clean it with a soapy solution and ready it for the next class.

Other observations. Parents were observed having lunch with their children and were

able to sit anywhere they wanted. The 3rd graders were very quiet and well behaved. There were no special needs classes at this meal and the safety patrol did not assist with this meal.

School C1 – breakfast:

Overview. Breakfast was observed on Tuesday, May 5, 2009. The cafeteria served breakfasts from 7:25am until 7:50am with each student getting 10 minutes to eat. There were 15 tables that sat 12 students each and 5 or 6 were filled at all times during the meal. The food line was very well lit and so was the cafeteria which had many windows.

Transitioning to breakfast. Students went directly to the cafeteria upon arrival at school where they entered the breakfast line. There were two custodians and one teacher in the cafeteria to monitor the students. Another teacher joined them halfway through the meal. The teachers did not come to the cafeteria to sit with their students.

The breakfast line. The students were only monitored in the line for noise. The breakfast line included two food service staff members who served the breakfasts and another one to cashier. The line was set up as follows: milk (white, chocolate, and strawberry) was located first and then the entrees (pancake sausage on a stick, 2 count pop-tarts, or super donut). Next were the a la carte items (juice, cereal, and packaged peanut butter and jelly sandwiches). The students then continued to the end of the line and told the cashier their number or had her look it up by name. Silverware was located on a desk right outside the exit door of the food line. There were no vending machines located in the line or the cafeteria.

Eating procedures. Students entered the cafeteria and were seated by the three monitors who then walked around the cafeteria. They were given approximately 10 minutes to eat and told to eat in silence. They were then hurried along by the monitors who said “We need

your seats” and “Hurry up”. A few students finished early and were dismissed by a monitor. Some parents ate with their children and sat at their own table away from the other children. At 7:50am, the special education teachers brought their class to the cafeteria for their breakfast they were helped through the line by their teacher and her assistant.

End of meal. The students threw their trash away as they finished. Students were monitored returning to their classrooms by teachers in the hallway. Once the tables were emptied the monitors and students cleaned them with a soapy solution.

Other observations. A car rider student entered the cafeteria at 7:20am and was told he had to wait. They did not serve him until 7:25am.

School C1 – lunch:

Overview. Lunch was observed on May 11, 2009. The cafeteria served lunches from 10:40am until 1:05pm with each class getting 25 minutes to eat. There were 15 tables that sat 12 students each and the room appeared very crowded. The food line and cafeteria were well lit and so was the cafeteria, even though it did not have many windows.

Transitioning to lunch. The classes were brought in at different times to keep the line from getting too long and to continuously free tables. The students received their laminated meal ticket in the cafeteria by their teacher and then entered the line to get their lunch. The few students who brought their lunch went directly to their table unless they needed a drink, in which case they entered the line with their classmates. The teachers then left to go back to their classrooms to eat lunch, though a few teachers stayed and sat with their classes.

The lunch line. The lunch line included two food service staff members that served the entrees and one to cashier. There were two more staff members behind the line in the kitchen making more chicken sandwiches. The line was set up as follows: milk was located first

(chocolate, white, and strawberry) and then the entrée (Teriyaki chicken sandwich, stuffed shells with marinara, or individually packaged peanut butter and jelly sandwiches). They then proceeded to the condiments and a la carte items (mixed vegetables, lettuce cups, beans, fruit cocktail, pears with cherries, fruit by the foot, and ice cream). There were no extras located in the line. At the end of the line, the students gave the cashier their meal ticket, who scanned it and then entered their meals into a computer. The meal ticket was given back to each student and teachers collected them at the tables. The plastic utensils were located on a table right outside the exit door of the food line. The students were only monitored part of the time while going through the line and the food service staff helped them if they had any questions. It took approximately 1-2 minutes for each child to get through the lunch line. There were no vending machines in the lunch line or cafeteria.

Eating procedures. The students then took seats at assigned tables where they were monitored by assistant teachers who walked around the cafeteria. There was no system observed that controlled the noise level. The students' intake was not monitored during the meal, though the teachers helped children open or prepare anything they needed. The child would raise his/her hand to ask for help. No children were observed returning to the lunch line for more food or drink, though it was not clear if this was because they were not allowed to.

End of meal. Once finished, the students were signaled by a monitor to throw away their trash and unopened food as a group and line up against the wall. They were not observed placing any unopened items in a location other than the trash can. The teachers then returned to the cafeteria for their classes and led them back to their rooms. Once all students were gone from a table, the monitor or students would clean it with a soapy solution and ready it for the next class.

Other observations. Any parents that joined their children for lunch sat at the table with him and his class. Also, it was observed that one girl ate nothing and just played with her fruit by the foot. There were no special needs classes at this meal and the safety patrol did not assist with the meal.

School C2 – breakfast:

Overview. Breakfast was observed on Tuesday, June 9, 2009. The cafeteria served breakfasts from 7:30am until 7:50am with each student getting 10 to 15 minutes to eat. There were 20 tables that sat 8 students each and 8 tables were filled at all times during the meal. The food line and cafeteria were both very well lit due to lighting and many windows in the cafeteria.

Transitioning to breakfast. Students went directly to the cafeteria upon their arrival and entered the breakfast line with his account number written down. The teachers did not come to the cafeteria to sit with their students.

The breakfast line. The breakfast line included two food service staff members who served the breakfasts and another one to cashier. The line was set up as follows: milk (white, chocolate, and strawberry) was located at the beginning of the line and then the entrees (pancake sausage on a stick, pancakes, cereal with toast, or 2 count poptarts), which the staff prepared on plates and put out on the counter allowing the students to choose what they wanted. The a la carte items (juice and syrup) were located next and then the cashier. The students were monitored by a staff member to make sure each one took the required milk and juice. The students then went on to the cashier where the student was expected to have his number on a piece of paper. If he did not, he had to put his tray on a table behind the cashier and write it down. There was a list of the students and their numbers sitting on the table so it could be

looked up if not known. The student then returned to the cashier with his number in hand and got his meal. There was a food service staff member sitting at a table right beside the food line that all kindergarten and 1st graders went to. She checked off their names on a sheet with barcodes and it was observed that she only tracked these grades. It was not clear if she got all the students or why she tracked them, but she kept the line moving at a good pace. There were no vending machines located in the line or the cafeteria.

Eating procedures. Students entered the cafeteria and were seated by one monitor who then walked around the cafeteria. Three more monitors came soon after the meal started and monitored the students waiting in line and the tables. The students were not allowed to talk during the meal and did not appear to have their food intake monitored either. They were hurried along by the monitors after about 10 minutes. Some parents ate with their children and sat at their own table away from the other students. The Pre-K students ate in their classroom after a teacher and a student helper came and got their breakfasts that were prepared by the staff and placed on a rolling cart.

End of meal. The students threw their trash away as they finished except for any unopened milk and other items, which were placed on a window ledge. These items for anyone who wanted seconds and it was not clear what happened to these items after the meal. Students then went to their classrooms on their own. Once the tables were emptied, monitors cleaned them with a soapy solution.

Other observations. If children were late coming in due to a late bus, they were allowed to get a breakfast and take it to their classroom. Similarly, if students' meals ran into instruction time, they were allowed to take their breakfast to the classroom.

School C2 – lunch:

Overview. Lunch was observed on Monday, June 8, 2009. The cafeteria served lunches from 10:00am until 12:20pm with each class getting 25 minutes to eat. There were 20 tables that sat 8 students each and the room appeared very crowded. The food line and cafeteria were very well lit and so was the cafeteria, which had many windows.

Transitioning to lunch. The classes were brought in at different times to keep the line from getting too long and to continuously free tables. The students received their laminated meal ticket in the classroom and were then led to the cafeteria by their teacher where they entered the line to get their lunch. The few students who brought their lunch went directly to their table unless they needed a drink, in which case they entered the line with their classmates. The teachers then left to go back to their classrooms to eat lunch, though a few teachers stayed and sat with their classes. The Pre-K classes ate in their rooms.

The lunch line. The lunch line included two food service staff members that served the entrees and one to cashier. The line was set up as follows: milk was located first (chocolate, white, and strawberry) and then the entrée (Teriyaki chicken sandwich, stuffed shells with marinara, black eyed peas, or peanut butter and jelly sandwich) They then proceeded to the condiments and a la carte items (garden salad cups, fruit cocktail, applesauce cups, and pears with cherries). There were no extras located in the food line during this meal. At the end of the line, each student scanned his own ticket and gave it to the cashier who then entered his meal into a computer. Each class had a representative that retrieved the tickets at the end of their lunch period. The kindergarten and first grade students were monitored in the line, but grades two through five were not. The food service staff would help them if they had any questions however. It took approximately 1-2 minutes for each child to get through the lunch line. There were no vending machines in the lunch line or cafeteria. The Pre-K assistant teachers came in

with a “helper” to get their food at 11:00am.

Eating procedures. The students then took seats at assigned tables where they were monitored by assistant teachers who walked around the cafeteria. The kindergarten classes ate at tables near the front of the cafeteria. Three teachers did sit with their students, but the others who stayed ate at a table together in the front of the cafeteria as well. The students who were on “silent lunch” ate there with the teachers. A poster on the wall depicted a system to control noise. Voice levels were categorized as: red was silent lunch, yellow meant they could whisper, and green meant they could talk normally. There was, however, nothing on the table that denoted which level they were on. The students’ intake was not monitored during the meal, though the teachers helped children open or prepare anything they needed. The child would raise his/her hand to ask for help. No children were observed returning to the lunch line for more food or drink, though it was not clear if this was because they were not allowed to.

End of meal. Once finished, the students were signaled by a teacher to throw away their trash and uneaten food as a group and return to their table. They were not observed placing any unopened food in a location other than the trash can. A monitor signaled the tables individually to line up and she would then call the teacher on a phone located in the cafeteria to notify her that her students were ready. The teachers then returned to the cafeteria for their classes and led them back to their rooms. Once all students were gone from the table, the monitor would clean it with a soapy solution and ready it for the next class.

Other observations. There was a sign on the cashier’s computer that said, “Absolutely no adult charges on student accounts”. It was not clear why this was regulation. Any parents that joined their children for lunch sat at the table with him and his class. The safety patrol did not assist with this meal and there were no special education classes present at this meal.

School C3 – breakfast:

Overview. Breakfast was observed on Thursday, April 9, 2009. The cafeteria served breakfasts from 7:30am until 8:15am with each student getting 10 to 15 minutes to eat. There were 16 tables that sat 16 students each. The grades came in for breakfast in two groups at different times, so the room was not as crowded as it was during the lunchtime hour. The food line and cafeteria were very well lit and the cafeteria itself had many windows.

Transitioning to breakfast. The classes came in at different times. Grades 3 through 5 came directly to the cafeteria when they arrived and had until 7:45am to finish eating. They were given their laminated meal ticket at the beginning of the food line and then proceeded through. Grades K through 2 went directly to their classroom upon arrival. There they were given their laminated meal ticket and were taken down to the cafeteria around 8:00am. The teachers sat with their class and then walked them back to the classroom afterwards.

The breakfast line. The breakfast line included one food service staff member that served the entrees and one to cashier. The line was set up as follows: milk was located first (chocolate, white, and strawberry) and then the plastic utensils. Students told the staff which entrée (assorted cereals with toast, 2 count pop-tarts, honeybuns, or pre-packaged peanut butter and jelly sandwich) they wanted and then proceeded to the a la carte section which contained apple and orange juices. At the end of the line, each student gave his ticket to the cashier who scanned the bar code to identify the student and then entered his meal into a computer. The cashier took the ticket and placed it into a “shoe bag” hanging on the wall behind her, which had pockets for each teacher. Each class had a representative that retrieved the tickets at the end of their breakfast period. There were no vending machines in the breakfast line or cafeteria. The older students

were not monitored while in line getting their meal, but the younger kindergarten and first grade students were. Their teacher would make sure they got an entrée as well as a juice and milk. It took approximately 1-2 minutes for each child to get through the breakfast line.

Eating procedures. The students then took seats at assigned tables where they were monitored by assistant teachers who walked around the cafeteria. The 3rd through 5th teachers did not come to the cafeteria to sit with their students, whereas the K through 2nd teachers did sit with their classes. The 3rd through 5th grade students were allowed to talk, but when told by the monitors to quiet down they did not listen. The students' intake was not monitored, though the monitors helped children open or prepare anything they needed. No children were observed returning to the breakfast line for more food or drink, though it was not clear if this was because they were not allowed to. The Pre-K classes ate in their classrooms where food is brought to them from the cafeteria by their teachers.

End of meal. Once finished, the students threw their trash away individually (not as a group). Any unopened cereal put on a special table by the entrance to the breakfast line and unopened milk was put into a cooler on the same table. It was not clear what was done with these items after the meal. The students then returned to their table and were alerted by a monitor when it was time to line up against the wall to return to their classroom. At this time, 2 students from each table would clean the tables with a soapy solution. The 3rd through 5th grade teachers came for their students and led them back to their rooms. During the K through 2nd grade breakfast, the same clean up routine happened and then they lined up and were led back by their teacher.

Other observations. If children came in later due to a late bus, they were allowed to eat and then go on to their classroom by themselves.

School C3 – lunch:

Overview. Lunch was observed on Monday, April 6, 2009. The cafeteria served lunches from 11:10am until 12:40pm with each class getting 25 minutes to eat. There were 16 tables that sat 16 students each and 10-12 of those tables were filled at any given time, which made the room appear very crowded. The food line and cafeteria were very well lit and the cafeteria itself had many windows.

Transitioning to lunch. The classes were brought in at different times to keep the line from getting too long and to continuously free tables. Each teacher brought her students into the lunch room where they received their laminated meal ticket while standing in line and then entered the line to get their lunch. The few students who brought their lunch went directly to their table unless they needed a drink, in which case they entered the lunch line with their classmates. The teacher then left to go back to her classroom to eat lunch, though a few teachers stayed and sat with their class.

The lunch line. The lunch line included one food service staff member that served the entrees and one to cashier. The line was set up as follows: milk was located first (chocolate, white, and strawberry) and then the plastic utensils. Students told the staff which entrée (Teriyaki chicken sandwich, Nachos with chili and cheese, or peanut butter and jelly sandwich) they wanted and then proceeded to the condiments and a la carte items (garden salad cups, fruit cocktail, and pears with cherries) located next. There were no extras at this meal. At the end of the line, each student gave his ticket to the cashier who scanned the bar code to identify the student and then entered his meal into a computer. The cashier took the ticket and placed it into a “shoe bag” hanging on the wall behind her, which had pockets for each teacher. Each class had a representative that retrieved the tickets at the end of their lunch period. There were no vending

machines in the lunch line or cafeteria. The older students were not monitored while in line getting their meal, but the younger kindergarten and first grade students were. Their teacher would make sure they got a fruit or vegetable as well as an entrée and would help the children if they had questions. It took approximately 1-2 minutes for each child to get through the lunch line.

Eating procedures. The students then took seats at assigned tables where they were monitored by assistant teachers who walked around the cafeteria. Two teachers did sit with their students, but this did not seem to be the norm. There was no physical system in place to control the noise. The students were allowed to talk and only told to quiet down when the overall noise level in the cafeteria got too loud. Many tables sat in a boy/girl pattern and several grades were represented at each lunch. The students' intake was not monitored, but one first grade teacher who sat with her class shared that she makes her students eat at least half of their lunch before they can eat their dessert. The monitors helped children open or prepare anything they needed, and the child would raise his/her hand to get help. No children were observed returning to the lunch line for more food or drink, though it was not clear if this was because they were not allowed to. The Pre-K classes ate lunch in their classrooms, while all other grades ate in the cafeteria. A teacher from each Pre-K class came and got their lunches for them. The lunches were already made up on trays by the food service staff and were loaded on a rolling cart for transport.

End of meal. Once finished, the students threw their trash and uneaten food away individually (not as a group) and returned to their table. They were not observed placing unopened items in any location other than the trash can. They were alerted by a monitor when it was time to line up against the wall to return to their classroom. The teachers who ate in their

classrooms returned to the cafeteria for their classes and led them back to their rooms. Once all students were gone from the table, the monitor would clean it with a soapy solution and ready it for the next class.

Other observations. No parents were observed eating with their children and the safety patrol did not assist with this meal.

School C4 – breakfast:

Overview. Breakfast was observed on Thursday, May 7, 2009. The cafeteria served breakfasts from 7:20am until 7:45am with each student getting 10 minutes to eat. There were 20 tables that sat 6 students each and 5 were filled at the meal. The food line was very well lit and so was the cafeteria even though it did not have many windows.

Transitioning to breakfast. Students went directly to the cafeteria upon arrival at school and entered the breakfast line. There were four assistant teachers present to monitor the meal with two more arriving approximately 10 minutes into the meal. The other teachers did not come to the cafeteria to sit with their students.

The breakfast line. The breakfast line included one food service staff member who served the breakfasts and another one to cashier. Students were monitored by a teacher for noise in the line that was backed up into the cafeteria due to very late buses coming in. At 7:35am there were 67 children waiting in line and it took one student from 7:45am to 8:04am to make her way to the cashier. One in the food line, the students were not supervised. The line was set up as follows: the entrée (2 waffles with individually packaged syrup, 2 count pop-tarts, or cereal with toast) was located at the beginning of the line and the milk (white, chocolate, and strawberry) was located in a cooler on the opposite wall from the line. Next were the a la carte

items (juice and packaged peanut butter and jelly sandwiches, and more individually packaged syrup). The students then continued to the cashier where they either told their account number or had her look it up by their last name. There were no vending machines located in the line or the cafeteria.

Eating procedures. Students entered the cafeteria and were seated by the monitors who then walked around the cafeteria. The students first had to eat in “10 minutes of silence” and then they could start talking. The monitors had a hard time controlling the noise level and turned off the cafeteria lights in an effort to do so. This did not work well and two children were sent back to their classroom without breakfast because they would not stop talking. The special needs class came into the cafeteria at 8:00am and sat at a table across the cafeteria from the others. Their teachers helped them through the food line and then sat with them.

End of meal. The students threw their trash away as they finished except for any unopened milk and other items, which were placed on a table by the exit door of the food line. These items were for anyone who wanted seconds. It was not clear what happened to these items after the meal. The students then went to their classrooms on their own. Once the tables were emptied the custodian cleaned them with a soapy solution.

Other observations. Two boys fought in the line while waiting and were reprimanded by a teacher and then the principal. They were allowed to stay and have breakfast.

School C4 – lunch:

Overview. Lunch was observed on Thursday, April 30, 2009. The cafeteria served lunches from 10:35am until 1:00pm with each class getting 25 minutes to eat. There were 20 tables that sat 6 students each and the room appeared very crowded. The food line and cafeteria were very well lit and so was the cafeteria, which had many windows.

Transitioning to lunch. The classes were brought in at different times to keep the line from getting too long and to continuously free tables. The students received their laminated meal ticket in the classroom and were then led to the cafeteria by their teacher where they entered the line to get their lunch. The few students who brought their lunch went directly to their table unless they needed a drink, in which case they entered the line with their classmates. The teachers then left to go back to their classrooms to eat lunch, though a few teachers stayed and sat with their classes.

The lunch line. The lunch line included two food service staff members that served the entrees and one to cashier. The line was set up as follows: utensils were located first and the milk (chocolate, white, and strawberry) was on the opposite wall by the entrance. The entrée was next (corn dog, taco, spanish rice, corn on the cob, or individually packaged peanut butter and jelly sandwich) and then proceeded to the a la carte items (garden salad cups and strawberries) and the “extras” (chips, moon pies, marshmallow crispies square, and cheetos). Next were water bottles and juice in ice and then the students proceeded to the cashier. Each student’s card was scanned by the cashier who then entered his meal into a computer. A student from each class retrieved the tickets at the end of their lunch period. The students were monitored in the line by their teachers who would then return to their classroom to eat. They would help them if they had any questions and the cashier would let a child know whether or not he had enough money on his account for an “extra”. It took approximately 1-2 minutes for each child to get through the lunch line. There were no vending machines in the lunch line or cafeteria. The Pre-K assistant teachers came in with a “helper” to get their food at 11:00am.

Eating procedures. The students then took seats at assigned tables where they were monitored by assistant teachers who walked around the cafeteria. There were red cups on the

tables and the first 10 minutes of the meal, the cup was down which meant silent lunch. After the 10 minutes, the cup was turned upright and the students could talk quietly. The students' intake was not monitored during the meal, though the teachers helped children open or prepare anything they needed. The child would raise his/her hand to ask for help. No children were observed returning to the lunch line for more food or drink, though it was not clear if this was because they were not allowed to. A special education teacher and her assistant brought their seven students to the cafeteria to eat. All but one of them brought their lunch and an assistant teacher led that child through the lunch line. They sat at a table away from the other students.

End of meal. Once finished, the students were signaled by a teacher to throw away their trash and uneaten food as a group and return to their table. They were not observed placing any unopened items in a location other than the trash can. A monitor signaled the tables individually to line up and the teachers returned to the cafeteria for their classes to lead them back to their rooms. Once all students were gone from the table, the monitor and two students would clean it with a soapy solution and ready it for the next class. The custodian swept under the tables.

Other Observations: The safety patrol did not assist with this meal.

School C5 – breakfast:

Overview. Breakfast was observed on Thursday, June 11, 2009. The cafeteria served breakfasts from 7:30am until 7:50am with each student getting 10 to 15 minutes to eat. There were 12 tables that sat 6 students each. The food line was very well lit, but the cafeteria did not have many windows and was a little darker.

Transitioning to breakfast. Students went directly to the cafeteria upon their arrival and got in the breakfast line. If a student did not already have his laminated meal ticket, he told the

cashier his name and she looked it up on the computer. The teachers did not come to the cafeteria to sit with their students.

The breakfast line. The breakfast line included two food service staff members who served the breakfasts and another one to cashier. The line was set up as follows: plastic utensils were located at the beginning of the line and then the milk (white, chocolate, and strawberry). Next were the entrees the staff handed out (cereal with toast, cinnamon bun, 2 count pop tarts, or yogurt and graham crackers) and then the a la carte items (juice, syrup, and jelly). The students were monitored by a staff member to make sure each one took the required milk and juice. The students then went on to the cashier where their meal ticket was scanned or their name was found in the computer and the meal was entered under their account. There were no vending machines located in the line or the cafeteria.

Eating procedures. Students entered the cafeteria and were seated by four monitors who then walked around the cafeteria. The students were not allowed to talk and this was indicated by the red cup on the table. There were also yellow and green ones stacked underneath which, when placed on top, indicated “Warning – you are too loud” or “It is ok to talk” respectively. The monitors hurried them along and they were given about 10 minutes to eat. Some parents ate with their children and sat at their own table away from the other children. The Pre-K students ate in their classroom after safety patrol students took them their breakfasts.

End of meal. The students threw their trash away as they finished except for any unopened milk and other items, which were placed on table by the trash can. These items were moved by students on the safety patrol to another table by the food line exit for anyone who wanted seconds. It was not clear what happened to these items after the meal. Students then went on to the classrooms on their own. Once the tables were emptied, monitors and safety patrol

students cleaned them with a soapy solution.

Other observations. If children were late coming in due to a late bus, they were allowed to get a breakfast and take it to their classroom. The safety patrol students ate in the cafeteria after taking all breakfasts to the Pre-K classrooms and cleaning the tables.

School C5 – lunch:

Overview. Lunch was observed on Thursday, April 9, 2009. The cafeteria served lunches from 10:30 until 12:30pm with each class getting 25-30 minutes to eat. There were 12 tables that sat 6 students each. The food line was very well lit, but the cafeteria did not have many windows and was a little darker.

Transitioning to lunch. The classes were brought in at different times to keep the line from getting too long and to continuously free up tables. Students were brought into the lunch room by their teacher with their laminated meal ticket in hand and entered the line to get their lunch. The few students who brought their lunch went directly to their table unless they needed a drink, in which case they entered the lunch line with their classmates. The teacher then left to go back to her classroom to eat lunch.

The lunch line. The lunch line included two food service staff members who served the lunches and another one to cashier. The line was set up as follows: plastic utensils were located at the beginning of the line and then the milk (white, chocolate, and strawberry). Next were the entrees, which the staff handed out (corndog, taco, spanish rice, corn on the cob, and packaged peanut butter and jelly sandwich) and then the a la carte items (fresh garden salad, cheese, sour cream, and strawberries in cups). The salad dressing was located next to these by the cashier's computer and behind her were the "extras" including moon pies, chips, cereal bars, fruit rollups, etc. These items had to be requested and they had to have enough money on their account to get

them. The students were not monitored while going through the line, except for the cashier who gave out the extras. The students then went on to the cashier where their meal ticket was scanned or their name was found in the computer and the meal was entered under their account. The meal ticket was then placed into a basket. No students were observed taking them back to the classroom and it was not clear how they are returned. It took approximately 1-2 minutes for each child to get through the line. There were no vending machines located in the line or the cafeteria.

Eating procedures. Students entered the cafeteria and sat at assigned tables with their teacher or assistant teacher. There was a system in place to control the noise level in the cafeteria, which utilized three cups stacked on each table. The students were allowed to talk if the green cup was on top. There were also yellow and red ones stacked underneath which, when placed on top, indicated “Warning – you are too loud” or “Silent lunch” respectively. The teachers hurried them along and they were given about 25-30 minutes to eat. The students’ intake was not monitored. Some parents ate with their children and sat at their own table away from the other children. The Pre-K students ate in their classroom after safety patrol students took them their lunches.

End of meal. The students threw their trash away as they finished except for any unopened milk and other items, which were placed on a table by the trash can. These items were moved by monitors to another table by the food line exit for anyone who wanted seconds. It was not clear what happened to these items after the meal. Students then lined up against a wall and returned to their classroom with their teacher. Once the tables were emptied, two students from each table cleaned them with a soapy solution.

Other observations. There were no special needs classes at this meal.

School C6 – breakfast:

Overview. On Wednesday, April 29, 2009 breakfast was observed at school C6. The cafeteria served breakfasts from 7:40am until 8:00am with each student getting 10 minutes to eat. There were 24 tables that sat 8 students each and only a few were filled because only one grade gets a “hot” breakfast each week. The others get “cold” breakfasts to take back to the classroom to eat. The grades rotate each week. The food line was very well lit and so was the cafeteria.

Transitioning to breakfast. All students went to their classrooms upon arrival at school. The students who got the “hot” breakfast that week got their laminated meal card and were then brought to the cafeteria by their teacher where they then entered the breakfast line. The teachers did not sit in the cafeteria with their students.

The breakfast line. The breakfast line included one food service staff member who served the breakfasts and another one to cashier. The students were not monitored in the food line. The line was set up as follows: milk (white, chocolate, and strawberry) was located at the beginning of the line and then the plastic utensils. The entrees followed and were handed out by the staff member (biscuit with jelly, cereal with toast, or yogurt with individually packaged graham crackers). Next were the a la carte items (juice and packaged peanut butter and jelly sandwiches). The students then continued to the cashier where their meal card was scanned. The “cold” breakfast consisted of milk, juice, and pop-tarts in paper bags which were placed in crates on rolling carts. A student on the safety patrol started delivering the crates to each classroom at 7:30am. Some students were observed coming back to the cafeteria to get more milk or other items. There were no vending machines located in the line or the cafeteria.

Eating procedures. Students entered the cafeteria and were seated by three teachers who then walked around the cafeteria. They were given about 10 minutes to eat and the monitors hurried them along. The noise level was minimal and the teachers were observed talking amongst themselves.

End of meal. The students threw their trash away as they finished and returned to their table. The teachers came back to get them and take them back to the classroom. Once the tables were emptied students from each class cleaned them with a soapy solution.

Other observations. If children were late coming in due to a late bus, they were allowed to get a breakfast and take it to their classroom. Also, even though this school has the Universal Free Breakfast program, the school still tracks who eats. The teachers track the number of students who eat the “cold” breakfast in the classrooms and the “hot” breakfasts are tracked by the scanning of the meal card. It was not clear how and to whom these numbers are reported. A cashier volunteered that the principal, thought it was too hectic to have all the students come through the line for breakfast, which is why they do the “hot” and “cold” breakfasts.

School C6 – lunch:

Overview. On Monday, April 27, 2009 lunch was observed at school C6. The cafeteria served lunches from 11:05am until 1:20pm with each class getting 25 minutes to eat. There were 24 tables that sat 8 students each and the room appeared very crowded. The food line and cafeteria were very well lit and so was the cafeteria.

Transitioning to lunch. The classes were brought in at different times to keep the line from getting too long and to continuously free tables. The students received their laminated meal ticket in the classroom and were then led to the cafeteria by their teacher where they entered the line to get their lunch. The few students who brought their lunch went directly to their table

unless they needed a drink, in which case they entered the line with their classmates. The teachers then left to go back to their classrooms to eat lunch, though a few teachers stayed and sat with their classes. The Pre-K and kindergarten classes were brought down first at 11:05am and 11:15am, respectively, and their teachers sat with them.

The lunch line. The lunch line included two food service staff members that served the entrees and one to cashier. The line was set up as follows: milk was located first (chocolate, white, and strawberry) and then the plastic utensils. Next, students told the staff which entrée they wanted (Teriyaki chicken sandwich, Nachos with chili and cheese, black eyed peas, or peanut butter and jelly sandwich) and then proceeded to the condiments and a la carte items (garden salad cups, fruit cocktail, and pears with cherries). There were no extras located in the line. At the end of the line, each student scanned his own ticket and gave it to the cashier who then entered his meal into a computer. Each class had a representative that retrieved the tickets at the end of their lunch period. The students were monitored in line by the food service staff and a teacher who would make sure each student got a fruit or vegetable as well as an entrée and would help the children if they had questions. It took approximately 1-2 minutes for each child to get through the lunch line. There were no vending machines in the lunch line or cafeteria.

Eating procedures. The students then took seats at assigned tables where they were monitored by assistant teachers who walked around the cafeteria. Two teachers did sit with their students, but the others who stayed ate at a table together in the middle of the cafeteria. There was a color system to control the noise that consisted of red, yellow, and green cards. When a green card was showing, the students were allowed to talk. Yellow cards indicated a “warning” that they were talking too loudly and if red was present, they were on “silent lunch”. Many students were observed talking during the meal regardless of the color of card on the table. The

students' intake was not monitored during the meal. The teachers helped children open or prepare anything they needed, and the child would raise his/her hand to get help. No children were observed returning to the lunch line for more food or drink, though it was not clear if this was because they were not allowed to.

End of meal. Once finished, the students were signaled by a teacher to throw away their trash and uneaten items as a group and line up by the stage to wait for their teacher. They were not observed placing any unopened items in a location other than the trash can. The teachers who ate in their classrooms returned to the cafeteria for their classes and led them back to their rooms. Once all students were gone from the table, the monitor would clean it with a soapy solution and ready it for the next class.

Other observations. There were no parents or special needs classes at this meal.

Appendix B. Characteristics of Focus Group Participants

	SBP changed		SBP remained the same			Other interviews
	T2 (U→E)	T4 (E→U)	C1 (U→U)	C2 (U→U)	C5 (E→E)	
Subjects	9	8	4	9	4	4
Female	100.0%	87.5%	75.0%	85.7%	75.0%	100.0%
Ethnicity						
Caucasian	22.2%	50.0%	25.0%	0.0%	50.0%	25.0%
African American	77.8%	25.0%	75.0%	100.0%	50.0%	50.0%
Asian	0.0%	12.5%	0.0%	0.0%	0.0%	0.0%
Other	0.0%	12.5%	0.0%	0.0%	0.0%	25.0%
Marital status						
Never married	55.6%	12.5%	25.0%	33.3%	25.0%	0.0%
Married	11.1%	87.5%	50.0%	33.3%	50.0%	75.0%
Divorced	22.2%	0.0%	25.0%	11.1%	0.0%	25.0%
Other	11.1%	0.0%	0.0%	22.2%	25.0%	0.0%
Education level						
Some high school	0.0%	0.0%	0.0%	22.2%	0.0%	25.0%
HS/GED	0.0%	0.0%	50.0%	33.3%	0.0%	0.0%
Some college	33.3%	25.0%	50.0%	22.2%	50.0%	75.0%
College graduate	66.7%	75.0%	0.0%	22.2%	50.0%	0.0%
Working	77.8%	75.0%	50.0%	66.7%	75.0%	25.0%
Monthly income						
\$0-500	25.0%	12.5%	50.0%	37.5%	0.0%	50.0%
\$500-\$1000	12.5%	0.0%	25.0%	25.0%	50.0%	25.0%
\$1000-\$2000	50.0%	87.5%	25.0%	12.5%	25.0%	0.0%
Above \$2000	0.0%	0.0%	0.0%	25.0%	0.0%	25.0%
Don't know	0.0%	0.0%	0.0%	0.0%	25.0%	0.0%
Assistance progs.						
Receive SNAP	33.3%	12.5%	50.0%	55.6%	50.0%	75.0%
Rec. med. asst.	88.9%	12.5%	75.0%	66.7%	50.0%	100.0%
Receive TANF	0.0%	0.0%	0.0%	11.1%	0.0%	25.0%
School meals						
Child part. in SBP	100.0%	62.5%	100.0%	100.0%	100.0%	100.0%
Child part. NSLP	100.0%	62.5%	100.0%	100.0%	100.0%	100.0%
Free eligible	22.2%	12.5%	100.0%	55.6%	75.0%	100.0%
Red. price eligible	66.7%	0.0%	0.0%	22.2%	0.0%	0.0%

Paid eligible	11.1%	50.0%	0.0%	22.2%	25.0%	0.0%
Unknown elig.	0.0%	37.5%	0.0%	0.0%	0.0%	0.0%

Note: Descriptive characteristics for T4 include all focus group participants (n=7) and the individual interview (n=1) conducted separately. Three of the participants were also teachers without children participating in the SBP. Because the demographic survey was completed per household data are available for 38 households rather than for the 40 individual participants. Item non response resulted in sample variation on gender for schools T2 (1 less response) and C2 (2 less responses) and monthly income questions for school C2 (2 less responses).

Appendix C. Focus Group Discussion and Semi-Structured Interview Guide

1. What are parents' perceptions of the value of breakfast generally?
2. How important is it for family members to eat together for breakfast? Why?
3. Are you familiar with the School Breakfast and Lunch Programs? If yes,
 - Please describe these programs in your own words
 - Do you prefer one program more than the other for your child(ren)? If so, why?
4. Did your child participate in the School Breakfast Program last year? If yes,
 - Has there been any change in the cost of breakfasts for your child?
 - Have you noticed any other changes from last year?
5. Tell me about your child(ren)'s experiences with the School Breakfast Program.
 - How often does your child eat breakfast at school?
 - What are their likes and dislikes?
 - Tell me about any problems they encountered.
 - How does your child feel about participating in the School Breakfast Program?
6. Tell me about the healthfulness and variety of the breakfast offered to your child.
 - Options that are lower in fat, lower in sugar, higher in fruits and vegetables
7. What is your motivation for having your child participate in the School Breakfast Program?
 - For example, how do you think your child benefits from participation in the SBP?
 - How do you think you benefit from your child's participation in the School Breakfast Program?
8. What are some of your main concerns or questions about the school breakfast program?
 - How informed are you about the menu?
9. Tell me about the challenges you and/or your child face to participation in the School Breakfast Program?
 - Time, taste, transportation
10. Did you know that your school (provides/now provides/no longer provides) free breakfasts to all children regardless of their ability to pay?
 - Is this a good or bad change? Why do you feel that way?
11. How important is it for you to have your child (ren) participate in the School Breakfast Program?
12. Is there anything else you would like to share about experiences with the School Breakfast Program?
13. Tell me about your child's experiences with the School Lunch Program.

- 14. Tell me about your household food situation**
 - Do you have enough food to last throughout the month?
 - If not, when does it run out?

- 15. How do you think families meet their household's food needs every month?**
 - Talk about any help they might receive.
 - Food shopping or preparation strategies

- 16. What are your concerns about your family's diet?**
 - Is healthy food consumption a concern of yours?

- 17. What types of foods do you think make up a healthy diet?**
 - What types of healthy foods do you prepare?

- 18. How does your family react to healthy foods?**
 - What kinds of things does your family say about healthy foods?

- 19. What are some of the problems families may face when trying to eat healthy or prepare healthy food for their family?**
 - Talk about how you deal with these problems?

- 20. How do you think families make their food last?**
 - Do you think any of these things work better than the other? (Ask if going to a family member is better than going to a food bank, if this is relevant)

- 21. Do you feel that the School Breakfast Program and/or Lunch Program would help to meet a family's food needs?**

- 22. Do you think families view school breakfasts as a complement/supplement to breakfasts at home or as a substitute for them?**