

Kids Deserve the Best We Can Offer:

An Analysis of School Lunch

by

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A Thesis

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Table of Contents

Abbreviations and Acronym	vi
Acknowledgements	viii
Abstract	ix
Chapter One. Introduction: The Possibility of Ending Childhood Hunger Through School Food Programs	10
Chapter Two. Background and Significance: Hungry Kids = Hungry Minds	12
Food Insecurity among School Age Children	12
Feeding Kids Under Constraints and Inequity	14
School Food and the Achievement Gap	15
National School Lunch and Breakfast Programs	16
Affordability of National School Lunch Program vs. Farm-to-School Programs	17
Wellness Policies	19
Constitutive Research Question 1	24
Constitutive Research Question 2	24
Chapter Three. Methodology and Methods	26
Methodology	26
Positionality	27
Methods	28
Research Question 1	28
Research Question 2	29
Chapter Four. Results, Analysis, and Contribution: Are we done yet? With inedible school food, that is...	31

Results for Question 1	32
Philadelphia School District	32
Rockingham County School District	34
KIPP Texas School District	35
KIPP Austin	36
KIPP Dallas-Fort Worth	37
KIPP Houston	38
KIPP San Antonio	39
The Academy for Urban Leadership	40
Analysis for Research Question 1	41
Results for Research Question 2	43
Philadelphia School District	44
Rockingham County School District	45
KIPP Austin	46
KIPP San Antonio	47
School without a Focus on Academic Achievement	48
Analysis for Research Question 2	48
Contribution	51
Chapter Five. Conclusion: Better Food is Coming	54
Looking Forward	55
References	57

Abbreviations and Acronym

NSLP	National School Lunch Program
SBP	School Breakfast Program
USDA	United States Department of Agriculture

I dedicate this thesis to all the teachers who are met with an impossible task, to teach under any and all circumstances. I was once that teacher that taught a classroom full of hungry kids, they were not hungry for knowledge but for a decent meal that could help nourish their mind, body and soul. I dedicated this thesis to my 10th/11th Grade Gender and Women's Studies elective class who gave me the courage to continue graduate school when all I could worry about was them. My students gave me life and I am forever grateful for the love, laughter and knowledge you all gave me.

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Abstract

This research examines food insecurity among school age children because I want to learn about the roles, ability and capacity of schools in providing nutritious food for all students at school. Specifically, this thesis investigates school lunch programs in urban and rural public schools based on wellness policies and hunger prevention programs that focus on feeding children. This research asks, how do public and charter schools in urban and rural areas approach their role in feeding children? And, how are public and charter schools innovating to improve kids' food security to positively influence academic achievement. Chapter 2: Background and Significance provides insight about childhood hunger in the United States, inequity within the food system, the importance of school food, and an explanation of the achievement gap as it pertains to hunger among children. In Chapter 3, I explain the methodologies I use to answer my research questions, which are content analysis, literature review and critical inquiry. In Chapter 4: Results, Analysis, and Contribution, I investigate the wellness policies intended to ensure that kids are nutritionally satisfied with school food. I use those findings to better understand how schools are approaching their role in feeding children and how they are innovating to change the food system. I investigate how schools use their wellness policies to address the achievement gap if at all. In Chapter 5, I conclude this research, identifying the roles schools play in feeding kids and how schools might continue to address the academic achievement gap between low-income and high-income children.

Keywords: School Food, Wellness Policies, Achievement Gap, Hunger, Food Insecurity

Chapter One

Introduction: The Possibility of Ending Childhood Hunger Through School Food Programs

Ending childhood hunger in of itself sounds like a task that is almost impossible. I will help others understand the importance of feeding kids through the school food system by examining the idea that school food can be used as a catalyst to help improve food security among children. Millions of children are still going hungry every year, even though they are receiving school lunch and many of those children's families qualify for food assistance. Food is vital to how we develop, and it determines how we are able to absorb and use the information we are given on a day to day basis. While the problems within the school food system are not new, kids are still widely affected by hunger and the need for change has grown every year.

Schools have a unique position within communities and present an opportunity to address this issue because they are a trusted form of safety and security for children. During the school year, schools are where children receive two important meals, breakfast and lunch. Public and charter schools serve majority of students in the United States. While both types of schools receive state funds, charter schools are not fully funded by states. Charter schools have to make up the funding deficit by fundraising and donations. These donations allow charter schools to have more flexibility with school programming. One of those school programs that charter schools can be flexible with is food programming. Charter schools, whether urban or rural, are not mandated to feed kids, but the majority of them do offer a school lunch program. Public schools receive 100% of their funds from the government or the state. Understanding variation in school type is important because while some schools have flexibility in choosing food programming, others do not.

This research examines food insecurity among school age children across school types because I want to learn about the roles, ability and capacity of different schools in providing nutritious food for all students so that children will be able to gain better access to nutritious food. This thesis is concerned with the types of policies and food programs that are put in place to make sure that all kids have access to nutritious meals at school. The purpose of this research is to identify how schools use their resources (policies, staff, councils and professionals) in order to feed kids and how they address the academic achievement gap among kids who lack the proper nutrition so that children who lack nutrition will start to receive the food they deserve.

In Chapter 2, I first explain food insecurity and how it affects children. Then I provide information on school lunch programs and how they were implemented on a larger scale when economic hardships affected the entire United States during the great depression. I explain the Black Panther Party's approach to feeding kids as an example on why feeding low-income children at school is important. I discuss food insecurity among school age children and its relevance to social justice, feeding kids under constraints and inequity, the achievement gap, and public and charter, and urban and rural schools' places within the school food system. Chapter 3 thoroughly explains content analysis, critical inquiry and literature reviews, which the methodologies I use to address my research questions. I also explain why I chose to research the schools I did and the methods I used to address each of my constitutive questions. Chapter 3 also explains my positionality and why feeding kids is important to me. In Chapter 4, I describe my research results and analysis on wellness policies that inform how schools approach their roles in feeding children and innovate to address the achievement gap. Lastly, in Chapter 5, I state my contributions for future changes in the food system, before noting the value of traditional school lunch and the changes that alternative food programs can bring to schools.

Chapter Two

Background and Significance: Hungry Kids = Hungry Minds

In this chapter, I first examine food insecurity among school age children. Second, I examine location and types of schools and types of food programs. Next, I provide background information on inequity within the school food system. This information shows that some students have better food options because they have more funding. Then, I explain the academic achievement gap between low-income and high-income children. After that, I discuss wellness policies and their importance in making sure kids eat the proper foods. Lastly, I will explain my research problem and questions that my thesis addresses. The questions ask what urban, rural, public, and charter schools and school districts are doing and how they are deciding what to feed their students.

The social problem this research addresses is food insecurity between students based on social class, as seen through a school funding differential, and access which has led to an achievement gap between food-secure and -insecure children. This research addresses food insecurity among school age children, asking how schools play a role in feeding kids. The next section discusses food insecurity amongst school age children and the challenges families face that cause them to choose between feeding their children or paying for other necessities.

Food Insecurity among School Age Children

This section discusses food insecurity amongst school age children and elaborates on the problems people face when feeding children. Many households with children cannot always feed everyone consistently. Food-insecure households are defined as those 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). Food insecurity is measured in a nationally representative survey using a series of survey questions about conditions and behaviors that characterize households when they are having difficulty meeting basic food needs (Ralston et al, 2017). In Salter's report on childhood hunger, Salter found that one in six kids in America is facing hunger (Salter, 2017). That is thirteen million children. Although people often think of hunger as something that affects only children in dense urban neighborhoods or isolated rural towns, the truth is that hunger affects children in every community, including affluent suburbs (Salter, 2017). Hunger is defined as the uneasy or painful sensation caused by a lack of food (Cook and Jeng, 2009). Hunger places incredible demands on families, prompting them to make tough choices between food and other necessities (USDA Food and Nutrition Service, 2017). The USDA reported that 17.9% of households with children are food insecure (USDA Food and Nutrition Service, 2017). Parents have a responsibility to feed their children, but 59% of parents admit that, in the last year, the food they bought didn't last and they didn't have money to buy more (Salter, 2017). Not only are over half of low-income parents struggling to buy more food if food runs out, but 23% of low-income parents have been forced to cut the size of their children's meals because of lack of money. Parents understand that they need to feed their kids, but there are times when they don't have the resources to do so.

Children facing hunger often grow up in a family where a parent or parents also face hunger. A family of four facing hunger may need thirty-six additional meals a month, simply because they don't have money to buy enough food. Feeding America, a non-profit organization whose sole focus is eradicating hunger in the United States, reported that 84% of the households it serves report buying the cheapest food — instead of healthy food — to provide enough to eat

(Feeding America, 2018). Charitable organizations like Feeding America are helping to make sure kids will have decent meals to eat if their parents or guardians cannot do so.

We now know that effects of not having proper nutrition can be damaging to a child's growth not just physically, but mentally. Hungry kids are more likely to miss school, suffer from depression, and are more likely to have behavioral problems as teenagers (Seaton, 2017. 6). Children who are hungry will try to distract themselves from thinking about food and it can often be misinterpreted as behavioral issues (Barnett 2013, 21).

Thus, the social problem that this research addresses is that millions of children are still hungry despite the efforts of schools to improve food access, which has led to an achievement gap in low-income schools. There are about 13 million children that are food insecure and I want to understand what role schools play in remedying their students' food insecurity. The next section elaborates on this social problem and addresses the hardships families faced when feeding their children.

Feeding Kids Under Constraints and Inequity

Feeding kids in an inequitable food system can be hard on parents and the school food system. Equity is a word that few understand but a word that everyone should know. Equity in its simplest and most pure form is fairness or justice in the way people are treated (Putnam-Walkerly and Russell, 2016, 2). Having a more equitable school food system could help close the achievement gap in low-income schools. Kessler and Chen (2015) describe an equitable food system as all people having meaningful access to sufficient healthy and culturally appropriate food and having the benefits and burdens of the food system equitably distributed (Kessler and Chen, 2015). They also explain that the concept of "food equity" encompasses the adverse effects of both the production and distribution of food that marginalized communities face

(Kessler and Chen, 2015). People are often not aware that there is inequity when it comes to what children eat both at home and at school. Kids are not able to buy food for themselves, they are just able to give their opinion, whether welcomed or unwelcomed.

Low-income households tend to benefit from free breakfast and lunch programs at school, which are described below, and it would benefit children if the food were improved and standards were properly followed. An equitable school food system for children would ensure that all kids had the best food options available. Schools that serve majority low-income students have not been given the tools they need to maximize the free national school breakfast and lunch programs (Barnett. 2013). In a fair and equitable food system there would be a trained professional that could plan and implement better ways to feed kids.

School Food and the Achievement Gap

In this section I explain the National School Breakfast and Lunch Programs and the significance of the achievement gap. The achievement gap measures the differences among educational performance among subgroups of students in the United States (Barnett, 2013). School food is important, especially among lower income kids. Parents and kids look for schools to provide nutritious meals because kids spend their whole day at school. The expectation is that a child will be able to get a meal even if food can be provided by the parent at home (Nord and Parker, 2010). Currently, 22 million students across the country rely on reduced-price or free school lunches through the National School Lunch Program (funded by the USDA). The NSLP is federally assisted meal program that provides nutritionally balanced, low-cost meals or no cost lunches to children each school day (Baruch, 2018). More than half that number relies on free or reduced-price breakfasts, which Melcher (the Director of Advocacy and Government Relations for the nonprofit Share Our Strength) says reaches about 56 percent of the kids in need (Seaton,

2017). The next subsection discusses the National School Breakfast and Lunch Programs; I explore the achievement gap in the subsequent subsection and equity and access to school food in the one that follows it.

National School Lunch and Breakfast Programs

With millions of children facing hunger, it is imperative we understand how to most effectively use the school food system. We know that millions of children lack access to nutritious foods and there are systems that have been put in place to combat childhood hunger, those systems need help innovating to continue to feed kids. School food has been around since the 1940's, when the number of hungry children was at an all-time high (Baruch, 2018). The implementation of the school lunch program was initiated in 1946 due to low-incomes and a slow recovery from the great depression. Parents who once before could afford to feed their kids, could not and they needed help (Baruch, 2018). The NSLP alleviated the hardship and guilt parents had when they could not feed their children. The NSLP provided a small amount of money per child so that schools could buy food; the food would later be changed to USDA certified foods. The free lunch program influenced social activists and groups to create similar programs. One of those groups was the Black Panther Party, which created a national breakfast program.

The Black Panther Party was a social activist group that believed that low-income black people deserved the same treatment as their white counterparts. Although they were targeted as a dangerous group, the Black Panther Party started one of the most influential eradicators of hunger among children, the National School Breakfast Program (Baruch, 2018). By the end of 1969, the Black Panthers were serving full free breakfasts (including milk, bacon, eggs, grits, and toast) to 20,000 school aged children in 19 cities around the country, and in 23 local

affiliates every school day (Baruch, 2018). The government saw the positive implications of the program and decided to implement it on a mass scale. After the dismantling of the Black Panther Party, the government took the ideas that they had formed to help alleviate hunger among kids and implemented the NSLP in all public schools (Baruch, 2018). In a time where so many kids were suffering, a program that could change the lives of impoverished kids was created. The main point of this section is that millions of children have access to breakfast and lunch despite them not being able to pay for it. The National School Lunch Program not only can end hunger, but it has the potential to improve academic achievement among kids who are suffering from hunger. The next section explains affordability of the National School Lunch Program and Farm-to-School Programs.

Affordability of National School Lunch Program vs. Farm-to-School Programs

The National School Lunch Program is provided for by the federal government at an affordable price for schools. Most of the support USDA provides to schools in the NSLP comes in the form of a cash reimbursement for each meal served (National School Lunch Program, 2017). To assist states in paying for breakfast and lunch, the government reimburses the school the equivalent cost of the meals. Reimbursement rates change every year based on changes in the Federal Bureau of Labor Statistics (National School Lunch Program, 2017). The cost of food compensated for the 2017-2018 school year were as follows: free lunches cost \$2.93, reduced-price lunches cost \$2.53, paid lunches cost \$0.28, free snacks cost \$0.80, reduced-price snacks cost \$0.40, and paid snacks cost \$0.07. In addition to cash reimbursements, schools are entitled by law to receive USDA foods at a value of \$3.25 cents for each meal served. Schools can also get "bonus" USDA foods as they are available from surplus agricultural stocks (National School Lunch Program, 2017).

In addition to this standard school food program, schools could choose to implement an alternative school food program, a farm-to-school or garden-to-school program. There would be almost no monetary difference between the cost of the NSLP and farm-to-school programs due to government grant funding. The USDA Farm to School Grant program has funded 221 farm-to-school programs (Benson et al., 2015). From 2013 to 2015 \$15.1million was awarded to applicants, although over 76 million dollars has been requested (Benson et al., 2015). Farm-to-school grants reach over 6.9 million students and 12,300 schools. The difference between the two programs is that the NSLP is more established and it is completely free for schools and they do not have to worry about as many logistical issues as an alternative program. A farm-to-school program, however, is not guaranteed funding, with only 50 percent of applications being accepted (Benson et al., 2015). Most schools will worry about what they can get access to quickly in order to serve kids and meet immediate needs. If the farm-to-school program is not approved, the schools would have to resort to using the NSLP. A farm-to-school program would need someone to have interest in starting it and successfully running the program.

Rural public and charter schools may benefit from having farm-to-school programs because those schools tend to have fewer grocery stores and access to fresh food. Students that go to urban public or charter schools are in a better position because those kids have more access to fresh foods and grocery stores. Grants for farm-to-school programs can serve schools just as well as the NSLP, but the grants are not easy to win, as discussed above. Schools have to show that they can sustain a farm-to-table program or that they are willing to build the infrastructure if need be. Having these requirements can hinder schools who do not have the infrastructure or the professionals to sustain the program. The good thing about farm-to-school programs is that they will help you find the funding to sustain your program, the money has to be found, but it is

available (National School Lunch Program, 2017). The NSLP has not been able to meet its full potential and maybe a shift to a farm-to-school programs could change that. The choices schools make are guided by wellness policies, wellness policies are explained in the next section.

Wellness Policies

A local school wellness policy is a written document of official policies that guide a local educational agency (LEA) or school district's efforts to establish a school environment that promotes students' health, well-being, and ability to learn by supporting healthy eating and physical activity (Federal and Nutrition Services, 2014). School wellness policies are required to promote foods and drinks that are healthy for kids. In schools' wellness policies they also say they are responsible for ensuring kids have nutritious food so that they may achieve academic success. Wellness policies are required to include nutrition standards for all foods, mealtimes, physical and health education standards, and competitive food and beverage guidelines. School wellness policies play a critical role in children's health and safety and they also allow for schools and the community to take responsibility for children's health (Federal and Nutrition Services, 2014). Nutrition guidelines for all foods available on each school campus during the school day should consistent with USDA's meal pattern requirements and the nutrition standards for competitive foods and designed to promote student health and reduce childhood obesity (Federal and Nutrition services, 2014). Public and charter schools that are already using the NSLP have a basic policy that has been implemented to ensure that kids are getting what they need, but schools can add their own standards to that policy. Charter schools that do not use the NSLP can create their own wellness policy. The next section will address the achievement gap amongst school age children.

Achievement Gap amongst food insecure school age children

The achievement gap is the discrepancy in educational achievement--often measured by grades, graduation rates, and high-stakes testing--that occurs between high-achieving students (predominately White, middle class, suburban youth) and low-achieving students (typically ethnic minority, socioeconomically disadvantaged, urban youth) (Fedewa and Hoffman. 2013, 2). Kids who lack nutrition can be adversely affected and have trouble paying attention and excelling at school. More specifically, food insecurity amongst low-income students has consequences when it comes to academics, behavior and cognitive growth (Fedewa and Hoffman. 2013, 4). This study suggests that a child that is food insecure will likely have some cognitive hindrances and that those hindrances can range from affecting academic to social mobility, but they will affect the child. Thus, closing the achievement gap would mean addressing social problems like food insecurity.

Hunger-relief programs, such as, Feeding America have recognized this gap in learning among low-income children and are trying to help close that gap. Feeding America is the largest hunger-relief organization in the United States. Through a network of 200 food banks and 60,000 food pantries and meal programs, they provide meals to more than 46 million people each year and note that children are particularly vulnerable to the economic challenges facing families today (Feeding America, 2017). Feeding America also provides funding for research on the achievement gap and authored a study that links hunger and learning and describes food insecurity as harmful to any individual, but especially devastating to children due to their critical stage of development and the potential for long-term consequences (Feeding America, 2017).

Children's ability to focus can be altered when they have not had the proper food and nutrients. When children are not fed adequately it can take away from their focus on the teacher

and what they are supposed to be learning (Li and O'Connell, 2012). Children who are food insecure can sometimes find it harder to focus when they are hungry (Arteaga and Heflin, 2014). Kids are more likely to get into trouble and struggle in an academic setting if they are not eating nutritious foods. Lack of adequate consumption of specific foods, such as fruits, vegetables, or dairy products, is associated with lower grades among students. Studies have found that students from food-insecure households have significantly lower math scores and are more likely to repeat a grade, receive special education services or mental health counseling, and be suspended from school (Bogden, 2012). 46% of children from low-income families say hunger negatively impacts their academic performance (Gunn, 2018). In short, kids that are fed the proper amount of nutrition can function in school and absorb more information than a kid who is hungry.

The achievement gap among children who are hungry can be interpreted using different concepts, such as Maslow's Hierarchy of Needs. Maslow's Hierarchy of Needs has been used during professional development trainings in schools to explain the importance of putting all children's needs first (Kline, 2018). Abraham Maslow was a humanistic psychologist. He was well known for this theory, which was based on his own personal experiences and his interactions with other people (Selva, 2017). He believed that psychologists focused too much on the "sick half of psychology" and not enough on "the healthy half" (Selva, 2017). That is when he developed a way to measure potential and growth in humans. Maslow's Hierarchy of Needs states, "Before individuals meet their full potential, they need to satisfy a series of needs, which are: self-actualization, physiological needs, safety needs, love and belonging needs and esteem needs (Kline, 2018). People are dissatisfied because resources are not evenly distributed. It is important to note that Maslow based his theory more on philosophy than on scientific evidence; Maslow's theory appeals more to our morals. We are also responsible to do what is right not just

what is rooted in scientific facts. Maslow's theory supports the idea that we have a responsibility to ensure that food insecurity among children does not continue. Schools can support our students' physiological need by, for example, ensuring that there are nutritious snacks available. The next section will address equity and access to school food programs.

Exploring Equity and Access to School Food Programs in Public and Charter Schools

In this section I provide an overview of school food program variation among charter and public schools and urban and rural schools. A charter school is a publicly funded independent school. Charter and public schools also differ in how they receive funding; a public school is funded by the public while charter schools receive funding dependent upon academic performance and public schools receive funding no matter what students' academic performance looks like. Charter and public schools can be located in rural or urban areas. The proximity to farms, production factories and property taxes for the district determines what foods are provided for kids. For example, in an urban center like New York City there are more lines of transport and more ways of getting higher quality better tasting food to schools. In a rural town like Helena, Arkansas the town is secluded and will not have as many options or companies that will bring fresh produce and meals to schools (Treuhart and Karpyn, 2010, 8).

Charter schools are likely to be established by educators, the community, or a philanthropist. When it comes to feeding kids, it is important to determine the financial stability of a school and its willingness to spend money of a food program that will best benefit kids. Even though most kids are in public schools, charter schools have seen a significant increase in student enrollment (Valle, 2016). In 2017-18, more than 7,000 charter schools enrolled nearly 3.2 million students. National charter school enrollment increased by more than 150,000 students between fall 2016 and fall 2017—a five percent increase (David and Hesla, 2018). In

addition, more than 300 new charter schools opened across the country in fall 2017 (David and Hesla, 2018). These schools receive greater flexibility over operations in exchange for increased performance accountability (Griffin, 2016).

Rural charter schools may lack resources unless they take students from the public-school system. Schools are given funding based on how many students they have; if there are fewer students, there will be less money given to each school to provide resources to kids. If a child leaves the public school to go to a charter school, that money will go with the child. Under the best circumstances, money from taxpayers and donations would allow a charter school in a rural area to choose a farm-to-school program.

A public school is a school that is maintained at the expense of the public in order to educate children in that particular community. Public urban schools have always served the majority of kids. Currently, 90 percent of our students go to public schools, with more than 52 million children expected to attend by 2020 (Valle, 2016). Urban public schools will likely have better quality food provided by the NSLP, just because they are centrally located and will have more options.

Rural public schools serve a small number of students which means they will have less money that can contribute to school lunch programs. Rural public schools are more likely to choose the NSLP over an alternative food program because of budget or lack of resources. They mirror rural charter schools because they both depend on additional financial support. In the next section, I explain my research problems and questions.

Research Problem and Questions

This research addresses food insecurity among children within the school food system because I want to learn about the roles different schools play in developing school food programs

so that children will be able to gain better access to nutritious food at school. Given that millions of children face hunger, we need to understand how to most effectively use the school food system to address this problem. My overall research question asks, how can we effectively use the school food system to reduce or eliminate food insecurity amongst school age children? In what follows, I explain the two constitutive research questions I answer to address my overall research question.

Constitutive Research Question 1

How do public and charter schools in urban and rural areas approach their role in feeding children?

This question helps me address what schools think their roles are in ensuring kids have nutritious and delicious food. I want to discover how schools are trying to improve what kids eat and how they learn about the different foods they eat. This question will help me examine the range of approaches that schools take in providing food for children, differentiated by schools' urban or rural location and their status as public or charter.

Constitutive Research Question 2

How are public and charter schools innovating to improve kids' food security to positively influence academic achievement?

I ask this question to understand what schools are doing to address how children's academic achievement is affected by what they eat at school and at home. This question will help me understand whether and how public schools and charter schools are innovating to address the achievement gap between food insecure and food secure school age children. Kids are constantly pushed beyond their limits and I want to see if schools are pushing their limits of feeding kids the

most nutritious and delicious meals so that kids can achieve the success schools want them to have. When we innovate, kids are able to use their minds to their fullest potential.

Together, these questions help me to address my overall question, which is a starting point in eliminating food insecurity among children. Addressing the issues with school food could change millions of kids' lives. Eliminating food insecurity would allow students to flourish academically and could bring test scores up in failing school districts. If schools learn new approaches to feeding kids, families that depend on school meals would know their kids have nutritious food to get them through school.

In the next chapter, I describe the methodology and methods that I use to answer these research questions. I explain the research methods and methodologies that guide my inquiry about school food programs in the United States and why these methods and methodology are appropriate for my research. In doing so, I will detail how I approach my topic and my positioning relative to it, exploring my reasoning and positionality in doing this work. Further, I will clarify the programs and data sets I am using to identify what schools are doing to innovate food programs to benefit kids.

Chapter Three

Methodology and Methods

In this chapter, I describe the methodology and methods I used to address childhood hunger within the school food system. I first explain the methodologies I use, which are content analysis, literature review and critical inquiry. These methodologies help assess what charter and public schools are doing to address hunger within their schools. I then explain how I chose this topic because I spend my days with school age children; I care a great deal about my and all students' wellbeing. In my methods section, following methodology, I explain how I answered each of my research questions.

Methodology

The first methodology I used is critical inquiry. I used critical inquiry in order to understand how we can solve this issue of childhood hunger and innovate to make change within the school system. According to Comstock, critical inquiry begins from social problems, ostracization and oppression; inquiry is intended to support particular groups that are affected so that they may begin to liberate themselves from that oppression (Comstock, 1994). Low income kids are being ostracized in the school food system and I used critical inquiry to understand how we can change this.

The second methodology I used was literature review. Literature reviews allow one to organize, annotate articles and find appropriate academic literature to address a research question (Jessen et al., 2011). Literature reviews helped me address the achievement gap and innovation by identifying literature that other researchers have used. I used this method to review academic and school-based literature to understand what both schools and researchers have said about

school food programs and how those programs are being used to make school food better for kids.

Lastly, I used content analysis to understand what some public schools are doing to address hunger within their schools. Content analysis is a research method used to determine the presence of certain words or concepts within texts or sets of texts (White and Marsh, 2006). I used content analysis while looking at school wellness policies and peer-reviewed articles. Content analysis allows for me to better understand how schools are addressing hunger because it will help me find particular words in wellness policies that explain whether schools are doing the best, they can to feed kids. My positionality led me to study school food; in the next section I explain why I want to change the broken school food system.

Positionality

While teaching at a charter school I discovered the school lunch was of unbelievably low quality and I decided to do something to change that. I created a curriculum designed around food justice and food access. The goal was for my students to learn about where food comes from and why it is important that we understand and appreciate where our food comes from. They used the skills they learned in my class to advocate and change the food that they were being fed. My students, high school juniors, wanted to change the school lunch based on what they had learned. They wanted more options and they asked for more fresh food and bigger portions. My students started a garden and they began to sell the food they grew to make profit and give back to the community. While teaching my students this new information, I was always questioning my students' academic achievement and if the food schools served was linked to how they learned. I had my students do a project and during their and my investigation we were surprised to find out that there was a correlation between what kids ate and how they learned. My

students and I wanted to see what would happen if we worked to change the school lunch and if the school would support us wanting to make food more edible and nutritious for kids. As a teacher that loved my students dearly, I needed to do everything in my power to change what my kids had to eat for breakfast and lunch.

Methods

In this section, I explain the methods I used to address each of my constitutive research questions. Both of the constitutive questions use data from the same schools to provide answers, although each question focused on different elements of and data from those schools. The schools and school districts that were selected were Philadelphia school district, Rockingham County school district in North Carolina, KIPP (Knowledge Is Power Program) Texas schools, and the Academy for Urban Leadership in New Jersey. I chose one urban school district, one rural school district, one public charter school, and one rural charter school district so that each school type could be represented in the analysis. I chose these schools because they all have a comprehensive wellness policy that can be easily accessed and analyzed. The scope and scale of analysis for each question is limited to these four school districts within the United States, but the information may be relevant to other United States school districts. The next subsections explain how I answered each constitutive research question.

Research Question 1

My first question is, how do public and charter schools in urban and rural areas approach their role in feeding children? For my first question, I used content analysis to analyze each charter and public-school's individual policies on school food. The policy that each school uses to address their food is termed a wellness policy, which are made specifically for each school or school district.

My first research asks, how do public and charter schools in urban and rural areas approach their role in feeding children? To answer this question, I analyzed public and charter school wellness policies from four different schools/school districts in the United States. To answer this question, I needed the wellness policies for the four school districts, which are, Philadelphia school district, Rockingham County school district in North Carolina, KIPP Texas schools, and the Academy for Urban Leadership in New Jersey, and the practices they used to feed children. In this context, the school districts served as my units of analysis. I searched each school district's website until I found the wellness policies, which are public information. I also used a literature review to find peer-reviewed articles on how the four school districts I chose approach feeding kids. The peer-reviewed articles are appropriate sources because they will help me explain the kinds of food programs schools have and whether wellness policies are being upheld and used properly in schools.

In order to answer my first research question, I analyzed wellness policies for accessibility to information, nutrition standards, and health and wellness commitments. I looked for whether those wellness policies included nutrition standards for all foods, meal times, physical and health education standards, competitive food and beverage guideline. I investigated school documents and webpages to understand if and why charter schools have not used wellness policies to improve school food and if they have used the wellness policies, why are kids still hungry. I organized my data by school and whether the school adheres to a wellness policy that specifically targets nutrition, academics and future changes in school breakfast and lunch items.

Research Question 2

My second research question asks, how are public and charter schools innovating to improve kids' food security to positively influence academic achievement? To answer my

second question, I used content analysis to see if the achievement gap between kids who have poor nutrition is being addressed. My unit of analysis for this question was public and charter schools; my units of observation were the documents and webpages that illustrated whether and how they innovated in order to address the achievement gap. I focused on four school districts used to answer research question one. I looked at the school's websites read, and annotated school's missions and the wellness policy associated with each school food system. Annotating school's missions and wellness policies helped me understand if schools are innovating to ensure kids are getting everything they need to do well in school. I specifically looked for key phrases that included; food, health, responsibility, policy, achievement gap and change. My data were organized and analyzed by the achievement gap and food program innovation.

I also used literature review to answer this question. Specifically, I analyzed peer-reviewed articles and case studies on schools similar to the school districts I chose in order to contextualize and analyze their efforts. Literature review also enabled me better to understand the effects food has on children and if food is linked to the achievement gap between high-income and low-income schools. I organized and analyzed data from academic literature to find information that documents a connection between what kids eat and how they perform in school. In the next chapter I will discuss my results, analysis and contribution.

Chapter Four

Results, Analysis, and Contribution: Are we done yet? With inedible school food, that is...

This research addresses food insecurity within the school food system because I want to learn about the roles school play in developing school food programs so that children will be able to gain better access to nutritious food at school. With millions of children facing hunger, it is imperative we use the school food system as a tool to eliminate food insecurity among children. This research is led by one overall research question and two constitutive questions. The overall research question is, how can we effectively use the school food system to reduce or eliminate food insecurity amongst school age children? The next two questions are constitutive; they are as follows. How do public schools in urban and rural areas approach their role in feeding children? And, how are public and charter schools innovating to improve kids' food security to positively influence academic achievement?

The first constitutive question is important because it shows what methods schools use when it comes to feeding their students. The research addresses this question by documenting how these schools demonstrate an understanding of food programming and the role schools play in feeding children. Specifically, the first constitutive question analyzes wellness policies in order to see if schools understood that the foods kids eat influence academic achievement. The second constitutive question is important because it will address academic achievement through school food standards and how we can feed kids who are not receiving enough nutrient rich food. This question will also address the different ways schools are trying to reinvent the school food system. The next sections present the results and analysis for each constitutive research question. The chapter then concludes with a contribution section that will explain what mt future plans are regarding school food programming.

Results for Question 1

In this section I discuss the results and analysis for research question one. Research question one asks, how do public schools in urban and rural areas approach their role in feeding children? I discuss the Philadelphia school district first, then I discuss Rockingham County school district and then the KIPP Texas school district. The KIPP Texas school district is comprised of four schools: KIPP-Austin, KIPP-Dallas-Fort Worth, KIPP-Houston and KIPP-San Antonio. Lastly, I discuss the Academy for Urban Leadership. I discuss how each approaches their role in feeding children, as evidenced by their wellness policies.

Philadelphia School District

The first school wellness policy that was analyzed was Philadelphia school district; analysis focused on their programs and how the school district defines their role in feeding kids. On the school website there is a section dedicated to food and nutrition services. The first statement one can see says, “Our programs and services prepare students for a quality education by providing the fuel necessary for learning” (The Philadelphia School District, 2017). The wellness policy for their school defines their role in children’s nutrition and education as a commitment to providing a school environment that promotes student and staff wellness and supports students in their efforts to become fit, healthy and ready to learn. Through implementation of this policy, students shall become more knowledgeable and skilled in making behavior choices that support optimum health (The Philadelphia School District, 2017). The district aims to teach, encourage, and support healthy eating in accordance with this policy and the government’s school food initiative. In the wellness policy the schools district also indicates that it believes in and recognizes the need for professional health and wellness coaches. The wellness policy also includes that they inform all parents of the policy and inform them about the

nutritional standards. Parents or guardians and students are notified of the availability of school meal programs and the possibility of providing free or reduced-price meals.

I examined the school food programs and asked, how does the school, as illustrated by their wellness policy and programs, define their approach to fulfilling their defined role? I found that the wellness policy for the Philadelphia school district is distinctly defined. I analyzed their wellness policy by accessibility to information, nutrition standards, and health and wellness commitments. They state that all foods and beverages available in district schools during the school day shall be offered to students with consideration for promoting student health and reducing childhood obesity (The Philadelphia School District, 2017). Foods and beverages provided through the National School Lunch or School Breakfast Programs shall comply with established federal nutrition standards, district schools will not withhold food or beverages as a punishment, the district shall ensure that schools are open in time for student meal times, and district staff shall cooperate with agencies and community organizations to provide opportunities for appropriate student projects related to nutrition (The Philadelphia School District, 2017). In the wellness policy there is a section dedicated to competitive foods, which are defined as, all foods and beverages offered or sold to students outside the school meal programs, on the school campus, and at any time during the school day. Sold refers to the exchange of money, tokens, or the use of some type of prepaid account to purchase an item and includes items sold a la carte, in vending machines, at school stores, during fundraisers, or at any other venue that sells food or beverages to students during the school day (The Philadelphia School District, 2017). The schools have taken responsibility in ensuring foods that are not in the NSLP are healthy as well and meet a certain standard. According to the information, the Philadelphia school district has taken full responsibility for their student's nutrition and health while they are under their care.

Rockingham County School District

The second school district wellness policy that was analyzed was from Rockingham County School District which is a rural public-school district. Their wellness policy was analyzed by accessibility to information, nutrition standards, and health and wellness commitments. The school district website has easily accessible links to the child nutrition program and standards. The school's wellness policy states that they are committed to providing a school environment that promotes student wellness, proper nutrition, nutrition education and regular physical activity as part of the total learning experience (Rockingham County School District, 2013). They have a school health advisory council. The school board has the School Health Advisory Council (SHAC) in order to help plan, update, implement, promote and monitor this policy as well as other health and nutrition issues within the school system (Rockingham County School District, 2013). The wellness policy also states that the "board will provide nutrition education within the Healthful Living Essential Standards and Grade Level Competencies adopted by the State Board of Education. Nutrition education will provide all students with the knowledge and skills needed to lead healthy lives. Students should learn to address nutrition-related health concerns through age-appropriate nutrition education lessons and activities" (Rockingham County School District, 2013). This school district has defined their role clearly and they understand that the standards of school food are high, and they must maintain those high standards in order for kids to be successful.

I found that Rockingham County schools defined their role well by clearly stating their standards and how their school wants to contribute to making nutrition better for kids. In the wellness policy it says foods provided through the National School Lunch or School Breakfast Programs will comply with federal nutrition standards. In addition, food selections will also be

consistent with statewide nutrition standards established by the State Board of Education and with board policy 6230, Nutritional Standards for Food Selection (Rockingham County School District, 2013). Like the Philadelphia school district, Rockingham County schools also have a competitive food clause. They define competitive foods as, foods available for sale to students on the school campus during the school day other than through the National School Lunch or School Breakfast Programs, including food, snacks and beverages from a la carte menus, vending machines and outside suppliers (Rockingham County School District, 2013). The competitive food clause says that foods that are not provided by the school must meet a certain nutrition requirement. Those foods must still be nutritious and healthy for kids.

In addition to the above-mentioned standards, the board also accepts the following goals for school-based activities designed to promote wellness: schools will provide a clean and safe meal environment, students will be provided adequate time to eat meals, drinking water will be available at all meal periods and throughout the school day. Professional development will be provided for school system nutrition staff, and to the extent possible, the school system will utilize available funding and outside programs to enhance student wellness (Rockingham County School District, 2013). The Rockingham County school districts website has not been updated in many years and neither has the wellness policy and the standards. The hope is that they are still abiding by these standards or have improved significantly in how they feed kids.

KIPP Texas School District

The third school district or network that was analyzed was KIPP Texas public schools. Their schools were also analyzed by accessibility to information, nutrition standards, and health and wellness commitments. There is no one comprehensive wellness policy in this school district because it is a charter network. This charter network serves both rural and urban populations.

KIPP Texas is comprised of the different schools, which are Austin, Dallas-Fort Worth, Houston, and San Antonio. Their wellness policies will have different information and that information is those policies will be explained. With the KIPP Texas network the question asked was, how do the schools, as illustrated by their wellness policy, define their role in feeding kids. Each school website is easily accessible with links to the school's wellness policy and food services. I describe each below.

KIPP Austin

In KIPP Austin's, school wellness policy states clearly what their role is in feeding children: to help ensure the health and well-being of each student attending KIPP Austin Public Schools, and to provide guidance to school personnel in the areas of nutrition, health, physical activity, and food service, the governing board encourages teachers, principals, and food service employees to recognize the lunch period as an integral part of the educational program of the district and to work to implement the goals of this policy" (KIPP Texas Austin Services, 2019). KIPP Austin defined their approach to fulfilling their role just as the previous schools did. They use a governing board of professionals to implement their wellness policy. The wellness policy has many important points that the governing health and wellness board abide by. The first thing the governing health and wellness board did was ensure that an economically sustainable meal program will make available a nutritious breakfast, lunch and snack to every student at every school so that students are prepared to learn to their fullest potential. Second, food services will work toward a minimum of 75 percent of meals served and sold at school shall be prepared from fresh ingredients, and to the extent possible from locally grown or produced and organic ingredients. Third, food items served and sold in schools shall reflect the cultural diversity of the student body. Lastly, meals will be attractively presented and served in a pleasant environment

with sufficient time for eating, while fostering good eating habits, enjoyment of meals, good manners, and respect for others (KIPP Texas Austin, 2019). These few concepts that the wellness policy abides by shows the schools knows the role they have in feeding children.

KIPP Dallas-Fort Worth

The second school analyzed was KIPP Dallas Fort-Worth and like KIPP Austin, they have somewhat recognized their role in feeding children. They have a contingent wellness policy which means that the school has ideals and possibilities for what they want their wellness policy to have, but nothing is concrete. Their contingent wellness policy does use the same ideas as KIPP Austin. It states that they shall support the general wellness of all students by executing measurable goals to promote sound nutrition and student health and to reduce childhood obesity” (KIPP DFW Schools, 2017). They believe that competitive food should be monitored, and that nutrition should be promoted and upheld every single day, but they are not currently monitoring food that they are not providing. They have not defined definition of competitive foods in the wellness policy. They have a manager of food services that they have implement these ideals in the policy. KIPP DFW has the policy written, but everything is subject to change.

KIPP DFW has not clearly defined their role because their policy is not upheld by the federal government. They have shown that they can do the bare minimum and as long as they are following the government rules for the NSLP, they have done their job. They state, “the district shall implement, in accordance with law, a coordinated school health program with a nutrition education component. The District’s nutrition promotion activities shall encourage participation in the National School Lunch Program, the School Breakfast Program, and any other supplemental food and nutrition programs offered” (KIPP DFW Schools, 2017). KIPP DFW has

the basics down, but they need to commit to ensuring that the goals they have outlined are implemented.

KIPP Houston

KIPP Houston has a wellness policy much like KIPP Austin, Rockingham County schools, and Philadelphia school district. They have clearly defined their role in feeding children. The first lines of the policy states, “KIPP Houston Public Schools (KHPS) is committed to providing a school environment that enhances learning and development of lifelong wellness. KHPS shall follow nutrition guidelines that advance student health and reduce childhood obesity and shall promote the general wellness of all students through nutrition education, physical activity, and other school-based activities” (KIPP Houston, 2015). They share the information with parents and the information is easily accessible online for the anyone else who wants to see the information.

Their approach to feeding kids was thoughtfully planned out. They have outlines guideline and goals on how they intend to feed kids. Some of these guidelines are that breakfasts and lunches must meet federal and state nutrition guidelines for the National School Breakfast Programs and National School Lunch Programs as mandated by USDA (KIPP Houston, 2015). KHPS supports that breakfast and lunches must meet federal and state nutrition guidelines for the National School Breakfast Programs and National School Lunch Programs as mandated by USDA (KIPP Houston, 2015). In addition, KHPS supports the following: menus incorporating more whole foods, brown foods, foods low in fat but that taste good, whole, fresh fruits and vegetables will be served as much as possible, vegetables will be lightly roasted or steamed in order to retain nutrients, a wide variety of veggies will be offered with our meals, no trans-fats will be served, including snacks and condiments, KHPS will balance the amount of sugar used,

especially at breakfast, KHPS will not serve fried food and baking, steaming, roasting and grilling will be incorporated (KIPP Houston, 2015). They also follow the snacking guidelines that the federal government suggest. They have a competitive food clause as well and they also added their own changes to that clause as well. KHPS know what their role is, and they accept the responsibility that comes with feeding their students.

KIPP San Antonio

KIPP San Antonio clearly defines their role in feeding children. They define their role in feeding children as, providing school environments that promote and protect children's health, well-being, and ability to learn by supporting healthy eating and physical activity (KIPP San Antonio, 2015). They agreed to engage students, parents, teachers, food service professionals, health professionals, and other interested community members in developing, implementing, monitoring, and reviewing districtwide nutrition and physical activity policies. They have standards for competitive foods as well. The nutrition standards vary by state; in Texas kids cannot have competitive foods in elementary schools. High schools cannot sell competitive food during lunch periods and they are not allowed to have carbonated drinks (KIPP San Antonio, 2015). KIPP San Antonio's intentional monitoring of competitive foods shows that they are concerned about kids' health inside and outside of school.

Their approach to fulfilling that role is clearly defined, their goals and guidelines are stated and explained throughout their wellness policy. All of the following information comes from the KIPP San Antonio wellness policy. KIPP San Antonio has qualified child nutrition professionals that provide students with access to a variety of affordable, nutritious, and appealing foods that meet the health and nutrition needs of students (KIPP San Antonio, 2015). They will accommodate the religious, ethnic, and cultural diversity of the student body in meal

planning; and will provide a clean, safe, and pleasant atmosphere and enough time for students to eat (KIPP San Antonio, 2015). They participate in the NSLP and the SBP so in addition to their own guidelines and standard they follow the federal government standards. Their health and wellness committee will include required stakeholders and shall meet a minimum of twice a year to monitor and evaluate the implementation of the policy. The School Health and Wellness Committee will serve as a resource to schools for implementing policies and will involve parents, students, school food authorities, board members, school administrators, health professionals, and members of the community (KIPP San Antonio, 2015).

The Academy for Urban Leadership

The fourth and last school analyzed was the Academy for Urban Leadership, an urban charter school. In their wellness policy it says that the Principal or a school wellness policy coordinator designated by the principal will be responsible for making sure that the policy is upheld (Academy for Urban Leadership, 2017). They do not say they are committed to ensuring all kids receive nutritious food; they just say they will promote it. Their policy promotes teaching staff and students about healthy eating and exercising. Their policy complies with the federal guidelines that every school that uses the NSLP and SBP have. They do not have their own separate goals included.

The approach this school has is to follow the basic rules and regulations. They do not have exact ways they will feed kids, but they have exact ways they will promote the healthy eating. The policy touches on federal food and beverage guidelines, but they do not talk about competitive foods or how they will exactly implement the NSLP to best feed students. This is the only policy that does not talk extensively about food or nutrition. We cannot effectively use the

school food system to reduce or eliminate food insecurity amongst school age children if we use basic regulations and do not try and find alternative sources to make school food better for kids.

Analysis for Research Question 1

For my analysis for my first research question, how do public schools in urban and rural areas approach their role in feeding children, I looked at wellness policies for two things involving schools; those two things were: roles and school food programming as it relates to responsibility in feeding kids. Within roles I looked to find what schools are doing well and where schools need to improve when it comes to ensuring kids are food secure. The analysis that follows is organized by school type.

The urban public schools that were analyzed revealed that they do their role in feeding children is to make information easily accessible by parents and community members, making sure each school in the district has a wellness policy, and the decisions about meals are planned by wellness professionals that are hired by the school district. The decisions about where the food comes from are made by the school district and dieticians and they base the meals they chose off the federal regulations (Cook and Jeng, 2009). Those regulations are in the Healthy Hunger Free Kids Act of 2010. In “Making the Case for Healthy, Freshly Prepared School Food”, it was found that school districts, led by their boards and administrators, are responsible for providing maximum opportunities for academic success, maintaining the safety and health of students, and contributing to the well-being of their communities (Stone, 2014). If schools approached school breakfast and lunch with the idea that it is their responsibility, it would greatly improve the well-being of students.

The urban charter school district does make sure information on food is accessible, nutrition standards are followed, and health and wellness commitments are defined. These

schools approach their role in feeding children by making wellness policy easily accessible to parents and to the community just as urban public schools do. The administrators along with lunch staff and school dietician also discuss the food. Their goal is to go over the school lunch menus and the ingredients to ensure the food are meeting basic standards, they follow the basic USDA food guidelines for feeding children. They approach their role by being proactive, for example, if a student misses' breakfast, someone comes to their class and make sure that child eats. That is not something every school does so this seems to be different and proactive. The school is taking the initiative to combat hunger in its school. They could improve how kids eat by investing in a food program that is best for their students. They can do research on farm-to-table programs and find one that could best benefit the student population (Benson et al., 2015). With access to donations, they have the ability to pay for a program that could decrease food insecurity in their schools.

The rural public schools used in this analysis are not improving as much as urban public schools and they have a lot of work to do. They are not proactive in their approach on how to feed kids; they just follow whatever was put in place from previous years. They have one comprehensive wellness policy. The school nutrition director has the power to choose the NSLP or an alternative program, such as, farm-to-table, but they choose the NSLP every time. The parents and the students are not a part of the decision-making process, but they are notified that the school has a school lunch program. Something they are doing well is that they are trying to give kids a real experience in health and wellness by incorporating food with learning (Rockingham County School District, 2013). Kids are getting lessons on healthy food and it can be beneficial for them in other subjects as well.

The rural charter schools analyzed are trying to improve but many of them are struggling to give kids better food options. They have different wellness policies for each school and all schools are not following the wellness policies like they should be. The rural charter schools do not contact the parents and tell them the wellness policy is on the website or send a copy home. Something they are doing well is having qualified child nutrition professionals that provide students with access to a variety of affordable, nutritious, and appealing foods that meet the health and nutrition needs of students (KIPP San Antonio, 2015). Having professionals in schools working with kids will help influence healthy eating habits. Last but not least they regulate what foods kids can sell at school and fundraisers. If kids are going to have food that the NSLP does not provide, it still has to meet the USDA criteria for nutrition.

Analysis for question one shows that all of the schools do not make information on food programs accessible, nutrition standards are met, and health and wellness commitments are being met, and most of the schools are trying by following their wellness policies. The school districts and schools that were chosen all have similar approaches to ensuring that kids get what they need nutritionally. Schools are understanding of the challenges that food insecure children face and they have outlined that they will do their best to ensure that kids are eating healthy and satisfying food. The next sections discuss results and analysis for Research Question 2, which asks whether schools are innovating to address the achievement gap.

Results for Research Question 2

For question two I analyzed the same four school districts from research question one. However, I examined wellness policies for two different things. Those two things are, how is the school innovating? And how are they addressing the achievement gap, if at all? In researching the achievement gap, I found that some schools address improving academics through food and

some do not. They could be using other measures, but wellness policies are comprehensive and are accessible to all people and important contributors to academic success. Wellness policies have information on how they can and will improve school food and that will affect how kids learn. The achievement gap between low-income and high-income students exists because of inequity in the food system.

Philadelphia School District

The Philadelphia school district included in their wellness policy that the Central Level School Wellness Council shall review and consider evidence-based strategies and techniques in establishing goals for nutrition education and promotion, physical activity and other school-based activities that promote student wellness as part of the policy development and revision process (The Philadelphia School District, 2017). Evidence-based strategies and techniques means that there will be a high level of expertise involved when innovating the school food system. The Philadelphia school district also takes responsibility for evaluating kids' health to see if they need to improve the food kids eat. The schools provide take home material for students to give to parents so that they are aware of what their children eating. Encouraging parents to make better food choices and to get involved with nutrition education is also one of their innovation techniques. Philadelphia School District is innovating their food programs, which shows that they know that innovation is important.

The Philadelphia school district said that they committed to providing a school environment that promotes student and staff wellness and supports students in their efforts to become fit, healthy and ready to learn (The Philadelphia School District, 2017). They recognize that students' learning will improve if they have the proper health and wellness. The Philadelphia school districts want their nutrition education programs will include enjoyable, developmentally

appropriate, culturally relevant, participatory, farm visits and school gardens. Developmentally appropriate foods, such as, fruits, vegetables, whole grains, low-fat dairy products and water are what kids need. Students who are below the poverty line especially need food programming that cares about academic achievement. It was found that children who have parents that have a high income tend to go to schools with more resources, so those students are more likely to have higher test scores. If a kid goes to a school that has more resources, the chances of them having a more nutritious diet is increased and their academic achievement is likely to improve.

Rockingham County School District

The second school examined for innovation and academic achievement was Rockingham County school district. This wellness policy demonstrates an understanding that there should be innovation in school food programming. To make sure that their schools are innovating they maintain a School Health Advisory Council (SHAC) to help plan, update, implement, promote and monitor this policy as well as other health and nutrition issues within the school system (Rockingham County School District, 2013). Rockingham school district does not just have the school food system's opinion, they include the health department and the community. The council is made up of different people with different levels of expertise which is good for planning and changing the food policies in the future (Rockingham County School District, 2013). The council will also provide periodic reports regarding the status of the wellness programs. Rockingham county schools have made it clear that they are tackling innovation using wellness policies.

The wellness board for Rockingham county schools recognizes that student wellness and proper nutrition are related to a student's physical well-being, growth and development. The board believes that promoting student health and nutrition enhances readiness for learning and

increases student achievement. (Rockingham County School District, 2013). They are aware that students need to eat well for their own development and cognitive function. Teaching students about nutrition and them having access to that nutrition go hand in hand. Part of being in a position of power is understanding your influence. Policy makers that made wellness policies have a clear understanding of their influence. They showed that they know what kids need and they can make it possible. The wellness policy that Rockingham County school district uses shows that feeding children is a priority in order to improve academic achievement.

KIPP Austin

KIPP Austin believes in innovation and creating spaces where children can learn about food and nutrition. KIPP Austin believes they are obligated to change as society changes. The wellness policy states, “Schools and School Food Service will promote food-centered activities that are healthful, enjoyable, developmentally appropriate, culturally relevant, and participatory, such as contests, promotions, taste testing, farm visits, school gardens, and cooking lessons and demonstrations” (KIPP Texas Austin, 2019). The schools are also encouraged to establish an instructional garden to provide students with experiences in planting, harvesting, preparation and tasting foods, including celebrations and events that observe food traditions, integrated with nutrition education and core curriculum (KIPP Texas Austin, 2019). New food programs will help develop children’s worldly views. They will be able to go out into the real world and implement the skills and new information they learned. These are all innovative ways in which schools have changed or are changing their school food programming.

Like the Philadelphia school district and Rockingham county school district, KIPP Austin recognizes that kids that are properly nourished learn better. In the wellness policy it states that their school board recognizes the important connection and a student’s ability to learn effectively

and achieve high standards in school (KIPP Texas Austin, 2019). The wellness policy, however, has only one line of information recognizing that using food to improve academic achievement is important. I interpreted that KIPP Austin are not understanding of the consequences that malnutrition has on children's academic between a healthy diet success.

KIPP San Antonio

KIPP San Antonio stood out because they believe in changing school food for the better. They are innovating by providing nutrition topics that are integrated within the comprehensive health education curriculum for all grade levels (K-12). They made wellness education a part of classroom instruction in all subjects. (KIPP San Antonio, 2015). They encourage staff to be role models for students. The schools will also provide nutrition education to parents in the form of handouts, the school website, articles and information provided in district or school newsletters, presentations that focus on nutrition and healthy lifestyles (KIPP San Antonio, 2015). The cafeterias will display posters and signs used to promote healthy choices to students. Promoting health and wellness could encourage students to try and improve the food if students are not satisfied (KIPP San Antonio, 2015). KIPP San Antonio understands that innovating will encourage students to make better food choices and to improve their lifestyles in general. The Academy for Urban Leadership much like San Antonio, they encourage innovation and change. They implement food and nutrition information into their curriculum. They promote teaching parents about nutrition and wellness. The school offers trainings to the food staff and to the administration. These trainings will allow for new information to be gathered and possibly implemented in the school's wellness and food programs. KIPP San Antonio does not focus on academic achievement. In the next section I note the four schools who, similarly, do not focus on closing the achievement gap.

School without a Focus on Academic Achievement

There are four schools that wellness policies do not have a focus on academic achievement and those four schools are; KIPP DFW, KIPP Houston, KIPP San Antonio and the Academy for Urban Leadership. The Academy for Urban Leadership wellness policy does not include information on innovation or academic achievement, showing they are trying to improve school food, but they have not addressed every problem especially with academic achievement. KIPP DFW and KIPP Houston do not have wellness policies that include information on academic achievement. These two schools believe in innovation and there is hope that they will abide by their wellness policies. KIPP Houston has a complete and implemented wellness policy, unlike KIPP DFW, and they might include more information as they update their wellness policy.

Analysis for Research Question 2

The second research question states: How are public and charter schools innovating to improve kids' food security to positively influence academic achievement? All of the wellness policies analyzed touched on innovation and academic achievement as it pertains to eating. The policy makers that wrote and implemented the wellness policies understood that there was a significant difference in cognitive function in students that were hungry. This information that these programs provide is being used by nutrition specialists at schools so that they can make better decisions when providing school breakfast and lunch.

I learned that the urban public-school districts are innovating to improve school food. Something they are doing well is taking the initiative to put together a wellness council that uses evidence-based strategies to improve school food and nutrition for kids. They want to connect peer-reviewed work with nutrition so that kids can have a better chance at improving

academically. None of the other wellness policies that were analyzed had this implemented, so Philadelphia's school district is innovating much more quickly. They have put effort into making sure that parents are notified about the nutrition and wellness within the schools. The Philadelphia school district also encourages parents to feed kids healthy foods at home and provide resources so that may be able to do that. Innovation and change are on the agenda for this school district and overall, they are putting forth good effort to change the school food kids eat. My analysis of their food program showed they know food is linked to how kids learn and that they are making steps to close the achievement gap in their schools. Their wellness policies and school programming include developing children's learning and development through food. Kids are learning about farms, participating in gardening and doing food related work inside and outside of the classroom. The school district saw the achievement gap and they decided to help improve it, which meant feeding kids the best food they can offer. They could improve when it comes to funding for school food programming. For example, they don't have to rely only on government funding for their food program; they can fund raise and apply for state grants. If they could expand the amount they could spend per child, I believe they could improve the food much quicker and more efficiently.

Based on their most updated wellness policy, rural public schools were doing well at involving the community in the school food wellness policy. They wanted the input of parents and that is important when serving the needs of high needs communities. They had or still could have a school health council, which helps them innovate and be able to change as the kids needs change (Rockingham County School District, 2013). The rural public schools in this study were doing a good work with trying to close the achievement gap by providing food with sustenance. I used past tense language because they need to improve when it comes to updating their wellness

policy more often. They seem to be behind on updating, which means they could be trying to do better than the years before, but there is no way to track that. The last time their wellness policy was updated was in 2013. The federal law says that each school should update their wellness policy every three years (National School Lunch Program, 2017). Rural public-school districts have to make sure their wellness policies get updated so that we can better access the work that they are doing currently.

The rural charter schools did not do very well at updating or implementing their wellness policies. KIPP itself is a large network, but they have smaller rural schools that fall under their bigger schools. In their small schools in San Antonio it was found that many of them do not focus on academic achievement at all. Their wellness policy is also contingent which means it has not been approved by the state and the CEO of the school. They have a draft of the wellness policy that can be accessed by parents and the community. Something the rural schools do well is community outreach (KIPP San Antonio, 2015). They involve parents in the school food system. KIPP really prides themselves on building team and family and I think that helps parents feel more comfortable with what they school is doing to feed their kids. KIPP Austin is doing well at teaching kids gardening and developing curriculum around food, health and wellness (KIPP Texas Austin, 2019). KIPP Austin is innovating to ensure kids connect learning and food and the entire KIPP network can learn from them. They also have an updated wellness policy which shows they are moving in the right direction.

Public urban schools benefit the most from wellness policy updates because they have the infrastructure innovate and because they serve majority of the children in the United States, they have more access to federal funding through the National School Lunch Program. Public urban charter schools have more autonomy to change their entire lunch program because they

have fewer restrictions. Rural charter and public schools have a lot of work to do. They need resources, such as, people who are willing to update wellness policies and more classes surrounding food. Rural public and charter schools can benefit from recognizing that academic achievement is linked to what kids eat. The connection between the two will push schools to improve breakfast, lunch and beyond. This research suggests that children that have nutritious meals before and during school perform better academically. Schools want kids to meet or exceed their standards and they can do so when school changes their approach to feeding kids. There are other options outside of the basic USDA funds and if schools do more research, they'll find that their students can benefit from other food programs. We can effectively use the school food system to reduce or eliminate food insecurity amongst school age children by changing how we approach feeding kids and by focusing on using food as a way to improve academic achievement. In the next section, I explain my contribution to the school food system and what we can change in the future.

Contribution

This research addresses food insecurity within the school food system because I want to learn about the roles school play in developing school food programs so that children will be able to gain better access to nutritious food at school. Schools play an integral role in alleviating hunger in school age children, yet schools are not approaching the causes of hunger and academic disparities. The analysis of school wellness policies contributes to an understanding of the responsibility of adults to feed kids and to make sure kids are receiving the proper nutrition to be high achieving in school. The purpose of this thesis is to understand the ways in which we can better the school food system so that kids will be able to reach their full potential.

In the future, we can apply the insights we have found to making the school food system more equitable and more culturally relevant to students. The insights we can apply are to make policies that directly connect learning and nutrition, teaching kids the importance of the food system, and giving schools access to alternative food programs. Giving kids access to more education and food programs will enhance their social responsibility to the food system. Updating wellness policies to include food as a way to improve academic achievement will push schools to focus on nutrition. School districts will have to make sure kids have the best food options and that all kids who are below the poverty line are eating those foods. Innovating the school food system will require schools to hire experts in the food system to recreate breakfast and lunch menus. The last thing that needs to change is accessibility to information so that schools can make the best decisions on how to feed children. Most schools that are in low-income communities are doing the best they can with the resources they are provided. A lot of the information on nutrition and the achievement gap is written by academics and the information has to be bought or you have to find someone who can provide you with that resource for free. Allowing students to have a say in what they eat can also help the transition to a new food program more cost efficient and the food would be more satisfying to kids.

Rural schools that are charter and public still have a lot of work to do when it comes to feeding kids. These schools have not been updating their policies or staying connected with the community in order to make changes. Urban public and charter schools are leading the way and are showing that they are following the USDA guidelines for feeding kids and they are up to date with their wellness policies. Urban charter schools can utilize their monetary resources flexibly and they can put those funds towards better school food. Kids can only get what we work to get them, the hope is that wellness policies can start to make that happen. The next chapter concludes this research and suggests how we can make school food better for kids in the future.

Chapter Five

Conclusion: Better Food is Coming

Given that schools are in the middle of the fight against childhood hunger and play such a prominent role in kids' daily lives, they are in an exceptional position to address these problems. My research has attempted to understand the relationship between school food, innovation and academic achievement. I wondered what is considered just and unjust when feeding kids and how we as adults can solve the problems surrounding childhood hunger. Children are called upon to take their generation further than the last, but they have not been given an equal playing field. Millions of low-income children are affected by hunger every day and schools have little understanding of how this affects children's ability to learn.

All of the schools analyzed in this thesis are aware that there is a problem and they have tried to follow the nutrition guidelines the best way they know how. Their strengths are that they recognize when change needs to happen and they try and update their policies as quickly as possible. These schools can improve by looking into federally funded farm-to-school food programs or looking for donations that will support school food innovation. Schools don't have to settle for the basic food program that everyone else has, they have the option to go above and beyond.

Since school food programs have been around, they have relied on the government to provide and help distribute the meals that children are fed. Full reliance on the government to feed kids does not allow schools to control where food comes from or what the ingredients are and if kids are satisfied with what is being served. Recent policy changes, such as, stricter nutritional guidelines, monitoring the amount of processed foods, and more options for kids with food allergies sought to change school food, but the food served is still not doing what it should

be to help kids improve. There is a relationship between food and our minds and kids need the right amount of nutrition to ensure that their minds are doing the hard work society asks of them. Analysis of wellness policies and programs that aim to end childhood hunger points to schools as a viable way to reduce hunger among children. The wellness policies' food programs that try to help alleviate hunger have a lot work to do. The schools that were analyzed need to specify how they are going to specifically focus on food. In order for wellness policies to reach their full potential, they need to focus more explicitly on the connection between food and learning.

Looking Forward

In the future there are some things we can do to change the school food system and the food programs that are offered now. The first thing that has to change is access for children who live in rural, low-income communities. The biggest barrier rural towns face is being able to get the same foods and privileges as people who live in big cities. The food that rural towns receive are not farm-to-table which would really benefit towns that have lots of farmland. Many small towns and cities only have access to convenient stores and lack access to large chain or organic food stores. Regardless of demographic, if given the access to the same quality food at affordable prices, people almost always choose healthier foods.

The second thing I believe needs to change is affordability of organic and fresh foods. Foods that are grown more sustainably are more expensive and people would rather pay less for something similar than to spend money that they may not have. Even with Supplemental Nutrition Assistance Program and Women Infant and Children benefits, low-income families still struggle to buy enough food that will last them for the month. Schools also choose to have more processed and non-organic foods to keep down cost. The government spends millions of dollars on the free breakfast and lunch programs, but with the rising cost of food it is hard to buy the

best ingredients for kids. Affordability also means having funds for an alternative lunch program. The government has farm-to-table school program funding, but the deadlines are shorter, and schools are not always informed on how to best start those programs. Although the funding for the National School Breakfast and Lunch Program is relatively equivalent for all districts that use it, the money has yet to be used to provide the best nutritional needs for low-income kids. More money should be allocated to schools that need it more and if that is not an option, schools can look for and provide another food program.

I hope that in the future there will be money in school budgets to help improve the school food system. Wellness policies give schools a plan and a way in which they can best support their children's needs. If schools update and follow their policies, they could really improve how kids learn. The food that the USDA provides for kids was a steppingstone; now that social justice movements and how we advocate for one another has evolved, we can make sure that kids have more nutritious and delicious meals.

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