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# 'I Don't Really Get It': An Ethnographic Investigation of the National School Lunch Program of Middle School Children in New Jersey

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# 'I Don't Really Get It': An Ethnographic Investigation of the National School Lunch Program of Middle School Children in New Jersey

## **Abstract**

In light of the obesity epidemic, the National School Lunch Program (NSLP) has been extensively analyzed and criticized. Thus far, literature examining the NSLP has focused on what foods are provided rather than what is actually eaten. Additionally, there is limited research on the socialization effects of school lunch and childhood foodways within a school setting. The socialization of children during household mealtimes has been extensively studied, but these studies have been limited to the family dinner table. The purpose of this ethnographic study is to determine how children are socialized during school lunch and to examine the extent to which children understand health and nutrition. Semi-structured interviews were conducted with students from a middle school in northern New Jersey. The participants were also observed during various lunch periods in the school cafeteria. Faculty members and lunch service workers were also informally interviewed. The data from the participant interviews and lunchroom observations was synthesized and the analysis of the data revealed common thematic elements: gender, nutritional discourse, commensality, and socialization mechanisms. During school lunch, children sit with students of their own gender, so male and female students are socialized differently. Observations indicate that female students are more likely to share food at the lunch table and male students are more physically active and are less likely to finish their meals. The interviews suggested that children have a basic and profound understanding of health and nutrition which is primarily learned at home. The observations suggest that the mechanism of linguistic socialization deviates from the narrative structure described in the mealtime literature; children reinforce gender roles during lunch time conversations, but their conversations follow different narrative structures. In the context of the obesity crisis, this study reveals the importance of school lunch on socialization and its effects on students' food choices.

## **Keywords**

National School Lunch Program, ethnography, nutrition, socialization

## **Disciplines**

Anthropology | Education

'I Don't Really Get It':

An Ethnographic Investigation of the National School Lunch Program of Middle School

Children in New Jersey

By

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In

Anthropology

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Department of Anthropology

University of Pennsylvania

Thesis Advisor: Dr. Morgan Hoke

2019

## **Abstract**

In light of the obesity epidemic, the National School Lunch Program (NSLP) has been extensively analyzed and criticized. Thus far, literature examining the NSLP has focused on what foods are provided rather than what is actually eaten. Additionally, there is limited research on the socialization effects of school lunch and childhood foodways within a school setting. The socialization of children during household mealtimes has been extensively studied, but these studies have been limited to the family dinner table. The purpose of this ethnographic study is to determine how children are socialized during school lunch and to examine the extent to which children understand health and nutrition. Semi-structured interviews were conducted with students from a middle school in northern New Jersey. The participants were also observed during various lunch periods in the school cafeteria. Faculty members and lunch service workers were also informally interviewed. The data from the participant interviews and lunchroom observations was synthesized and the analysis of the data revealed common thematic elements: gender, nutritional discourse, commensality, and socialization mechanisms. During school lunch, children sit with students of their own gender, so male and female students are socialized differently. Observations indicate that female students are more likely to share food at the lunch table and male students are more physically active and are less likely to finish their meals. The interviews suggested that children have a basic and profound understanding of health and nutrition which is primarily learned at home. The observations suggest that the mechanism of linguistic socialization deviates from the narrative structure described in the mealtime literature; children reinforce gender roles during lunch time conversations, but their conversations follow different narrative structures. In the context of the obesity crisis, this study reveals the importance of school lunch on socialization and its effects on students' food choices.

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*“In the school cafeteria paradigm, lunch is simply a part of the day that is not studied at all”  
(Rud & Gleason, 2018, p. 175)*

## Introduction

Most American children learn in school that food is one of the fundamental needs that all humans share. Despite gaining this knowledge in school, children's food preferences and early eating patterns are shaped by cultural practices within their homes. Once a child enters school, they bring their cultural practices from home into the lunchroom. During school meals, children begin to experience new eating patterns with their peers. Within the United States (US), school lunches have always been extensively criticized and politicized. Susan Levine (2010) argues that "anthropologists have long observed, hierarchies of power and culture are embedded within the decisions about which foods are deemed suitable to eat...Nowhere, perhaps, is the link between food and culture more relevant than in school meals" (p.14). It is unsurprising that there is a vast amount of anthropological literature about food because it is an essential part of human life and culture. What is surprising is that there is so little research on the socialization processes and consumption patterns of children within the lunchroom.

The goal of this ethnographic study is to utilize an anthropological approach to understand how children are socialized during school lunch with their peers, examine childhood food agency, and determine the extent to which students understand nutrition and health. The purpose of this study is to document what truly happens within the cafeteria, to investigate how governmental policies *actually* manifest within schools, and to consider how these policies do or do not affect children. This project draws primarily on literature from linguistic socialization theory and nutritional anthropology.

In order to analyze and contextualize the data collected in the course of this research, it is necessary to first review the anthropological literature on mealtime socialization and the historical and political events that led to the creation of the National School Lunch Program.

First, this thesis provides a brief literature review of the mealtime socialization literature. Second, the history of school lunch in the US and the historical remnants that persist today are reviewed. Then, the intellectual framework and the methodology are briefly discussed. Finally, the results of this study are presented and discussed utilizing the historical context, current policies, and literature as a framework for the analysis. The goal of this study is to analyze the ethnographic findings of this small-scale study and relate the conclusions to larger, national policies and broader food socialization literatures.

### **Background to the Research Problem**

What follows is a brief literature review of mealtime socialization and school feeding programs within the US that reveals the gaps in scholarship of ethnographies of social relations within American schools. Because there is little literature on these socialization processes, scholars and policy makers can only speculate what actually happens inside the walls of a school. The lack of literature is concerning because nutritional and educational policies affect millions of children. Currently, most American policies are created using epidemiological data. There is an extensive amount of socialization and nutrition literature, which can be applied when considering an ethnographic study of schools.

### **Mealtime Socialization Literature**

Anthropologists and other social scientists have repeatedly studied the importance of food to the human experience. The need to eat is universal but cuisine and taste preferences are specific to different cultures. Within anthropology, scholars often study food from the perspective of “Nutritional Anthropology” or “the Anthropology of Food,” but Dirks and Hunter (2012) argue that both viewpoints must be used together (p.3). Nutritional anthropology utilizes a biocultural paradigm to investigate how social structures affect food consumption and therefore how social forces cause biological ramifications within the body (Chrzan, 2012, p. 48). Dirks and

Hunter present the deep history of the “Anthropology of Food” and conclude that the study of identity (including gender and ethnicity) is a central theme within the perspective (p. 5). Utilizing both points of view, anthropologists use a variety of methodologies to study food. The strongest aspect of the anthropological methodology is its holistic nature; due to its “synthetic discipline”, anthropologists tend to piece together different sources of data to understand how food affects human life through both cultural and biological lenses (Dirks & Hunter, 2012, p. 5). For example, Sidney Mintz (1986), who is known as “the Father of Food Anthropology”, utilized an historical and materialistic approach to investigate how sugar transitioned from a luxury good to an everyday commodity in England (Roberts, 2017). Mintz analyzes how sugar changed symbolically and how globalization allowed for sugar’s symbolic transformation and its shift in practical uses. The study of food within anthropology is extremely broad and encompasses many aspects of human life.

Anthropology is not the only discipline that explores food; the field of sociology has also contributed substantiating to the study of food. Anthropology and sociology share many similarities, but the sociology of food examines how groups of people receive, process, and consume food and how social structures and kinship affect food consumption (McIntosh, 2012, p. 14). Social structures shape culture and the reverse is also true, culture shapes social structures. Paulan (2002/2017) presents the major socio-anthropological movements towards foods and describes how functionalist and structuralist approaches have connected the two fields (pp 118-127). McIntosh (2012) questions why sociologists were “slow to address food as a legitimate subject matter for their discipline” but reports how the field has rapidly expanded (p.14). Admittedly, the boundaries between anthropology and other social sciences are blurry because many social scientists consider similar frameworks and answer similar research

questions (Ellen, 1984, p. 14). This study utilizes an anthropological lens because the biocultural perspective (within nutritional anthropology) specifically synthesizes social forces and biology to understand human food consumption (Pelto, Dufour, & Goodman, 2013). Thus far, few, if any studies, have used this perspective when studying school eating habits. Currently, most of the literature published about school lunch in the US has been written by sociologists and scholars of education and politics.

It is especially important to consider sociology because the study of socialization is rooted within it. Historians speculate that sociologist, Georg Simmel (1858-1918), was the first person to coin the word socialization which he describes as a reverse process where social norms are internalized within an individual (Giddings, 1897, p. 1; Scaff, 2011, p. 215). Additionally, socialization processes are not universal. Cook (1999) compares the linguistic socialization mechanisms of Japanese children and American children and found that listening is a crucial aspect of socialization for Japanese students, but it is less important for American children. For this study, socialization can be defined as learned behaviors that are shaped by cultural norms.

Within the US, the family dinner table is a fairly modern concept. Cinotto (2006) narrates the history of the family dinner table; the modern dinnertime ritual began with upper- and middle-class Victorian families in the mid-19<sup>th</sup> century as a way for families to indicate their social status (pp. 20-22). Most Americans could not afford to eat together at a dinner table until after World War II (Cinotto, 2006, p. 30). For most of the early 20<sup>th</sup> century, the ability to hold family dinners was something that most Americans aspired to. Thus, the study of mealtime socialization begins after the 1950s when the family dinner really took hold.

Linguistic anthropologist Elinor Ochs is often credited with founding the field of mealtime socialization in the US. Ochs' first study specifically focusing on mealtime

socialization was the “Discourse Processes in American Families” project which recorded audio and video of 14 families for eight hours during mealtimes from 1986 to 1989 (Ochs, Smith, & Taylor, 1989, p. 238; Ochs & Taylor, 1992b). The goals of her earliest publications were to challenge Vygotskian theory<sup>1</sup> on cognitive development and to suggest that the process of co-narration during dinnertime shapes the family’s morals and interactions outside of the home (Ochs et al., 1989; Ochs & Taylor, 1992b). Ochs and Taylor (1992b) state that the projects were focused on families and not educational environments; the authors present how:

Vygotsky (1986) placed great emphasis on the school as a social environment that enhances the development of scientific thinking, our observations lead us to conclude that children are socialized into the rudiments of scientific communication and by, implication, the rudiments of scientific thinking, long before they enter formal school. (p. 31)

The conclusions made from the “Discourse Processes in American Families” project and following studies are incredibly insightful; however, they are clearly limited to the family dinner table. The findings and methodologies of these studies is briefly discussed below as they were useful in the conception of the methodology for this project.

Prior to Ochs, linguistic studies proposed theories to explain how narrations are constructed, reconstructed, and co-narrated during discussions; Ochs, Smith and Taylor (1989) utilize these abstract theories and apply them to the family during dinner. Ochs and Taylor (1992a, 1992b, 1995) explain how the narrative roles of a conversation during meals (*introducer*, *primary recipient*, and *problematizer*) are associated with gender and age. The role of the *problematizer* is defined as a co-narrator who “renders an action, condition, thought or feeling of a protagonist or a co-narrator problem” (Ochs & Taylor, 1995, p. 107, 111). The “Father knows best” narrative was frequently observed during family dinners and is categorized as when the father is set up as the primary critic during family conversations, known as the *problematizer*; fathers are the most common *problematizers* during dinner (Ochs & Taylor, 1992a). Ochs &

Taylor (1995) found that gendered roles were mirrored with children; boys acted as the *problematizer* 50% more than girls did (p.110). At the dinner table, children act as the *protagonists* 60% of the time (Ochs & Taylor, 1992a). A protagonist within this framework is defined as “a leading or principal character in a narrated event” and is usually scrutinized or praised after their account (Ochs & Taylor, 1995, pp. 100–101). This early contribution was significant because the application of linguistic theory to the family allowed for the scientific analysis of socialization. However, it is uncertain how the narrative structure manifests at the lunch table without the presence of the children’s guardians. It is also unclear if these roles are applicable during school lunch conversations.

Additionally, Ochs and Taylor (1992b) conclude that the home is more significant than schools due to familiarity. They assert that “environments conducive to collaborative explaining and critiquing are those marked by *familiarity*, the very quality that most arenas of formal education lack” (Ochs & Taylor, 1992b, p.43). It is argued that children learn how to establish familiarity at school, but the family is the true ground zero for socialization (Ochs & Taylor, 1992b, p. 44). The purpose of this study is not to determine or debate the beginning of childhood socialization. It is, however, within the scope of this study to investigate if this proposed narrative structure is present at the school lunch table and how children possibly replicate their dinnertime conversation with their peers

The first studies of mealtime socialization were solely focused on Caucasian families living in California. In 1990, Pontecorvo, from the University of Rome, directed a linguistic study of 10 middle-class families from Rome and Naples. Ochs, Pontecorvo, & Fasulo (1996) compare dinnertime conversations from Pontecorvo’s dataset of 10 Italian families and 10 Euro-American families living in Los Angeles, it was noted that 10 additional American families were

recorded for audio (p. 9, 42). The study was significant because it was the first internationally comparative analysis of taste and socialization. It was generally concluded that American families place more of an emphasis on health and Italian families emphasize pleasure (Ochs, Pontecorvo & Fasulo, 1996). This article represents a stark contrast from the previous scholarship regarding family mealtimes as there was little focus on narration and linguistic structures. Ochs and Shohet (2006) utilize the same dataset to discuss how socialization at dinner leads into commensality and how linguistic interactions affect children's views on health. Both publications conclude that American families present dessert to children as a reward for eating their vegetables unlike Italian families which emphasize the importance of pleasure experienced by eating food with loved ones (Ochs, Pontecorvo & Fasulo, 1996; Ochs & Shohet, 2006). Ochs and Shohet state that "mealtimes are both vehicles for and end points of culture" in terms of commensality and linguistic socialization (pp. 35-36).

Following the success of these socialization studies, Ochs was asked to direct the Center on Everyday Lives of Families (CELf) at UCLA in 2000; CELf began their research right after 9/11 so its earliest work is focused on the political and economic turmoil of the early 2000s (Kremer-Sadlik, 2013, pp. 1-3). CELf scholars study families in the Los Angeles area and additionally use data collected from Ochs' first project, "Discourse Processes in American Families" (Arnold, Graesch, Ragazzini, & Ochs, 2012; Ochs & Kremer-Sadlik, 2013). One of the earliest CELf studies was published in 2005 before the first CELf project was complete (Paugh, 2005). Paugh (2005) evaluated the interviews from Ochs' first study from 1986-1989 and completed eight additional recordings of families from 2000-2003. Paugh uses both datasets to explore how children learn about the ideologies of their guardian's occupation and how



children are socialized into “work”. Further, Paugh discusses how conflict can arise at the dinner table due to moral conflicts between children and their parents.

The most recent CELF publications have analyzed the detailed investigation of 32 middle-class families in Los Angeles, California from 2001-2005<sup>2</sup> (Ochs & Kremer-Sadlik, 2013; Paugh & Izquierdo, 2009). Ethnographers followed family members inside their homes with video cameras and documented a family member’s location every 10 minutes; photographers, archaeologists and linguistic anthropologists collected nearly 20,000 photographs and recorded about 100 narratives of family members (Arnold et al., 2012, p. 12). This massive collection is still being used for various publications and studies. The first article to discuss the 32 families was Paugh and Izquierdo’s (2009) work “Why is This a Battle Every Night?: Negotiating food and eating in American dinnertime interaction”. Paugh and Izquierdo found that “meals are punctuated by “battles” over individual desires and parents’ moral expectations for health-conscious choices” (p.186). This study was the first CELF publication to relate mealtime socialization to health and nutrition. Paugh and Izquierdo framed their study around the current obesity crisis and justified that this research was necessary to help improve childhood health. The most recent publications from CELF have utilized photography and archaeology of household trash to increase the scope of these linguistic ethnographies (Arnold et al., 2012). CELF research is incredibly insightful and has been cited in many fields outside of linguistic anthropology.

In all, the field of linguistic socialization is well established, and the field of mealtime socialization is large and still growing. The literature proposes socialization mechanisms and explores how children are socialized into different aspects of culture including health, morality, conflict, and gender. This research is interdisciplinary and relevant for linguists, sociologists,

anthropologists, and others. However, there is very little literature on these processes within American schools. Paugh and Izquierdo (2009) note that interactions during food shopping, food preparation, and snacking with peers were potential avenues for future research (p. 200). School lunch was not mentioned as a future research avenue though the reasons for its exclusion are unclear. Lastly, the proposed socialization mechanisms usually involve gender. Gender roles were repeatedly analyzed in the literature to determine how socialization forces shape gender identity and how gender affects how children are socialized (Ochs & Taylor, 1992b, 1992a, 1995; Paugh, 2005). As socialization is intertwined with gender, it is important to consider a culture's gender norms when applying socialization theories to different groups. The research into mealtime interactions has led to the concept of "food-language socialization" which is defined as "the interlinked processes by which food and foodways are learned through language and by which language is learned through food and foodways" (Riley & Paugh, 2019, p. 239). This is an important framework when analyzing the socialization of children during school lunch.

### **History of the National School Lunch Program (NSLP)**

There is abundant literature describing the political environments that have shaped US food policies and the historical events leading to the creation of nutritional assistance programs. The US Department of Agriculture (USDA), which administers the NSLP, was created on May 15, 1862 under the guidance of President Abraham Lincoln (Rasmussen, n.d.). The USDA was originally created to assist with the US' rapidly growing agricultural industry with its primary objective being to "diffuse among the people of the US useful information on subjects connected with agriculture in the most general and comprehensive sense of that word, and to procure, propagate, and distribute among the people new and valuable seeds and plants" (An Act to Establish a Department of Agriculture, 1862). While the USDA currently maintains nutritional

programs in the US, it was originally created to promote and protect the welfare of farmers and the agricultural industry. The USDA first began its involvement in school lunches during the Great Depression in 1936 to relieve the large agricultural surplus (Poppendieck, 2011, p. 48). The USDA claimed in its 2019 budget that it: “provides leadership on food, agriculture, natural resources, rural development, nutrition, and related issues based on sound public policy, scientific evidence, and efficient management” (United States Department of Agriculture, 2019, p. 1).

As of 2019, the USDA maintains several child nutrition programs including the National School Lunch Program, the School Breakfast Program (SBP), Special Milk Program (SMP) Summer Food Service Program (SFSP) and the Child and Adult Care Food Program (CACFP) (Ralston, Treen, Coleman-Jensen, & Guthrie, 2017). The USDA also oversees the Supplemental Nutritional Assistance Program (SNAP), Special Supplemental Nutrition Program for Women, Infants and Children (WIC) and other welfare programs (Ralston et al., 2017). The USDA (2019) was created to protect and promote the interest of farmers, yet 71% of its 2019 budget is allotted for “Nutrition Assistance” and only 22% is allotted for “Farm Conservation and Commodity Programs” (p. 2). The USDA established the Food and Nutrition Service (FNS) in 1989, after most of these nutritional programs were created. The FNS is the specific agency responsible for administering all of the US’ nutritional programs (Food and Nutrition Service, 2018, p. 1).

The history of the NSLP is well documented and numerous scholars have considered the history of the NSLP to suggest policy changes (Geist Rutledge, 2015; Levine, 2010; Poppendieck, 2011, 2012). School lunch programs were formally implemented long before the NSLP due to the rise of compulsory education in the US (Poppendieck, 2012, p. 330). The first instance of a school nutrition program in the US was likely the “Children’s Aid Society of New

York,” which was established in 1855 and provided food to students at a vocational school (Geist Rutledge, 2015, p. 193). Some of the earliest school lunch programs began in the 1890s and the earliest publications about school lunch meals were critical of mothers who could not pack suitable meals for their children (Harwood, 1894; M. E. S., 1894). In 1914, Alice Boughton wrote about the successful spread of school lunch programs in major cities across the US. Boughton (1914) was hopeful for the program, as she had observed how students had transitioned from purchasing “vendor street cart” food and instead could spend less money on more nutritious school lunches (pp. 217-218). From the earliest publications in 1894 up to the Great Depression in 1920s, American adults were concerned about the nutritional quality of school lunches. In 1894, an unknown author wrote, “Too little attention is, as a rule, paid to the lunches gotten up for children to take with them to school” (Hardwood, 1894). This quote is profound because 125 years later, there is still not enough attention or literature devoted to the implications of school lunch. Most of the early literature on school lunches was focused on cleanliness and nutrition; the social effects of school lunch were rarely, if ever, discussed.

Contemporary scholars have agreed that Robert Hunter’s book *Poverty* (1904/1965), originally published in 1904, was the catalyst for social funding in schools. In it, he provides horrific descriptions of starving and impoverished children that had the effect of inciting the expansion of school nutrition programs; these early nutritional programs were supported by charities and were led by groups of empowered women (Geist Rutledge, 2015, p. 193; Gunderson, 1971, p. 7; Levine, 2010, p. 14; Poppendieck, 2012, p. 330). In 1924, the USDA created the Bureau of Home Economics, which employed the most female scientists in the US at the time, with the goal of using agriculture to advance the science of nutrition (Levine, 2010, pp.

41–42). Similar to the literature from the later 19<sup>th</sup> century, the publications from the 1920s were again centered on nutrition and hygiene but also hunger.

With the Depression, nutritional assistance programs were deemed necessary, not just for school children, but for Americans, of all ages, who were suffering from malnutrition and poverty (Levine, 2010, pp. 43-45). The Depression temporarily shifted attention away from school lunch. The earliest example of federal aid for nutrition assistance in schools was in 1932 when the federal government gave loans to Missouri schools to cover the wages of their lunch service workers (Gunderson, 1971, p. 14). Additionally, during the Depression, farmers had large surpluses of crops thereby driving down the price of food (Gunderson, 1971, p. 15). Prices were so low that farmers could not make a living wage. To combat this, Public Law 320 was passed in 1936, which allowed the Secretary of Agriculture to purchase agricultural surpluses and donate them to domestic outlets such as school lunch programs (Gunderson, 1971, p. 15). After the Depression, the USDA continued to expand its Federal Commodities Surplus Program and throughout the early 1940s an estimated 454 million pounds of food were donated to schools each year (Gunderson, 1971, p. 15). The shortage of labor and food due to World War II greatly restricted the commodities program, leading to decreased school lunch programs (Poppendieck, 2011, p. 50). Rations began for all citizens and science was used to create Recommended Daily Allowances (RDA) to optimize food distribution (Poppendieck, 2011, p. 50).

Following the decrease in school lunch commodities, scholars and policy makers argued that school lunch programs were a necessary part of wartime policy (Geist Rutledge, 2015, p. 199). The political environment and discourse in Congress that led to the creation of the NSLP is complex and is rooted in the debates of the New Deal (Levine, 2010, p. 70). Essentially, the federal government continued to subsidize crops for economic reasons as “it seemed foolish...to

waste good food when the nation’s defense depended upon a healthy, well-fed citizenry” and thus the National School Lunch Act<sup>3</sup> was passed in June 1946 and immediately signed by President Truman (Poppendieck, 2011, pp. 51–52). The second section of the National School Lunch Act (1946) reads that the policy was a “measure of national security” to feed American children (p. 230). The short act is composed of 12 sections and determines the exact amount of funding for the program, states that funding can *only* be used for food, and that the Secretary must use nutritional information to dictate what goes in meals (Gunderson, 1971, p. 20; National School Lunch Act, 1946).

The National School Lunch Act was spearheaded by Richard Russel, a conservative Democratic Senator from Georgia who was also a proponent of segregation (Geist Rutledge, 2015, p. 199). Poppendieck (2011) asserts that the structure of the NSLP was used as a negotiation tactic with Russel; funds for the NSLP were determined and distributed by state agencies and not the USDA so the USDA and therefore the federal government “would not be a position to pressure schools to desegregate” (p.52). The National School Lunch Act was created to relieve an agricultural surplus and partially as a way to delay the debate on the desegregation of schools.

Following the creation of the NSLP, Poppendieck (2010) describes the history of the NSLP in a set of *wars* from the 1960s through today: the war on poverty, the war on hunger, the war on waste, and the war on fat. From its inception in 1946 until the mid-1960s the NSLP was not adjusted—no acts or rules that affected the NSLP were created by Congress or the USDA during this time period. It did not act as a source of welfare in schools throughout the 1950s because it did not reach low-income students (Poppendieck, 2011, p. 53). Starting in the 1960s, the war on poverty began during the Vietnam War and global conflicts; the Special Milk

Program (SMP) and other smaller bills were passed at this time to increase school lunch funding (Poppendieck, 2011, pp. 53–56). The US government was fearful that while it was fighting *communism*, the US, a free, democratic and capitalist country, was incapable of feeding its own impoverished children so these acts can be viewed as a response to global political pressures.

The war on poverty was replaced with the war on hunger. Congress passed the Child Nutrition Act of 1966, which extended the NSLP to preschool students and started a pilot breakfast program, which would later evolve into the School Breakfast Program (SBP) (Poppendieck, 2011, pp. 57–58). Funding began to increase greatly because government officials realized that the poorest and hungriest children were not being serviced by the NSLP as they were too poor to afford the subsidized price (Poppendieck, 2012, p. 332). The excess funding was somewhat successful as free and reduced meals increased dramatically; the federal government removed the cap on the number of free and reduced lunches a school could serve, greatly expanding the participation in the program (Poppendieck, 2011, p. 60). This excess funding however was later turned into the “war on waste.” Under the Reagan administration, federal funding to welfare programs, including the NSLP and all child nutrition programs, was drastically cut (Poppendieck, 2012, pp. 65–67). Children who previously qualified for free lunch could not afford the reduced-price lunches or the regular price lunches, all of which increased in cost under the Reagan administration (Poppendieck, 2011, p. 61). Schools began to offer à la carte food options and added vending options so they could turn a profit (Poppendieck, 2012, pp. 332–333). Under Reagan, nearly 25% of the NSLP’s budget was cut and the application for the program was adjusted to reduce the number of children and families who were allegedly cheating the system (Levine, 2010, p. 155). The cuts to childhood nutrition programs and the economic

accommodations that had to be made to account for the reduced government support partially led to the final war, the war on fat.

The war on fat is essentially synonymous with the obesity crisis. The Reagan administration is infamously known for labeling ketchup as a vegetable in order to cut spending by millions of dollars (Levine, 2010, p. 156). Fruit portions decreased in size; cake, chips, and cookies were counted as a bread and of course, relish and ketchup were relabeled as vegetables (Levine, 2010, p. 156). The rise of fast foods in schools, à la carte offerings, and the decrease in healthy meal options were intended to cut costs, but it is no coincidence that they occurred with the rise of childhood obesity. The policy changes to battle the war on fat are still in progress today. The Department of Defense analyzes and monitors obesity rates in the US as it is relevant for “national security” (Geist Rutledge, 2015, p. 202). Poppendieck (2011) acknowledges that each war never officially ended and that the remnants of each war are still relevant today.

The history of the NSLP is important to consider for the framework of this study because the principles on which the NSLP was founded on are still present. School lunch programs originated due to charity and women have historically led the efforts to feed children healthy meals in school. Federal funding and subsidies of the NSLP were created to relieve agricultural surpluses; the surpluses were sent to schools and feeding children was tangential to solving an economic crisis. The federal cuts to the NSLP in the 1980s led to the increase of à la carte offerings in the lunchroom, an increase of school lunch prices, a decrease of participation in the NSLP, and a reduction in number of children eligible for free and reduced-priced lunches. Starting in the 1890s, the discourse around school lunch has consistently involved nutrition and health. Additionally, most changes to the NSLP were made in the name of national security and under the guise of raising a healthier population to protect the country. One of the most



important themes that has had a tremendous effect on the NSLP is the issue of malnutrition as currently manifested in the rising rates of childhood obesity.

The public's concern over obesity is incredibly pervasive and the obesity epidemic is considered one of the most challenging public health issues of the 21<sup>st</sup> century. The Center for Disease Control (CDC) estimated that as of 2016, 38.6% of adults and 18.5% of children were considered obese (Hales, Carroll, Fryar, & Ogden, 2017, p. 1) Additionally, childhood obesity has increased dramatically by 13.9% from 2000 to 2017 (Hales et al., 2017, p. 5). In 2012, due to the war on fat, the nutritional guidelines for the NSLP were updated for the first time in nearly 15 years and requires schools to increase the availability of fruits, vegetables, and low-fat milk (United States Department of Agriculture: Food and Nutrition Service, 2012). These changes are the result of the Healthy, Hunger Free Kids Act of 2010 (HHFKA) which required the USDA to amend the NSLP to fit dietary guidelines and the changes were passed as rules in the Federal Register (United States Department of Agriculture: Food and Nutrition Service, 2012, p. 4088). The HHFKA was passed under the Obama administration for a variety of political reasons, but it was likely passed in response to the obesity crisis and while considering epidemiological studies of the NSLP (Billings & Aussenberg, 2019).

Currently, the USDA evaluates the NSLP and the SBP through the School Nutrition Dietary Assessment (SNDA), which evaluates the nutrient contents of school meals served throughout the country (Institute of Medicine, 2008). The SNDA is limited for understanding childhood foodways because it is focused on determining the characteristic of meals *offered* and *served*; it does not consider if meals are *actually consumed* by children (Fox & Condon, 2012; Fox et al., 2012). Regardless, the SNDA and similar surveys are the primary sources of data that are considered when evaluating policy for the NSLP and SBP. The HHFKA called for numerous

changes including—the reduction of fat in milk, additional funding for the NSLP, expanded access and eligibility for low-income children—and gave the USDA the ability to change vending machines and portion sizes (Healthy Hungry Free Kids Act, 2010). Section 224 of the HHFKA (2010) requires the Secretary of Agriculture to “demonstrate and rigorously evaluate behavioral economics-related interventions that hold promise to improve diets and promote health, including through demonstration projects that may include evaluation of the use of portion size...” which resulted in the reduction of portion sizes in many schools (Stapleton & Cole, 2018, p. 164).

Similar to many child nutrition policies, the HHFKA is controversial. Former educators, Stapleton and Cole (2018) argue that while the program is well intended, the reduction of portion sizes is ineffective because obesity in low income students is due to poor food options and not caused by an excess of calories (p.165). Cornish, Askelson and Golembiewski’s (2016) study revealed that the HHFKA was not extremely effective in rural areas as cafeteria managers found the changes difficult to understand and too bureaucratic to implement. In contrast, a study of four schools in New Jersey concluded that “contrary to controversial media reports on reactions to the new standards, the effects of the HHFKA on school meal acceptance and participation are minimal. With time, students are likely to accept healthier options” (Vaudrin, Lloyd, Yedidia, Todd, & Ohri-Vachaspati, 2018, p. 86). The success and failures of the HHFKA are somewhat regionally specific and can be better determined utilizing ethnographic studies.

Regardless, the HHFKA has already been amended following the end of Obama’s presidency; the current Secretary of Agriculture (as of 2018), Sonny Perdue, announced that the requirements from the HHFKA would be relaxed to allow flexibility as he cited waste as a major problem of the new regulations (Lupinacci & Parkins-Happel, 2018, p. 92). Secretary Perdue

additionally wrote in an USDA proclamation that “milk is a critical component of school meals” and was therefore allowing for additional milk options to be served in schools regardless of their fat or sugar content (Perdue, 2017). The dairy industry has a significant interest in the NSLP. In 2006, the dairy lobbies fought against New York City’s schools’ transition from whole milk to skim milk because “dairy industry officials warn that milk consumption will drop because children will find skim or 1 percent milk less tasty” (Herszenhorn, 2006). Changes to the NSLP need to be evaluated in context with the agricultural industry, which is rapidly changing. Hence, it is beneficial to examine the NSLP using a dynamic and flexible methodology.

Throughout its entire history, the NSLP has been criticized and praised. It should be noted, that the NSLP is an important and essential safety net for many children in the US, especially for impoverished children in urban areas; for some low income children as much as 60% of their daily dietary calories come from the SBP and NSLP (Cullen & Chen, 2016). Many of the shortcomings of the NSLP arguably stem from both its origins as an economic solution to an agricultural problem and the ways in which the program is currently evaluated. The NSLP is primarily analyzed by the SNDA, which does not consider if children actually consume their school meals. Additionally, the USDA relies on epidemiological data that does not account for social norms and cultural beliefs. The NSLP is well intentioned and is fairly efficient at feeding millions of hungry children, but thus far it has typically been analyzed in terms of economics and nutrition rather than for the social work that it does in shaping children’s understandings of food and health.

### **Socialization within the Lunchroom**

Outside of the US, there is some literature on the socialization of children during school lunch. Ethnographies of school lunch have been conducted in some European countries including the United Kingdom, Denmark, and Finland (Karrebæk, 2012, 2013; Morrison, 1996b, 1996a;

Morrison & Burgess, 1998; Morrison, Harrison, Kitson, & Wortley, 2002; Ruckenstein, 2012). It is unclear who completed the first ethnography of school lunch but the earliest works were published in the 1990s. Morrison (1996b) completed an ethnography to investigate sharing at home and at school because prior to her work “social scientists had seldom focused upon the social and educational contexts in which children and young people learned about food as a classroom activity, as routinised eating in schools, or at the interface between home and school” (p.648.) Morrison (1996b) observed students from two schools in the United Kingdom (UK) and completed interviews with their guardians. Morrison found that inside schools commensality is “produced and reproduced in different forms” (p.672). Within anthropology, commensality has been extensively studied as sharing has been an aspect of human culture for thousands of years (Riley & Paugh, 2019, p. 153). However, commensality inside the lunchroom has not been studied within anthropology.

Subsequent ethnographies in the UK, questioned the efficacy of the country’s nutritional policies and its effects on children. Morrison (1996a) compares her field notes from an English school and a Japanese school to determine how formal nutrition curricula do or do not impact children. Burgess and Morrison (1998) argue that the nutritional curricula implemented by the British government were not as effective as expected and the discrepancies were discovered as a result of their ethnographic methodology. Warren and colleagues (2008) completed an ethnography of a school in Wales in which they observed children’s food choices within schools and at home. They concluded that students chose unhealthy foods even though they understand the consequences of “unhealthy eating” (Warren et al., 2008). It was surprising that Warren et al. recommended additional education as a solution since they also reported that children already

understood health and nutrition. Additionally, the scholars found that older students prioritized control and enjoyed their meals more when they were given more choices (Warren et al., 2008).

Ruckenstein (2012) conducted an ethnography of Finnish students in Helsinki.

Ruckenstein completed this project in response to studies based on questionnaires that revealed that Finnish adolescents waste most of their lunch. She found that older students refuse to eat school food to demonstrate autonomy and in response to conflict with their teachers

(Ruckenstein, 2012). Despite their tendency to waste food, Finnish students are extremely willing to share with each other to strengthen their friendships (Ruckenstein, 2012, p. 7).

Ruckenstein speculated that this generalized reciprocity is important for adolescents. Since teachers cannot offer generalized reciprocity, Ruckenstein argues that conflict then arises between students and teachers.

Martha Karrebæk, a linguistic ethnographer from Denmark, has conducted several linguistic ethnographies of school children. Karrebæk (2012, 2013, 2014) utilizes Ochs' theories on language socialization and sociolinguistic frameworks. In her work, Karrebæk copiously evaluated hundreds of hours of audio recordings collected within public schools in Denmark. Karrebæk (2012) analyzes how a teacher judges a student who reported eating lasagna for breakfast even though lasagna is not considered "junk food." Most importantly, Karrebæk (2012, 2013, 2014) argues that teachers attempt to linguistically socialize school children into health and that so-called "healthy foods" are socially constructed. She argues that "healthy is an intrinsic quality and a neutral term" and that immigrant and minority children suffer because health is socially determined and unfairly enforced (Karrebæk, 2013, p. 101). Additionally, Karrebæk (2014) investigates how foods are placed into semiotic categories such as "gross, halal, healthy and delicious", which have moral and social ramifications (p. 18). Karrebæk's

contributions are important because she synthesizes the frameworks of language socialization and linguistic ethnographies to investigate health and school lunches.

Nutritional policies in the UK and Denmark are especially contentious. In 2015, the Ministry of Education in the UK announced that schools may exercise “common law” within schools which allows teachers to inspect student’s lunchboxes and also confiscate or discard foods that are against a school policy (Pluim, Powell, & Leahy, 2018, p. 59). Karrebæk (2012, 2013) similarly describes how Danish teachers throw out or confiscate meals from minority students who do not bring rye bread to school. In Denmark, rye bread is considered the pinnacle of healthy food for children (Karrebæk, 2013). In both examples, teachers are enforcing government policies, which were created with the intent of improving health and reducing obesity in children. Without ethnographic studies, it is unclear if this occurs in the US and how government policies may or may not be enforced by teachers. The “Got Milk” campaign in American schools can be compared to Denmark’s obsession with rye bread.

Most of the European lunchtime socialization literature investigates the implementation of new educational policies or was produced in response to large-scale studies. The insights from these studies are incredibly valuable but their utility is limited when analyzing the NSLP in the US. Each European country implements its own school lunch program—these policies are just as intricate as the NSLP and are influenced by their respective historical and political narratives. Unfortunately, it is outside of the scope of this study to compare these different policies so instead, this section concludes with a brief review of the ethnographic work examining food in US schools.

There are very few ethnographies of American schools and it is unclear why social scientists have ignored the school environment. The first ethnography of a school within the US

appears to be the work of an anthropologist, Penelope Eckert. The fieldwork for her book, *Jocks and Burnouts*, was conducted from 1980 to 1984 within high schools in the Detroit area (Eckert, 1989). Eckert focuses primarily on how social structures and race create and shape so-called “burnout” students. She briefly describes “lunchtime territories,” observing that burnouts were more critical of school food and were less likely to consume it (Eckert, 1989 pp. 51). Eckert notes that burnout students associate school food as a “loco parentis role,” and therefore an authority that needs to be undermined so the burnouts refuse to eat school lunch (pp. 51-53). Sociologist Barrie Thorne observed elementary school children in 1976, 1977 and 1980 but did not publish her findings until 1993. Thorne (1993) specifically focused on gender roles within schools and found that students tended to segregate by gender. Within the lunchroom, Thorne observed that older students tended to do this more than younger students (pp. 42-44). Thorne concludes by arguing that the lunchroom and playground are “freer to shape the grounds of interactions” between males and females (p.161). While Eckert’s and Thorne’s contributions are significant, the NSLP, gender roles, and educational structures have dramatically changed since the 1970s. Thus, an updated study is necessary.

Finally, Milner (2004) conducted an ethnography of high school students with the goal of determining why teenagers are “teenagers” and how social structures affect their behavior. Milner very briefly discusses a few interactions from inside the lunchroom. Milner also concludes that teenage behavior is partially due to their lack of control.

Some scholars have recently noted the gap in socialization literature of schools. For example, Poppendieck (2012) writes that:

There is a real gap in the existing literature when it comes to what actually happens in the school cafeteria.... We need more ethnographic study of the social relations that arise, both among consumers (and non-consumers) of school meals, between students and staff and among staff. Given the importance of shared meals to human social interaction, it

seems odd that there is so little literature about what students experience in the school food setting. (p.337)

Scholars of educational policy and theory have also written about this gap in literature. Laird (2008), a professor of Education Theory and Policy, argued, in her Presidential Address to the Philosophy of Education Society, that food has largely been ignored by scholars of education. Laird goes on to explain how ecological foodways have changed how children learn about food and therefore, how food should be taught and served within schools. In response to Laird's work, Rice and Rud (2018a) published an anthology intended to address the "relative lack of educational scholarship on food more broadly and school lunch" (p.1). Each selection of the anthology is intended to partially respond to Laird's request for additional scholarship (p.2). The anthology is specifically intended for scholars within education, but its critical examination of school food is valuable for anthropologists and sociologists. Riley and Paugh (2019) cited Riley's forthcoming research on food-and-language socialization in a New York City school that focuses on how children and adults struggle to define and identify healthy foods (p. 198). The field of socialization within the school lunchroom is slowly growing however, a significant gap continues to exist in the field of anthropology.

### **Intellectual Framework**

This study is based in anthropology but encompasses many other fields including educational theory, political science, sociology, linguistics, history, and nutrition science. Within anthropology, this project utilizes tenets of biological, linguistic, and nutritional anthropology. The methodologies of the linguistic studies and ethnographies of schools previously presented were based on socio-linguistic theories, socialization theory, and Foucauldian frameworks (Earl, 2018a; Karrebæk, 2012; Ochs et al., 1989; Thorne, 1993). Laird (2018) expresses her discontent with the field of education:



Somehow, the education profession whose knowledge is grounded in behavioral and social sciences has forgotten that throughout modernity, philosophers and experimental educators have theorized foodways' educational significance. When philosophers of education today engage the education wisdom of early and later modern thinkers such as Locke, Rousseau, Wollstonecraft, Nietzsche, and Foucault, rarely do they acknowledge such canonical figures' diverse reflections upon the educational significance of food, foodways or hunger. (p. 13)

This passage is compelling and inspired a deep theoretical investigation of the current and historical literature. Laird explains how the neglect of intellectual frameworks and historical narratives can result in gaps of knowledge within a field. For this study, the historical narratives of ethnographies and socialization frameworks were considered and are reviewed below.

Fundamentally, this study is an ethnography. Some have argued that “the first ethnographic document of modern times is the letter that [Christopher] Columbus sent to his royal masters” detailing his observations in the New World (Liebersohn, 2008, p. 20). While the debate of the “first ethnography” is contentious, the theoretical frameworks that are associated with completing ethnographies are rooted deeply in anthropological history. For this investigation, an ethnography is broadly defined as “both a method of investigation and a process of creating a written account based on this activity of working to understand and document another culture” (Riley & Paugh, 2019, p. 51). Most ethnographers rely on participant-observations and interviews. Ellen (1984) concedes that the frameworks used by anthropologists and social scientists are extremely similar but the “method of yielding data through long-term “participant observation” as distinguishing anthropology from other social sciences” (p.14). Further, Leach (1967) differentiates how a sociologist categorizes a family into a single unit with discrete individuals but a social anthropologist does not see units and instead sees a household as a network of relationships (p. 77). An ethnographer should consider quantitative data but focus on the descriptive information.

The process of writing an ethnography varies within subfields; Ghodsee (2016) believes that the pronoun “I” should be used to create a more compelling narrative and references Geertz to describes how field notes should be crafted and later interpreted. In contrast, linguistic ethnographies are more “scientific” and rely on linguistic theories and computer science (See Karrebæk (2012, 2013, 2014) for additional information). Ellen (1984) presents a visual schematic to depict how ethnographic data should be transformed from “actions and utterances” to a published ethnographic report (pp.214-215). Again, due to the interdisciplinary nature of this project, both writing styles were considered. In all, an ethnographic study is a personal but also scientific experience.

In terms of data collection, the ethnographic approach is ideal for an examination of children’s interactions during school. Earl (2018b) supports the ethnographic method as it allows researchers “to focus on the ordinary, everyday practices of people within the schools, and to understand the meanings behind these practices” (p.510). Earl also stated that the ethnographic process is dynamic, and fieldwork can be flexible and change as data is collected (p. 510-511). It is clear that the ethnographic method is the ideal methodology and framework to use within schools and when studying lunch time socialization.

Consideration of the setting for this study was integral when crafting the methodology and framework for data analysis. Foodscapes, or “the inundation of social space with food”, are an important concept for this study (Riley & Paugh, 2019, p. 239). The foodscape of a school is complex. Earl (2018a) provides a thorough description of a school’s potential foodscape:

A school foodscape might be made up of the dining hall, where eating takes place; the kitchen, where food is made; the classroom, where food is taught through lessons on ‘healthy eating’ or bread making; and other areas of the school which might feature a food garden, animals like chicken or cooking facilities where children are learning how to cook. (p.294)

Earl's ethnography was conducted within a school in the UK, but her description depicts how complex school foodways are due to its foodscape. In addition, childhood foodways are especially relevant as foodways are defined as the "material and symbolic practices related to the production and consumption of food and food ideologies" (Riley & Paugh, 2019, p. 6)

Considering foodways of the students within the foodscape of the school encompasses *most* of the factors that contribute to school lunch. The school's foodscapes do not explicitly consider the structural influences.

Schools are controlled by governments, so it is essential to consider how structural forces affect schools and therefore children. Most of the ethnographic and socialization literature references the work of Michel Foucault (Earl, 2018b, 2018a; Karrebæk, 2012, 2013; Rice & Rud, 2018a; Riley & Paugh, 2019; Ruckenstein, 2012; Thorne, 1993). Foucault's work is significant because he believed that institutions and social roles were symbolic of power and that power was a component of everyday life (Erickson & Murphy, 2013, p. 230). Foucault's (1961/1965) investigation of insane asylums in France allowed him to theorize how institutional powers are embedded in medical discourse—which is usually inherently considered scientific and systematic. Karrebæk (2012) similarly concludes that "healthy foods" are culturally created and reinforced by teachers and administrators, echoing in some ways those sentiments of Foucault. Earl (2018a) describes how a thesis in the fields of education, food, and sociology can be structured and heavily relies on a Foucauldian framework of discourse to examine how school food is experienced by children. Similarly, Pike (2010) frequently references Foucauldian theory when analyzing her ethnographic findings of schools within the UK. Pike argues that Foucault's theory on governmentality is a useful framework for studying schools because the actions of students can be interpreted as a reaction to the structures of power.

Lastly, the frameworks of linguistic ethnography and language socialization are a component of this study. The recording of audio is an integral part of this process and linguistic ethnographies consider the importance of semiotics of language (Karrebæk, 2012, 2013). It is essential to look at how food is symbolic within the school environment. However, it is extremely difficult to obtain permission to use recording devices within schools, so an additional framework is necessary. For this study, the ethnography of “SPEAKING” is useful and is defined as a “key research framework for documenting and analyzing naturally occurring speech events” (Riley & Paugh, 2019, p. 237). This framework was developed before the rise of recording devices; SPEAKING is an acronym: “setting, participants, ends, acts, keys, instrumentalities, norms, genres” (Riley & Paugh, 2019, pp. 58–59). It is important to document the communication between students, but this framework encompasses aspects of the school’s foodscapes and foodways. Recently, Riley, a linguistic anthropologist, has contributed to the SPEAKING framework with her FEEDING framework: food, employment, etiquette, display, implements, notions, gender (Riley & Paugh, 2019, pp. 60–61). The combination of these two frameworks capture most of the key components of this study.

The goal of this project is to answer the following questions: How do children talk about health and food and to what extent do children understand nutrition? How are children socialized at the school lunch table and how is that different than how they are socialized during meals within their homes? How much agency and autonomy do children have when making decisions about food? Furthermore, this study serves to give children a voice. Not only are children rarely involved in the production of educational policies—but these policies are usually made by people who do not work inside schools on a daily basis. Nutritional policies are often politicized using anecdotal examples and systematic studies of children’s opinion are rarely considered.

This comprehensive anthropological investigation can be used as a supplement when considering and evaluating nutritional regulations.

### **Methodology**

This protocol was approved by Penn’s Institutional Review Board for one year from November 2<sup>nd</sup>, 2018 to November 1<sup>st</sup>, 2019.<sup>4</sup> This project was also approved by the Board of Education. The researcher underwent a criminal background check in New Jersey and Pennsylvania, received Child Abuse clearance in Pennsylvania and submitted fingerprints for clearance in New Jersey and Pennsylvania. To protect confidentiality, the name of the school was changed to Lincoln Middle School (referred to as Lincoln when needed). Additionally, all of the participants’ names were changed, and pseudonyms were created. All calculations were performed using TI-Nspire CX CAS Student Software program.

### **Interviews**

Semi structured interviews were conducted with eight students from Lincoln Middle School. Guardians of the participants were informed of the study through email and personal communication. The students and their guardians were informed that this study aimed to investigate childhood eating patterns in the school lunchroom and at home. The audio from all of the interviews was recorded and transcribed for analysis with permission from the participants and their guardians. About six hours of audio were collected. Identifying information was redacted from the transcriptions of the interviews (See Table 1 for a list of all of the interview participants).

All of the semi-structured interviews began with the same question: “What is your favorite food?” (See Appendix A for the list of interview questions). Seven of the participants mentioned “healthy foods” during their interview. Immediately after the participant used the word “healthy,” the participant was asked, “where did you learn about healthy foods? At home

or at school?” One participant did not mention the word healthy, so the previous question was asked at the end of the interview. Once the participant used the word healthy, it was used within the questions.

Four of the participants also completed pantry tours. The participants were instructed to describe what was in their refrigerators and pantries. All observations, interruptions, and significant non-verbal actions were recorded in a notebook and added to the audio transcription notes.

Employees of Lincoln were also interviewed with their consent. Due to school policy, these interviews were not digitally recorded and were documented by hand in a notebook. Two lunch service workers were interviewed before lunch periods and provided a brief tour of the lunch service space. One of Lincoln’s certified School Nurses was interviewed in the Nurses’ office. Additionally, Lincoln’s acting Principal, and the assistant Principal were briefly interviewed about lunch period interactions and the school’s policies regarding school food and lunch time structure.

### **Observations**

Students were observed during school lunch periods for a total of approximately 12 hours over five days. All information was documented in handwritten field notes. Two of the site visits occurred on consecutive days. School lunch purchases were documented during these consecutive visits. Within the lunchroom, there are two cashiers at the end of the lunch line where all students must purchase their lunch or scan their card to receive free or reduced lunch. All purchases were documented for each lunch period at one cashier line. Interactions between the lunch service workers and students were also considered significant.

None of the information collected directly identified any student. Interview participants were specifically observed in the cafeteria and were referred to using pseudonyms. Excerpts of

conversations and the context of the tables were documented. Instances of food trading, sharing, and significant conversations about food were documented. Seating arrangements were observed; the number of tables of all girls, all boys and mixed tables were counted during each relevant lunch period. The general composition of mixed tables was also noted. Due to the set-up of the lunchroom, certain tables were more conducive for observation than others. For some observations, the ethnographer sat at the lunch table with the older interview participants.

## **Results**

Different types of data were collected for this ethnography. First, the site is described. Then, the structure of each lunch session is briefly discussed, and the description of the lunchroom is again reviewed. The implementation of the NSLP and school lunch service options at the site are explained.

For this study, observations within the school lunchroom were documented and interviews were conducted with participants. The observational data is presented first. The observed seating arrangements during school lunch is presented. Student's food choices were documented. Finally, the field notes describing the lunchtime interactions between the students are reported. Lastly, the insights from the interviews with the participants and staff members at Lincoln are briefly introduced.

### **The Site**

The fieldwork for this study was conducted in northern New Jersey. The town is primarily Caucasian, however nearly 30% of the town identifies as Asian, more specifically Korean. An overwhelming majority of the town's families are above the poverty line and the average household income is approximately \$80,000.<sup>5</sup>

All observational data was collected at the largest school within the town; the school services students from 3<sup>rd</sup> grade until 8<sup>th</sup> grade. The town has an extensive special needs program

across the entire district. The term “special needs students” refers to all students with Autism Spectrum Disorders (ASD) and with other mental and physical disabilities. The terms “special needs” and “special education” are often used interchangeably within educational literature. While the socialization processes of students with disabilities are outside the scope of this project, it is essential to consider special needs students because of the unique nature of this site. The program is extensive and special needs students often share spaces with regular education students. Additionally, higher functioning special education classes often “mainstream,” that is, they attend classes with regular education students and share space within the cafeteria so there are considerable interactions between the two groups (See Table 2 for Lincoln’s School Enrollment Data).

All observations occurred within the multipurpose room, which is used for lunch, physical education classes, assemblies, large school events, and concert performances. The lunch serving stations are semi-permanent and can be moved for events. The lunch tables are mounted into the wall and are folded away after lunch periods (See Figure 1 for an image of the foldable lunch table). The multipurpose room opens to the black top where students play during recess, before school, and during physical education classes.

### **School Lunch Schedule & Lunchroom Set Up**

666 Regular Education students are split into two lunch periods by grade. During each of the two lunch periods, half of the students eat lunch while the other half are at recess; after about 23 minutes, the students switch. The first lunch period consists of all of the 3<sup>rd</sup> Grade classes and two 4<sup>th</sup> Grade classes. After 23 minutes, the previous classes switch with the remaining two 4<sup>th</sup> Grade classes and all of the 5<sup>th</sup> Grade classes. For the first lunch period, students must sit at assigned tables by classroom.



The second lunch period starts with all of the 8<sup>th</sup> grade and three 7<sup>th</sup> grade classes; after 22 minutes, they go to recess, and all of the 6<sup>th</sup> grade classes and the remaining three 7<sup>th</sup> Grade classes eat lunch. For this lunch period, students may sit wherever they choose within the lunchroom (See Table 3 for Lincoln's Lunch Schedule).

All regular education students and some special needs students eat lunch within the multi-purpose room. It would be difficult for some lower functioning special needs classes to sit in the lunchroom, so these classes eat lunch in their respective classrooms. For the lower functioning special needs students who receive school lunch, teaching assistants walk to the lunchroom and choose lunches for their respective students. Staff members who selected lunch for their students were not counted in the data presented in Tables 4 & 5

The multipurpose room is used for a variety of different functions in addition to school lunch, so all the tables in the lunchroom are collapsible and are folded back into the walls after lunch periods are over. For lunch sessions 1 & 2, each table has a small poster that lists which class is assigned to each table. When students enter the multipurpose room, the lunch line is located immediately to the right-hand side in the back-right corner of the room. The lunch tables are located on three of the walls and the front of the lunchroom is a full stage. The assistant principal or principal usually stands in the front of the room at the base of the stage during lunch periods. The administrator for each lunch session uses a microphone at the front of the stage to make announcements or to dismiss students by table at the end of each lunch session. The trash bins, recycling cans, and condiment rack with ketchup, sauces, napkins, utensils, and more, are located in the center of the lunchroom. The snack line is adjacent to the stage in the front of the cafeteria.

There is no water fountain in the multipurpose room. There is a water fountain outside of the lunchroom that students can use. If a student wishes to leave the multipurpose room during lunch to use the water fountain or go to the bathroom, they must go to the stage to receive a hall pass.

Students who bring lunch from home typically go to their seats before students who receive school lunch do. Upon entering the lunchroom, students who receive school lunch immediately go to the lunch line to choose their meal and students with home lunch go to their respective tables. Students line up next to the stage to purchase snacks, and typically begin to do so about halfway through the lunch period. At the end of each lunch session, school administrators and teachers dismiss students by table. Students can only leave for recess if their table is clean and most of the garbage has been thrown out.

### **National School Lunch Program at Lincoln**

At all schools within the town, school lunch is provided by a private company that is contracted by the school district. The company is required to follow all federal and state regulations. School lunches are subsidized under the NSLP, full priced lunches are \$2.70 each and reduced priced lunches are \$0.40 each. Students and guardians can access the weekly lunch menu online (See Figure 2 for an example menu). Cashiers accept cash or students can pay with a pre-loaded card. However, guardians can limit what their child can buy with the card. For instance, a guardian can block their child from purchasing cookies from the snack line with the card; guardians cannot block students from purchasing complete school lunch meals. Additionally, the new card system notes which children receive free or reduced lunch and it is automatically programmed into the computer system. Lunch service workers can also search a student by their ID number and find their account. Most lunch service workers knew the

student's name and did not need to search by ID number. Prior to the card system, students who received free or reduced-priced lunch had to hand in tickets or a paper card to the cashier.

Under the NSLP, all students from the 3<sup>rd</sup> through 8<sup>th</sup> grade receive the same portions. A complete meal is defined as an entrée, two sides, milk and either a juice or additional side. There are two general options for entrées: hot food and cold food. The hot food options change daily and usually two entrees are offered and two hot sides (See Figure 3 for an image of the hot food serving section). On, Tuesdays and Fridays, one of the hot entrees is always pizza that is purchased from a local pizzeria near the school. The cold food options do not change daily and include salads and sandwiches (See Figure 4 for an image of the cold food serving section). For the first and second lunch session, pre-made deli sandwiches are provided for the younger students. For the third and fourth lunch sessions, students can choose what goes on their sandwich, which is made by a lunch service worker.

The options for sides vary slightly by day. On most days apples, cheese sticks, and slices of bread are available. Recently, the private company providing the meals added "the Farm Stand" which serves "...fruit and vegetable choice[s] from a wide variety of options daily. Fresh vegetables, low-fat dip, and fresh fruits are available daily for lunch. Jersey Fresh products are offered in season" (See Figure 5 for the "Farm Stand" flyer and see Figure 6 for an image of the actual "Farm Stand" in Lincoln). Students are allowed to take as many sides as they wish from the Farm Stand. If a student chooses a tray of vegetables with bread or crackers and a milk, this can be considered a complete meal and is therefore \$2.70.

Lastly, students can select their beverage from a large cooler (See Figure 7 for an image of the beverage cooler). Under the NSLP, students are supposed to take milk and may choose reduced fat milk, fat free milk, or chocolate milk. Students also have the option of choosing a

fruit juice, usually apple juice, orange juice, or fruit punch. There is a second cooler located across from the milk cooler at the end of the lunch line with water and cans of Snapple products; all products in this container are à la carte and are not included with school lunch (See Figure 8 for an image of the à la carte beverage cooler). These same products are sold at the snack line. At the end of the lunch line, there are two cash registers where students can pay for their meal or scan their card.

Students can purchase snacks, such as cookies, bagged baked chips, soft pretzels, and ice pops from the snack line. Students can pay with cash or with their cards. Free or reduced lunch options are not provided in the snack line and all products are à la carte. There is additionally one vending machine in the lunchroom that serves Snapple beverage products such as water bottles and Snapple juice cans.

### **School Lunch Choices**

On two separate days, the meal choices of students were observed and documented. The length of each lunch service session refers to the time it took to serve all of the students who wished to receive school lunch during that respective lunch session. For each session, students were only documented from one cash register, so the raw data represents hypothetically half of the students who received lunch during that session. All of the data collected is presented in Tables 4 & 5.

### **Lunch Seating Observations**

During all lunch sessions, students with short-term physical disabilities (ankle fractures, knee injuries) were permitted to sit on the stage with one or two friends to avoid sitting on the cafeteria benches. No more than five to six students were observed eating on the stage during each lunch period. In the first lunch period, students usually sat with members of their own

gender at their assigned lunch tables. Most tables were split in half by the division in the foldable lunch table by gender.

Again, older students in the second lunch period can sit at any table in the lunchroom but students tended to segregate by gender. For 6<sup>th</sup>, 7<sup>th</sup> and 8<sup>th</sup> grade lunch sessions, across all five days of observations, 13 tables were completely female, 13 tables were all males and 9 tables were mixed. The mixed tables were usually split in half by gender similar to those observed in the first lunch period. Generally, there was little interaction between male groups and female groups at mixed tables. This will be further discussed in the next section.

Within the school, a considerable percentage of students are Asian which reflects the demographics of the town. Students did not tend to segregate by race; Asian students and non-Asian students would sit together and were fairly mixed. There were some exceptions of small groups of only Asian students or only white students sitting at a table. Generally, there was not an obvious bias to sit with members of the same race.

### **Lunchtime Interaction Observations**

Students were observed during lunch sessions. Significant events such as food sharing, competitions, seating arrangements and conversations were documented. Short excerpts of conversations were documented with quotations. It was difficult to observe conversations within the center of the room, so most observations occurred near outer tables. Additionally, conversations between two students were difficult to obtain. The data presented below is partially transcribed fieldnotes with additional information and accompanying detail. The observations are separated by thematic elements that will be further explored in the Discussion. All names used in the results and discussions are pseudonyms and refer to interview participants.

### **Gender**

Below are all documented instances of gendered seating observations during lunch:

In the first lunch session, two of the interview participants, Linda and Michael are in the same class but sat at different tables. The first lunch session has the fewest students of any lunch session so the table adjacent to Linda and Michael's assigned class table was empty because no class is assigned to that table during lunch session one. Linda sat with four females at one table and Michael sat with five males at the other table. When given extra space, the students within the same class separate into two separate tables by gender.

Another interview participant, Justin, was observed during the second lunch session at his class table; nine boys were seated at the back half of the table and six girls sat at the front half. Justin sat on the border and was across from two girls. He briefly spoke with the girls, but in general, the 5<sup>th</sup> grade class was separated by gender and students generally only conversed with members of their own gender.

During the third lunch session, a group of older students briefly mixed genders. A table near the snack line was split with six boys in the front half and six girls in the back half. Four boys later came and sat to the right of the girls, near the back of the table so the six girls were in between two groups of boys. The male and female students would briefly discuss something together and then go back to their respective gendered groups; this observation will be discussed again. Generally, there was little interaction between male groups and female groups at mixed tables.

### **Conversations**

Students frequently spoke and held conversations with their classmates for the entire lunch periods and they generally sat in groups, but some students socialized in pairs. The degree of participation within groups of students varied between the participants. Frequently, a single student would lead the conversation and point on other members of the group to contribute. One interview participant, Michael, did not contribute to most conversations across the five days of

observations. Michael frequently sat with five to six other males and usually the same male student would lead the group's conversation. At the end of the lunch session, a teacher reminded the students to clean their tables. The student who led the conversation replied, "I barely got to eat all my food. On my way home, I get hungry." The student said this with five minutes remaining in the lunch period. He had spent most of the lunch period talking and did not consume any of his lunch.

Linda, an outgoing 4<sup>th</sup> grader, interacted with the ethnographer and her friends during most lunch periods. Linda talked to the researcher and then turned to her friends and recalled a funny story about how she knew the researcher from years ago and kept retelling humorous stories to her friends. Linda frequently controlled the conversation within her friend group and would call on other members of her group to contribute.

At a 7<sup>th</sup> grade table during the fourth lunch session, a group of five boys were observed during their conversation. One boy controlled the dialogue. He exerted this control by saying "Stop, stop. You know what we are supposed to do..." This table was frequently approached by staff members and teachers, as they had been labeled as the "trouble table" for frequently running around and being physical in their interactions. For example, another student jokingly "hit" and nudged the boy who was in control of the conversation, which sparked the immediate attention of a faculty member.

The most frequent type of conversations observed was the retelling of stories from prior events. Usually one student would narrate the story and a second student would either correct the storyteller or add assurance that the narrator was accurate. For instance, a group of fourth grade boys were talking about an Xbox game. Two of the boys had played the game together and one

explained how the game works; the second boy would correct the first student or add details he thought were important. This type of conversation was frequently observed among both genders.

In the middle of the third lunch session, different interactions occurred at a slightly mixed gendered table. This table was previously mentioned; the female student group was situated between two male groups, and students of different genders groups would briefly interact with each other. The girls began talking in a larger group when an additional girl came to the table and asked to join. When the female group started to talk about cheer competitions, one participant asked another when and where their next competition was. The girls then continued to talk about prior cheerleading events and what they had planned for the weekend. This group of girls additionally mentioned ideas for “hanging out” over the weekend and started to make basic plans. The girl who joined the table late controlled most of the conversation; she also shared her cookies with the group as she led the discussion. Prior to her arrival at the table, the group of girls were not clearly discussing anything together and instead were talking within pairs.

The group of males to the left of the girls were recounting a basketball game that had already occurred. One boy was recalling a story while a second boy assured that it had happened as the first boy described it. Occasionally a boy would slide over and say something to a girl within the group, but the conversations were no longer than a sentence or two. At the end of the lunch session, a girl pulled out her phone to show something to a boy who was sitting at the back of the table. The boy initially dismissed the girl and shrugged in response. Since it was the end of the lunch session, the girl continued to talk to the boy, and they left the lunchroom and continued to talk to each other. The students were not observed after they left for recess.

Altercations and disagreements between students were typically due to seating issues in the lunchroom. For instance, at the beginning of the second lunch session, two students ran to



their assigned table. The students then began arguing over who got to the spot first and also who was allowed to sit at the spots that they had saved for their friends. The two students who ran to the table immediately, both had lunch boxes and did not need to wait in line to receive school lunch food. Both students used their lunchboxes to save spots for their friends who were waiting for school lunch. A third student walked over, moved the other student's lunchbox, and sat in that spot; the students disagreed whether keeping a lunch box in a spot saved that seat. Eventually, it was agreed that using a lunchbox means that the seat was saved.

At Justin's table, students also disagreed over seating arrangements however, the issue was resolved with a trade of food. One student traded their spot at the lunch table for a cookie from the student who wanted to sit in that specific spot so he could talk with his friend at an adjacent table. On the same day, Justin was joined by his friend who is assigned to sit at a different table. Justin socialized the entire lunch period with his friend until his friend was instructed to return to his assigned table near the end of the lunch period. This encounter was by far the most Justin had interacted within the lunchroom. Disagreements over seating and spots at the lunch table were primarily observed in the first two lunch sessions where students are assigned to tables by homeroom. Again, in the third and fourth sessions, students can sit wherever they like.

There were occasions of food discourse due to the presence of certain foods. A Caucasian 4<sup>th</sup> grade boy was eating a bag of Korean snacks at the lunch table. His Asian classmate asked him why he was eating Korean snacks and the Caucasian boy shrugged in response. Lena, a female Caucasian 7<sup>th</sup> grader, frequently sat with a group of Asian females. On one occasion, Lena borrowed her friend's chopsticks to eat her chicken salad with. Most of the Asian females within this group brought boxes of rice with sides of crab, fish or other meats and vegetables.

Afterwards, Lena used her friend's chopsticks to pick up a piece of crab from her friend's plate and then fed her friend using the chopsticks. At the same table, another Asian female came to the table with school lunch. When the student began eating her tray of mozzarella sticks with a fork, Lena asked her, "Why do you eat everything with a fork?" At the end of the third session, four Asian students were seen teaching a Caucasian female student how to use chopsticks at their lunch table. The Caucasian student used straws in place of chopsticks and mimicked what her Asian friends were teaching her. This was near the end of the lunch session, so the students got up and left the table for recess.

### **Commensality & Trading**

Female students were especially likely to share food. A group of eight girls from the third lunch session were observed on all site visits. On the first day of observation, the table was composed of 14 girls; however, eight of the girls segregated themselves to the back of the lunch table. The group of eight girls put up a barrier using their lunch boxes at the middle of the table. The girls reported that the lunch boxes were helpful while they played their sharing game. The "sharing game" was repeatedly observed by this group of eight girls. Each day, one girl would bring a snack from home and pieces of this snack were placed in the center of the table. The girls would say "one, two, three, go" and race to get as many pieces of the snack as possible. One of the interview participants, Rebecca, was a part of this group and participated in the sharing game.

On the first day of observation, a Monday, one of the girls brought marshmallows for the game as it was "Marshmallow Monday". Before the girls began the game, they discussed who had met first and were competing to discover who had known each other the longest. Unlike at other tables, the eight girls would talk over each other and rarely did one girl control the entire conversation. On "Marshmallow Monday," the game was slightly delayed because one girl asked, "can I have one?", in reference to the marshmallows. The student who brought the

marshmallows said, "Okay everyone will have one to start off." After each girl received and consumed one marshmallow, the remaining ones were poured on the middle of the table. The girls rushed to grab as many marshmallows as possible and then the game was repeated, as the girls would put the snacks back in the center after each round. The Principal walked by during the game and said, "Marshmallows today I see, not chips." At the end of the game, all of the girls shared the marshmallows evenly. On "Marshmallow Monday," a separate group of three females watched the game from an adjacent table and shared two bags of chips as they also observed the encounter and talked among themselves.

The principal would frequently and somewhat jokingly ask what the table was sharing on each day. On another day, he asked, "What's the snack you have today?" and the entire table replied at once, "Cookie dough". He answered back in amazement, "Cookie dough, wow." After the conversation with the Principal, all of the girls except Rebecca went to the condiment tray in the center to get spoons. The girls played the game with the cookie dough and then went on to discuss each other's birth signs and what it meant to be a "Sagittarius." The sharing game ended slightly early on this day, so the girls began to play a different hand raising game. The girls raced to put their hands up or run underneath the lunch table depending on the signal. Again, the girls would frequently talk over each other and no single participant consistently exerted complete control over the group's conversation. The snacks were sometimes mixed. Once, the sharing table played this game with a mix of Gushers fruit snacks and Cheeze-Its. Seven out of the eight girls on that day had brought lunch from home and only one purchased school lunch.

On the last day of observation, the sharing table was organized differently than it had been on previous days. The eight girls took up the entire table and the smaller group of girls that

had normally sat at the front end of the table relocated to a different table. This was significant as it was the only time a large group of students were observed switching tables. Further, at the beginning of the lunch session, the eight girls were split into groups at the table. Rebecca was sitting with one friend at the end of the table. The other end of the table consisted of the “typical” sharing group. The group of girls were intermittently arguing over an unknown issue. Also, the lunch box barrier was not present during this observation. Eventually, the entire table surrounded Rebecca and the group of girls convinced her to join the group again and they began the sharing game. On this day, one of the girls forgot to bring a snack from home so she purchased bags of chips from the snack line and the game was carried out. After Rebecca joined the group again, the sharing game took place at the back half of the table and the front half was empty. Before the game took place, the girls put up their lunchbox barriers again to block chips from falling through the divisions in the collapsible table.

Aside from the sharing game, there were other instances of commensality observed primarily at female tables. One fieldnote documented how a 7<sup>th</sup> grade female student offered her fries unprompted to another student. The 7<sup>th</sup> grade female student did not use any verbal cues, she only gestured with her fries to her friend. This table of primarily 7<sup>th</sup> graders was observed on multiple days. On a different day, Lena was observed asking for a snack from another friend. Immediately after, another student asked for snacks from someone else, the entire group of females began to share small parts of their meals with each other.

Boys were occasionally seen sharing food. During the first lunch session, a group of 3<sup>rd</sup> and 4<sup>th</sup> grade boys were observed talking and playing at their lunch table. The group of boys would sometimes leave their seat to get up to play with a member of their group at another part of their table. Due to this group’s immense socializing, the boys did not start eating until late into

the lunch period. The first lunch period is scheduled from 11:34am-11:57am; one boy was observed opening his sandwich for this first time at 11:46am. At 11:48am, teachers began to remind students that the lunch period was nearly over, and the same boy took the first bite of his sandwich and he began to give away pieces of his orange. As students began to clean up, the boys at the table were simultaneously rushing to eat their lunches and clean their table. This group of boys wasted a considerable amount of their lunch compared to other lunch tables observed.

There was one significant instance where food was not traded or shared. A 5<sup>th</sup> grade boy passed his container of fries to his friend and instructed him to “guard this with your life”. The student then left the table and ran to the center of the lunchroom to get ketchup from the condiment cart. The student then sprinted back to his seat. In total, the student was absent from his seat for less than one minute. When the student sat back down, he took the fries back from his friend and asked, “Did anyone touch this?” This encounter was not limited to males; a 7<sup>th</sup> grade female student asked Michelle to hold her fries while she went to get ketchup. When the student returned, Michelle was sharing her Fritos with the other female in their group. However, in contrast to the 5<sup>th</sup> grade boy, the female student then offered her fries to her friends and the three friends shared bits of their lunch with each other.

Lastly, at a 5<sup>th</sup> grade table, food was exchanged without trading or explicit sharing. A boy walked over to the table and mockingly asked “Who wants a cookie?” and then threw it into the air over the lunch table. Justin caught the cookie and ate it.

### **Competition & Play at the Lunch Table**

Similar to the sharing game, food was also used for competitions. During the 3<sup>rd</sup> and 4<sup>th</sup> grade lunch, three male students and two females were observed playing an apple-eating game. The goal of the game was to eat the apple as fast as possible. At the end of session two, three

students were observed ‘chugging’ milk as fast as possible near the garbage. After the first student finished his milk, he slammed it into the garbage and won the game for finishing his milk the fastest.

Children also competed without food. A group of 5<sup>th</sup> grade boys recalled how long they had participated on the local swim team and how well each coach remembered them. After one boy would present his memory, another boy would recount some other memory that was “better.” A group of 7<sup>th</sup> grade females competed to see who had whose schedule memorized. Throughout the conversation, one female would mention that she and another friend would have a class together, and that friend would then correct or adjust the story. When a student asked if a group of three girls all had the same class together, the secondary storyteller said, “Yeah we have that all together.” The girls also competed to see who had known each other the longest and who had spent the most time together outside of school.

### **Nutritional Discourse**

During the first lunch session, a 4<sup>th</sup> grade boy chose chickpeas as one of his sides.<sup>6</sup> After the boy sat at his table, he sat with a group of only boys. Another male student asked what the container of chickpeas was and the student who had selected them shrugged and did not offer a verbal answer. It was noted that at the end of the lunch period, the student threw out the small container of chickpeas and that he had never opened them. During this lunch period, this group of boys often teased each other and there was physical and playful contact between the group members.

At Justin’s table, a group of boys was observed discussing exercise. All of the boys at the table were in the 5<sup>th</sup> grade. One student led the conversation by stating that it was healthier to work out at home than at the gym. He said, “I do 100 jumping jacks, pull ups and then sit ups.” He then declared “That’s all I am going to do” and crossed his arms. Other students began to

report how much they exercised to the student who started the conversation. The group of boys was then interrupted as another boy joined the group at the table. As he sat down, he told another, larger student: “Hey Big Poppy, move!” Immediately after the larger student was called “Big Poppy,” he started to talk about school and recalled how he had earned an A in a class. He told his friends he did well on the last test that they all took, he said, “I have a 98 or a 99. I got one wrong on it”. Most of the boys were not interested in “Big Poppy’s” academic achievements so he contributed to the exercise conversation again. He said that “Now I do 25 pushups, 25 jumping jacks and much more”. He noted that after he does these pushups and jumping jacks, he studies or plays Fortnite. None of the other students called him “Big Poppy” for the rest of the encounter.

At the end of the third lunch period, the students were watched as they threw out their trash in the garbage. Most students from Justin’s table did not waste much of their food. One staff member shook her head as other students threw out parts of their lunch; she said that “they throw away everything. They take an apple and eat one bite”. After all of the students had left the lunchroom, the staff member suggested that “Maybe they don’t learn how to eat at home”.

### **Participant Interviews**

Eight participants were interviewed and assigned pseudonyms. The participants varied greatly on the length of their responses; Lena and Michael gave extremely short answers and were often prompted by their parents. In contrast, Linda and Rebecca were extremely enthusiastic; Linda refused to let the interview end and kept speaking about food repeatedly because she enjoyed the process.

All students came from traditional nuclear families, they all live with their biological mother and father. Seven of the eight participants have siblings; one of the participants is an only child. All of the participant’s siblings were their biological siblings. None of the participants

lived in households with their grandparents or other members of their extended family. All of the participants identified as cis-gendered.

Most of the participants reported that they primarily learned about healthy food at home; the one participant who said he did not learn about food at home said he only learned about nutrition in the 2<sup>nd</sup> grade, but he clearly understood the basic tenets of healthy eating. All eight participants said that they occasionally went food shopping with their guardians. For most participants, health was not a primary factor for their food decisions, but they were aware of what foods are considered healthy. Four of the participants reported frequently or always eating school lunch; the other four participants said they almost always brought lunch from home. Only one participant reported purchasing breakfast at school. Of the students who ate school lunch, only Linda enthusiastically reported enjoying the meals provided at Lincoln. Frequent complaints were usually about quality and the serving temperature of the food.

Only one student openly reported that he would occasionally trade food. All participants said that sometimes they would casually share food or give food away that they did not want. Participants reported that their conversations during dinnertimes with their families were different than at the school lunch table; most participants said that during dinner they would talk about what they did at school. During lunch, most boys said they talked about sports and videogames such as Fortnite. Female participants reported that they talked with their friends about what they were doing that weekend and discussed funny events that they enjoyed together. Justin, however, said he mostly talked about school with his friends during lunch (See Table 6 for the participant's abbreviated responses to selected questions).

### **School Interviews with Staff & Faculty**

Lunch service workers were interviewed at various times throughout the project. All of the lunch service workers at Lincoln are female and are often referred to as “lunch ladies.” On



the first day, Stephanie, a lunch service worker, stated that all students at Lincoln, including 3<sup>rd</sup> through 8<sup>th</sup> graders, receive the same portion sizes. She noted that this was not a school policy, but “what the government says we have to do”. She also said that the government sometimes sends free produce to the school however she described the wet and soggy salad they received as: “sometimes it looked like it sat in a warehouse forever”. In contrast, she stated that when “corn and green beans” were in stock “we can’t keep them on the line long enough” because students and staff enjoy them. Staff members can also purchase a staff lunch at Lincoln, this is not a part of the NSLP and was not considered during this study. Additionally, another lunch service worker said that all students who receive free or reduced lunch are technically obligated to take a milk with their lunch; she said that this was rarely enforced but that they attempted to urge children to choose healthier foods when they had the opportunity. The lunch service workers agreed that they tried to encourage the older students to take more sides; many noted that students did not always eat their entire portions.

The Principal reported that students in the 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> grade were required to sit by table due to their age and so that young children would not be left out or excluded. He also said that the structure of the lunch periods, with the split grades, was created because some lunch periods were very overcrowded while other lunch periods had empty tables. The 7<sup>th</sup> grade is the largest year with 128 students who are split into 6 classes; the 4<sup>th</sup> and 8<sup>th</sup> grades are the smallest years with 98 students each and four classes per grade.

The School Nurse was interviewed because of her involvement with the school’s nutritional and dietary policies. Under her guidance, a district regulation was changed in the summer of 2018. The goal of the adjusted policy was to inform faculty and students about life threatening food allergies and to encourage students not to share or trade food. After the

implementation of this policy, the School Nurse said that the number of severe allergic reactions requiring an epi-pen decreased. Additionally, the new policy requires that all birthday parties for students occur on the last day of each month and all products must have a label with allergen information. The School Nurse also spoke about food insecurity at Lincoln; by restricting parties to one day of each month, children from food insecure backgrounds feel less awkward if their families cannot afford to send elaborate birthday cakes or treats for their entire class. The School Nurse has applied for grants to increase funding for breakfast programs for food insecure students.

Various staff members, including teachers, and the Assistant Principal were informally interviewed. Staff members generally reported that children usually do not eat their entire lunch and that they typically chose “junk food.” The Assistant Principal said that when the Student Store first opened students initially would spend most their lunch period at the store and would forget to eat lunch. The Student Store is a store run by special needs students. The students create their own crafts and sell small products on Mondays, Wednesdays and Fridays outside of the lunchroom. The Assistant Principal created an informal rule that students must finish their lunch before going to the Student Store.

### **Discussion**

This section will discuss the ethnographic observations within the lunchroom with excerpts from the participant interviews (See Appendix B for notes on the audio transcription process). An analysis of the data revealed reoccurring themes and trends. Therefore, this discussion is structured by these themes of food agency, nutritional discourse, food insecurity and socialization. Possible policy implications are also reviewed. While the discussion is

structured this way for organization, it must be pointed out that these themes are flexible and are all connected. The limitations of this study are also discussed.

### **Food Agency and Preferences**

This project originally focused on childhood food agency, but as the ethnography continued, the focus shifted from food agency to socialization. Food agency and childhood preferences are still a core component of this study. Every interview began with the same question “What is your favorite food?” None of the participants reported a dessert as their favorite food and answers included: mashed potatoes, pizza, chicken wings, steak, macaroni and cheese and “a medium rare burger.” With the exception of Lena, the participants were able to quickly report their favorite food.

Within the lunchroom, it was possible to investigate agency by observing the lunch choices of students. An estimated 52.9% and 51.4% of regular education students ate school lunch on the first and second day of observation—nearly half of the school consumes school lunch (See Tables 4 & 5). Children who purchase school lunch are able to choose what they want to eat in the absence of their guardians. Obviously, their choices are limited to pre-selected options, but children are still given a choice. On the first day of observation, the components of 176 meals were documented. 58.5% of students chose pizza as their main course (From Table 4: 103 students selected pizza and 106 portions were served). Justin, an interview participant, eats school lunch every day and spoke about his lunch choices:

Emily: Okay. Do you get pizza on Fridays?

Justin: But it depends on if the [xxx], sometimes the pizza isn't that good. It's like soggy and like it's kind of old.

Emily: Okay.

Justin: So, if it looks like it doesn't really look appealing, I'll eat like a sandwich again. It is generally assumed that children make choices based on taste, but quality is clearly also important. The favorite foods of the participants included steak, chicken wings, and macaroni

and cheese, but none of the participants reported candy, dessert, or cake as their favorite foods. Quality is a factor in students' food preferences, yet health and taste are more often discussed in nutritional literature.

On Day One, 32.9% of students selected milk as a beverage and 58.2% chose juice (From Table 4). Since 1946, "1/2 pint of whole milk" has been listed as a requirement in the NSLP yet most of the world cannot consume it (Gunderson, 1971, p. 20). Of the eight interview participants, one student reported being lactose intolerant. The ability to digest lactose, which is present in milk and dairy products, is unique to populations of European descent, the Middle East and certain regions of West Africa, and is associated with genetics (Itan, Jones, Ingram, Swallow, & Thomas, 2010). The epidemiology of lactose intolerance within the US is difficult to determine but within anthropology, lactose intolerance or lactase persistence is frequently studied and discussed; Asian populations are usually considered lactose intolerant (Riley & Paugh, 2019, p. 99; Wiley, 2004/2013). Wiley (2004/2013) uses a biocultural perspective to examine the biological and cultural context of milk consumption in the US and argues that milk is especially pervasive in the US due to the strength of dairy lobbies. Inside Lincoln's cafeteria, there is a large "Got Milk" poster on the wall near the lunch line. This poster has been present in Lincoln's cafeteria for over 10 years.

The region of New Jersey where this study took place reports relatively high Asian and Hispanic population compared to the rest of the state, so it is likely that many more students are lactose intolerant. Milk was not the most popular beverage choice at Lincoln. Under the NSLP, students can choose milk and a juice however, children can only take a juice if they did not take a fruit side. Of the 281 beverages selected on the first two days of observation, 119 were milk (42.3%) and 162 were juice (52.7%) (From Tables 4 & 5). It is possible that students preferred

juice due to taste but it is also likely that some students cannot consume milk. Also, it is likely that students from immigrant families did not grow up drinking milk, which Wiley (2004/2013) also discusses. Dietary restrictions shape a child's agency within the school foodscape. Cultural norms and biology, including food allergies, both create dietary restrictions and lead to alternative dietary preferences. Yet, child's food choices are usually evaluated on the basis of solely taste.

In the US, the order of meals is an important part of a child's foodways. American children are taught that they must eat their main course first before they may eat dessert (Ochs et al., 1996). Participants generally reported that the snack line options, which are mostly dessert foods, were more preferable, yet students who eat school lunch still purchase a "proper" meal before buying snacks. The snack line was much longer at the end of lunch periods and nearly empty at the beginning. All participants were asked if they consumed dessert at home and at school. Below is an excerpt of an interview with Lena:

Emily: Do you ever eat dessert with your lunch?

Lena: Not usually unless I get a cookie from the snack line.

Emily: So then when you're home, do you eat dessert after dinner?

Lena: Sometimes. And then I...I ask for it, but then sometimes my mom says no. And then sometimes I'll just have fruit if it's not an Italian ice or Greek yogurt bar.

Emily: So why does your mom say no?

Lena: I don't know. I think because I have other things during the day that contribute more to like sugars and carbs than that. I have been just having something else on top of it.

Lena appeared slightly uncomfortable after she was asked "So why does your mom say no?"

Within the lunchroom, Lena was observed sharing a cookie with a friend once. Even though children are hypothetically free to make their own decisions in school, they still consider what their guardian's believe is healthy and what they perceive their guardians would want them to do. Lena internalized her mother's beliefs on food and dessert, which shapes her food choices in the lunchroom.

## **Trading & Commensality**

Trading and sharing were also regarded as signs of agency. At the school lunch table, children are free to trade and socialize with their friends while consuming food. Trading food involves an explicit exchange of one good for another. In anthropology, commensality is broadly defined as the act of eating food with others (Riley & Paugh, 2019). A student partakes in sharing if they give a portion of their food to another student and if the student does not directly ask for anything in exchange.

Trading and sharing food at Lincoln school is officially discouraged. Sharing food is discouraged because a significant number of students suffer from life threatening allergies. Prior to the policy change, six to eight Lincoln students per year experienced life-threatening allergic reactions during school. Further, it was reported that a few years ago in a nearby town, a student unfortunately passed away at school from anaphylactic shock after sharing food at lunch. The school nurse at Lincoln has made food allergy safety a priority and has dramatically reduced the use of epi-pen emergencies—it is undeniable that the work of Lincoln’s school nurse is a success and is commendable. A parent of a student outside of the study spoke about her son who is extremely allergic to peanuts. He suffered from an allergic reaction in school because he accepted food from a friend. When the parent asked him why he accepted food from his friend even though he knew it possibly contained peanuts, he said he did not want to be rude and that he enjoyed sharing food with friends.<sup>7</sup>

The interview participants varied in responses and some were aware that trading was officially discouraged. Two participants, Justin and Alex, are friends and are both in the 5<sup>th</sup> grade. Justin and Alex are in different classes, so they are required to sit at different tables during lunch. Justin and Alex’s tables are next to each other in the lunchroom. Both participants had

similar responses to trading and sharing food. Justin was aware that trading and sharing was explicitly “against the rules.”

Emily: Um, do you ever trade food? I don't know if kids still do that.

Justin: No, because we're not allowed to.

Emily: You're not allowed to trade food?

Justin: Yeah, we'll get detention.

Emily: Ahhh. Okay

Justin: Cause like last time a few years ago there were a lot of sharing food, but then one guy had to go to the hospital because he didn't know he was allergic to something. And his throat started closing up. So, he had to like to go to the hospital. So that's like one of the, like one of the most followed rules in our school.

Despite Justin's account, students do not go to detention if they trade or share food. Justin's table was observed on all days of observation, but explicit sharing was never observed. Alex reported a similar experience with trading and sharing food.

Emily: Do you ever trade food?

Alex: No

Emily: Do you guys ever share?

Alex: Sometimes. The teachers are very, they're very against sharing because they know there are lots of allergies like peanuts

Emily: Okay

Justin: And if you bring in peanut butter and jelly, they make you wash your hands under [xxx] when they're done.

Emily: Do you have any friends who are allergic to peanuts?

Alex: No... Yeah, but he's in the fourth grade

Alex continued to explain how he used to trade food when he was younger during snack time in his classroom. Alex also explained how he felt about trading and sharing since the rise of allergic reactions:

Emily: So, when did you do this?

Alex: Maybe first grade and second grade when they didn't really care that much about allergies and hey didn't know better. But now they're very against it because there have been kids that have gotten allergic reactions since [xxx] in class.

Emily: That's really interesting. Um, so did you like trading?

Alex: Yeah, but now I know it's kind of bad.

Emily: Okay. Um, do you like sharing food?

Alex: Not really.

Alex and Justin are both aware of the dangers of food allergies. Alex used the word *bad* to describe food trading. His use of the word *bad* is similar in context to how he described junk foods or unhealthy foods. This interaction depicts how education and socialization are intertwined. There are two primary theoretical frameworks used for nutritional education: Dewey's Philosophy of education and Freirean-inspired educational model (Rud & Gleason, 2018, p. 177). The Dewey framework prioritizes learning through the participant and Freire focuses on learning as a community, educators usually rely on both (Rice & Rud, 2018b; Rud & Gleason, 2018, pp. 176–182). Once a child is taught something, the process of learning does not end there. Alex and Justin demonstrate how they retell what they have learned, and both students educate the interviewer on food allergies and the dangers of trading.

Sharing food was observed at many tables at Lincoln but no instances of sharing were observed at Alex's or Justin's table. It is unclear why these two students are especially aware of food allergies. The other six participants were all observed sharing food, did not report that food sharing was against the rules and did not mention food allergies. It is possible that Justin and Alex were particularly aware of food allergies because they are both in the 5<sup>th</sup> grade. It was briefly hypothesized that perhaps there was a food allergy emergency within that grade. This hypothesis is difficult to confirm, as the School Nurse cannot identify the students who have suffered from allergic reactions. Justin and Alex were the only 5<sup>th</sup> graders interviewed so further interviews with other Lincoln 5<sup>th</sup> graders would be insightful. It is possible that within their group of friends, Justin and Alex learned about the dangers of food trading and allergies, which was then normalized and accepted within their friend group. It is unclear why this was reinforced in their social group and could be investigated in the future.



Interview participants also explicitly noticed the difference between sharing and trading.

Linda noted this difference:

Emily: Are you allowed to trade food?

Linda: No

Emily: Are you allowed to share food?

Linda: I don't know that so. Hmm.

Linda was aware that trading was discouraged but did not realize that sharing was also officially discouraged. Unlike Justin and Alex however, she did not offer any explanation about the rules on trading when the interviewer directly asked if she was allowed. Linda did not mention food allergies in her interview. Hugo, a 7<sup>th</sup> grader, was the only participant who said he would occasionally trade food:

Emily: Do you ever like trade food?

Hugo: Oh yeah.

Emily: What do you trade?

Hugo: We like something that I'm missed. Like I'm full and I don't want to eat it for like a drink, like a juice. We usually get water, or we bring our own water bottle.

His sister, Rebecca, however specifically said she would not trade food:

Rebecca: I don't trade [xxx]. I usually eat everything, or you just leave it. I mean I usually only bring healthy food because then when I say, hey, I have a carrot, they're like, oh no, it's okay, you can keep that.

Rebecca places value on the foods that are potentially shared. Since she brings "healthy" foods to school, other students do not want her carrot and it is not valuable within her social group.

Rebecca's value on food and the economy of trading will be discussed again in this section.

The interviewer and the participants differentiated between sharing and trading. To trade food is more explicit and is also essentially bartering. Within the cafeteria, sharing and trading are more similar than expected. Once a student would ask for a piece of someone else's snack or someone would offer food, a floodgate would open. After a student was brave enough to ask for food, other students within the social group would then also ask. This was observed on numerous occasions and especially with larger groups of older female students. These instances of sharing

are similar to trading as food is being exchanged. A table of 7<sup>th</sup> grade females all participated in a “sharing circle.” Lena asked her friend for a piece of her snack, which then signaled another student to ask another female next to her. At the end of the exchange, every student in the group had received food from another person and had given a piece of their own snack or meal to at least one other student. While this is not an explicit trade, it is an exchange. Sharing is also the exchange of social capital at the school lunch table and this can be viewed as reciprocity. If a student shares food with their friend, it is expected that their friend will share with them also.

A group of female students were also observed sharing utensils. Lena was observed using her friend’s chopsticks to feed her friend a piece of her own meal. This was performed in a humorous manner. The table was entertained by Lena using chopsticks because it is a utensil that she does not normally utilize. Trading and sharing can also act as a form of entertainment at the school lunch table.

Overall, female students were more likely to share food than male students. This was especially symbolized by the sharing game that was previously described in the results section. Rebecca, a 6<sup>th</sup> grader, participates in the game every day and was also interviewed. The interviewer asked Rebecca what she spoke during lunch:

Rebecca: We usually talk about like stuff about our lives and then we just relate to each other and talk about food. And then we have this game that we play that it's a game, that one person brings food and we just put it on the table. We lay it out and then we put our hands behind our back and then we say three, two, one and then we rush to get it. And yeah, I mean my day is Monday. I usually bring jumbo marshmallows and it's the best. Emily: So, one person brings food and you put it in the middle?

Rebecca: Yeah, I mean we take turns Monday through Friday. I mean Friday's “Freedom Friday”... Yeah, Friday's “Freedom Friday.” Wednesday is like chips, Mondays, “Marshmallow Monday” or “Mushroom Monday,” like chocolate mushrooms. We assign one person to bring something in, but I mean I usually bring marshmallows only. From the observer’s perspective, the sharing game occurs extremely similarly to how Rebecca describes it. Rebecca frequently mentioned health and nutrition during her interview, and used

the word ‘healthy’ eight times, the most of any interview participant. Yet she brings marshmallows in on Mondays and specified that the “mushrooms” were chocolate. Certain foods are more valuable and more conducive for sharing than others. Foods that are considered tastier are therefore more desirable. When food is shared there is an informal and implicit value placed on the object. Students were most often observed sharing chips or cookies as these are more culturally valuable inside the lunchroom. Most students shared parts of their snacks, sides, or dessert—students did not share parts of their main dish. During interactions of sharing, the social value placed on food is more important than health.

The sharing game was also notable because it vexes the traditional notion of a game. Usually the goal of a game is to win. The other competitions in the lunchroom (including the milk chugging competition that was presented in the results) resulted in a winner. The sharing game is repeated multiple times and the girls all put their food back in the center after each round. At the end of each lunch session, the girls usually split up the food as evenly as possible—so there is no benefit to winning each round of the game. For the other competitions observed, there were intangible benefits to winning. The student who won the milk chugging competition, slammed his milk into the garbage first and started jumping around to signal to his friends that had won. For that brief moment, the winner was at the “top” of his social group. Students also informally competed in terms of social capital. For instance, female students competed to recall who had known each other the longest. There was no formal winner from this discussion. However, the female who had proven she had the most social experiences ended this conversation and the rest of the group also stopped trying to compete. After the verbal competition had ended, there was a brief silence and the female student with the most social

capital started a new conversation. Friendships and social experiences outside of the school are also important and are shared during lunch.

### **Food Insecurity**

It is common to hear the phrase “sharing is caring” inside American schools. Children are taught that sharing is good, and they are usually praised for it as it represents an act of kindness. There are many reasons however why students may not share food. The School Nurse disclosed that a considerable number of students at Lincoln come from food insecure homes.

The USDA defines food insecure households as “households unable to acquire adequate food for one or more household members because of insufficient money and other resources for food” (Ralston et al., 2017, p. 2). As of 2015, 83.4% of households in the US were classified as food secure (Ralston et al., 2017, p. 2). Food security is measured with a survey of household behaviors. From 2014 to 2015, 43.2% of food insecure households *with children* were below the federal poverty line, 9.1% were 100-130 percent above the poverty line and 15.9% were 131-185 above the poverty line (Ralston et al., 2017, p. 6). Students are eligible for free lunch if their household income is 135 percent under the poverty line and for reduced lunch if their household income is 185 percent under the poverty line (United States Department of Agriculture: Food and Nutrition Service, 2018). The poverty line is extremely low, in 2015 for a family of four, the cutoff was \$24,036 (Ralston et al., 2017, p. 6). Food insecurity is not perfectly synonymous with poverty as 19.7% of food insecure households are above the poverty line by 185% and therefore do not qualify for free or reduced lunch (Ralston et al., 2017, p. 6).<sup>8</sup> The USDA measures poverty within schools by the number of students who qualify for free or reduced lunch which is based on income. Food insecurity is not based on income and is not considered when determining if a student should receive free or reduced lunch. A brief analysis of the survey data suggests that food insecure students are not necessarily benefiting from federal nutritional

programs. Ralston et al. (2017) found that food insecure students who participate in the NSLP and other nutritional programs perform better in school and that nutritional programs reduce food insecurity. The same USDA study concludes that for food insecure families that are “just above the income qualifying limits” can qualify for nutritional assistance in high need regions of the United States due to the HRFKA (Ralston et al., 2017, p. 17). This slight expansion of the NSLP and nutritional programs will likely help families in high need communities, but it will likely have less of an effect in lower-need communities like Lincoln.

26.6% of regular education students at Lincoln are eligible for free or reduced lunch which means that their annual household income is under \$46,000 in 2018 (See Table 1). In contrast, the average household income *of the entire town* is approximately \$80,000. This discrepancy in the data is observed within the school. Other educators and staff members additionally confirmed that food insecurity is a problem for a considerable number of students, but it is rarely mentioned. A local newspaper published an article in 2016 about the “shocking fact” that many students in affluent towns were food insecure and qualified for free and reduced lunch. The article listed the number of students who qualified for free and reduced lunch in each town in the county. The article was surprising because food insecurity is rarely addressed in this region and therefore, there are minimal resources for food insecure households. The actual article itself was not cited here to protect the identity of the site.

This study cannot determine which Lincoln students live in food insecure households because it is based on observational data. Children from food insecure backgrounds suffer academically, socially, and physically and they are less likely to share. (Ralston et al., 2017; Stapleton & Cole, 2018). For example, the 5<sup>th</sup> grade boy who told his friend to watch his fries “with his life” may come from a food insecure background. When he returned to the table, he

immediately questioned if anyone had touched his fries. This student also brought lunch from home in a brown paper bag and ate everything he brought. An overwhelming majority of students at Lincoln who bring lunch from home also bring a lunch box. His brown paper bag was starkly different. It is possible that the student's unwillingness to share and preoccupation with his food is a result of something else. It is also a possibility that fries are a luxury snack for the student and his value of them is too high to consider trading or sharing. Future research could investigate food insecurity in the lunchroom and how food insecure children consume food in comparison with food secure children. The presence of food insecurity with Lincoln suggests that the current metrics used to determine eligibility for childhood nutrition programs are not entirely effective as these children would likely benefit from these programs. Assessments of childhood nutrition programs in the US have shown that they are adequate at reducing food insecurity for children but there are still improvements to be made (Ralston et al., 2017).

### **Socialization Processes within the Lunchroom**

Socialization within the lunchroom encompasses many aspects of the cafeteria foodscape. Children's seating patterns were observed as well as how they interact with each other while selecting school lunch. Additionally, gender was an obvious factor during socialization. Interview participants were asked what they frequently talked about during school lunch and some conversations at the school lunch table were documented by hand.

Children can be socialized into conflict and as they are dynamic process, conflict can also affect socialization. Students occasionally argue with each other in the lunchroom. Students in either the 4<sup>th</sup> or the 5<sup>th</sup> grade were observed arguing over seating arrangements at their table. One student moved another student's lunchbox which they had placed to save the seat for their friend. The students began to argue but it was mediated as the group of students at the table agreed that the student who moved the lunchbox was at fault. This student was then forced to sit in another

spot as the group of roughly 10 students agreed that saving a spot with a lunchbox is acceptable and allowed.

The lunchbox argument represents the semiotic value of the lunchbox as an extension of the student. Scholars in the UK asked British students to draw their nightmare and dream lunchboxes to determine how children perceive food and to supplement the ethnographic studies of schools in the UK (Dryden, Metcalfe, Owen, & Shipton, 2009). Students drew food items but also symbols unrelated to food; one boy was noted because his dream lunchbox included a “playboy” and the scholars argued that what children drew were indicative of their moral beliefs and personal identities (Dryden et al., 2009). At Lincoln, the lunchbox is a part of a student’s physical identity—if you move another student’s lunchbox, you are also moving that student. This is especially profound to think about while considering the British lunchbox study. The colors, shape, and type of lunchbox represents the preferences of the students but also what types of food they might typically eat. A group of Asian 7<sup>th</sup> grade females were frequently observed with purse shaped lunch boxes that included a specific pocket for their chopsticks and for their specific type of lunch containers. This group of girls were often seen consuming rice and seaweed, which they mixed with vegetables or meat that were stored in a separate food container. The lunchbox is brought from the child’s home to school and back, so it can be considered a transitional symbol that represents both institutions and interacts with both the school and home foodscape. The lunchbox is one of the few objects that exists in both settings.

Inside the school cafeteria, there are rules and norms that exist separately from the school’s official policies. The unofficial cafeteria rules are significant because children create and enforce these rules themselves. Again, it was decided that moving the lunchbox was “against the rules” and unfair. The group of students collectively decided that moving another person’s

lunchbox is not allowed. Unlike school rules, which are created by adults and then agreed upon with other adults, the lunchbox rule is known and accepted without a declaration or formal process. It is unlikely that the students sat together one day and declared that moving someone else's lunchbox is against their cultural norms. Instead, this rule was somehow learned and socialized through an informal and unconscious mechanism. Students are frequently taught to "keep their hands to themselves" so it is possible that if the lunchbox is considered an extension of the student, moving someone else's lunchbox violates that rule. The rule of "keeping your hands to yourself" is a formal and official school policy. It is possible that the informal rules created and enforced by children interact and reinforce official school rules.

The separation of gender at the lunch tables was extremely noticeable. Most tables were split in half by gender during the first two sessions. In last two sessions, a majority of males and females sat at separate tables. It could be perceived that there is this unwritten rule that girls must sit with girls and boys must sit with boys. Unlike the lunchbox argument, no student was seen enforcing this rule and students did not tend to break this trend.

All of the participants reported that they sit with members of their own gender during school lunch. Their reported conversations usually aligned with traditional gender roles. Rebecca said that her friends typically talk about "our lives" and then she went on to explain the sharing game that was previously discussed. Melissa, who is in the 7<sup>th</sup> grade, said that her friends mostly talked about "random stuff" and sometimes sports. Hugo, a 7<sup>th</sup> grade boy, said that his friends usually talked about "video games, soccer, basketball, sports". Alex also said he usually talked about sports, such as basketball, at the lunch table.

The participants are also *aware* that they choose to sit with members of their own gender during lunch and that there is a gender division in the lunchroom. During her interview, Linda



was asked if she wanted to talk about anything else. She chose to describe the gender divide at her lunch table:

Linda: Um, because we want, it's either we weren't friends from other classes or we just don't, it's either just because it's usually the boys and the girls split up. It's either they split up like one, like the boys have a half table and the other girls have a half table or just boys have one table and the girls have one table.

The ethnographer did not ask Linda about gender before her response, she recalled how boys and girls sit separately unprompted. Linda demonstrated that she is aware that she does not sit with boys during lunch. She explains the separation as a difference in interests and not as a socialized rule like how the lunch box rule is agreed upon. The fact that Linda is aware of the divide is compelling and shows that young students are attentive to their surroundings and aspects of their foodscapes.

The separation of boys and girls is fairly constant within the lunchroom, but it is not consistent throughout the entire school day. Linda said that she played basketball with boys during recess and then was questioned why she did not sit with them during lunchtime.

Emily: So why don't you eat lunch with the boys you play basketball with?

Linda: They. They. They only...Because the...It's probably because we have like different interests than them. So, it's more of what, why, why would we sit there if we're not interested.

Linda is in the first lunch session, so she sits with girls for the first twenty minutes while she eats. After lunch, Linda goes to recess and plays basketball with primarily boys. Linda cites interests as the reason she does not want to sit with the boys even though *the boys* and Linda both like playing basketball. Linda reported that she normally gossips with her friends during lunch and that the boys do not interest her because they talk about Fortnite.<sup>9</sup> The word "Fortnite" was overheard many times in the lunchroom and was used by male interview participants. The only female to mention Fortnite was Linda, who used it to explain why she does not sit with boys during lunch because she does not like the game. Similar to societal gender roles, there is this

implied idea that female students do not play Fortnite or most video games. With the exception of Linda, few females spoke about sports in the lunchroom, and if they did it was usually in the context of cheerleading or dance. Melissa did talk about softball in her interview. The socialization into traditional Western gender roles clearly begins before middle school. Due to the segregation of gender during school lunch, it is possible that these traditional gender roles are reinforced because of seating arrangements. It is uncertain how gender roles affect children during class and at recess.

The ways that traditional gender roles are reinforced at school lunch are likely different from how they are reinforced at the family dinner table. Michael, a 4<sup>th</sup> grade boy, said that during lunch he only sat with boys and that they talked about “Fortnite and basketball”. Michael, however, does not talk about Fortnite at the family dinner table:

Emily: Michael\*, I have a question for r. Do you talk about Fortnite at dinner?

Michael: No.

Emily: No. Why not?

Michael: (laughing) I don't know!

Hugo similarly said that he does not talk about video games at the dinner table even though he talks about them at lunch. The narrative structures that Ochs and Taylor discuss (1992a, 1992b, 1995) enforce gender roles at the dinner table through power dynamics and as a result of the structure of the conversations—fathers are often set up as the *problematizers*. At the school lunch table, male gender roles are reinforced by the topic of the conversations, which is very different than what Ochs and Taylor describe at the family dinner table.

Not all lunch time conversations reinforce gender roles, children also learn about other cultures at the school lunch table. For instance, Lena reported an alternate kind of conversation during lunch:

Emily: So, what do you guys like talk about?

Lena: Like I asked them because they usually have like Korean dishes, so I asked them what it is and what's in it and they explain it to me

Emily: So, what do they eat?

Lena: Sometimes they have pasta and then other times they have something and it's like there's rice and then there's an egg on top and vegetables. I don't know.

Lena and her friends talk about food as Lena and her friends come from different cultures and therefore bring different types of lunch to school. The interactions at this table demonstrated how socializing during lunch through food was also informative. Lena has learned about Korean foodways and cuisine by engaging and eating with her Korean friends.

The transcription of Lena's interview also revealed some minor contradictions with the observations. After Lena described the types of food her Korean friends eat, she was asked if she ever shares food and said no. Lena was observed sharing food on multiple occasions at her table. She gave away her blueberries and also received food from her friends. While this was contradiction, it does reflect how the participant information is inevitably slightly flawed. Overall, this study benefited from the observer-participant framework as observations can be paired with the participant's interview account to create a fuller understanding of socialization during lunchtime at schools.

Male and female students rarely intentionally interacted with each other at the school lunch table. One notable exception occurred during the special needs program's annual Thanksgiving Feast. After the last lunch period, staff members set up large tables with trays of catered food. Some of the guardians of the special needs students contributed money to help pay for the feast and subsequent donations were collected to cover students who could not afford to. During the feast, special needs classes sat with their assigned classrooms. 111 special needs students attend Lincoln, of which 83 are male and 28 are female. In contrast, of the 666 Regular Education students, 331 students are male and 335 are female. The prevalence of ASD is significantly higher for males compared to females but the cause of ASD and the reason for its

bias towards males is unknown (Baruah, Singla, Narwat, Das, & Chapadgaonkar, 2018). See Elsabbagh et al. (2012) for additional ASD statistics, across multiple studies males consistently outnumber females in epidemiological studies (p. 169).

During the Thanksgiving Feast, a male special education student and a female special education student were observed interacting throughout the entire meal. The two students were playing a “mirror” game where one student would make a face, or a gesture and the other student would try to replicate the movement at the same time. The students alternated as the primary person. This was the only observed prolonged interaction between a male and female student at Lincoln. There are fewer female students in the special needs program, however, they are more likely to interact with the male students. This is partially because of the gender distribution—there are more males than females in the program. However, if special needs students exhibited the same seating patterns as the regular education students, the female special needs students would only interact with other female students. From the selected observations within Lincoln, special needs students are less affected by traditional gender norms compared to regular education students. Bashinski and Smilie (2018)’s work is compelling because it reveals how special education students are often marginalized and ignored within the lunchroom and therefore in the literature as well. Further research of special needs students is necessary, as their socialization mechanisms are uncertain at the lunch table and at the dinner table.

### **Proposed Narrative Structures**

Linguistic ethnographies of family dinners revealed that mealtime conversations frequently follow a specific linguistic narrative structure that is associated with gender (Ochs & Taylor, 1992b, 1992a, 1995). In the cafeteria, children eat without their guardians and with members of their own gender. The dinnertime narrative structures are also related to differences in power between family members, so it was unclear how or if this would manifest within the

lunchroom. The most common type of conversation observed at the lunch table differed from the structures presented in the literature. At the school lunch table, one student would narrate a story or explain a concept that the student usually experienced with another friend who was also present at the table. The narrator would tell their story and the second student, who was at the event or familiar with the concept, corrected the narrator or confirmed for the audience that the narrator's account was accurate. The narrator would also look to the second student for affirmation and confirmation. This type of conversation was observed at both male tables and female tables. It is similar to the structure of the *problematizer* that Ochs & Taylor (1992a, 1992b, 1995) present. However, the conversations at the school lunch table are more collaborative. These conversations suggested that children need affirmation from another witness for their story to be recognized as accurate.

The role of the *introducer* at the lunch table is undefined. At the family dinner table, the mother usually acts as the *introducer*, and is important because the *introducer* "nominates narrative topics, thus proposing who is to be the focus of attention" (Ochs & Taylor, 1995, p. 103). At the school lunch table, Linda was observed acting as the *introducer* within her small friend group of female students. Linda controlled the conversation and introduced different topics. Ochs and Taylor (1995) associate the *introducer* to the mother and their studies suggest that men, usually the fathers, control most of the conversation even though the mother is the *introducer*. Linda also acted as the *problematizer*, so she does not perfectly fit the description of either narrative category. At other tables, there was no clear *introducer* and topics were discussed communally. At tables without an *introducer*, multiple students might offer a topic, and the topic was accepted and carried into conversation or it was not discussed within the group. For future research, audio recordings from the school lunch table would be exceptionally insightful.

Additional narrative roles could be created to describe and categorize school lunch conversations.

### **Nutritional Discourse**

Participants demonstrated a considerable understanding of health and nutrition. Most children reported that they learned what foods are “healthy” at home. Alex, a 5<sup>th</sup> grade student, said that he learned about nutrition “once” in the 2<sup>nd</sup> grade. Alex reported how he really enjoys eating ice cream and that he would eat ice cream all the time if he could. Below is a brief transcription following his discussion of ice cream:

Emily: Does your mom ever say you can't have something because its unhealthy?

Alex: Yeah.

Emily: Like what kind of foods?

Alex: Maybe like a fattening food.

Emily: What is a fattening food?

Alex: Just anything...well I mean like sugar, something with lots of sugar.

“Fattening foods” in the US are typically categorized as foods that are extremely high in carbohydrates (Smith, 2012). Alex is 10 years old and he recognizes that certain foods are “fattening.” This is significant because in response to the obesity crisis, scientists have shown that subjects can be convinced that fattening foods results in negative consequences and they speculate that “through suggestion, [we can] manipulate nutritional selection and possibly even improve health” (Bernstein, Laney, Morris, & Loftus, 2005). Manipulation as a tool for obesity intervention is possible because children are socialized into health and nutrition at a young age. If children were not taught, what foods are “fattening” or socialized into this culture, nutritional selection could not be manipulated as easily.

Justin correlated food with “energy” for his body. The interviewer asked what he usually ate for breakfast:

Justin: Or like we'll have like a banana shake or something like that. Something that just makes us like energized.

Justin was the only participant to explicitly describe food as energetic, but Rebecca and Hugo also associated certain foods with swim practice:

Emily: So, do you usually think that you eat more after swim?

Rebecca: No.

Emily: No?

Hugo: Yes.

Rebecca: Maybe I feel it's before swim because I mean sometimes my mom's...my mom makes chicken. She had these really cool containers and then splits up like chicken and I like the rice and the different, um, that, that she, uh, in the container. So, then we eat it before and then after we have like, she makes us this smoothie and we eat maybe a banana.

Rebecca implicitly associates certain foods with swim and therefore physical activity. Justin is also a swimmer. It is possible that children also associate certain foods with events and places.

Rebecca and Hugo associated smoothies and frozen yogurt as post swimming foods because there is a frozen yogurt place near their swim practice location. For children who bring lunch from home, it is unclear if they associate certain foods in their lunchboxes with home or with school. Linda, who mostly eats school lunch, talked about how chicken and rice was something she only eats at home because her mom makes it.

One student, Linda, struggled to identify which foods were considered healthy and which ones are not. Linda did not use the word "healthy" in her interview, so the interviewer asked about health at the end of the interview:

Emily: So where do you learn where health, where certain foods are healthy or not healthy?

Linda: Here's the thing, we don't have health class.

Emily: Oh really?

Linda: Yeah, I think we have health class in fifth grade.

Emily: Okay

Schools' curricula are frequently changing. Many staff members were uncertain when health classes start in Lincoln. Regardless, it is more significant to investigate what children learn about health during school and how they utilize this knowledge. Linda was then asked what she knew

about healthy foods. She struggled to answer and frequently paused, and would repeat part of her answer:

Emily: Okay so you never learned what foods were healthy or not?

Linda: Well, yeah, but it's not like I never knew. It's not like, I never knew what healthy foods was, but it's not like I know all of the healthy foods that like better... Like it's not that I know all the healthy, like unhealthy foods and all the healthy food, but I do like, it's like I do know some. Last year our music teacher taught us that but now she doesn't do that anymore. She's now, she's just a music teacher. I guess we have health in the fifth grade.

Linda attempted to explain how she intuitively understands that certain foods are healthy. She later said that she considers vegetables “healthy.” This suggests that there are certain foods that everyone *just knows* are considered “good for you.” Nearly every participant considered vegetables “healthy.” The word “healthy” is frequently written with quotation marks because it is important to reiterate that what foods are considered healthy is culturally constructed and reinforced by cultural and social norms

The generalized acceptance that fruits and vegetables are “healthy” is a result of nutritional education but also continued socialization. Linda was never formally taught that “vegetables are healthy” but she *just knew it*. Linda also mentioned her music teacher. It is unclear if or why a music teacher taught health in Lincoln. Some teachers possess dual certifications so they can switch subjects and act as short-term or long-term substitutes. When this happens, students occasionally do not realize that their music teacher is temporarily acting as their health teacher. Conversely, the music teacher potentially incorporated nutrition and health into her music lessons. Education scholars frequently support the use of interdisciplinary curricula with nutrition (Lupinacci & Parkins-Happel, 2018; Morrison et al., 2002; Rud & Gleason, 2018).

Inside the cafeteria, there was an obvious instance of discourse about exercise. As previously described in the results, a group of 5<sup>th</sup> grade boys were observed discussing exercise.



One student joined the conversation and told a larger student: “Hey Big Poppy, move!” Prior to this, another boy claimed he does “100 jumping jacks, pull ups and then sit upss” at home. This encounter, referenced as “the exercise conversation”, shows how young children are socialized into exercise at an early age. The student who was called “Big Poppy” was clearly upset with the nickname and immediately began to talk about his academic successes. He mentioned how he got a “98 or a 99” on his past exam but none of the other boys seemed interested in his achievement. It was significant how quickly “Big Poppy” tried to change the conversation from exercise to academics. In spite of his attempt, the larger group decided to return to the discussion of exercise. It is possible that the other boys were insecure with their academic achievements and did not contribute because their grades were inferior to “Big Poppy’s.” The “exercise conversation” is significant because it also provides some possible insight into the development of body insecurity in young boys. 5<sup>th</sup> grade students are about 10 or 11 years old; the development of this insecurity starts before this age.

Justin is a 5<sup>th</sup> grade boy and is classmates with the boys involved in the “exercise conversation.” Justin did not contribute to any part of the “exercise conversation.” In his interview, Justin used the word “bad” when describing a snack known as “pusha-pushu”<sup>10</sup>:

Justin: We used to do that in the first and second grade, but everyone realized it was so bad for us and it didn’t really taste as good anymore. I don’t know, we didn’t really find it to taste good.

Emily: Um, so yeah it tasted okay. Who taught you that it was bad for you?

Justin: I mean it’s like uncooked noodles and like [xxx]. My mom told me not to really eat that much of, she was the one that told me. She was the one who told me you might as well eat noodles with powder and crush it since we have it at home.

Justin was then asked where he learned about “bad” foods and what he had learned at school:

Emily: Um so, when it comes to like teaching you what’s good and what’s bad food. Do you learn that at school, or do you learn that here?

Justin: Here.

Emily: Um do you learn anything at school about that? Were you ever taught anything about that?

Justin: We got taught to eat like, I don't know. They don't sell fruit, but they sell junk food, but they tell us to eat fruit, I don't really get it. I mean they do sell fruit, but I don't know, it's so hidden. It's not really standing out. People do buy fruits but not as much.

As Justin said, "*I don't really get it*", he paused and crossed his arms as he thought about his response. Justin's statement is a profound realization for a 5<sup>th</sup> grader. He acknowledges that there is a discrepancy between the school's nutrition curriculum and what is actually served on the school lunch line. Morrison and colleagues (2002) write about the issues of the British nutritional curricula in schools but the scholars interviewed educators and policy makers, they did not interview children. Unlike government officials and even educators who work inside schools, Justin and his classmates *actually* consume school food. Justin also demonstrated that he is aware of his classmates' actions and that students do not purchase fruits often. Children possess intimate knowledge of the actions and events that truly happen inside schools.

### **Possible Policy Implications**

This project is a small-scale ethnographic study. It would be inaccurate to apply the findings to the entire country; this is an inevitable limitation of the methodology. Nonetheless, this ethnography does have possible policy implications that could be implemented on a local level to improve nutrition and health in schools. This project is intended to provide a narrative to accompany the epidemiological data, to connect the epidemiological numbers with everyday life and children's actual experiences. As such, with further ethnographic studies, the ethnographic data could be used for state and possibly federal policies.

First, knowledge of food options and basic accessibility at Lincoln could be improved. Students are allowed to take as many sides as they wish from the "Farm Stand" and may choose only fruits and vegetables with bread and milk as a full meal. No student chose the "Farm Stand" as a full meal option. This option is listed online but it is possible that students are unaware of

this option or they prefer other foods. Children usually choose one or two sides even though the Farm Stand is unlimited. Lunch service workers did occasionally inform students that water bottles or certain parts of their meal were not included under the NSLP. Students usually opted to put the water bottle or additional piece of their meal back instead of paying extra for it. It is plausible that students do not want to risk choosing something that they will have to put back or pay extra for.

The lunch service workers at Lincoln can be viewed as allies for the students. The positive relationship between students and staff members was not consistent in the prior ethnographic literature. Karrebæk (2012) writes about how Danish teachers were selective on how they harshly enforced school policies onto minority students, and often left majority students alone. Morrison (1996) details how lunch ladies in the UK often singled out minority students and would guilt them if they did not finish their lunches by saying that “other people’s taxes paid for them” (p. 660). Inside Lincoln however, lunch service workers did not show any biases to majority or minority students. The lunch service workers sincerely expressed their desire to help children and to feed them meals that they enjoyed and that were healthy. A few staff members reported that occasionally lunch service workers and/or teachers would help a student if their lunch card had no money on it or if they had forgotten their lunch at home. Overall, it is rare for a student to not eat lunch at Lincoln because the community is fairly supportive. This is a positive aspect of the current school lunch program at Lincoln and future policies should be structured so that they do not interfere with this relationship.

Justin reported, that from his perspective, fruits and vegetables were not available or offered on the lunch line. However, fruits and vegetables are served at Lincoln on the ‘Farm Stand’ (the quality of these products does vary). After a student selects their hot meal, they can

stand in two different lines to pay with a cashier. One cashier is directly adjacent to the lunch line and the student will pass the “Farm Stand” while waiting to pay. The other line does not border the serving area and the “Farm Stand” is not within arm’s reach. There is a portable cooler with milk and juice next to the separated cashier. If a child is in the outside line, they are farther from the “Farm Stand” and other side options. In the future, the number of sides selected from each line could be documented and analyzed. It is hypothesized that students in the outer line would select fewer sides. It is intuitive that if food is more easily available, students are more likely to consume it. Spill et al. (2010) found that children from the ages of three to five were more likely to consume vegetables if portion sizes were increased and given to children as a first course. Further, the height of the cafeteria counter is an issue for some children. Short students must ask for foods or sides as they are physically incapable of reaching these options themselves. While this might seem trivial, visibility of options is clearly important.

The length of lunch periods and of school days is a complex issue. In 2014, standardized testing policy changed in New Jersey; the New Jersey Assessment of Skills and Knowledge test (NJASK) was replaced with the Partnership for Assessment of Readiness for College and Careers (PARCC) examination (Maroun, 2018, p. 34). In 2016, the New Jersey Board of Education decided that the PARCC would be mandatory for graduation for all students starting with the class of 2021 (“New Jersey’s new PARCC mandate,” 2016). The PARCC, which many states adopted in early 2010, sparked controversy in New Jersey as many schools began to “teach to the test” and administrators suggested lengthening school days to raise test scores (Strauss, 2015). Educators, however, found that socioeconomic status is highly correlated with test scores while the length of the school day does not affect test scores (deAngelis, 2016; Sammarone,

2016). Regardless, test scores are a priority for most school districts in New Jersey, which further diverts attention from the issues of school lunch.

At Lincoln, children have about 23 minutes to purchase school lunch and to consume it. Lunch service workers feed approximately 87 students in 8.3 minutes per lunch session. The system is efficient at serving many students very quickly. The short serving intervals are possibly correlated with the decisions that students make on the lunch line. Most students were observed rushing through the lunch line so they could sit with their friends at their table. Additionally, if students feel rushed, shorter students are less likely to ask for help to reach certain foods. Male students were especially unlikely to finish their lunches within the 23 minutes. Staff members were frequently observed encouraging students to finish their lunches faster. It is difficult for a school to justify lengthening school lunch periods due to the pervasive anxiety of test scores. As of July 2018, New Jersey was only one of two states that still utilized PARCC; New Jersey's newly elected Governor, Phil Murphy, has frequently argued against standardized testing and has already started to transition away from the PARCC ("New Jersey Drops Controversial Standardized Test Requirements," 2018). This dramatic change in policy from 2016 to 2018 represents how quickly school policy can change. Standardized testing is an aspect of governmental forces that affect school lunch policies.

Lincoln's cafeteria also reflects aspects of federal nutritional policies. Poppendieck (2012) discusses how Reagan's cuts to the NSLP in the 1980s resulted in financial deficits for school lunch programs and cafeteria managers were forced to install vending machines and offer à la carte options for revenue (pp. 332-333). Alumni of Lincoln school, who graduated in the 1970s, could not recall the presence of vending machines or the snack stand in the cafeteria. One alumna recalled a single vending machine in the high school within the town in the early 1980s.

Staff at Lincoln did not know when the vending machines or snack line were implemented. The earliest memory of the snack line and vending machines were reported in the early 2000s.

Students at Lincoln may purchase additional snacks from the snack line and Snapple beverages from a vending machine. The snack line and vending machine are likely sources of revenue for the private company that provides school lunches at Lincoln. Students who receive free or reduced lunch cannot purchase anything from the snack line or vending machine with federal funds—they must use their own money. Governmental and economic forces affect Lincoln's cafeteria and therefore the lunches and health of the students.

### **Limitations**

The limitations of this study are due in part to the ethnographic approach and the setting. Semi-structured interviews were utilized for this study so some of the interview questions were consistent for all of the participants. Interview participants were asked, "where did you learn about healthy foods? At school or at home?" This leading question gave participants only two options but there are admittedly other places where students learn about health and nutrition. In the future, this question could be restructured to consider other sources for nutritional knowledge.

There was inevitably selection bias. The ethnographer knew most of the participants and their families. The ethnographer is also a former member of the Lincoln school community, which is an important consideration when conducting an ethnography. The interview participants were also fairly homogenous. All participants lived in households with their married parents. All of the participants identified as cis-gendered and all of the married couples were heterosexual. The participants did vary in ethnic backgrounds, but they all came from nuclear households. In the future, students from single parent homes and non-traditional households should be

interviewed. This would be especially helpful as most of the mealtime socialization literature describes the socialization processes of traditional nuclear families.

The participation and openness of the interview participants varied greatly. Michael, Melissa, and Lena initially gave short and vague answers. In these interviews, the ethnographer occasionally used language that referred to their own experiences at Lincoln school. The intention of the interviewer was to relate to the participants, this was successful as Melissa and Lena became more engaged as the interview progressed. This strategy however possibly altered the dynamic of the interviews.

Children were also clearly aware of the ethnographer's presence within the lunchroom. Some groups of students would stop talking if the ethnographer was near their table. Students also occasionally approached the ethnographer to ask why they were present. This likely changed the conversations of some groups of students. Additionally, the observations inside the lunchroom were documented by hand. The results in Tables 4 & 5 are estimates as a result of the observation method. The ethnographer could only observe one of the two lunch lines; in the future additional individuals could be recruited for more accurate data collection.

The data collected from the interviews are self-reported. It is likely that interview participants exaggerated, incorrectly recalled events and numerous other possibilities. Some fields would consider these accounts inaccurate but self-reported data is an aspect of the ethnographic methodology. Each child's account on school lunch was viewed and analyzed from their perspective and paired with the observational data. Justin reported that students are sent to detention if they are caught sharing or trading food, but the Principal of Lincoln said that trading food is discouraged due to allergy concerns and students are not sent to detention for sharing food. The ethnographer should not judge Justin's account or label his interview as incorrect. It

is within the framework of this study to consider why Justin reported this event and to consider the perspective of the student.

### **Conclusion**

The lunchroom is the source of language and food socialization yet studies from inside the cafeteria are absent from the anthropological literature. The collected data supports the hypothesis that children have autonomy regarding their food decisions and exert agency during school lunch. Children also consider quality along with taste when selecting foods. Children, especially females, share food at the lunch table with their peers. This ethnography also reveals the clear division of gender in schools. Children intentionally segregate by gender during meals which results in different socialization mechanisms. Females were more likely to share food and finish their lunch. Male students were less likely to complete their meals within the lunch period. It was also surprising how the students embraced traditional gender roles at the lunch table; boys were more likely to talk about sports and video games while girls were observed talking about cheerleading competitions and general “gossip.” This study does not speculate that these gender roles or conclusions hold true for all students at Lincoln.

This ethnographic study also reveals how food security is an issue at Lincoln school and presents a possible narrative structure for lunchtime conversations. This narrative structure can potentially be improved and further analyzed using a linguistic ethnographic methodology. The interviews suggest that middle school students possess a significant understanding of health and nutrition that is primarily learned at home. Lastly, the conclusions from this project can be used to analyze and possibly adjust nutrition policies. The data collected cannot be universally applied to all schools however it serves as a narrative to the epidemiological surveys that are often used to create educational policies. Ellen (1984) presents how the purpose of a numerical survey is “to



count units and of numerical *social* survey to count people *as units*” but in contrast, social anthropologists “understand people not as units but as integral parts of systems of relationships” (pp.258-259). The *weaknesses* of the epidemiological studies are nearly parallel to the *strengths* of the ethnographic studies. So, both sources of data were considered together. Policy makers and scholars *should* consider both sources of epidemiological and ethnographic data. A comprehensive analysis of the collected data and a review of the literature reveal how socio-political actions, that exist on the peripheries of nutritional policies, influence the NSLP and therefore children.

This study provides a brief glimpse of what *actually happens* inside the school cafeteria. On a national level, the actions that take place at the school lunch table are speculative as the Department of Education relies on survey data and occasionally considers anecdotal experiences. Future ethnographic studies, across *any* social science field, could improve public educational policies. For anthropologists, the school lunchroom differs from “traditional” settings of ethnographic studies, but it is undoubtedly important to understand. The socialization mechanisms at the school lunch table clearly differ from the socialization processes that occur at the dinner table. Mealtime socialization research has shown that socialization affects health and nutritional choices. The socialization that occurs during school lunch also affects food choices and therefore a child’s health. In the midst of the obesity crisis, school food should be considered holistically and include the mechanisms of lunchtime socialization.

## Endnotes

<sup>1</sup> Vygotskian Theory is a theory based on social development. Soviet psychologist Lev Semionovich Vygotsky argued that development changes from biological to socio-cultural in children due to social pressures. Vygotsky was challenging psychologist Jean Piaget's theory and Vygotsky argued that speech and language develop separately in public places, such as schools. See Bruner (1961/1962), Kotig-Friedgut and Friedgut (2008), and Vygotsky (1934/1962).

<sup>2</sup> Families for all CELF studies are defined as families with dual-earning parents that work at least 30 hours a week, have at least two children and pay monthly mortgages.

<sup>3</sup> The National School Lunch Act is officially entitled "An Act to provide assistance to the States in the establishment, maintenance, operation, and expansion of school-lunch programs, and for other purposes." The Act set the guidelines for the NSLP.

<sup>4</sup> At the time of IRB submission, the Protocol Title was "Childhood Food Agency and Foodways in Middle School Children in New Jersey." The title of the project was changed, but the protocol and methodology were not.

<sup>5</sup> This modified data was taken from the 2017 American Community Survey. The survey data is not directly cited to protect the identity of the actual town. All figures presented were rounded to also preserve confidentiality.

<sup>6</sup> Food choice observations were not documented on this day, so this observation does not correlate with Tables 4 & 5.

<sup>7</sup> The student graduated from Lincoln one year ago and was outside of the age range of this study. The reported interaction occurred a few years ago.

<sup>8</sup> The remaining 13.3% of families did not report their income

<sup>9</sup> Fortnite is a popular video game. As of July 2018, 45 million people were actively playing the game. (See <https://www.nbcnews.com/tech/tech-news/what-fortnite-look-video-game-has-become-phenomenon-n887706>)

<sup>10</sup> The real name of this snack is unknown. It a Korean snack that comes in a yellow bag that contains a square of dried ramen and a powder flavor pack. Students usually crush up the ramen and mix in the flavor pack to consume it.

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### **Appendix A: List of Interview Questions**

The interviews were semi-structured. The following questions were all asked to all participants. The questions were not always asked using the exact wording presented below. The questions were also not necessarily asked in this specific order. Additional questions were also asked, and they varied due to the dynamic of each interview:

- What is your favorite food?
- Do you buy school lunch or bring lunch from home?
- What do you talk about during lunch?
- What do you talk about during dinner?
- Who do you eat lunch with?
- Who do you eat dinner with?
- Where did you learn about ‘healthy foods’? At home or at school?
- Do your friends bring home lunch or buy school lunch?
- Do you ever trade or share food during school lunch?
- Do you go to the supermarket with your parents? Do you help pick out food?
  - Follow up: Where do you go food shopping?

## **Appendix B: Audio Transcription Notes**

All audio was transcribed using an AI software program and then edited manually.

- [xxx]-refers to audio that was inaudible
- \* denotes that information was redacted or changed to protect confidentiality. Names of participants, locations within the area and references to specific events were all changed or redacted.
- Notable physical events (including laughing, gestures, or facial expressions) that took place during the interviews were documented in the field notes and were added as endnotes to each audio transcription. These details were integrated into the discussion.

## Figures



*Figure 1.* Image of a foldable table at Lincoln School. In the thesis, the back half of the table refers to the part of the table that is closest to the wall. Most children split by social groups at the physical division in the center of the table.

<p><b>Monday</b></p> <p>Baked Macaroni and Cheese with a Dinner Roll Popcorn Chicken with Dip and a Roll</p>
<p><b>Tuesday</b></p> <p>██████████ Pizza – Delivered Fresh Cheesesteak Hero with Provolone Cheese</p>
<p><b>Wednesday</b></p> <p>Wild Wing Wednesday – Hot Chicken Wings with a Roll Sausage, Egg, and Cheese on a Roll</p>
<p><b>Thursday</b></p> <p>Mozzarella Cheese Stuffed Breadsticks with Marinara Sauce Nachos Grande with Turkey Taco Meat, Brown Rice, and Scoops Chips</p>
<p><b>Friday</b></p> <p>██████████ Pizza – Delivered Fresh Chicken and Cheddar Cheese Burrito with Black Bean Salsa</p>

*Figure 2.* Example of a weekly menu from Lincoln. The name of the pizzeria was redacted to protect the identity of the site.



*Figure 3.* Image of the hot food serving station. Hot sandwiches and other hot foods are served from the warming rack near the back wall. The other hot entrée and hot sides are served by a lunch service worker pictured in the blue polo. This picture was taken with verbal permission from the employees.



*Figure 4.* Image of the cold food section of the lunch line. This image was taken during the first lunch period where the sandwiches are pre-made. For the older students, this section is converted into a deli counter where students can ask lunch service workers to make their sandwich. Cold sides are also shown near the sandwiches (side salad, applesauce). Buttered rolls are also offered with cheese sticks as a complete meal.



██████████ is proud of our award winning **Farm Stand**. This enhanced healthy food option is available daily as part of a complete lunch in your school cafeteria.

Students have the opportunity to choose their fruit and vegetable choice from a wide variety of options daily. Fresh vegetables, low-fat dip, and fresh fruits are available daily for lunch. Jersey Fresh products are offered in season.



Your Food Service Department is committed to creating a healthy food environment. We believe giving students a variety of healthy options will enable them to make nutritious choices. We hope you will encourage your kids to choose healthy and delicious lunches at school.

*Figure 5.* Image of the “Farm Stand” flyer. The name of the school was redacted to protect the identity of the site. The image in the flyer was not taken at the site. It is from another unknown school in the region.





*Figure 6.* Image of the actual “Farm Stand” at Lincoln. The sides included chickpeas, cucumbers, tomatoes, cucumber and tomato salad, mixed side salad, apples and oranges.



*Figure 7.* Image of the beverage cooler. This cooler is located on the far side of the lunch line. All students may choose one milk and/or juice with their lunch. Chocolate milk is in the brown cartons, low-fat milk is in the pink cartons and fat-free milk is in the blue cartons. Immediately above the chocolate milk are apple juice containers and the remaining juices are grape juice, fruit punch and orange juice.



*Figure 8.* Image of the à la carte beverage options. Students must pay additionally to receive a Snapple water bottle or can of Snapple juice. These beverages are also available from the Snack Line.

## Tables

<b>Table 1</b> <i>List of Interview Participants</i>			
<u>Name</u>	<u>Age</u>	<u>Gender</u>	<u>Grade</u>
<i>Linda</i>	10	Female	4 <sup>th</sup>
<i>Michael</i>	10	Male	4 <sup>th</sup>
<i>Alex</i>	10	Male	5 <sup>th</sup>
<i>Justin</i>	10	Male	5 <sup>th</sup>
<i>Rebecca</i>	11	Female	6 <sup>th</sup>
<i>Melissa</i>	11	Female	7 <sup>th</sup>
<i>Hugo</i>	12	Male	7 <sup>th</sup>
<i>Lena</i>	12	Male	7 <sup>th</sup>

Notes: The ages of the participants are their ages at the time of the interviews which took place in the Fall of 2018.

**Table 2**  
*Lincoln's School Student Enrollment as of January 8<sup>th</sup>, 2019*

	<u>Number of Regular Education Students</u>	<u>Number of Special Education Students</u>	<b>Total</b>
<i>Total Number of Students</i>	666	111	<b>777</b>
<i>Number of students receiving Free or Reduced Lunch</i>	177	82	<b>259</b>
<i>Percentage of Students Receiving Free or Reduced Lunch</i>	26.6%	73.8%	<b>33.3%</b>

Note: Students qualify to receive free lunch if their annual household income is 1.35 or under the federal poverty level and reduced is 1.85; from July 1, 2018 to June 30, 2019 a student from a household of four could receive free or reduced lunch if their annual household income was under \$32,630 or \$46,435 respectively (United States Department of Agriculture: Food and Nutrition Service, 2018).

Table 3  
*Lunch Schedule & Number of Students*

	<u>Time (in minutes)</u>	<u>Grades</u>	<u>Number of Total Students</u>
<i>Lunch Session 1*</i>	23	3 <sup>rd</sup> Grade & two 4 <sup>th</sup> Grade Classes	148
<i>Lunch Session 2*</i>	20	5 <sup>th</sup> Grade & two 4 <sup>th</sup> Grade Classes	170
<i>Lunch Session 3</i>	22	8 <sup>th</sup> Grade & three 7 <sup>th</sup> Grade Classes	163
<i>Lunch Session 4</i>	23	6 <sup>th</sup> Grade & three 7 <sup>th</sup> Grade Classes	186

Notes:

\*Lunch Sessions 1 & 2 are considered one lunch period. The students in 'lunch session 1' eat lunch while the students in 'lunch session 2' are at recess. After 23 minutes, the students switch. The same is done for lunch sessions 3 and 4.

<b>Table 4:</b> <i>Day 1-Lunch Service Times &amp; Choices by Lunch Session</i>				
	<u>Session 1</u>	<u>Session 2*</u>	<u>Session 3</u>	<u>Session 4**</u>
<u>Length of Lunch Service</u>	Did not document	Did not document	8 minutes	10 minutes
<u>Entree</u>				
<i>Chicken Nuggets</i>	6	4	9/10 <sup>^</sup>	
<i>Pizza</i>	21	21	30	31/34
<i>Deli Sandwich</i>	4	9	2	7
<i>Hot Roast Beef and Cheese Sandwich</i>		2	6	5/7
<i>Chicken Sandwich</i>			8	2
<i>Smuckers Sandwich</i>		2		
<i>Salad</i>		1	1	
<i>Roll with Butter</i>				5
<u>Sides</u>				
<i>Apple</i>	3	2	5/6	2
<i>Orange</i>	2	2	1	
<i>Fruit Salad</i>		3		
<i>Apple Sauce</i>			5	1
<i>Side Salad</i>	2	5	2	1
<i>Celery</i>			4	
<i>Beans</i>			1	
<i>Tomatoes</i>			1	2
<i>Chickpeas</i>			1	
<i>Carrots</i>			1	
<i>Cheese Stick</i>	2		1/2	
<i>Bread</i>	2	3/4	2	6
<u>Drink</u>				
<i>Milk</i>	3	9	20	16
<i>Juice</i>	14	19/20	29/31 <sup>^^</sup>	23/24
<i>Water</i>	0 <sup>***</sup>	2	2	2
<i>Snapple</i>			1	1
<i>No Drink</i>	3		2	
<b>Total Number of Students in Line 1</b>	<b>31</b>	<b>39</b>	<b>56</b>	<b>50</b>
<i>Estimate of Total Students Served During Lunch Session</i>	62	78	112	100
<i>Estimation of Percentage of Lunch Session Served School Lunch</i>	41.9%	45.9%	68.7%	53.8%
Notes:				
* One student only bought a pretzel from the lunch line and was not counted within this tally.				
**One student only got celery and water from lunch line and was not counted within this tally.				
*** One student originally attempted to buy a water, so a tally was marked in the field notes. However, the student put the water back after he was informed that it would cost extra.				
<sup>^</sup> 9/10 notes that 9 students took Chicken Nuggets, but 10 portions were served because one student took two. This notation is consistent in both Table 3 & 4				
<sup>^^</sup> 29/31 notes that 29 students took juice, but 31 portions were served, so two students took two juices. A student was not observed taking more than 2 portions in all observations.				

<b>Table 5:</b>				
<i>Day 2-Lunch Service Times &amp; Choices by Lunch Session</i>				
	<u>Session 1</u>	<u>Session 2*</u>	<u>Session 3</u>	<u>Session 4**</u>
<u>Length of Lunch Service</u>	6 minutes	7 minutes	9 minutes	10 minutes
<u>Entree</u>				
<i>Chicken Nuggets</i>	17	12	28/29	38/39
<i>Deli Sandwich</i>	3	5	4	12
<i>Hot Chicken Sliders with Fries</i>	4	3	3	
<i>Hot Chicken Sandwich</i>	1	11	10	2
<i>Smuckers Sandwich</i>	1	1	1	1
<i>Salad</i>		2	1	
<i>Roll with Butter</i>	3	4	2	2
<u>Sides</u>				
<i>Apple</i>	1	1	0*	
<i>Orange</i>		4		1
<i>Pear</i>	1	2	3/4	2
<i>Celery</i>			1	
<i>Cucumber</i>	1	2/3	1	
<i>Cucumber &amp; Tomatoes</i>	2			
<i>Side Salad</i>	1	3		1
<i>Cheese</i>	3	3	0*	
<i>Bread</i>	5	11/12	10	31/39**
<u>Drinks</u>				
<i>Milk</i>	12	15	18/20	23/24
<i>Juice</i>	8	15	25/27	23
<i>Water</i>		5	1	1
<i>Snapple</i>	3	4	2	3
<i>No Drink</i>	4	1	2	1
<b>Total Number of Students in Line 1</b>	<b>29</b>	<b>38</b>	<b>49</b>	<b>55</b>
<i>Estimate of Total Students Served During Lunch Session</i>	58	76	98	110
<i>Estimation of Percentage of Lunch Session Served School Lunch</i>	39.2%	44.7%	60.1%	59.1%
Notes:				
*Lunch line ran out of apples and cheese sticks for before lunch session 3 & 4.				
**An extra tray of bread was placed directly next to the hot food station during lunch session 4.				
-Lunch service worker reminded students to take fruit 3 times during Session 1, once during Session 2 and 3.				



Table 6

*Interview Participants' Abbreviated Responses to Selected Questions*

<u>Name</u>	<u>Favorite food</u>	<u>Home lunch or school lunch?</u>	<u>Where learn about health?</u>	<u>Talk about at lunch?</u>	<u>Talk about at dinner?</u>
<i>Linda</i>	Chicken**	School	Uncertain	Gossip	What happened today
<i>Michael</i>	Steak	School & Home	Home	Fortnite & Basketball	Vacations & 'I don't really know'
<i>Alex</i>	Medium Rare Burger	Home	School	Sports	Grade & How school was
<i>Justin</i>	Chicken Wings	School	Home	School	'Don't really talk'
<i>Rebecca</i>	Mashed Potatoes	Home	Home	Gossip & Sharing Game	Do not talk at dinner
<i>Melissa</i>	Steak & Macaroni and Cheese	School & Home	School/Home*	Gossip	Softball***
<i>Hugo</i>	Pizza	Home	Home	Video Games	School, Grades
<i>Lena</i>	Chicken & Rice	Home	Home	'Not Much' & School	What happens at school

Notes: Michael & Melissa are siblings. Hugo & Rebecca are siblings.

\*Melissa reported that in 6<sup>th</sup> she had health class and watched 'Supersize Me' but said that she did not learn much from health class at school and that she learned about fruits and vegetables at home.

\*\*Linda first reported her favorite food as French toast sticks from school lunch. When asked what her favorite food was overall she said 'chicken' and that she loved all food.

\*\*\*Melissa at first said 'I don't really know' and looked slightly upset. So, the interviewer asked, "Well do you ever talk about softball at dinner?" and Melissa said yes. The answer was therefore prompted.