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The purpose of this study was to assess parental perceptions of school meal programs (SMP) and the extent to which school meal participation helps meet monthly household food needs. Focus groups and individual interviews using a semi structured question guide were conducted with stakeholders (n=2) and parents (n=38) of elementary school aged children in 9 selected Title 1 schools. Content analysis of transcribed audio tapes was conducted to identify themes around perceptions of school breakfast (SBP) and lunch programs (SLP) and strategies for meeting monthly household food needs.

Participants were primarily low income, married African American women. Most children were enrolled in the school breakfast program (89.5%) and the school lunch program (92.1%) with half receiving the meals for free. Qualitative findings revealed that parents valued breakfast and the SBP; however, they felt that the quality of food offered was poor which was underscored by the statement that they [schools] are “trying to turn school into a fast food restaurant”. Despite concerns of food quality and other program administration barriers such as lack of sufficient time to eat, parents agreed that school meal participation helps meet their monthly household food needs.

SMP are used as a strategy for meeting household food needs. Parents questioned the healthfulness of food provided, which may support the need for increased education for parents regarding the nutritional quality of school menu options. Schools may also

benefit from conducting evaluations of SMP administration to ensure that they are readily available to those most in need.

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PARENTAL PERCEPTIONS OF SCHOOL MEAL PROGRAMS
IN GUILFORD COUNTY, NORTH CAROLINA

by

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APPROVAL PAGE

This thesis has been approved by the following committee of the Faculty of The Graduate School at The University of North Carolina at Greensboro.

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CHAPTER I

INTRODUCTION

Dietary intake of children and adolescents in our nation is worsening. Children today have decreased intakes of fruits, vegetables, whole grains, and dairy products, and increased intakes of foods high in saturated fat and sugar.¹ Preferences for these foods and the current economic condition have been shown to play a key role in these intake patterns, which may increase the risk of future health issues in this population.²

In the last three decades, calcium intake has decreased among children and has been linked to a rise in sweetened beverage consumption.³ In 2000, only 24% of individuals met the Daily Recommended Intake (DRI) for daily servings of grains, and even fewer met the recommendations for fiber, vitamins, and minerals.³ Qualitative studies show that the prevalence of fast food consumption is on the rise, with one study reporting that 37% of adults and 42% of children eat food from these establishments.⁴ This increase is hypothesized to be a contributory factor to the deleterious nutritional findings regarding dietary intake in children.^{3,5}

Further evidence of the decline in nutrient intake is found in a 2010 report from the Dietary Guidelines Advisory Committee on the Dietary Guidelines for Americans, recently released by the United States Department of Agriculture (USDA) and the Department of Health and Human Services (HHS).⁵ The committee identifies increased preferences among U.S. children for meals and snacks with higher calories and fat.⁵ In

addition, findings indicate this population consumed low intake levels of fruits and vegetables, as well as dietary fiber and whole grains.⁵ Conversely, data from the 1994-96, 1998 Continuing Survey of Food Intakes by Individuals (CSFII) reported the intakes of grain products were one-fifth to one-third higher in 1994-96, 1998 versus 1977-78 in elementary school aged boys and girls.⁶ However, intake of whole grains by these children in 1994-96 and 1998 was only 1 serving per day or less.⁶

Daily consumption of fruits and vegetables among children is also low. Based on data from the National Health and Nutrition Examination Survey (NHANES) (1999-2000), fruit and vegetable consumption among 9- to 13-year old girls and boys was estimated to be 2.1 servings of fruits and 1.5 servings of vegetables per day.^{7,8} Data also show that only 18% to 20% of these children consumed 5 or more servings from these food groups each day.^{7,8} Furthermore, youth from families with low socioeconomic status were reported as more likely to consume the fewest daily servings of fruits and vegetables.^{7,8}

This is of particular importance as childhood hunger and food insecurity continues to be a growing problem in our nation today. Dietary insufficiencies are particularly prevalent in children living in low income, food insecure households.⁶ The USDA reports that in 2009, food insecurity affected nearly one in four children in our nation. Another report released by the USDA investigating the effects of food assistance on nutrition and health states that 36% of school-age children in a study population ate less than three meals a day, and only 46% ate breakfast every day.⁹ In the lowest-income

group, these children consumed fewer meals per day and were less likely to eat breakfast every day compared to those in higher income groups.⁹

The USDA administers several food assistance programs to aid in the relief of child hunger and to increase participation in school meal programs. The agency estimates program assistance to approximately one in five low-income Americans every year.¹⁰ The Food and Nutrition Service (FNS), a division within the USDA, provides school-aged children from low-income populations improved access to healthy food options and nutrition education through various school meal programs (SMPs), including the National School Lunch Program (NSLP) and School Breakfast Program (SBP).¹¹ School districts and private institutions receive assistance through cash reimbursements and commodity donations based on the number of meals served through these programs.¹⁰ During the academic year (AY) 2008-09, the USDA provided over \$973 million and 982 million pounds of commodities to these programs.^{11, 12}

In AY 2009-10, the NSLP provided 31.3 million free and reduced price lunches to eligible school-aged children compared with 7.1 million in 1947.¹³ The SBP served 9.4 million free and reduced price breakfasts to these children the same year, compared with 0.5 million in 1970.^{10, 14} While some studies have focused on the nutritional impact of participation in the SMPs, few were found that were published in the United States specifically investigating the role of parental perceptions in NSLP and SBP participation. Despite the fact that breakfast consumption has been shown to have positive health benefits, only 18% of children participate in school breakfast on a typical day compared to 62% who utilize the NSLP.¹⁵ This is of particular importance because parental

perceptions may play a key role in a child's participation in SMPs. Thus, the aim of this qualitative study was to examine parental perceptions of school meals in selected Title I schools, including potential barriers to utilizing these programs, as well as to assess strategies for meeting monthly household food needs.

CHAPTER II

REVIEW OF THE LITERATURE

USDA School meal programs

National School Lunch Program

The NSLP was established under the National School Lunch Act of 1946 and offers nutritionally balanced lunches to children attending public schools and nonprofit institutions.^{13, 16} Through this program, children are educated on healthy food choices, which also indirectly extends to other family members.^{11, 13} The USDA provides cash reimbursements for each free and reduced price lunch served, as well as for perishable and non-perishable food commodities used in meal preparation.^{11, 13, 17, 18} Requirements for school lunches include the utilization of these commodities to offer meals containing a minimum of one-third of the recommended daily allowance (RDA) of calories, protein, vitamin A, vitamin C, iron, and calcium for children.^{13, 17} According to the policy of the School Meals Initiative for Healthy Children (SMI), implemented during AY 1998-99, meals must also contain no more than 30% of calories from fat, with 10% or less from saturated fat.¹⁹

Federal guidelines mandate that school meals must be offered at little or no cost to eligible children from low income families.^{1, 19} Eligibility is assessed by total income of the household. For AY 2009-10, 130% of the poverty level equaled \$28,665 for a family

of four. For the same family, 185% of the poverty level was \$40,793.¹⁰ If total household income is below 130% of the guidelines, children in the household are eligible for free meals.¹³ Children from households with a total income between 130% and 185% of the guidelines are eligible for reduced-price meals.^{10, 13} Children living in households with incomes greater than 185% of the guidelines pay full price, though the meals are still subsidized to some extent.^{10, 20}

National School Breakfast Program

Based on the success of nutritional outcomes of the NSLP, Congress passed the Child Nutrition Program Act of 1966 to strengthen and expand the provisions for nutritious meals by providing school breakfast.¹³ Beginning in AY 1966-67, a pilot breakfast program was authorized for two years using cash reimbursements for meals provided at a free and reduced cost. Primary consideration for participation in the program was given to schools “drawing attendance from areas in which poor economic conditions exist and to those schools to which a substantial proportion of the children enrolled must travel long distances daily”.^{10, 13} Schools meeting these criterion were also obligated to justify their need for financial assistance.¹³

Meals served for breakfast were required to meet similar standards as the NSLP. The daily nutritional requirements had to be met, which for breakfast includes a minimum of one-fourth of the RDA of protein, calcium, iron, vitamins A and C, and calories.¹³ The Child Nutrition Act was amended in 1968 to extend the breakfast program through 1971, and in 1975, the SBP was made permanent with Congress

declaring that it should "be made available in all schools where it is needed to provide adequate nutrition for children in attendance."²⁰ Participation by schools with increased need was encouraged, and higher reimbursements were provided to these schools.^{13, 20}

As in the pilot program, the permanent SBP provides cash assistance to public schools and non-profit residential childcare institutions to operate breakfast programs.²⁰

All children who attend participating schools or institutions may purchase a meal through this program. As with the NSLP, eligibility for free and reduced cost meals is determined by household income.^{14, 20} Over 11.1 million children participated daily in the SBP in AY 2009-10, with 9.4 million receiving free and reduced price breakfasts.^{10, 14}

Universal-Free Breakfast Program

In response to evidence suggesting increased nutritional and educational benefits for children participating in SBPs, expansion of the availability of the SBP in Title I schools was recommended.^{10, 21} Title I schools are those with the highest rates of children from low-income households, who receive supplemental funding to equalize the educational outcomes of students from low income areas.²² Title I schools get this funding from grants awarded to the State from the Department of Education, or the school system must use local monies, as is the case with Guilford County Schools, though by North Carolina law, kindergarten students always receive breakfast for free.²² The percentage of low income students at each school is determined by the number of students enrolled in the free and reduced school lunch program.²² For an entire school to

qualify for Title I funds, at least 40% of students must enroll in the free and reduced lunch program.²²

Through the William F. Goodling Child Nutrition Act of 1998, Congress authorized the Secretary of Agriculture, through the FNS, to implement and thoroughly evaluate the outcomes of participation in the universal-free school breakfast program, offered as a provision of the SBP.²³ A three-year pilot program was implemented in 153 Title I elementary schools across six school districts during AY 2000-03.¹⁰ The pilot program allowed all children to eat breakfast free of charge, regardless of household income.¹⁰ Since the program was free to all students, there was no anticipated stigma with the program. It was hypothesized that the program would positively affect SBP participation, academic success, absenteeism, nutritional status, and tardiness, as well as student cognition, behavior, and attentiveness.²³⁻²⁵ In their evaluation of the program, Crepinsek et al. reported that by the end of AY 2000-01, SBP participation had increased 18% more among treatment schools (16% to 40%) versus control (16% to 22%; $P < 0.01$).²⁵ The study found no overall effect of the pilot program on breakfast skipping as a whole, citing that children may still eat breakfast at home.²⁵ It did, however, find that providing a universal-free breakfast program increases the probability that children will eat a nutritious breakfast.²⁵

School Meal Standards

Researchers have investigated the impact of school meal participation in children from low income households, including the effect of these programs on the health of

children. The nutrient content of foods provided at these meals has also been evaluated.^{19, 24, 26, 27} Many studies assessing these variables used data from the third School Nutrition Dietary Assessment Study (SNDA III), a cross-sectional study conducted during AY 2004-05 from 398 schools across 129 school districts in 38 states.^{1, 19} Data regarding the NSLP and SBP include surveys completed by school foodservice managers regarding foods provided, 24-hour dietary recall interviews with students, and subsequent interviews with students and their parents.¹⁹ Data on school food environments and practices were also acquired through on-site observations and interviews with school food service managers and principals.¹⁹

Data showed that roughly 85% of public schools offered the SBP during the school year, and 78% of elementary schools used the offer-versus-serve (OVS) policy during meals.¹ The OVS policy is one under which students are allowed to refuse one or two of the components of a reimbursable school meal, with the goal of reducing the amount of food wasted.¹ Using this data, Gordon et al. reported that more than 85% of schools assessed often met SMI requirements for targeted nutrients in breakfasts “offered”, represented by averaging the nutrient amounts in the foods *offered* for purchase at the meal.¹⁵ The authors also found that over 75% often “served” breakfasts that met SMI requirements, represented by averaging the nutrient amounts in foods actually *served* to (purchased by) students. The study did not report actual percentages of how often breakfasts met these requirements.¹⁵ In another review of SNDA III data, Story found that less than one-third of the schools met the requirement for energy in breakfasts, which is 1/4 of the RDA (23% versus 31% of breakfasts offered versus

served, respectively), though elementary schools were more likely to meet the standard for breakfasts offered.¹ In contrast to energy, school breakfasts most often met the SMI standards for both total fat (no more than 30% of calories) and saturated fat (no more than 10% of calories) (88% and 81% for breakfasts offered; 75% and 69% for breakfasts served, respectively) were reported.¹ Additionally, only 43% of schools offered breakfasts that met the RDA for sodium, indicating that a large percentage of breakfasts offered contained too much sodium.

School Meal Participation

The federal government created the NSLP and SBP, including the universal-free breakfast program, to help relieve child hunger, increase participation in school meals, and aid in reducing the potential for future health concerns.^{10, 20} The consumption of breakfast has been identified as an important factor related to school performance and nutritional needs, though only 18% of children participate on a given day compared to 62% who utilize the NSLP.¹⁵ Studies have reported that skipping breakfast or consuming an insufficient breakfast may contribute to decreased nutrient intakes, which are rarely replenished by other meals during the day.^{2, 24, 26, 28} A study by Nicklas et al., using data from the Bogalusa Heart study, reported that breakfast skipping increased from 9% to 30% from 1973 to 1979. The study also found that breakfast skippers have an increased risk of consuming an inadequate amount of nutrients throughout the day versus non-skippers.² These behaviors are prevalent in childhood and, as a result, may increase the risk of health issues from nutritional deficiencies.²⁹

To better understand decreased SBP participation, Bartfeld et al. investigated breakfast skipping among low income children. Data from the third grade arm of the Early Childhood Longitudinal Survey Kindergarten Cohort and from the Wisconsin Schools Food Security Survey shows that participation in SBPs was lower than NSLPs.³⁰ In a sample of 2,800 students eligible for free or reduced-price meals from schools offering meal programs, only 59.8% participated in the SBP versus 94.3% in the NSLP.³⁰ Bartfeld et al. investigated this trend in a sample containing 1,680 low income children from schools where an SBP was not available, reporting that 46.1% skipped breakfast at least once a week.³⁰ The data strongly support the hypothesis that increasing the convenience of SBPs in schools that do offer the program, including meals served in the classroom and allowing more time to eat, leads to greater participation.³⁰ In contrast, Fox et al. reported in 2004 that participation was strong among low income children, who are already at a high risk of being food insecure, but concurred that SBPs increased the probability that these children would consume breakfast.³¹

In an effort to increase participation, free breakfasts are offered in some schools that meet eligibility requirements. The universal-free breakfast program has been strongly linked to higher breakfast participation rates, based on comparisons of schools with and without the program, as found by Bernstein et al. in a final evaluation of the pilot universal-free breakfast program.³² Additionally, the study found that providing breakfast at no charge to all students in participating elementary schools increased the probability that they would consume a healthy and nutritionally sound breakfast.³² The authors also reported that administration and structure of the SBP and household

characteristics are significantly linked to the likelihood of participation.³⁰ Participation increased when children were given more time to eat and when breakfast was served in the classroom. It also increased when household income levels were lower and when there was a higher number of school-aged children living in a low income household.³⁰

Benefits of Participation

School meal programs are a good resource for nutritious foods because they are available in most schools, and have the potential to positively affect the diets of children.³³ A study by Bhattacharya et al. reports that the availability of SBPs has favorable effects for children, citing data suggesting that access to SBPs increases consumption of a more nutritious diet overall.³⁴ The authors speculate that these results are based on the idea that SBPs provide a higher quality school meal, which replaces a relatively low quality or absent meal at home.³⁴ Similarly, Bartfeld et al. found that access to SBPs provides considerable nutritional benefit by increasing the probability that children will eat breakfast in the morning.³⁰

Bartfeld et al. also report that school meal programs appear to be beneficial in offsetting food-related concerns among at-risk families and that SBPs are linked to a decreased likelihood of food insecurity among children from low income households.³⁰ Long term breakfast consumption has been shown to protect against overweight in adolescents. Food insecurity, however, has also been reported to increase the prevalence of overweight in adolescents from low income households.³⁵ Youths with low food accessibility were found to consume a greater percentage of calories from fat and ate

fewer family meals and breakfasts, possibly due to increased fast food outings and less nutrient dense foods with higher fat content.³⁵ The SBP improves food accessibility and may offset the association of obesity with household food insecurity. Conflicting results, however, have been found in studies regarding this association, possibly due to differing levels of food shortage and coping mechanisms.³⁵

Barriers to Participation

Children may face barriers, real or perceived, that prevent them from participating in school meal programs. As previously mentioned, Bartfeld et al. found that students are more likely to participate in SBPs when meals are served in the classroom and when more time is allotted for meal consumption.³⁰ Other factors identified as potential barriers to SBP participation include timing of breakfast served related to the start of the school day, cost of meals, transportation issues (e.g. late buses), household time constraints, and student preferences for other foods.^{28, 31}

Studies show that trends in food choices of children have changed considerably since the 1977-78 school year, which could affect nutritional outcomes and increase risk of disease. In a review published in 2006, Briefel et al. investigated this trend using data from the National Health and Nutrition Examination Survey (NHANES), the Nationwide Food Consumption Survey (NFCS), and the Continuing Survey of Food Intakes by Individuals (CSFII).³ They report that children had increased preferences for sugary sodas and fruit drinks over milk, as well as foods with higher fat and sodium content.³ These changes, thought to be due to increased fast food consumption, were found to be

higher among children from low income families.³ The home was also cited as a major source of soda availability and consumption.^{3,33} The increased desire for energy dense, low nutrient foods by children could decrease participation in school meals if they perceive menu options as unpalatable and/or not aligned with these preferences. If students do participate, easy access to non-nutritious offerings, such as a la carte items, may deter them from choosing healthier menu items and may lead to poor nutrient intake.

A study by Reddan et al. also aimed to identify perceived barriers to participation and health benefits of the universal-free breakfast program in elementary school students at the end of a 3-year pilot program.²⁸ The 2002 study compared perceptions of elementary school students from schools providing the universal-free breakfast program (“pilot”; n = 827) with those at schools that did not (“control”; n = 615), using a survey administered by the teachers. More students from the pilot schools versus control schools reported that breakfast consumption increased energy (372 vs. 289 students, respectively) and attentiveness (496 vs. 166 students, respectively).²⁸ Also, in pilot schools, students were less likely to skip breakfast because of social stigma or fear of weight gain, and in both groups, the most common perceived barriers to participation included lack of time and decreased hunger in the morning.²⁸ The authors hypothesized that the increased participation in the pilot schools was due to program promotion by school staff and encouragement by parents and the community, which caused children in the pilot schools to see breakfast as a more important meal.²⁸

Perceived social stigma is another barrier that children or parents may attach to school breakfast participation. Fox et al. reports that in SBPs, including the NSLPs in

middle schools, many students and parents believe that breakfast participation carries a stigma, even though schools are required to ensure that those eligible for free and reduced price meals are not identified.³¹

A study by Widome et al. reports that family influences on food perceptions and preferences may be beneficial in affecting future eating habits in adolescents.³⁵ Thus, it is plausible that parents may have the ability to influence eating behavior and barriers to school meal participation in their children. Positive or negative parental perceptions of school meal programs may shape a child's decision to participate in these programs and should be investigated in order to better understand the possible role parents play in school meal participation.

Study Objective

As these studies and others have looked at the various impacts of school meal programs, there has been little, if any, research investigating the perceptions of parents regarding these programs, specifically the SBP. During the elementary school years, children's' attitudes are commonly molded by parents, teachers, and family members.³⁶ If these role models, especially parents, do not consider breakfast an important factor in creating positive health outcomes and/or do not see potential benefits of the SBP, participation rates in this program may be affected. Thus, the aims of this study, a component of a larger study assessing the impact of changes in universal-free breakfast program on academic performance, attendance and other factors, were to:

1. Observe school meal program administration
2. Assess parental perceptions regarding the general value of USDA School Meal Programs, specifically the SBPs, in Guilford County, NC Title I elementary schools.
3. Assess the extent to which parents perceive that school meal participation helps meet their monthly household food needs.

CHAPTER III
USDA FOOD AND NUTRITION RESEARCH PROGRAM STUDY

In the spring of 2008, Guilford County Schools (GCS) considered decreasing its number of universal-free breakfast programs due to a projected increase in cost of food and of participation in free and reduced-price meal programs.³⁷ In AY 2008-09, GCS changed the formula used to determine qualification for universal-free breakfast programs, resulting in a loss of the program in three elementary schools and a gain of the program in one elementary school and one middle school.³⁷ Funding was granted to researchers David C. Ribar, PhD and Lauren A. Haldeman, PhD of the University of North Carolina at Greensboro to investigate the impacts of universal-free breakfast program reduction in Title I schools in Guilford County, NC on school attendance, academic performance, and SBP participation.³⁷ The study utilized a two-pronged design including 1.) a descriptive analysis of changes in universal-free breakfast programs using demographic, economic, and programmatic information,³⁷ and 2.) a retrospective impact analysis of the effects of year-over-year changes in universal-free breakfast programs.

Data for the retrospective impact analysis were collected from the North Carolina Education Research Data Center (NCERDC) spanning AY 2007-08 and 2008-09. Data were used to compare changes in total meal participation, free and reduced price meal enrollment, attendance, end of grade test results, and gender enrollment before and after SBP changes. Using a pre-post treatment control design, the experiences of four Title I

elementary schools in the GCS that underwent changes in their universal-free breakfast program status were examined.³⁷ Schools were chosen for comparison that were as similar as possible prior to the changes and were matched on the basis of economic disadvantage, calendars, academic programs, enrollment levels, racial and ethnic characteristics, and geographic locations.³⁷ The treatment schools (n = 4), those experiencing a loss or gain of the universal-free breakfast program, were compared with control schools (n = 6) that did not experience changes.³⁷ Program records were analyzed and indicated that SBP participation among students in the treatment group, excluding kindergartners, decreased at the three schools that lost the universal-free breakfast program and increased at the school that gained a universal-free breakfast program.³⁷

Data for the descriptive analysis were collected during AY 2008-09 and include cafeteria operations, meal observations, parent focus groups, and individual parent interviews. The purpose of the descriptive analysis was, in part, to explore comparability of treatment versus control schools and to uncover any differences that could influence program participation. In each of the ten schools, one breakfast meal and one lunch meal was observed on different days. Attempts were also made in each school to recruit parents and stakeholders for focus group participation.³⁷

Analyses of meal observations, initially completed to assess whether delivery and types of meals varied across the sample, indicated the schools were generally comparable in terms of operating breakfast programs, giving children similar amounts of time to eat, offering similar menus, and other procedures.

Focus group discussions and individual parent interviews indicated that parents at the schools valued breakfast, that many reported experiencing household food problems and the need for coping strategies, and that many felt that school meals were helpful in meeting household food needs. Similarly, most parents had a basic knowledge of the breakfast program; however, variations in perceived experiences were evident. Parents from the school that gained a universal-free breakfast program spoke positively about the breakfast program, while parents from a school that moved to an eligibility-based program reported negative experiences. These findings show the possible link between student participation and parental perceptions, which should be further examined.

CHAPTER IV

RESEARCH STUDY

While participating in and analyzing the transcripts of the focus groups and individual interviews, trends were noted in participant perceptions that were outside the scope of the FANRP study, raising important questions regarding their potential to influence school meal participation. Therefore, the purpose of this study was to further assess parental perceptions of the general value of USDA school meal programs, specifically the SBPs in Guilford County, NC Title I elementary schools, and to assess parents' perceptions regarding whether school meal participation helps meet monthly household food needs.

Methods

School Recruitment and Approval Process

This study included 1) a descriptive analysis of the demographic, economic, and programmatic information, 2) data collected through direct observations of school cafeteria operations, and 3) focus group interviews of parents and stakeholders. Our analysis focused on ten Title I schools in the Guilford County, NC school system. We examined parental experiences in four elementary schools that underwent changes in

their SBPs and six similarly matched schools that had no change. These schools were selected as a part of the larger study mentioned in the above section.

Data collection took place in two phases: 1) School meal observations, and 2) focus groups with elementary school parents and stakeholders. The purpose of the school meal observations was to investigate the potential role of program administration in participation of school meal programs. Focus groups were conducted to examine parental perceptions of these programs and their influence on program participation.

To initiate the approval process for gaining access into the selected schools, an administrator from Guilford County Schools (GCS) first sent an introduction letter to the principals of the ten Title 1 elementary schools. The letter explained the study and that a researcher would be contacting them to discuss what was needed from them to conduct the study. Cooperation was also requested. An attempt was then made via telephone to contact the principals of the ten schools. If contact was made, permission to observe a breakfast and lunch in the school was requested from the contact person, which in some cases was an individual other than the principal. Permission was also requested to send flyers home in student folders to recruit parent participation in focus groups about school meals. If contact was not made, a follow up letter was emailed to the contact explaining the objectives of the project and requesting permission to enter the school. If no response was received, a follow up phone call was made three to five days later and a message was left via voicemail or with another person if the contact was unavailable. If there was still no response, another phone call was made within two to three days in an attempt to gain permission. An administrator from GCS was also approached for help at this point. The

administrator contacted each of the unresponsive schools and requested cooperation in this phase of the study. As a result, permission was obtained from all remaining schools to observe the meals and recruit for the focus groups.

Meal Observations

One breakfast meal and one lunch meal was observed at each school on different days of the school week. All ten of the breakfast observations were used in the qualitative analysis, but only nine of the lunch observations due to one being conducted on the last day of school, which was non-representative of normal lunch procedures. Observations were guided by a list of questions developed by the research team regarding the procedures of meal administration. Each observation initially took place from a table away from the students and was guided by the following questions:

1. Who brings the children in? Teacher/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 breakfast/lunch? In their classroom or the cafeteria?
5. Where are the a la carte items located in the line?
6. When do they get their meal ticket or how do they pay? Computer?
7. Are they monitored while going through the food line?

8. Does the monitor watch/control what the children are eating? (i.e. no dessert only?)
9. How long is the meal?
10. Who cleans the tables?

Students were observed moving through the meal line, then observations resumed at a nearby table in the eating area where noise levels, seating arrangements, and any other occurrences were noted. Though information was not requested, some teachers and food service staff shared their thoughts and views.

Focus Groups and Structured Interviews

In addition to meal observations, permission was also requested from each school to contact parents regarding participation in focus groups. Once permission was granted, recruitment flyers (See Appendix A) explaining the study were sent home in students' weekly folders and posted in the hallways and on doors in high traffic areas to increase visibility. The flyer served to recruit parents of children who eat or have eaten breakfast at the school to participate in a focus group about the SBP. Flyers were also passed out to parents in the car rider pick up lines at several schools in an effort to increase participation. Additionally, each principal was asked to send a ConnectEd message, which is a pre-recorded message sent to all parents who had a telephone number listed with the school, encouraging participation. A letter was also emailed to every teacher at the ten schools explaining the study, requesting feedback on the recruitment process, and

asking for their 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 for the meeting was set in accordance with the requests of the participants and was approved by the contact person at the school. Focus group sessions (n=10) took place in a common area (i.e., media center, classroom) within the school (n=5) or for individual interviews at a location agreed upon by the participant (i.e. restaurant, participant's home) (n=5). Light refreshments were served, and the discussions were audio recorded. An interview guide was used to facilitate each discussion. At the beginning of the session, the moderator reviewed the consent form (See Appendix B), which was then signed by participants. The moderator then asked focus group participants questions (See Appendix C) and facilitated discussions regarding their perceptions of the SBP and NSLP, the importance of eating breakfast, the healthfulness of the foods offered as a part of the SBP and NSLP, and whether they considered the SBP and NSLP a supplement or substitute for eating at home. Participants were also asked to share their strategies for meeting monthly household food needs.

At the end of each session, participants completed an anonymous paper-and-pencil questionnaire (See Appendix D) that inquired about basic demographic, economic, and school meal participation information. When completed, each participant received a \$10 grocery gift card.

Data Analysis

Descriptive statistics were analyzed using SPSS (version 17) and used to describe study participants and household characteristics.³⁸ Variables included race/ethnicity, marital status, education and income level, employment, school meal program participation, and other household variables. Focus group and individual interview audio tapes were transcribed by an outside transcription service and were content analyzed to identify common themes in participation related to parental perceptions of the school meal programs and strategies used to fulfill monthly food needs.³⁸ Notes taken during meal observations were analyzed for common themes in administration of the program. Overall trends in layout, monitoring of students, location of meal, and payment methods between schools were investigated and recorded in the FANRP study, and discussed previously.³⁸

Findings

Study Schools

Ten Title I schools in Guilford County were selected based on changes to their SBP during AY 2007-08 (See Table 1) as discussed in the larger study above.³⁷ Treatment schools (n=4) either lost or gained the universal-free SBP and were paired with control schools (n=6) who experienced no changes in the SBP. Schools were closely matched based on school calendars and programs, racial and ethnic make-up, and economic disadvantage.³⁷ All schools were located in the same geographic location and

had similar enrollment levels.³⁷ Three of the schools were comprised of more than 75% African American students and two schools had a moderately high number of Hispanic students. All schools had high enrollments of economically disadvantaged students.³⁷ This qualitative study was designed to investigate parental perceptions about SMPs and potential barriers in participants from these schools as a whole that may influence participation in these programs. It did not compare differences between treatment and control groups with regards to these differences.

Cafeteria lay-out and general organization

All of the cafeterias were set up in a similar manner, including a meal line beginning with either plastic utensils or beverages (milk or juice), followed by the entrée and a la carte items, and ended with the cashier.³⁷ In most schools, the meal line was well lit and the method of serving from the line varied from school to school. At the end of the meal line, students handed the cashier a meal ticket with a number that was either scanned or entered into the computer manually.³⁷ In one school, however, the students scanned their own ticket. In some schools, the meal tickets were kept by the cashier and returned to the teachers.³⁷ In others, the tickets were given back to the students for use the next day. No vending machines were present in any of the cafeterias.³⁷

Summary of breakfast observations

Once students arrived at school from the buses or cars, they came to the cafeteria to begin breakfast.³⁷ There were no teachers assigned to bring in students. In some

schools, the line was very long and took extra time to move through. In one school, several buses arrived late, creating a backup in the line.³⁷ Cafeterias operated for 20-45 minutes, with each child given approximately 10-15 minutes to eat.³⁷ For nine of the schools observed, breakfast was served in the cafeteria with the exception of kindergartners, who ate in the classroom.³⁷ All schools offered milk and juice, and most offered both hot and cold entrees. At the tenth school, only one grade received a “hot” breakfast while all other students received a “cold” breakfast to take back to the classroom to eat. Grades that receive hot and cold breakfasts rotate each week.³⁷

In most schools, children chose breakfast options straight from the line; however, in one school the entrees were pre-plated for the children.³⁷ In all but one school, there was no monitoring of food choices. Most students followed through the line in an orderly manner, and once they had given their meal card to the cashier, they were directed to a table in the cafeteria by a monitor.³⁷ Monitoring varied from school to school. In most schools, teacher assistants, food service workers, or janitorial staff walked around the cafeteria to help maintain a reasonable noise level and to get the students in and out as quickly as possible.³⁷ In most schools, students placed unopened items on a table or window sill when they had finished eating and were leaving the cafeteria.³⁷ Some students were observed getting “seconds” from these items. It is unclear what happened to the 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.³⁷

Summary of lunch observations

All students came directly from their classrooms to the cafeteria for lunch.³⁷ If students did not already have their meal tickets from breakfast, they were distributed in the classroom or the meal line. Each school staggered entry times into the cafeteria to keep the lines from getting too long.³⁷

Nine of the ten schools allowed 25-30 minutes to eat (one school allowed 45 minutes).³⁷ 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.³⁷ 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 in the line.³⁷ In other schools, staff provided some assistance to students with fruit and vegetable choices or to the younger students with their overall meal choices. In some schools noise was controlled, but this was not the case in all schools.³⁷ Procedures using colored cups were used in some schools, with certain colors denoting “silent” or “quiet talking” at tables where noise level was high. In several schools, students placed on “silent lunch” sat at a separate table away from others.³⁷ In three schools, students were observed placing unopened items on a table as they left the cafeteria.³⁷

These findings indicated that most schools operate their school meals program in the same manner and were used in conjunction with focus group findings to better understand barriers associated with school meal program participation.³⁷

Focus Groups and Individual Interviews

Participants were primarily low income, married African American women (See Table 2). Education level varied. Most were parents of elementary school children enrolled in the school breakfast program (89.5%) and the school lunch program (92.1%), with half receiving the meals for free. However, in one school, three of the seven focus group participants were teachers without children participating in the SBP. A total of forty parents and teachers across nine schools participated in either a focus group session or individual interview, which took place on the following dates: 5/26/09, 6/10/09, 6/11/09, 6/17/09, 6/18/09, 7/17/09, 7/20/09, 8/10/09, 8/12/09, and 8/24/09.³⁷ The focus group sessions for the five individual schools included 9, 9, 7, 4, and 4 participants, respectively. Of the five individual interviews, one participant represented a school at which a focus group was held and the other four each came from schools at which no focus group was held.³⁷ In one focus group, two sets of parents from the same household attended, but only one demographic survey was completed per household. As a result, household demographic data are available for 38 participants.³⁷

For schools at which only one or two parents agreed to participate, individual interviews were conducted, with the interested participants following the same protocol utilized in the focus group sessions.³⁷ There was one school from which no parents or teachers indicated interest in participating, therefore no focus group or individual interview was conducted.³⁷

Participant Responses

Though all participants reported that breakfast and lunch were an important part of the day, food quality and other parts of the SMP were perceived as substandard. The following sections include common themes along with supporting quotes from focus groups and individual interviews. The selection of quotes is representative of the overall views of the study sample, though does not include all comments recorded.

Negative Perceptions

<i>School Meal Offerings</i>
“I’m trusting you with my child, and my child comes home ten pounds more than when they left, so I think the school could do a lot more about balancing out and stop giving them the choice”
“But breakfast, to me is just, it’s like a pop tart, super donut, the cinnamon rolls, pancakes. And we had -- I would say the last two weeks of school, we had syrup with everything for ten days.”
“I came to breakfast with her one morning and I witnessed the frozen sausage inside this hot pancake.”
“And that’s the thing, but then they talk about the kids, and their weight, and exercising, but you started them off, you know, one way and try to have them one way at home and they like, hmmph, I get here, I can get this.”
“They eat so much sugar, they crash at some point. I’m sure if the choices were healthier the behavior would be better around 10:30 or 11:00.”

<i>Food Quality</i>
“They always come home and it's either undercooked, or it's too cooked, or they ran out. We've heard it all.”
“It looks like they just put it together and throw it on a plate real fast.”
“Trying to turn school into a fast food restaurant.”
“They could have either organic chicken or more natural foods, or more choices, where it’s more balanced.”

With regards to the SBP in particular, participants reported there is too much sugar offered, citing items such as honey buns, pop tarts, and sugary cereals. Parents also perceived the Super Donut®, a common breakfast menu item, as “Full of sugar” and “Not healthy”. Participants also shared ways used to make food last each month. Some strategies are presented in the following table.

Strategies to Meet Household Food Needs

<i>School Meal Participation</i>
“It saves us our refrigerator.”
“When they’re in school, it saves us our food and our grocery time.”

“Sometimes I need for her to eat that breakfast because I ain’t got no cereal and milk.”	
<i>Alternate Methods</i>	
“If you buy dented cans, you know they're supposed to give you a discount. Supposedly it breaks the seal and it could put the toxins from the metal inside the can, so that's why it's discounted. But you know sometimes I can't even buy diapers so, I mean, I have to take a chance with a can of green beans.”	
Coupons/Generic Brands	Urban Ministries
Buying in Bulk/Leftovers	Government Assistance
Churches	Growing Food
Family/Friends	Food Banks

Participants stated that SMPs were helpful in meeting monthly household food needs by decreasing food costs in the home. Many also shared strategies used to stretch their food budget in order to make food last until the end of the month, including coupon use, donations from food pantries and neighbors, buying in bulk, and utilizing leftovers.

Potential barriers to SMP participation were also uncovered, including experiences with transportation issues and negative perceptions of program administration, and are noted in the following table.

Barriers to Participation

<i>Transportation</i>
“My kids, they get there, I guess one of the last round of buses, and there’s not enough hot food left”
“If you live within a mile of the school that your child attends, you’re not allowed to ride the bus...it’s a hinder because if it’s raining, I don’t want to walk”
<i>Program Administration</i>
“I think what they could do is change the times of the breakfast and lunch, where it can even out.”
“I think more time would help my kids.”
“It don't always be the same breakfast it says on there”
“When you see a child throw a whole plate of food away, and they haven’t eaten anything, that upsets me.... you would be surprised how many fruits and vegetables and all that go in the trash.”
“Students are forced to get all items, like milk AND juice, even if they don’t want them.”

Late buses, lack of food, and timing of meals were common themes among participants in focus group and individual interview sessions. Parents reported frustration with program administration and structure of the SMPs, describing negative experiences regarding the amount of time given to students to eat breakfast and the amount of food wasted at meals.

Results also provide evidence that there may be delays in some parents discovering that SBPs have changed. In particular, some parents at a school who gained the universal-free breakfast program indicated that they did not become aware of the availability of 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 indicated that the information was either overlooked or not received.

Although not the focus of this project, results also showed that parents at schools that gained the universal-free breakfast program reported more positive experiences versus parents at schools that lost the program, who reported more negative experiences.

CHAPTER V

DISCUSSION

The purpose of this qualitative study was to examine parental perceptions of school meals in selected Title I schools, including potential barriers to utilizing these programs, and to assess strategies for meeting monthly household food needs. Participants consisted of parents of students attending Title I schools in Guilford County, NC, who have participated in the SMPs, particularly the SBP, and of stakeholders. Results showed that overall 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. Conclusions regarding these experiences are tentative because they are based on a small number of focus groups and a modest number of participants; however, some patterns were detected in these sessions. Parents expressed some of the strongest concerns regarding food quality and the amount of time their children had to eat meals. Parents perceptions of the healthfulness of food provided may support the need for increased education for parents regarding the nutritional quality of school menu offerings. Study results indicate a need for more parental education regarding SMPs. Specifically, parents perceived the “Super Donut[®]” as an unhealthy item that is “full of sugar”. In actuality, however, this item is fortified with vitamins and minerals and contains canola oil, which provides much needed Omega-3 fatty acids. It is also a more cost effective item for GCS, though may increase the risk of parents and

children perceiving a doughnut as nutritious. In contrast, the parents at one school that gained a universal-free breakfast program shared some of the most positive experiences, commenting, for instance, on the safe environment that the program provided for the children.

Parental perceptions of SMPs may influence strategies to meet monthly food needs. Parents may perceive participation as a means to help meet these needs by lowering food costs at home, potentially leading them to encourage their children to eat meals at school. Participants also reported using other strategies to meet monthly food needs including using coupons, budgeting, buying and preparing in bulk, leftovers, churches, food banks, neighbors, and growing their own food. These perceptions support findings by Bartfeld, et al. that school meal programs help offset food-related concerns among at-risk families by improving food accessibility through meals provided.³⁰ Additionally, the authors report that participation increased as household income levels declined and with an increased number of children in the household.³⁰

As discussed previously, if children do not participate in SMPs, the cost may be shifted back to the household. Some of the perceived barriers to participation include timing of meals and transportation. Studies by Fox, et al. and Reddan, et al. report that the amount of time given to children to eat school meals and decrease hunger in morning were barriers to SMP participation.^{28,31} This is further evidenced by Bartfeld et al., who found that the way breakfast programs are structured at schools is significantly linked to probability of participation, especially regarding arrival times of buses and amount of time given to eat before class begins.³⁰ These data are supported by statements from

participants concerning late buses and the lack of enough hot food when the children arrive. If a child cannot get to school on time due to transportation or other issues, he would have to be fed at home, which increases monthly food costs. As a result, this could lead to breakfast skipping if food is not available in the home. This is important because negative perceptions of SMPs could cause a parent to keep her child from participating, which would result in increased household food costs. Additionally, if the SBP program is not run efficiently and creates long lines, children may opt to skip breakfast and go straight to the classroom

Perceived social stigma attached to free and reduced price meals may also affect participation. If a parent or child attaches a social stigma to eating free and reduced school meals, participation may decrease, adding to food costs at home. Some children may attach stigma, such as how they are perceived by the opposite sex, to participation which could increase the prevalence of meal skipping.³⁹ A 2004 study by Bauer et al., using focus groups comprised partly of middle school students, reported that many of the female students did not want to eat in front of male students for fear it made them look unattractive, and they did not want to be seen “stuffing their face”.³⁹ Reddan et al., however, reported conflicting findings from a 2002 pilot study of fourth to sixth grade students attending universal-free breakfast schools. Students from schools that offered a universal-free breakfast program, versus students from those who did not, were found to skip breakfast significantly less due to fear of others seeing them eat meals for free.²⁸ Children at the universal-free breakfast schools were also more likely to respond that they

eat breakfast “very often” compared to control (77% vs 71%, respectively; $P=0.04$), indicating the importance of this program.²⁸

Program administration may also have a negative effect on SMP participation. If meal programs are perceived by parents to be run inefficiently or food to have little to no value, children may not be permitted to participate. If the breakfast program is not run efficiently and creates long lines, children may opt to skip breakfast and go straight to the classroom. Another possible cause of deterrence from SMP participation is the paperwork and process required to become eligible for free and reduced meals. An application is sent home with students at the beginning of each school year, however, it may be confusing for individuals who have a lower level of education or do not speak English, and it must be renewed each school year. If paperwork is lost or not received by GCS administrators from the school, the parent may have to go “to the other side of Greensboro” to reapply, as stated by one participant. These factors could dissuade parents from applying for eligibility, thereby decreasing participation and potentially increasing household food costs and/or the risk of meal skipping.

Overall, participants had a variety of complaints about the administration of the SMPs. Food quality and availability were common issues as well as time allotment for meals and wastefulness. Results indicate that administration of SMPs is perceived as inefficient and as one that offers meals with decreased food quality. It is also perceived to follow protocols that cause children to waste food and allow inadequate time to eat meals. The data show that parental perceptions are an important part of student participation in SMPs and support the hypotheses of previous studies that increasing the

convenience of universal-free breakfast programs in schools that do offer the program, including serving meals in the classroom and allowing more time to eat, leads to greater participation.²⁸

Negative parental perceptions regarding meal offerings and administration, as found in this study, may result in decreased participation in these programs and potentially lead to behavioral or learning problems in school. A closer look at program administration including meal offerings, timing, and environments, is needed to assess their role in creating barriers to participation for parents and students.

Further studies including perceptions of students and food service workers regarding the SMPs would provide valuable insight into potential barriers to participation and ways to make the programs more accessible. Studies with larger sample sizes are also warranted to confirm findings in this study. Additionally, studies testing the conceptual model created for this study would be beneficial to understanding the effects of each variable on the model as a whole.

Although parents strongly valued the importance of breakfast and lunch, there are many other variables that can influence participation, all of which have the potential to impact SMP participation. Food quality and program administration were perceived as substandard and potential barriers to participation in SMPs.

Proposed Conceptual Model

In order to better understand the potential effects of parental perceptions on participation in SMPs, an exploratory approach was used. A proposed model was created

using data from focus groups and individual interviews to investigate potential connections (See Figure 1). This model was based on literature and on content from the focus groups that became evident in the larger study, but was out of the scope of the FANRP grant. The components of the model included parental perceptions, strategies for meeting monthly food needs, barriers to participation, and program administration. Parental perceptions of SMPs may impact childrens' views positively and negatively about school meals, which could affect participation. Participation may increase if parents perceive school meals to have nutritional benefits or see them as a strategy to meet monthly food needs. Alternately, it may cause a decrease in participation if parents are not aware of these programs or perceive them as having little or no nutritional value or other benefits. Positive parental perceptions of SMPs may affect strategies to meet monthly food needs by lowering food costs at home, potentially increasing parental encouragement of program participation.

Potential barriers such as not being hungry at meal times, not enough time to eat (e.g. long cafeteria lines, time allotment for meals), transportation issues such as late buses, and perceived social stigma attached to free and reduced price meals have the potential to effect participation. Strategies to meet monthly food needs may also be affected by similar barriers. If a child cannot get to school on time, he would have to be fed at home, increasing monthly food costs, or he may skip breakfast, increasing nutritional risk. Additionally, if a parent or child attaches a social stigma to eating free or reduced school meals, participation may decrease and alter the strategies parents use.

Program administration may also affect parental perception and participation. If meal programs are perceived by parents to have potential problems or little to no value, children may not be encouraged to participate. Participation may also decrease due to the process required to become eligible for free or reduced meals.

This proposed model was used to help understand these variables and their effect on SMP participation, but it was not tested in this study.

Study Limitations

The limitations in this study include low focus group participation and the resulting small sample size. However, the overwhelming trends in parent perceptions would most likely be duplicated in larger samples. Also, stakeholders' perceptions and demographic information (n=3) were unable to be separated from overall results, though most were parents with children who had at one point participated in a SBP.

CHAPTER VI

EPILOGUE

I feel I was a great match for this study. Being a parent of elementary-aged children granted me further insight into potential barriers the participants may have been facing to school meal participation such as the chaos of morning routines, childrens' food preferences, and other areas.

This study was an eye opener for me in terms of the overall process of provision of and participation in school meal programs. The reality of what schools must go through to provide meals that meet the mandated nutritional requirements while staying within the budget allowed made me realize how uneducated I was, not only a citizen of Guilford County, but as a parent of school aged children.

Conducting the focus groups and individual interviews was a humbling experience for me. To hear about, and in some cases actually see, their living environment and hear the means by which they make ends meet each month really made me realize how blessed I am and how much I have to be thankful for. I found myself wishing I would win the lottery so I could give them all enough money so they would not have to worry about food.

This was a difficult journey for me littered with many personal issues. Being a parent in school was not easy, but I learned a lot about myself and that I can do anything I set my mind to if I stick to it. I will always remain grateful to Dr. Lauren Haldeman for

her guidance as well as the members of my committee, Dr. Martha Taylor and Dr. David Ribar.

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LET'S TALK BREAKFAST



Is your child currently eating breakfast at school?

Has your child ever eaten breakfast at school?

Are you interested in talking about your child's experiences with the School Breakfast Program?

Would you like to share your own thoughts about the School Breakfast Program?

If the answer is "YES" to any of these questions, please give us a call!

The purpose of this research is to learn about parent and child experiences with the School Breakfast Program.

All parents interested and eligible to join in this project will be asked to give 1.5-2 hours of their time to discuss their experiences with the School Breakfast Program. Interviews will take place in a place that is convenient to you. In return for your help you will receive a grocery card gift.

For more information please call Dr. Lauren Haldeman at 256-1382 or email at

lahaldem@uncg.edu UNC Greensboro, Department of Nutrition

APPENDIX B. PARENTAL CONSENT FORM

UNIVERSITY OF NORTH CAROLINA AT GREENSBORO CONSENT TO ACT AS A HUMAN PARTICIPANT: LONG FORM

Project Title: Universal-Free and Eligibility-Based School Breakfast Programs

Project Director: Dr. Lauren Haldeman

Participant's Name: _____

What is the study about?

The purpose of this research project is to learn about children's and families' experiences with the School Breakfast Program.

Why are you asking me?

You are being asked to join because your child attends a school that serves free breakfasts to some children.

What will you ask me to do if I agree to be in the study?

If you agree to be a part of this study, you will be asked to participate in a 1½ - 2 hour group discussion with the researcher and other parents at your child's school.

Is there any audio or video recording?

The focus group discussion will be tape recorded, but it will not be video recorded. Because your voice will be potentially identifiable by anyone who hears the tape, your confidentiality for things you say on the tape cannot be guaranteed, although the researcher will try to limit access to the tape as described below.

What are the dangers to me?

The focus group discussion may include some things about your or your child's experiences with the School Breakfast Program that you find embarrassing. If you have any concerns about your rights or how you are being treated please contact Eric Allen in the Office of Research and Compliance at UNCG at (336) 256-1482. Questions about this project or your benefits or risks for being in this study can be answered by Dr. Lauren Haldeman who may be contacted at (336) 256-0311.

Are there any benefits to me for taking part in this research study?

There are no direct benefits to participants in this study.

Are there any benefits to society as a result of me taking part in this research?

This information may help the schools in Guilford County and elsewhere to offer better meal programs. It may also help us to better understand school meal programs.

Will I get paid for being in this study? Will it cost me anything?

If you agree to participate in the focus group, you will receive a \$10 grocery store gift card. The cards will be given out at the end of the session, and you will be asked to sign a receipt. The card will be available even if you withdraw from the study or do not answer all of the questions.

How will you keep my information confidential?

The discussion will include other parents. Because of this, we cannot guarantee your confidentiality. The discussion will also be tape recorded. The audio tapes will only be used for transcription purposes and will not be shared with others. All written transcripts and audio recordings will be kept in a locked file cabinet in a locked office in the Department of Nutrition at UNCG. Reports that are based on this research will use summaries and quotes from the transcripts but will not identify participants. All information obtained in this study is strictly confidential unless disclosure is required by law. At the conclusion of the study three years from now, all computer data files with transcripts will be deleted. All written records will be shredded and disposed of and audio tapes will be destroyed.

What if I want to leave the study?

You have the right to refuse to participate or to withdraw at any time, without penalty. This means that you are free to refuse to answer any of the questions and free to leave the session. If you do withdraw, it will not affect your eligibility for the gift card in any way. If you choose to withdraw, you may request that any of your data which has been collected be destroyed unless it is in a de-identifiable state.

What about new information or changes in the study?

Because of the short duration of the discussion sessions, this is unlikely to happen. However, if significant new information relating to the study becomes available which may relate to your willingness to continue to participate, this information will be provided to you.

Voluntary Consent by Participant:

By signing this consent form you are agreeing that you read this document, or had it read to you, that you fully understand its contents, and that all of your questions regarding this study have been answered. You are also agreeing that you are 18 years of age or older and agreeing to participate in this study.

Signature: _____ Date: _____

APPENDIX C. SEMI-STRUCTURED INTERVIEW QUESTION GUIDE

What are parents' perceptions of the value of breakfast generally?

How important is it for family members to eat together for breakfast? Why?

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?

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?

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?

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

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?

What are some of your main concerns or questions about the school breakfast program?

How informed are you about the menu?

Tell me about the challenges you and/or your child face to participation in the School Breakfast Program?

Time, taste, transportation

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?

How important is it for you to have your child(ren) participate in the School Breakfast Program?

Is there anything else you would like to share about experiences with the School Breakfast Program?

Tell me about your child's experiences with the School Lunch Program.

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

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

What types of foods do you think make up a healthy diet?
What types of healthy foods do you prepare?

How does your family react to healthy foods?
What kinds of things does your family say about healthy foods?

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?

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)

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

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

APPENDIX D. DEMOGRAPHIC SURVEY

Date of Interview: ___/___/___

Interviewer Name: _____

Participant characteristics:

Please answer the following questions:

Date of birth: (MM/DD/YY) ___/___/___

Sex: Male / Female

Ethnicity

How would you identify yourself?

Caucasian (White)

African American (Black)

Hispanic

Asian

Other _____

Marital Status:

What is your current marital status?

Single

Married

Other _____

Education:

What is the highest grade you reached in school?

Eighth grade or less

Some high school

High school graduate or GED equivalency

Some college or technical training

College graduate

Employment Status:

What is your current employment status?

Working

Not working

Household

How many people currently live in your household? _____

Household Income:

Interviewer: For the next question please include all money (employment) and government assistance (government checks, Disability, Food Stamps) received by any and all members of your household.

What is the total amount of money your household receives per month from employment and government assistance (Please include income for all members of the household)?

\$ _____

From these choices, which best shows the total amount of money your household receives per month from employment and government assistance (Please include income for all members of the household)?

\$0-\$500

\$500-\$1000

\$1000-\$1500

\$1500-\$2000

More than \$2000

Don't know

Do you or anyone in your household currently receive food stamps?

Yes

No

Does anyone in your household currently receive government medical assistance (Medicaid or SCHIP)?

Yes

No

Do you or anyone in your household currently receive Temporary Assistance for Needy Families (TANF)?

Yes

No

School Breakfast/Lunch Program Participation:

Do you have an elementary school child currently participating in the School Breakfast Program?

Yes

No

Do you have an elementary school child currently participating in the School Lunch Program?

Yes

No

Please list the grade level for each elementary school child that eats School Breakfast and/or School Lunch:

Child 1: _____ grade

Child 2: _____ grade

Child 3: _____ grade

Child 4: _____ grade

Does your child (ren) pay full price, reduced price, or nothing at all for breakfast and lunch?

Full

Reduced

Free

Table 1. Characteristics of Study Schools

AY 2007-8 Characteristics										
	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10
# of Students	51	34	72	63	76	16	81	07	15	30
% African American	6%	6%	3%	6%	0%	7%	4%	7%	1%	4%
% Hispanic	7%	9%	4%	4%	3%	6%	2%	8%	2%	19%
% Economically Disadvantaged	2%	8%	1%	2%	2%	1%	5%	1%	8%	6%
% Non-Kindergarten	0%	5%	6%	3%	5%	2%	3%	4%	5%	3%
Pre-Kindergarten?	No	Yes	No	Yes	Yes	Yes	No	No	No	Yes

AY 2008-9 Characteristics

	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10
# of Students (ADM)	422	765	359	545	577	510	414	447	531	522
% African American	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. (S = Schools)

Table 2: Characteristics of Focus Group Participants

	Focus Gp #1	Focus Gp #2	Focus Gp #3	Focus Gp #4	Focus Gp #5	Individual Interviews
<i>Subjects</i>	9	8	4	9	4	4
Female	100.0%	87.5%	75.0%	85.7%	75.0%	100.0%
<u>Ethnicity</u>						
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%
<u>Marital Status</u>						
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%
<u>Education Level</u>						
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 Grad	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%

	Focus Gp #1	Focus Gp #2	Focus Gp #3	Focus Gp #4	Focus Gp #5	Individual Interviews
<u>Monthly Income</u>						
\$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%
<u>Assistance Programs</u>						
Receives SNAP	33.3%	12.5%	50.0%	55.6%	50.0%	75.0%
Receives Medical Assistance	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%
<u>School Meals</u>						
Child part. in SBP	100.0%	62.5%	100.0%	100.0%	100.0%	100.0%
Child part. in 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%
Reduced-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 eligibility	0.0%	37.5%	0.0%	0.0%	0.0%	0.0%

Note: Descriptive characteristics for S4 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 S2 (1 less response) and S6 (2 less responses) and monthly income questions for school S6 (2 less responses).

Figure 1: Proposed Conceptual Model

