

Gardner-Webb University

Digital Commons @ Gardner-Webb University

Doctor of Education Dissertations

School of Education

Spring 2021

Farm to School Program Evaluation

Patrick Sellars

psellars@gardner-webb.edu

Follow this and additional works at: <https://digitalcommons.gardner-webb.edu/education-dissertations>



Part of the [Education Commons](#)

Recommended Citation

Sellars, Patrick, "Farm to School Program Evaluation" (2021). *Doctor of Education Dissertations*. 42.
<https://digitalcommons.gardner-webb.edu/education-dissertations/42>

This Dissertation is brought to you for free and open access by the School of Education at Digital Commons @ Gardner-Webb University. It has been accepted for inclusion in Doctor of Education Dissertations by an authorized administrator of Digital Commons @ Gardner-Webb University. For more information, please see [Copyright and Publishing Info](#).

FARM TO SCHOOL PROGRAM EVALUATION

By
Patrick Grayson Sellars

A Dissertation Submitted to the
Gardner-Webb University School of Education
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Education

Gardner-Webb University
2021

Approval Page

This dissertation was submitted by Patrick Grayson Sellars under the direction of the persons listed below. It was submitted to the Gardner-Webb University School of Education and approved in partial fulfillment of the requirements for the degree of Doctor of Education at Gardner-Webb University.

Bonnie Bolado, EdD
Committee Chair

Date

Stephen Laws, EdD
Committee Member

Date

Donna Gutshall, EdD
Committee Member

Date

Prince Bull, PhD
Dean of the School of Education

Date

Acknowledgements

I would like to acknowledge those who have helped me through this doctoral program and dissertation. Benjamin Franklin said, “Either write something worth reading or do something worth writing.” In this instance, I hope we have done both. I use the term “we” because this was not an effort by a single person. This study was a group effort accomplished by some amazing people. At this time, I would like to thank those involved.

To my parents, Robert and Christi Sellars. Your love and support made all of this possible. You taught me the value of hard work and discipline in everything I do. As lifelong educators, I can’t help but feel that this doctorate is as much yours as it is mine.

I would like to thank my dissertation chair, Dr. Bonnie Bolado. A person could not ask for a more supportive, encouraging, and upbeat chair. Your kind and encouraging words kept me going through this process.

I would like to thank my professor, committee member, and friend, Dr. Stephen Laws. You have been with me in this program from the beginning; guiding, encouraging, and leading me. I am so thankful you have been part of this journey from beginning to end.

I would like to thank Dr. Donna Gutshall. Your support and guidance in my professional career means the world to me.

Abstract

FARM TO SCHOOL PROGRAM EVALUATION. Sellars, Patrick Grayson, 2021:

Dissertation, Gardner-Webb University.

A large school district in the southeastern United States has embraced the national Farm to School (F2S) movement. The school district grows organic produce at its farm as well as two greenhouses. The goal of the program is to improve the eating habits of students while giving them insight into the importance of agriculture through educational opportunities. The study of the school district's F2S program was conducted to determine the effectiveness of the program. The effectiveness was determined utilizing two metrics: the cost of production and the qualitative educational dynamic. The study found that the production aspect is sustainable. The F2S program is saving money on the produce utilized in the cafeterias of the school district. The educational dynamic is progressing but lacks clarity and advertisement. The study found that the F2S program is viable from a production standpoint and is worthwhile from a qualitative educational aspect.

Keywords: farm to school, program evaluation, school district

Table of Contents

	Page
Chapter 1: Introduction	1
Background	1
Problem	3
Purpose and Overview of Methodology	5
Research Questions and Hypotheses	7
Conceptual Framework for the Study	7
Nature of the Study	9
Definitions	9
Assumptions	10
Scope and Delimitations	11
Limitations	12
Significance	12
Summary	13
Chapter 2: Literature Review	14
Theory Behind the Research	15
History of School Lunches and Nutrition	19
South Carolina’s Participation in F2S	25
School Reform	28
Summary	44
Chapter 3: Methodology	46
Introduction	46
Setting	47
Research Questions and Hypotheses	48
Role of the Researcher	49
Rationale for Methodology	50
Methodology	50
Summary	60
Chapter 4: Results	61
Quantitative Data	62
Qualitative Data	67
Conclusion	79
Chapter 5: Discussion	82
Introduction	82
Key Findings	82
Recommendations for the F2S Initiative	85
Culture and Change Implementation	95
Recommendations for Future Studies	97
Conclusion	104
References	106
Appendices	
A Staff Survey Questions	112
B Interview Questions	114
C Invitation and Waiver	116
D Farm to School Financial Data	119

E	Focus Group Questions.....	128
Tables		
1	Total Amount of Savings on Organic Produce for Each School District Cafeteria.....	63
2	Single Unit Price of Organic Produce Offered by School District’s Farm.....	65
3	Staff Survey Data.....	69
4	Interview Question Analysis.....	76

Chapter 1: Introduction

A large school district in the southeastern United States in the foothills of the Blue Ridge Mountains has embraced the national movement of Farm to School (F2S). The approach of this district has gone a step further than most school systems. The school district's program grows fresh fruits and vegetables on its own farm rather than purchasing them from local producers. The school district has incorporated into existing classes activities that teach students about nutrition through hands-on techniques. The goal of this program is to improve students' eating habits while giving them insight into the importance of agriculture. This study of the school district's F2S program was conducted in an effort to determine the effectiveness of the school district's F2S program. The effectiveness of the program was determined utilizing two metrics: the cost of production and the qualitative educational dynamic.

Within this chapter, literature on existing F2S programs and supplemental information is summarized, citing the nationwide movement towards integrating fresh fruits and vegetables into school settings. Agriculture education, an important aspect of the emerging F2S movement, is reviewed in this chapter. Parameters for a review of the qualitative data of the agricultural educational aspect are included in this chapter. The needs of the program evaluation of the school district's F2S program are discussed. The intent of the study is defined, and variables are outlined that will be measured. Definitions of related terminology to the F2S program are cited. Finally, limitations to the study and the overall significance of the study are cited within this chapter.

Background

The idea of bringing agricultural education into school curriculum has been

integrated into the school system in the United States for nearly 200 years. Land grant institutions of the 1800s established colleges with a focus on agricultural education. John Dewey (1859-1952) and Maria Montessori (1870-1952), influencers in the education process in the United States, both considered agriculture education an important aspect of schools (McQueen, 2015).

From the latest research, a movement geared toward safe food production and healthy eating habits has emerged.

Over the last decade and a half, farm-to-school programs ... have received growing attention from educators, health professionals, parents, policymakers, and farmers. In the United States, this intensifying interest emerges from a convergence of recent trends facing agricultural producers and food consumers.

(Schafft et al., 2010, pp. 23-24)

The research emphasizes natural and organic methods of food production as a centerpiece to the F2S movement. “Farm-to-school lunch programs are designed to get locally grown foods into the school lunchroom” (Tuck et al., 2010, p. 1). Nutritious food produced without additives is the focus of the national F2S movement, and schools in the United States are ground zero for implementation as described by the National F2S Network (2019). The national F2S movement emphasizes curriculum education for students on agricultural practices. The idea is for students to know where their food comes from and how it is produced (Watson, 2016). Agricultural education is an ever-growing field in our public school curriculum. “In practice, FTS [*sic*] efforts assume a variety of forms and may involve procurement-related activity, education-related activity, or sometimes both” (Schafft et al., 2010, p. 25). Nationally, many F2S programs utilize local farms to procure

fruits and vegetables to be used in the school cafeterias. “The idea of creating a ‘win-win’ between farms and school is preceded by several decades of the now strong Farm to School movement” (Feenstra & Ohmart, 2012, p. 281).

This school district has taken agricultural procurement of fruits and vegetables a step further. Fresh organic produce is being grown by the school district and is used in the school cafeterias. This diverges from the traditional nationwide movement that encourages schools to purchase locally grown produce. The school district is working diligently to make the F2S program viable and sustainable.

Problem

The study evaluated if the F2S program has the capability to cost effectively grow and harvest enough organic fruits and vegetables to fulfill the food service needs of the school district. Startup costs such as equipment, salaries, and facilities were not evaluated in this study. The problem of this study is relevant due to the high cost of feeding students nutritious food. The problem is significant due to the large financial allocation the school district budgeted to this program. Quantitative data determined if the program can be self-sustaining from a financial perspective.

The study also examined the potential benefits of the educational aspect of F2S on students in the district. An important goal of the program is educating students about proper nutrition. The goal of the program is to instill and encourage healthy eating habits that will lead to healthier lifestyle changes. The qualitative data gave insight into the potential benefits of the educational aspect of the program.

Presently, there is a nationwide F2S movement to provide school children with fresh fruits and vegetables. Within this movement, there is a priority to educate our

population about proper nutrition and production of our food supply. One driving force behind this movement is national childhood obesity rates.

Because dietary behaviors established in childhood may continue to influence food choices in adulthood and school-aged children spend a significant amount of time in school, policy, systems, and environmental (PSE) interventions are promoted to address contextual factors related to fruit and vegetable consumption in schools. (Lee et al., 2019, p. 374)

The problem of this study is relevant due to the high cost of feeding the students nutritious food as an effort to combat childhood obesity rates. The problem is significant due to the large financial allocation the school district budgeted to this program. The goal of the program is to reduce food costs of high-quality organic produce while supplying lifelong learning and fresh nutritious food for its students.

The school district is in the sixth year of the F2S program. In the beginning stages, the school district had to become Good Agricultural Practices certified in order to process the produce grown on the farm as well as in the greenhouses. The process of Good Agricultural Practice certification takes 5 years to attain. Until that time, a third-party vendor processed and packaged the produce for the school district, adding to production costs.

School districts across the nation have begun agricultural education programs in conjunction with the F2S movement. The number of districts integrating these programs has increased over the past 10 years. Current literature describes agricultural education in the context of a small classroom garden for hands-on experience (Ratcliffe et al., 2011). Researchers like Lee et al. (2019) described F2S programs as school districts purchasing

produce from local farmers. The school district in this study has gone a step further by growing their own produce on their own farm. They are incorporating agricultural education into the school curriculum at every level. Every elementary school in the district has a school garden. The high school has two state of the art greenhouses that are used for hands-on experience. The undertaking by the school district is unique in that the school district produces, processes, packages, and serves its own food to its students. Excess produce is sold at the school district's farm on Saturdays in a public farmer's market. A school district taking on a project of this scale in the realm of education and production is rare in the United States. The research on cost effectiveness in conjunction with perceived benefits of a program of this magnitude is lacking.

Purpose and Overview of Methodology

The purpose of the study was to determine the effectiveness of the school district's F2S program. The validity of the program was determined utilizing two metrics: the cost of production and the qualitative educational dynamic.

The financial expenditures of producing fresh fruits and vegetables were evaluated utilizing a cost analysis comparing the cost of production to the cost of purchasing the same produce from an outside source. Within the quantitative aspect of the study, the independent variable was identified as the cost input for production. The dependent variable was identified as the amount of organically grown produce produced by the school district. The savings of producing organically grown produce rather than purchasing the same quality produce from a third-party vendor were compared.

Evaluation of the numerical data was conducted using direct comparison of the costs of produce grown by the school district and U.S. Department of Agriculture (USDA) price

points for the same produce.

The educational aspect of the program was evaluated with the use of surveys, interviews, and focus groups from district stakeholders. Since agricultural education is not a state-mandated curriculum, no quantitative data such as test scores could be utilized to demonstrate worth. Qualitative data were utilized and analyzed instead to determine the effectiveness of the agricultural education aspect.

Within the quantitative aspect of the study, the independent variable was identified as the cost input for production. The dependent variable was identified as the amount of organically grown produce produced by the school district. The savings by producing organically grown fresh produce rather than purchasing such produce from a third-party vendor were compared. Evaluation of the numerical data was conducted using direct comparison of the costs of produce grown by the school district and USDA price points for the same produce.

The production and food service aspect were reviewed from a quantitative lens as well as a qualitative lens. Key demographics, students, and district personnel were surveyed and interviewed to evaluate the legitimacy of the F2S program. The educational portion of the program was evaluated qualitatively utilizing surveys of teachers and key district personnel.

The study discerned the sustainability of the program as well as identified areas of possible growth. Gaps within the existing program were identified from a thorough program evaluation. The quantitative data analysis was derived from existing financial records within the school district. The qualitative nature of the program was evaluated from a comprehensive survey, interviews of key program stakeholders, and focus groups

consisting of parents of current students and graduates from the institution. Triangulation of data from a variety of sources was the goal of the study in an effort to solidify the conclusion.

Research Questions and Hypotheses

- Do the operational costs of the school district's F2S program justify the existence of the program? Will the program become financially sustainable over time?
- How and to what extent does the educational aspect of the F2S program make a noticeable impression on the students and faculty of the school district?

The null and alternative hypotheses were as follows:

- H_0 : The null hypothesis: The cost of growing organic produce is equal or less than the cost of purchasing organic produce.
- H_a : The alternative hypothesis: The cost of growing organic produce is greater than the cost of purchasing organic produce.

In evaluating the hypotheses, the independent variable was the expenditure on production of the organic produce. The dependent variable was the quantity of organic produce procured.

Conceptual Framework for the Study

The concepts for this study are centered around the ideas that fresh produce is healthier for students to consume and that students being exposed to the methods behind how food is grown would lead to healthier eating habits.

The necessity for students to eat healthier is directly related to childhood obesity. Childhood obesity is accompanied by a host of juvenile health issues as well as long-term

health issues in adults. Moss et al. (2013) stated that childhood obesity is a serious health problem in the United States. The implementation of the F2S program is an effort to give students fresh nutritional food in order to combat childhood obesity.

Current emphasis on nutrition and all-natural food production has ignited demand for information, skill sets, and knowledge of the process by which food is produced, as stated by Feenstra and Ohmart (2012). The hypothesis for this study is that the existence of the school district's F2S program is justified by the short- and long-term educational and nutritional opportunities for the student body. According to Moss et al. (2013), emphasis on agricultural education is growing across the United States. The school district's F2S program is innovative in the scope and size of the operation. The school district's program incorporates food production with hands-on student educational experiences. These two dynamics directly relate to the concepts of the study: freshly grown produce is healthier for students to consume; and by exposing students to how food is grown, the probability of those students eating healthier improves (McCarthy et al., 2017).

Students exposed to hands-on experiences with growing produce are more likely to try new produce.

Research has begun to provide qualitative and quantitative evidence on the impact of FTS [*sic*] programs. Studies have suggested that FTS [*sic*] programs help to increase knowledge of nutrition, food, and agriculture and may change students' attitudes toward and willingness to try fruits and vegetables. (McCarthy et al., 2017, p. 467)

Nature of the Study

A combined study of the quantitative financial aspect of the school district's F2S program and the qualitative nature of the educational portion of the program gives a balanced evaluation of the program in totality.

Quantitative data collection came from the school district's financial records. The metric evaluated was the dollar amount involved in production versus the dollar amount required to procure fresh organic produce. Qualitative data were gathered utilizing surveys of district staff, interviews of key district leadership, and focus groups of parents of current students and graduates from the institution. The survey data were analyzed using a regression analysis; the interviews and focus groups were recorded, transcribed, and coded accordingly.

Definitions

Within this study, there is key terminology. Terminology must be standard in order to fully understand the importance of the study as well as the integration of key concepts.

Agriculture

Refers to "the science, art, or occupation concerned with cultivating land, raising crops, and feeding, breeding, and raising livestock" (Merriam-Webster, 2014a).

Farm

As a noun, refers to "a tract of land, usually with a house, barn, silo, etc., on which crops and often livestock are raised for livelihood" (Merriam-Webster, 2014b); as a verb, to "cultivate the soil" (Merriam-Webster, 2014b). Both terms will be used within this study.

F2S

A national movement towards implementing agricultural education into the classroom. Other aspects of the program include the growing of produce, some of which may be consumed by the students. In the school district, F2S is seen as an implementation of agricultural education as well as the production of fruits and vegetables for student consumption in an effort to improve health and wellness.

Greenhouse

“A building, in which the temperature is maintained within a desired range, used for cultivating tender plants or growing plants out of season” (Merriam-Webster, 2014c).

Hydroponic Grow Towers

Towers consisting of several levels in which plants are cultivated and grown. Roots of the plants are placed in nutrient solutions rather than soil (Merriam-Webster, 2014d).

Organic

In reference to the school district’s farming practices, “a labeling term that indicates that the food or other agricultural product has been produced through approved methods” (U.S. Department of Agriculture, n.d., para. 1). Such methods include no use of pesticides, fertilizers, genetically modified organisms, antibiotics, or growth hormones.

Assumptions

The longstanding belief is that organically grown fruits and vegetables are better for students. Without explicit student data on height, weight, and body mass index, this assumption cannot be proven or disproven in this study. Another assumption is that educating students on best agricultural practices will improve their health in future years

as well as their outlook for the rest of their life. This too cannot be proven or disproven under the scope of this study.

The assumption is necessary to the study given that all of the fruits and vegetables produced on the school district's farm are organically grown. Second, agriculture education is included in this vision of the school district's F2S program. Data to determine the validity of the agricultural education were gathered utilizing a nonbiased survey distributed to stakeholders within the district.

Scope and Delimitations

The cost effectiveness of the F2S program was evaluated. The program's financial viability was examined, while at the same time the impact of the program on stakeholders was assessed. These two components gave a broader picture into the effectiveness of the program.

Boundaries of the study were current students. Current students were not surveyed on the implementation of the school district's F2S program. Teachers, administration, parents of current students, and graduates from the institution made up the majority of the qualitative data for this study. The individuals participating in this study were directly impacted by the production of the fruits and vegetables in this program and were directly responsible for the program's implementation.

Generalized components of the study include the need for balance in the budget. The cost of operating the F2S program was carefully evaluated next to the overall impact of the production of fresh fruits and vegetables and the introduction of those to the school cafeterias across the district. Educational components were also evaluated under the scope of the purpose of agricultural education.

Limitations

Limitations of this study were the educational aspects of the F2S program. Overall, the school district's F2S program is comprised of several parts: the production aspect, the food service aspect, and the educational aspect. One program evaluation is not large enough to fully encompass the entirety of the school district's F2S program or the goals set forth by the school district. By focusing specifically on the cost of production in relation to food service and the perception of the educational aspect of the program, the school district's F2S program was evaluated and a full picture of the program was rendered using quantitative and qualitative data.

Biases within this study came from me. I am an employee of the school district as well as a proponent of agriculture. Under this guise, it would be easy for me to determine that the program is effective and viable. However, to quell bias, I utilized several sources of data to reinforce the conclusion of the study. The scope of this program evaluation included the operating cost of the program as well as the perceived relevance of agricultural education within the school district.

Significance

The study did not only give vital information for the future of the program within the confines of the school district; it also set the foundation for other dissertations to evaluate similar issues. The study also gives information to any school district that is considering the implementation of an F2S program on any scale.

The implications of positive social change from the results of this study are the effects of introducing fresh vegetables to school-age children. The school district has taken on a massive endeavor to provide students with these healthy eating options.

Qualitative data from surveys and interviews of those impacted firsthand by the F2S program allow for other school districts to determine the need to provide these farm fresh fruits and vegetables to students.

Summary

The program evaluation conducted is the first of its kind to evaluate the F2S program in the school district. More information on current agricultural programs implemented by schools is described in Chapter 2. The complete design of the program evaluation is outlined in Chapter 3.

The school district has embraced the national F2S movement. The goals of the school district's program are to educate students about nutrition, improve their eating habits, and give them insight into the importance of agricultural education. Out of the latest research literature has emerged a movement centered around safe food production, healthy eating habits, and agricultural education as referenced by Feenstra and Ohmart (2012).

The leading theory behind F2S initiatives emphasizes that nutritious food produced without additives should be provided for our nation's students (Schafft et al., 2010). Schools are ground zero for implementation of F2S programs. Chapter 2 emphasizes the latest research and trends involved in the F2S movement.

Chapter 2: Literature Review

The research problem this study focused on is the capability of a school district's momentum to sustain the F2S initiative implemented in their schools. The purpose of the study was to determine the effectiveness of the school district's F2S program. The effectiveness was addressed by a quantitative cost analysis of the production of produce and a qualitative analysis of the impact of the F2S educational aspect.

As stated in McCarthy et al. (2017), current literature describes F2S as a broad program connecting schools to local farmers. The ultimate goal of F2S is to improve healthy eating habits in school-age children in an effort to quell the growing problem of childhood obesity and a host of other treatable diseases that accompany childhood obesity.

Researching the topic of F2S began with the use of libraries and scholarly databases such as Gardner-Webb John R. Dover Memorial Library, Wofford College Sandor Teszler Library, Google Scholar, ProQuest Dissertation and Thesis Database, JSTOR, Chico Digital Repository, University of New Hampshire Scholars Repository, Agriculture & Environmental Science Collection, ScienceDirect, and EBESCOhost.

During the research, key search terms used within these databases included farm, farm to school, farm to school program, agricultural education, farm to school education, program evaluation of farm to school, food procurement, farm to school legislation, school garden, fruit and vegetable consumption, nutrition education, childhood obesity, school food service, and Theory of Planned Behavior. Literature review of this topic focused on scholarly articles, peer-reviewed articles, state and national studies, master's theses, and doctoral dissertations. The years searched ranged from 2010 to 2019. By

focusing searches on these key search terms and setting parameters of the search on scholarly articles from 2010 to 2019, all sources are relevant to the current topic of study.

Sources included peer-reviewed journal articles, doctoral dissertations, and master's theses. Information was also gleaned from state and national websites promoting the F2S movement. Dissertations were carefully reviewed for content that pertained to the program evaluation of the school district's F2S program. The national F2S movement is an ever-increasing field. More and more studies are conducted every year across the nation in relation to this field. The literature balloons around specific years where national legislation took place in relation to school lunches and healthy eating habits (Feenstra & Ohmart, 2012).

Theory Behind the Research

The leading theory in the F2S movement is the Theory of Planned Behavior. The Theory of Planned Behavior centers around the idea that behavior is a function of beliefs (Bishop, 2014). The Theory of Planned Behavior was first proposed by Icek Ajzen (1991). Bishop (2014) stated that the theory applies to relationships between attitudes, beliefs, and behaviors. Ajzen described the Theory of Planned Behavior as a theory that seeks to explain concepts behind individuals' dietary habits and behaviors that result from individuals' intentions to perform certain behaviors. These intentions are related to beliefs, subjective norms, and perceptions of control over the specified behavior (self-efficacy).

The application of the Theory of Planned Behavior is that F2S programs improve the health and well-being of students based on education and exposure to fresh fruits and vegetables. This is one of the driving forces behind the implementation of F2S programs

nationwide (Curwood, 2016). An assumption within this theory is that by impacting the core beliefs of students, the students will make healthier eating choices (Ajzen, 1991).

Current literature on the topic of F2S is domestic as well as international.

Childhood obesity is not simply an epidemic in the United States but in other countries as well. Worldwide efforts are being made to improve nutritional behaviors of students. The international program Food for Life Partnership was evaluated in England to combat childhood obesity (Jones et al., 2012). Food for Life Partnership was evaluated to determine if a higher percentage of students consumed more fruits after 18-24 months of the program's implementation (Jones et al., 2012). Nationally in the United States, the F2S movement is designed to improve nutritional behaviors and quell childhood obesity. Combating childhood obesity is the driving force behind all F2S research, articles, legislation, and movements (Schafft et al., 2010).

Research directly linking the Theory of Planned Behavior and F2S programs include a master's thesis by Bishop (2014). Bishop focused on the evaluation of a theory based F2S program. The rationale for the choice of Theory of Planned Behavior in Bishop's study is based on the idea that "impacting core constructs of theory of planned behavior would affect behavior and one would be able to predict intention and behavior based on measurement of beliefs, norms, and self-efficacy" (p. 65).

The Theory of Planned Behavior is the guiding theory behind this study. The Theory of Planned Behavior has at its core that the more "favorable the beliefs, norms, and self-efficacy a person presents towards a behavior, the stronger the intentions become to perform the behavior" (Bishop, 2014, p. 65). This is stated another way in the same work: "A theory, which seeks to explain concepts behind individuals' dietary habits and

behaviors that result from individuals' intentions to perform certain behaviors" (Bishop, 2014, p. 7). The Theory of Planned Behavior can explain the structure of most F2S programs. F2S programs are designed to give students access to fresh fruits and vegetables as well as educate students on the production of these fruits and vegetables. The guiding belief behind this methodology is that by showing students how fresh produce is grown and exposing students to the process as well as educating them to this process, those students will form a positive relationship to the fresh produce (Bishop, 2014). Ultimately, having a positive construct of the fresh produce will lead students to choose the healthier food option. By exposing students early in their school years to fresh produce, educating them on how the produce is grown, and continuing to expose them to these factors, these students will continue to make healthy eating choices throughout their lives. Ultimately, this exposure to healthy eating choices and how those healthy choices are grown will combat childhood obesity and ideally transfer into adult healthy eating habits (Moss et al., 2013).

The primary theorist in the development of the Theory of Planned Behavior was Icek Ajzen (1991). Icek Ajzen is a professor emeritus at the University of Massachusetts Amherst. His work in social psychology has spanned decades. Ajzen first proposed the Theory of Planned behavior in 1985 in his article "From intentions to actions: A theory of planned behaviour [*sic*]." Ajzen's Theory of Planned Behavior associates closely to F2S because of the idea that impacting core constructs of students at an early age will influence their behaviors later in life (Bishop, 2014). F2S programs expose students at an early age to how fresh produce is grown as well as encourages students to select fresh fruits and vegetables when in school cafeterias. The rationale for exposing students early

to fresh produce is that positively impacting students with agriculture education and offering a variety of fresh fruits and vegetables will impact their core beliefs. “The more favorable beliefs, norms, and self-efficacy a person presents towards a behavior, the stronger the intentions become to perform that behavior” (Bishop, 2014, p. 65).

F2S is the latest nomenclature of a lasting idea in education. The idea is that by placing students in a natural setting and utilizing a growing garden, the educational process can be enhanced. Some early educational theorists touted a school farm. The idea of school gardens was mentioned by John Dewey (1859-1952) and Maria Montessori (1870-1952). John Dewey, a philosopher, psychologist, and educational reformer, “argued for increased emphasis on the study of nature through scientific method” (McQueen, 2015, p. 17). Maria Montessori, an Italian physician and the educational philosopher, “considered the garden as a context for education, as content for instruction, and as reflection for the students” (McQueen, 2015, p. 17).

Concepts and Phenomenon

The Farm to School initiative is a nationwide program that connects schools (k-12) and local farms with the objectives of serving healthy meals in school cafeterias; improving student nutrition; providing agriculture, health, and nutrition education opportunities; and supporting local and regional farmers. (Ugalde, 2012, p. 13)

The functional construct of F2S is that providing farm fresh produce in school cafeterias and supplementing that produce with agricultural education will improve students’ short-term and long-term eating habits (Watson, 2016). Ultimately, this will reduce the prevalence of preventable diseases associated with childhood obesity, leading

to a healthier student population and, in the long-term, a healthier adult population (Muckian, 2015).

History of School Lunches and Nutrition

The driving concept behind F2S is that childhood obesity can be combatted by providing children fresh fruits and vegetables in their diets. Since children spend ample amounts of time in schools, schools were deemed the logical place to implement healthy eating habit initiatives (McCarthy et al., 2017). Federal and state laws have been a driving influence behind the ever-expanding F2S movement. Current federal laws governing healthy eating habits of school-age children include the Child Nutrition Reauthorization Act of 2010. This act, also known as the Healthy Hunger-Free Kids Act, established the USDA F2S grant program. This program is designed to help implement F2S programs nationally in local school districts (McCarthy et. al., 2017).

“In 1853, the Children’s Aid Society of New York opened its first industrial school for poor children in New York City, and initiated the first free school lunch program in the United States” (Watson, 2016, p. 21). This was followed in 1894 in Philadelphia when the Starr Center Association began feeding students the first reduced lunch program (Watson, 2016). In 1912, the School Board of Philadelphia established the Department of High School Lunches that required food services to be created in the city’s high schools (Watson, 2016). In 1908 in Boston, the Women’s Educational and Industrial Union served hot lunches from a centralized kitchen and took the lunches to participating schools. “By 1910, over 2,000 students were being served each day in schools around Boston” (Watson, 2016, p. 22).

Most school lunch programs in the early parts of the 20th century were authorized

by state and local legislation. However, federal funding was needed to provide an increasing number of students with meals due to a shortage of funds from local municipalities, organizations and individuals. (Watson, 2016, p. 23)

The stock market crash of 1929 leading to The Great Depression drove the federal government to enact Public Law 320 on August 24, 1936. This program became known as the Commodity Donation Program. “The objective of the legislation was to remove any depressing effects on food price and encourage domestic consumption” (Watson, 2016, p. 24).

The National School Lunch Program set the stage for the current F2S program. “The Richard B. Russell National School Lunch Act was signed into law by President Harry Truman in 1946 and established the National School Lunch Program” (Benson, 2013, p. 25). The purpose of this law was to improve the health and well-being of the children in the United States (Benson, 2013). The National School Lunch Act of 1946 ensured that students had meals served that met the national standards and that lunch was offered to low-income students at little to no cost (Benson, 2013). “By the time Congress passed the National School Lunch Act (NSLA) in 1946, upward of 8 million children at 60,000 schools were already participating in a school lunch or milk program” (Kelly 2015, p. 19). To put that into other terms, Kelly (2015) stated that roughly one third of school children were receiving food with their education when the National School Lunch Act was enacted in 1946. “The Child Nutrition Act was passed in 1966 which created the School Breakfast Program” (Benson, 2013, p. 26). As of 2010, the National School Lunch Program expanded to include a supper program (Curwood, 2016).

Laws such as the Child Nutrition Reauthorization Act of 2010 are a driving force

by legislatures to improve the implementation of F2S statewide and nationally.

“Nationally, the Child Nutrition Reauthorization Act of 2010, also known as the Healthy Hunger-Free Kids Act, established the USDA Farm to School Grant Program to implement FTS (*sic*) programs, and improve access to local food for school meals” (McCarthy et al., 2017, p. 468). Also, “In February 2015, the Farm to School Act of 2015 was introduced to Congress” (McCarthy et al., 2017, p. 468). The introduction and implementation of these laws at a national level helped to drive the F2S movement forward. However, laws are not enough; F2S acts as an agent to combat childhood obesity. The school district implemented the F2S program to combat childhood obesity per the South Carolina Department of Education’s implementation of the statewide F2S initiative. This was due to the fact “South Carolina (SC), children aged 10-17 are ranked 13th in the United States for overweight and obesity (33.7%)” (Ugalde, 2012, p. 1). However, as cited by McCarthy et al. (2017), “The laws enacted at the state level vary widely in the mechanisms they use to support FTS (*sic*) participation and encourage implementation of new programs” (p. 468).

“For over sixty years the NSLP [National School Lunch Program], the longest running public health nutrition initiative in the U.S. history and the only one aimed at school-aged children, has struggled to provide warm, appetizing, and nutritious meals at low cost” (Kelly, 2015, p. 16). Benson (2013) stated that the National School Lunch Program had a national expenditure in 2011 of \$11.3 billion and reached approximately 31.8 million students. The National School Lunch Act has had three important amendments since being signed into law originally in 1946: menu planning options, directing schools to develop wellness plans, and establishing fruit and vegetable

programs. The movement itself strove to deal with the issues of poverty and malnutrition, childhood obesity, and other health problems (Kelly, 2015). Kelly (2015) cited Susan Levine's *School Lunch Politics* to state that the National School Lunch Program was deeply flawed.

“Farm to school programs, barely heard of a decade ago, are at the vanguard of efforts to create an alternative agriculture and food system in the United States (Kelly, 2015, p. 15). This latest initiative is just one in a long line of innovations in an effort to feed the students of this nation.

Childhood Obesity

“Childhood obesity is a complex problem that requires individual solutions as well as community involvement, including schools” (Muckian, 2015, p. 18). The role of the school cannot be overstated when discussing the prevalent and ideally the preventable nature of childhood obesity. Izumi et al. (2010) noted that health professionals agree that schools can play a key role in improving children's dietary habits. Muckian (2015) discussed the role of the school nurse as a preventative force for childhood obesity as well as the integral role a school nurse will take in the greater F2S program.

Studies have been conducted on the rise of childhood obesity in the United States. “The prevalence of obesity among children and adolescents has grown over the past three decades” (Yoder et al., 2015, p. 2855). This is corroborated by Lee et al. (2019). The current study benefits from these data by citing a clear need for the program's implementation. F2S is increasing nationally as cited by the 2013 USDA F2S census (Botkins & Roe, 2018).

A major theme within the literature is that fresh fruits and vegetables, when

consumed on a regular basis, can combat childhood obesity and the host of disorders associated with it. Agricultural education, with hands-on experiences, makes a marked improvement on the amount of fresh fruits and vegetables consumed by school-age children. Policy for F2S varies greatly at the national, state, district, and school levels (Ratcliffe et al., 2011).

Local Food Procurement

Local food procurement at the regional, state, or local level is an essential part of any F2S program (Botkins & Roe, 2018). “Farm-to-school (FTS) [sic] is an example of a program that has worked to improve the school food environment, while simultaneously providing opportunities for community and economic development” (McCarthy et al., 2017, p. 466). Izumi et al. (2010) identified that school food service represents a stable and substantial market for family farmers who can sell their products directly to schools. Schafft et al. (2010) stated that the increased use of fresh and locally grown products served in school cafeterias can increase student understanding and engagement with agriculture, nutrition, and health.

Schafft et al. (2010) described the rising concerns for food safety practices given news stories about breakouts of e. coli bacteria and other such pathogens in food sources. Schafft et al. also cited that these concerns are more associated with large scale food producers. The concerns over large scale producers of food products creates a pathway for smaller local and regionally owned farmers to serve a market with locally grown produce. Schafft et al. also cited that while more vertical corporate integration has increased the difficulty of small and medium scale farms to compete and survive, the F2S programs sprouting up across the nation create a new avenue to support these farmers.

“This has helped spark interest in locally sourced and organic foods and the potential social, environmental, and health benefits of supporting smaller-scale agricultural production and restructuring the agrifood system” (Schafft et al., 2010, p. 24).

Feenstra and Ohmart (2012) identified the unique position food service directors are in within schools and districts. Feenstra and Ohmart described the early adopters of F2S as visionaries, seeing the opportunity that the program could have on the student population. Feenstra and Ohmart discussed that food service directors could see the new food offerings as a way to address childhood obesity as well as an education tool for the children and their parents on seasonally available agricultural produce. “It is believed that local food taste better because they have been harvested within a day or two of consumption, which makes them crispy, sweet, and loaded with flavor” (Ugalde, 2012, p. 12).

“Advocates of farm-to-school programs also often point to the positive economic impact these programs can have on the local economy” (Tuck et al., 2010, p. 1). Feenstra and Ohmart (2012) stated that most local farmers are enthusiastic and positive about participating in F2S programs. F2S programs have been on the rise nationally due to a large scale USDA grant.

A large USDA research and outreach grant within the Initiative for Future Agriculture and Food Systems, consolidated independent efforts across the country and allowed quantitative evaluation tools to be developed. The infusion of resources allowed Farm to School programs to create organizing committees and conduct outreach, training, and technical assistance workshops to spread new models and engage new constituents. (Feenstra & Ohmart, 2012, p. 282)

Izumi et al. (2010) stated that schools buying produce directly from farmers allows schools to buy fresher produce than they could obtain through their normal distributors.

South Carolina's Participation in F2S

Ugalde (2012) stated that the state of South Carolina implemented its F2S program during the 2010-2011 school year. The implementation of F2S by South Carolina was in an effort to promote a healthier school environment by improving knowledge of locally grown fruits and vegetables and to increase the consumption of locally grown produce among school-age children. "The SC Farm to School program is a collaborative effort between the SCDA, the SC Department of Health and Environmental Control (DHEC), the South Carolina Department of Education (SCDE), and Clemson University" (Ugalde, 2012, p. 14).

In South Carolina, children aged 10-17 are ranked 13th in the United States for obesity (33.7%), according to The Child and Adolescent Health Measurement Initiative (2007, as cited in Ugalde, 2012). The driving premise is that the longer a child is overweight, the more likely that child is to continue this pattern into adulthood (Biro & Wien, 2010). The conditions that may be prevalent the longer a child is obese are hyperlipidemia, hypertension, hyperinsulinemia, and an increased incidence of type two diabetes. Psychological problems with students who are obese and overweight include Discrimination, depression, and negative self-image (Ugalde, 2012).

School-age children spend a significant amount of time in schools and will consume roughly 35% of their daily food intake in the school days Ugalde (2012). In South Carolina locally grown goods are known as Certified South Carolina Grown. The Certified South Carolina Grown program is promoted and sponsored by the South

Carolina Department of Agriculture (SCDA). The SCDA promotes these products as a way to drive the local economic impact of South Carolina farmers (Ugalde, 2012).

Ugalde (2012) stated that in 2012, there were approximately 2,518 active F2S programs in the United States. In South Carolina, F2S began as a program called Grow with Me. This program began in the spring of 2008 in Anderson County. The ultimate goal of Grow with Me was to provide schools with fresh farm produce. Grow with Me, however, did not have adequate funding or the means of proper processing facilities (Ugalde, 2012).

The Grow with Me program was reevaluated in 2008 and modified so that only one menu item was substituted at a time. This limit on changing menu items allowed for Grow with Me staff to accurately quantify the required amounts of produce and manage delivery logistics so the needs of the schools were met (Ugalde, 2012).

“In 2010, the Centers for Disease Control and Prevention funded a two-year statewide pilot program in SC” (Ugalde, 2012, p. 14). Criteria were made in order for schools to participate in the pilot program. To be eligible for an F2S grant, schools must meet the following criteria: participate in the National School Lunch Program, 50% of the average daily membership eligible for free or reduced lunch, at least 100 enrolled students, agree to purchase South Carolina grown produce, have two locally grown items of produce on the menu, integrate agricultural education into the school curriculum, and establish a school garden (Ugalde, 2012). If all criteria were met, schools could be awarded an F2S grant.

For implementation purposes, the state of SC was divided in three agricultural districts, Lowcountry, Midlands, and Upstate. A program coordinator from DHEC

and nine regional coordinators, three from each of the partner agencies, were assigned to provide training and technical assistance on Farm to School issues at the local level in each of the regions. (Ugalde, 2012, p. 15)

Also, in the inner workings of the South Carolina F2S program, the SCDA takes on a major role. Coordinators establish relationships with farmers, provide assistance with Good Agricultural Practice certification, encourage farmers to grow produce schools can use, and assist with relationships with major distributors (Ugalde, 2012). Clemson University also assists with the South Carolina F2S program by providing schools with curriculum and coursework related to agriculture (Ugalde, 2012).

South Carolina F2S has a Palmetto Pick of the Month which features one fruit or vegetable that is grown in South Carolina. The Palmetto Pick of the Month is a unique way to convey to schools, cafeterias, and communities the availability of what is locally grown in South Carolina. F2S is the latest nomenclature of a lasting idea in education, the idea that by placing students in a natural setting and utilizing a growing garden, the educational process can be enhanced.

This program evaluation determined if a school district is actually able to produce fresh fruits and vegetables in a cost-effective manner. Since the school district can do this, it laid the groundwork for other school districts to follow suit. This study could have nationwide implications for school districts to implement their own production of fruits and vegetables to be served to the student population. Knowledge was also extended utilizing the qualitative information from the current educational methods and the perception of the F2S program by those within the school system.

School Reform

Implementing Mission and Vision Statements

F2S is a unique reform initiative within schools focusing on nutrition and health of students. When identifying the core dynamics of school reforms, Balls et al. (2016) said it best: “School culture is the underpinning of all the programs, initiatives, interactions that comprise the institution” (p. 224). At the core of any school reform initiative, is culture. “Culture is a set of shared assumptions. It is an abstraction, yet the forces that are created in organizational situations deriving from culture are very powerful” (Balls et al., 2016, p. 271). From a broader standpoint Balls et al. stated that school reforms focus on five major areas: curriculum, instructional delivery, resourcing/ personnel, organizational structure, and assessments. F2S initiatives fall into the organizational structure of the school and how nutritional needs are best met by the school.

The implementation of an F2S program is a risk for any school. In the case of the school district studied, the school district invested time and money into developing a fully functioning farm to provide fresh produce to the cafeterias in the school district. Balls et al. (2016) discussed calculated risk as a needed part to begin any school reform.

Risk-taking is a staple for successful schools. It is inherent in every decision they make and every initiative they pursue. We know with risk there is a chance for reward or a possibility of failure. It is too often the latter that motivates us to seek the path that minimizes or eliminates the prospect of failure and thus limits our potential to be all we can be as a person and as a school. Risk aversion is the enemy of school reform. Risk can be mitigated substantially if pursued in a

methodical manner. It is a calculated risk we should be willing to take for the prospect of substantial returns. Keeping the calculated risk-reward equation in balance is the key to success here. (Balls et al., 2016, p. 234)

The risk to be studied was the implementation of the F2S initiative. The final product of this study helped the school district determine if the risk taken in implementing this program was worthwhile from an organizational standpoint.

Another key dynamic of school reform is the need for a clear and identifiable purpose. Balls et al. (2016) told us that a successful organization needs to have a clear identifiable purpose as well as a reason for being that will set the organization apart from others. Balls et al. believed the best way for this to occur is by having a clear mission statement. DuFour and Eaker (1998) described the first building block of a change initiative as identifying the mission or purpose of that initiative. “Why do we exist? The mission question challenges members of a group to reflect on the fundamental purpose of the organization, the very reason for its existence. The question asks, why do we exist?” (DuFour & Eaker, 1998, p. 58). Along with a mission statement, the organization needs a vision statement. A vision statement, as DuFour and Eaker stated, is “what do we hope to become” (p. 62). “Whereas mission establishes an organization’s purpose, vision instills an organization with a sense of direction. It asks, if we are true to our purpose now, what might we become at some point in the future?” (DuFour & Eaker, 1998, p. 62). Fullan (2005) stated that vision and policy from the top of the organization accompanied with formal training can help to foster progressive changes to an organization, ultimately leading to transformation. “A critical element of the background material that should be provided in the vision development process is the research on what we know about

effective schools and school improvement process” (DuFour & Eaker, 1998, p. 70). An effective vision statement is imaginable, desirable, feasible, focused, flexible, and communicable. The vision statement needs to have longevity and there should be a clear and shared vision (DuFour & Eaker, 1998). Having a mission and vision statement for the organization as well as the change initiative is essential to getting started.

“From missions come strategic goals which are associated with specific actions/tasks to meet those goals. While it sounds so basic it frequently is not practiced” (Balls et al., 2016, p. 224). In other words, once an organization has a mission and vision, strategic goals are derived in order to accomplish that mission and vision. Strategic drivers must be found in order to ensure the success of the reform. Hughes et al. (2014) noted that strategic drivers are the few determinants of sustainable competitive advantage for a particular organization. Strategic drivers are the potential areas of investment that an organization needs to evaluate that can have the most significant impact on the organization’s ability to achieve its performance potential. Hughes et al. also noted that in determining these drivers, there must be strategy. The strategy in question involves a series of choices. Money dedicated to one reform or initiative will cause that money to not be spent in other areas. “These choices, of course, are related to the prioritization of drivers” (Hughes et al., 2014, p. 31).

The third building block for initiatives DuFour and Eaker (1998) identified is values.

How must we behave in order to make our shared vision a reality? While a mission statement asks the school to consider why it exists, and a vision statement asks what it might become, a statement of core values asks people to clarify how

they intend to make their shared vision a reality. In the context of organizational development, the values question represents the essential ABCs of school improvement because it challenges the people within that organization to identify the specific attitudes, behaviors, and commitments they must demonstrate in order to advance toward their vision. (DuFour & Eaker, 1998, p. 88)

Finally, the fourth building block DuFour and Eaker (1998) described for school reform initiatives are goals. “Which steps will we take first, and when? The fourth building block in creating a professional learning community calls for establishing priorities. This task determines what must be accomplished first” (DuFour & Eaker, 1998, p. 100). Mission, vision, values, and goals are the four key aspects that reformers must keep in mind when designing school reform.

Culture for Implementation

“Changing whole systems means changing the entire context within which people work” (Fullan, 2005, p. 16). Balls et al. (2016) stated that successful schools have much in common, creating a culture of excellence that is grounded in mutual respect and trust. Balls et al. identified that high-performance organizations engage in empowering their people. High-performing organizations build themselves around effective teams and develop human capabilities at all levels. “Organizations are most effective when they are well integrated and have embedded principles of open and honest communications, both horizontal and vertical” (Balls et al., 2016, p. 277). When organizations utilize the mission statement and vision statement to integrate the values and goals of the organization into the human capital, great things can happen in regard to change initiatives and educational reform.

Grenny et al. (2013) stated that there are three keys to influence: focus and measure, find vital behaviors, and engage all six sources of influence. When an organization utilizes these three keys of influence, they can drive change for the organization. Grenny et al. identified three early mistakes that can undermine influence: un compelling goals, infrequent or no measures, and bad measures.

Even the most pervasive problems will yield to changes if you spot these crucial moments and then identify the specific, high-leverage actions that will lead to the results you want. These actions make up what we call the vital behaviors in any change project. Find these vital behaviors, and you've found the second key to influence. (Grenny et al., 2013, p. 36)

Change efforts need to be consistent. Organizations need to propose several strategies for building coherence: school-level schema, embedded design, similarity of scale (Glickman et al., 2014).

When discussing hindrances to school change, Fullan (2005) stated that two enemies to change in a system are overload and fragmentation. An overload means that the school is involved currently in too many change initiatives all at once. If this happens, resources will be fragmented, leading to fragmentation. Fullan (2005) described fragmentation in that different change initiatives implemented are disjointed or even at odds with one another. To quell the hindrances to school reform, Glickman et al. (2014) stated a need for internal and external supports. Schools involved in the same change efforts need to network in order to provide those supports. DuFour and Eaker (1998) identified questions to keep in mind when discussing a change initiative: Are we acting in line with our fundamental mission, and have we clarified what we want students to

know?

As stated above, reforms and change in schools take time. “Schools have demonstrated time and again that it is much easier to initiate change than to sustain it to fruition” (DuFour & Eaker, 1998, p. 105). What does it take for a reform to be sustainable in a school system? DuFour and Eaker (1998) noted that violations of the vision and/or values must be addressed when a change effort is initiated. Leaders must develop measures for each change effort. Measures, when done correctly, can drive behaviors behind change efforts (Grenny et al., 2013). Fullan (2005) stated, “Any solutions must be efficient, sophisticated, powerful, and amenable to action” (p. 13).

“So, leadership was central to success. Capacity building involves developing the collective ability—dispositions, skills, knowledge, motivation, and resources—to act together to bring about positive change” (Fullan, 2005, p. 4). As Fullan (2005) stated, leadership is central to success; however, DuFour and Eaker (1998) noted that a leader may cause initial excitement for change but does not sustain change over time. “Although charismatic leaders or influential committees can help generate initial enthusiasm for change, neither can sustain the change process over time” (DuFour & Eaker, 1998, p. 106). DuFour and Eaker made no doubt that change is a difficult process. They stated this quite directly: “Both research and practice offer an inescapable, insightful conclusion to those considering an improvement initiative: change is difficult” (DuFour & Eaker, 1998, p. 49).

Teacher Empowerment

Leadership is an important part of driving change initiatives in day-to-day school operations. Most of the driving change is accomplished by the teachers. Balls et al.

(2016) identified a need for teacher leadership. Balls et al. stated that in fostering teacher leadership, a positive impact can be made on the educational climate given that the individuals in the organization understand the significance of individuals having leadership roles. “Within the individuals, teacher leadership creates trust and caring for others, a strong sense of contribution, and a more effective alignment with the mission of the school provided” (Balls et al., 2016, p. 56). By having teacher leadership, teachers become empowered.

Empowered structures do have a place in creating effective cultures. Professional learning communities are structures that may contribute to enhanced student learning, but not just in organization only. The learning community must have its own attitude similar to and aligned with the individual’s attitude. (Balls et al., 2016, p. 55)

In creating an environment conducive to student learning, the authors stated that there should be a fostering of collaboration among teachers, to recognize developmental differences, to make real world connections, and to engage students in a setting that is measurable, relevant, and achievable (Balls et al., 2016). “Studies on teacher empowerment have revealed the importance of establishing operational models in schools that allow teachers more control in making decisions to influence what and how they teach” (Balls et al., 2016, p. 55).

Sinek (2009) believed that great organizations become great because the people inside those organizations feel protected. Sinek also stated that a sense of culture can create a sense of belonging for those in the organizations.

People come to work knowing that their bosses, colleagues and the organization

as a whole will look out for them. This results in reciprocal behavior. Individual decisions, efforts and behaviors that support, benefit and protect the long-term interest of the organization as a whole. (Sinek, 2009, p. 105)

Fullan (2016) described educational systems as having something called decisional capital. Decisional capital is the process of cultivating human and social capital over time. Decisional capital is vital in the implementation of reforms and initiatives.

When the school is organized to focus on a small number of shared goals, and when professional learning is targeted to those goals and is a collective enterprise, the evidence is overwhelming that teachers can do dramatically better by way of student achievement. (Fullan, 2016, p. 48)

“If you want to change the group, use the group to change the group” (Fullan, 2016, p. 48). Fullan (2016) made a dynamic charge that it is the individuals who make up the group who can drive the change. The teachers in a school system make up the largest part of that system. Teachers who feel empowered are more likely to drive change.

Although school culture is critical, we must not forget that it is made up, first and foremost, of individuals. As Hall and Hord (2006) point out, “An entire organization does not change until each member has changed” (p.7). Moreover, individuals do not all change over the same period of time. Again, quoting Hall and Hord, “Even when the change is introduced to every member of the organization at the same time, the rate of making the change and of developing skill and competence in using it will vary individually” (p.7). In short, teachers and others need individualized assistance with schoolwide change. (Glickman et al., 2014, p. 359)

In a school system, teachers are one of the main driving forces behind change efforts. New initiatives can be embraced by teachers or shunned by teachers, leading to the success or failure of that reform initiative. Fullan (2016) pointed out that change initiatives typically trust the individual too much to solve problems and fail to enlist and capitalize on the power of the group as a whole. “A school will experience a fundamental shift only when its members can generate a sufficient number of supporters for new ideas and practices” (DuFour & Eaker, 1998, p. 106). Teachers need to be included as a key dynamic in any reform initiative. Fullan (2016) discussed the need of human systems to be seen as a whole. The utilization of teachers in change initiatives cannot be overstated. Teachers need to have a glimpse into the ultimate goal of a change initiative in order for the goal of that initiative to be carried out.

Human endeavors are also systems. They... are bound by invisible fabrics of interrelated actions, which often take years to fully play out their effects on each other. Since we are part of the lacework ourselves, it is doubly hard to see the whole pattern of change. Instead, we tend to focus on snapshots of isolated parts of the system, and wonder why our deepest problems never seem to get solved. (Fullan, 2005, p. 41)

Teacher empowerment in change initiatives can be directly correlated to making teachers system thinkers.

The proposition is that the key to changing systems is to produce greater numbers of “system thinkers.” If more and more leaders become system thinkers, they will gravitate toward strategies that alter people’s system-related experiences; that is, they will alter people’s mental awareness of the system as a whole, thereby

contributing to altering the system itself. (Fullan, 2005, p. 40).

Teachers integral to reform initiatives should be able to envision the goals of the change initiative and ultimately be able to lead others toward that goal. That is what Fullan (2005) mentioned when needing to create more system thinkers. If a teacher can see the ultimate goal, they will help to lead others toward that goal. Ideally, teachers will become influencers in the school and district, leading others to the mission and goals of the change initiative. Grenny et al. (2013) stated that successful influencers avoid spending time and effort on the wrong behaviors by drawing from the following four vital behaviors: notice the obvious, look for crucial moments, learn from positive deviants, and spot culture busters. “Teams are most effective when they are clear about the results they are to achieve” (DuFour & Eaker, 1998, p. 123).

Teacher efficacy is another part of teacher empowerment that needs to be addressed. “Teacher efficacy is defined as teachers’ beliefs about their capability to impact students’ motivation and achievement” (Balls et al., 2016, p. 43). Balls et al. (2016) stated that an individual who is successful with tasks perceived as very challenging and needing much effort will receive a greater sense of self-efficacy from the experience. Balls et al. also stated that an individual’s recall of simple and redundant tasks will have little to no impact on one’s self-efficacy. “Social systems that recognize valued accomplishments, and give opportunities for personal advancement within the context of the profession, are more likely to reinforce mastery’s impact on self-efficacy than systems where individuals work in redundant isolation” (Balls et al., 2016, p. 45). Motivation is the driving force by which each of us achieves our goals (Balls et. al, 2016).

There is one more force which serves as a catalyst in igniting the passion which generates the motivation to achieve a goal. This force is empowerment.

Empowerment has been called the supercharger for passion in action.

Empowerment is essentially the idea that you can gain control over matters thereby increasing the power one can exert in one's life simply by the way you think, feel and behave. (Balls et al., 2016, p. 7)

DuFour and Eaker (1998) cited a need for providing teachers and teams with explicit questions to consider and tasks to accomplish to give those individuals direction as well as confidence. DuFour and Eaker stated that no factor is more significant in a school's change process than that of the faculty's sense of self-efficacy.

By empowering teachers, an effective change culture can be created. School systems empower teachers by distributing a level of control to the teachers. Teachers in the organization need to feel protected. Ultimately, a safe and protected environment in which teachers have a level of control will develop decision capital within that teacher population. Decision capital, which is cultivated over time, is essential to make reform initiatives successful. The power of the group needs to be harnessed. One individual is not sufficient to lead to a successful change initiative.

Leadership in Schools and Systems

“Perhaps the most fundamental- and fundamentally irrational- attitude underlying the closed CEO market is the belief in charismatic authority itself” (Fullan, 2005, p. 30). Fullan (2016) outlined the common conception that a charismatic leader is what organizations need to succeed. The reality of leadership in sustainable systems is that the culture of the system needs to be understood and harnessed in a successful organization.

“Understanding culture forces enables us to understand ourselves better. It provides us an opportunity to leverage that introspection into becoming a more effective leader” (Balls et al., 2016, p. 271). Hughes et al. (2014) noted that leaders must create an environment that allows people to be honest with one another. This allows leaders to make difficult choices in the face of politics and conflict.

Leaders in a successful organization need to capitalize on decision-making capital. Decision-making capital refers to the sum of practice, experience, and expertise in making decisions (Fullan, 2016). This may spread across many individuals or the community as a whole (Fullan, 2016). “Decisional capital is that which is required for making good decisions especially decisions about how to put human and social capital to work for achieving the goals of the school” (Fullan, 2016, p. 44).

Hughes et al. (2014) stated that organizations must be intentional about the leadership strategy chosen. What Hughes et al. meant by this was, “Leadership strategy describes the organizational and human capabilities needed to enact the business strategy effectively” (p. 32). This gives way to an idea of strategic management, also known as strategic leadership. “Strategic management is defined as the systematic analysis of the factors associated with customers and competitors and the organization itself to provide the basis for maintaining optimum management practices” (Hughes et al., 2014, p. 39). In an organization, the culture of that organization must be understood. When implementing change initiatives, an understanding of the culture of the organization can ultimately lead to the success or failure of the implemented change initiative. Hughes et al. noted that leaders must engage the community in order for a change initiative to take hold and be effective. “The ultimate result of this work is heavily affected by how leaders engage in

it: they need to engage the hearts, hands, and minds of people in the work to ensure shared direction, alignment, and commitment” (Hughes et al., 2014, p. 39).

Fullan (2016) stated that leaders are the keys to an organization’s energy. Fullan (2016) stated that leaders can inspire or demoralize by how effectively they manage their own energy. He also identified the need for leaders to “mobilize, focus, invest and renew the collective energy of those they lead” (Fullan, 2016, p. 35). “Consistent with the previous language of participative or distributive leadership through empowered practices, the organization will perpetually develop the ability to flourish. Such an environment not only responds to accountability, but it also creates a spirit of responsibility” (Balls et al., 2016, p. 113). Fullan (2005) stated that the main mark of an effective leader is how many good leaders they leave behind. “This implies that the effective leader will prepare the culture to survive in his or her absence by building skills in those in the organization” (Balls et al., 2016, p. 113).

“True leadership cannot be awarded, appointed, or assigned” (Maxwell, 2007, p. 13). Balls et al. (2016) stated that leadership is one of the keys to success in an organization. There is a need for strong leadership in schools at the school, district, and board level. Leadership in these positions is a catalyst for educational reform. The need is for strong leaders at all levels to utilize strategic leadership, “effective strategic leadership-leadership focused on achieving enduring performance potential” (Hughes et al., 2014, p. 14). Stated another way, leaders develop a culture of success. Even in the absence of a leader, the culture will propagate success. “The culture continues to flourish due to the established norms and practices” (Balls et al., 2016, p. 113). “Here, we have the essence of Leadership and Sustainability: The deliberate fostering of developmental

leaders who act locally and beyond, all the while producing such leadership in others” (Fullan, 2005, p. 51). Fullan (2005) noted that traditional top-down leadership is ultimately a recipe for failure in that true leadership engages those in the organization and utilizes strategic leadership to capitalize on the human capital in the organization to drive an initiative forward.

Characteristics of Sustainable Programs

Fullan (2005) noted that “leadership at the school and district levels was identified as crucial to success” (p. 3). Fullan (2005) identified leadership as one of the most crucial elements to success in a program, initiative, or reform.

The question is, what kind of leadership is needed for sustainability? In a nutshell, we need a critical mass of leaders at all levels of the system who are explicitly cognizant of and committed to pursuing in practice the implementation of the eight elements of sustainability described in chapter two. Systems change on an ongoing basis only if you have enough leaders who are system thinkers. (Fullan, 2005, p. 29)

Leaders are able to establish goals (Fullan, 2005). Grenny et al. (2013) stated that research reveals that clear, challenging, and compelling goals activate different parts of the brain for individuals, causing a more acute physiological response from members of an organization. To put it another way, clear, challenging, and compelling goals lead to an increased blood flow, a firing of neurons, and to the muscles engaging (Grenny et al., 2013). Grenny et al. also stated the need for goals to be addressed often and to have explicit measures. “A measure won’t drive behavior if it doesn’t maintain attention, and it certainly won’t maintain attention if it’s rarely assessed” (Grenny et al., 2013, p. 22).

Hughes et al. (2014) put it another way by addressing the need for an organization to have a shared direction. “When there is a shared direction, each person in the organization knows the goals, priorities, and plans to achieve those goals and also knows that other organizational members see these in the same way” (Hughes et al., 2014, p. 43). DuFour and Eaker (1998) identified a need to have the mission and goals of the organization referenced every day: “Mission, vision, values, and goals must be continually referenced in the day-to-day workings of the school. Redundancy is not only permissible it is desirable” (p. 115).

Ultimately, when goals are clear and discussed often, they can lead to an increased response from those in the organization, leading to the success of the organization.

So, start every change project with a clear and compelling statement of the goal you’re trying to achieve. Measure your progress. Don’t leave it to intuition or hunches. Measure your measures by the behavior they influence. And finally, measure the right thing, and measure it frequently. (Grenny et al., 2013, p. 26)

Strategy is maximized when it also involves aspirational dimensions that touch the emotions of all the stakeholders involved: employees, current and future clients and customers, the general public, owners, and shareholders.

Organizational mission, vision, and values are important aspirational components that create meaning and purpose for these stakeholders. (Hughes et al., 2014, p. 25)

“A key differentiator in determining individual and organizational success is adaptability. It is the quality that provides flexibility and responsiveness to a dynamic,

ever-changing environment” (Balls et al., 2016, p. 275). Balls et al. (2016) made a distinct determination between success as an organization and success as an individual. Thornburg and Mungai (2011) stated that teachers need more communication and collaboration in order to move forward with reforms. “Achieving the enduring performance potential of the organization requires the hearts, minds, and hands of all to be engaged” (Hughes et al., 2014, p. 41). This is not simply a need to have individuals in an organization on board with a reform initiative, but the totality of each person in the organization involved in the initiative needs to be engaged. Hughes et al. (2014) also noted that in the desire to develop strategic leadership, no single person is capable to do what is necessary to achieve enduring performance potential for an organization. “Individual sustainability concerns the ability to keep on going without burning out” (Fullan, 2005, p. 35).

Grenny et al. (2013) stated that success will rely on the capacity for an individual to create rapid and profound sustainable change in a few key behaviors. “Successfully achieving enduring performance potential through changes that progressively build on each other requires a learning engine that runs throughout the organization” (Hughes et al., 2014, pp. 22-23). Hughes et al. (2014) and Grenny et al. both stated that sustainable change is possible in organizations under the right conditions. It is important to keep in mind the idea of teacher efficacy that Balls et al. (2016) stated. Thornburg and Mungai (2011) reinforced this claim by explaining the need to empower teachers: “empowering teachers’ voices rather than dismissing what they had to say as resistance to be overcome. The study provided us with a clear roadmap of how to proceed with the schools in order to support change at multiple levels” (p. 214). “In contrast, the most innovative

organizations give their people something to work toward” (Sinek, 2009, p. 99). Balls et al.’s value-added model reinforces the need to empower teachers as well in order to create transformative change rather than a quick “flash in the pan” (p. 117). The overarching theme for successful and sustainable programs is the utilization and harnessing of professional capital. “Professional capital is a function of the interaction of three components: human capital, social capital, and decisional capital” (Fullan, 2016, p. 44).

The purpose of any change initiative is to avoid a temporary culture change that does not have a long-term impact. Hughes et al. (2014) noted that alignment within an organization must happen. Alignment exists in an organization when the decisions and tactics are coordinated, coherent, and consistent with the overall strategy. Creating a collaborative environment is the single most important factor for successful school improvement initiatives (DuFour & Eaker, 1998). “Sustainability is very much linked to continuity of deepening direction over time” (Fullan, 2005, p. 31).

Summary

The leading theory behind the F2S movement is the Theory of Planned Behavior. The Theory of Planned Behavior is the idea that impacting core constructs of students at an early age will influence their behaviors later in life. The F2S movement is a part of a larger picture of a century-long movement to feed school-age children. A primary objective of the F2S initiative is not only to feed children but to instill healthy eating habits at an early age to quell the rise of childhood obesity and the host of health problems associated with obesity. The cognitive support for this initiative is derived from classroom and enrichment experiences that put students in contact directly with gardens

and fresh produce.

Integrating a new initiative in a school setting takes a direct amount of leadership and investment on the part of stakeholders. Leadership must engage those in the organization to create a lasting and meaningful reform. Empowering members of the organization will improve the likelihood of the initiative being successful as well as developing leadership capacity and ideally building the self-efficacy of those involved.

Chapter 2 gave the background of the F2S initiative and indicators of a successful initiative. Chapter 3 gives specifics of how the F2S program in the school district studied was evaluated.

Chapter 3: Methodology

Introduction

The purpose of the study was to determine the effectiveness of the school district's F2S program. The validity of the program was determined utilizing two metrics: cost comparison of produce grown by the school district versus produce purchased from a third party and the qualitative educational dynamic. This study consisted of a mixed methods approach. "When preparing a research study employing mixed methods, the researcher needs to provide a rationale or justification for why mixed methods best addresses the topic and the research problem" (Creswell & Plano Clark, 2018, p. 7). The F2S program studied is so diverse that a mixed methods approach needed to be utilized to comprehensively study the quantitative and qualitative aspects of the program. "In general, research problems suited for mixed methods are those in which one data source may be insufficient" (Creswell & Plano Clark, 2018, p. 8). "Mixed methods research provides a way to harness strengths that offset the weakness of both quantitative and qualitative research" (Creswell & Plano Clark, 2018, p. 12). Creswell and Plano Clark (2018) described four levels of developing a research study: paradigm worldview, theoretical lens, methodological approach, and methods of data collection.

The financial expenditures of the F2S program were evaluated by comparing the cost of freshly produced fruits and organic vegetables by the school district to the produce purchased from a third-party vendor. The costs associated with the production of fresh produce by the school district is included in the cost associated with produce purchased by the school district. The cost of in-house produce was compared to the cost of USDA certified organic produce market price. Qualitative data regarding the

perception of the F2S program and the educational impact of the program on students were collected using four main methods: a survey of teachers and administrators, interviews of key stakeholders, a focus group of graduates from the school district, and a focus group of parents of current students in the school district. Information was analyzed from the interviews and focus groups by utilizing coding to determine the key aspects of the program as well as the perceived benefits of the program within the school district. Information was gathered from the surveys using the Microsoft Data Analysis Package in Microsoft Excel.

The intent of the study was to evaluate the operational costs of the program to see if it could become financially sustainable. Second, the educational perceptions of the program were reviewed utilizing surveys, interviews, and focus groups of stakeholders. The validity of the program was determined utilizing two metrics: comparing the cost of produce and the qualitative educational perception of the program. The use of quantitative numerical data in production, qualitative survey data, qualitative data from focus groups, and qualitative data acquired through interviews led to triangulation of resources determining the effectiveness of the F2S program.

Setting

The physical setting of the study took place within the confines of the school district. A survey consisting of Likert scale questions, demographic questions, and multiple-choice questions was distributed to participants across the 14 schools in the district. The financial data for the quantitative portion of the study were provided by the school district's financial department. Interview data were collected from key stakeholders in the F2S program. Focus groups gathered data of perceptions from current

parents and graduates from the institution. The impact of the study ranged across the school district since the produce grown by the school district is served in all of the schools. Individuals from every school in the district were surveyed, district leadership was interviewed, and former students and current parents were surveyed to give a complete picture of the program.

Research Questions and Hypotheses

- Do the operational costs of the school district's F2S program justify the existence of the program? Will the program become financially sustainable over time?
- How and to what extent does the educational aspect of the F2S program make a noticeable impression on the students and faculty of the school district?

The null and alternative hypotheses were as follows:

- H_0 : The null hypothesis: The cost of growing organic produce is equal or less than the cost of purchasing organic produce.
- H_a , the alternative hypothesis: The cost of growing organic produce is greater than the cost of purchasing organic produce.

In evaluating the hypotheses, the independent variable is the expenditure on production of the organic produce. The dependent variable is the quantity of organic produce procured.

Concepts within the study related to the cost of production of organic produce versus the cost of purchasing organic produce for use in the school cafeterias. The study also related to perceived benefits and/or setbacks of the district's F2S program. A random sampling of teachers, administrators, and district personnel were surveyed to gather

qualitative data. Both the quantitative cost data and the qualitative perceived opinions of the program gave a greater vantage point of the program as a whole and its effectiveness at the time of the study. Both methods were important to address the research question of the effectiveness of the school district's F2S program because each gives a different lens of the entire working of the F2S program in the school district. Without comparing the cost of purchasing organic produce to growing organic produce in-house, the financial feasibility of the program would be overlooked. Without the opinions of those school personnel, the greater perceived benefits of the study for students would not be rendered. The quantitative cost of organic produce rendered a cost analysis of the F2S program from the production side. The qualitative opinion data rendered a perceived benefit of the program.

Role of the Researcher

I was an internal evaluator and collected and analyzed data based on the methodology provided. I am an employee of the studied school district. Biases by me were quelled by compiling the qualitative and quantitative data together and then completing the evaluation of the data through an established procedure. In no way am I involved with the F2S program or its working within the school district. The primary interaction I have with the F2S program is the consumption of produce grown on the farm in the school's cafeteria.

Ethical issues such as working within my own work environment were addressed by taking a random sampling of individuals to be surveyed from throughout the school district. I have professional relationships with coworkers such as teachers within the building, district personnel, and teachers outside of the building.

Rationale for Methodology

Maxwell and colleagues have advocated for an interactive, system-based approach to mixed methods design. They argue the researcher should weigh five interconnected components when designing a mixed methods study: The study's goals, conceptual framework, research questions, methods, and validity considerations. They also acknowledge these connections are shaped by external influences such as the researcher's skills, situational constraints, ethical standards, funding agendas, and prior research. (Creswell & Plano Clark, 2018, pp. 57-58)

Creswell and Plano Clark (2018) stated, "Researchers need to acknowledge the philosophical worldview they bring to a project, identify the assumptions of their worldview, and relate the assumptions to the specific elements of their mixed methods studies" (p. 47). "Researchers need to examine and weigh each option so they can determine what sources of data will best answer the research questions or hypotheses" (Creswell & Plano Clark, 2018, p. 179). Izumi et al. (2010) had a similar idea in that budget pressures have complicated school efforts to improve the quality of their food programs. One goal of the mixed methods approach in this study was to give a broader picture of the impact and implications of the F2S program from not only a monetary standpoint but also from the perspectives of those involved in the education process.

Methodology

Within the quantitative aspect of the study, the independent variable was identified as the cost input for production. The dependent variable was identified as the amount of organically grown fruits and vegetables that can be purchased by the school district. The cost of producing organically grown fresh produce rather than purchasing

the same grade of produce from a third-party vendor was compared. Evaluation of these numbers was conducted using a comparative analysis. The cost data provided by the school district was directly compared to the cost of the same amount and type of produce from a third-party vendor.

The qualitative aspect of the study focused on survey data, interviews, and focus groups from selected individuals. Selection of the participants is stated in the following heading. The Google Form survey was sent to each teacher via school district email. As participants completed the Google Form survey for F2S, Google collected the data which were exported into a Microsoft Excel sheet. The Microsoft Excel sheet was password protected on my computer. Once the qualitative survey data were acquired, the data were analyzed using the Microsoft Excel Data Package software to determine percentages of each response. The utilization of this data allowed me to see a broader picture of the greater program. The purpose of the survey was to involve data from the perspectives of those in the school buildings. The survey distributed to the teachers can be found in Appendix A

A secondary aspect to the qualitative analysis was the utilization of interviews of key stakeholders in the F2S program. These stakeholders included the district F2S coordinator and the assistant superintendent of the school district. These individuals gave insight into the inner workings of the program, I gained the perceptions of these individuals towards the F2S program, and the interviews enlightened me to the ultimate goal of the program. Interview questions can be found in Appendix B.

A third aspect of the qualitative analysis was the utilization of focus groups. One focus group was comprised of graduates from the institution. A second focus group

consisted of parents of current students in the school district. The selection of these participants is discussed in the following section. These focus groups gave insight from participants and parents of participants in the F2S program.

The initial start-up cost of the program was not included in the evaluation of the program. The F2S program is a large undertaking for the school district, and initial startup costs were not factored into the quantitative analysis.

Participant Selection for Qualitative Analysis

The population surveyed consisted of teachers, administrators, and district-level personnel. Interviews were conducted with select stakeholders in the program employed by the school district. Those select individuals included the former F2S coordinator for the school district as well as the assistant superintendent for the school district. The interviews were evaluated using evaluation coding and pattern coding for first and second cycle coding respectively to determine correlations between data sets (Saldana, 2016). Two focus groups were conducted as well. One focus group was a selection of parents with current students in the school district. Another focus group was a selection of graduates from the school district.

A random sampling of teachers was taken from each of the district's nine elementary schools, three middle schools, and single high school. The sampling process was completed by assigning each teacher at each school a number and then utilizing a random number generator to select the teachers at each school. Also, a random sampling of the administrative staffs at each school took the same survey by the same protocol.

The surveys given to teachers and administrators were analyzed using Microsoft Excel Data Analysis Package. Surveys were distributed through Google Forms to

individual's school email accounts. Criteria for selecting participants was a random sampling from schools within the school district.

Two teachers were chosen from each of the elementary schools, totaling 18 elementary teachers. Four total administrators were chosen from the nine elementary schools, giving a grand total of 22 elementary-level individuals surveyed. Four middle school teachers were surveyed from each of the three middle schools, totaling 12 middle school teachers; and four total administrators were surveyed from among the district's three middle schools. This gave a total of 16 middle school staff surveyed. Ten high school teachers were surveyed, three from the freshman campus and seven from the main campus. Four administrators were surveyed from the high school level: three administrators from the main campus, and one from the freshman campus. A total of 14 high school staff were surveyed. A random sampling of district-level personnel was surveyed. Three district personnel from the administrative side of the district office and three district personnel from the curriculum side of the district office were surveyed. A total of 22 elementary staff, 16 middle school staff, 14 high school staff, and six district-level staff were surveyed, totaling 58 people. The rationale for the number of individuals was to equalize the results from the administrative side at each level and to make the sample size comparable to not skew the final results but large enough to get adequate participation from all levels.

Interviews were conducted with the assistant superintendent of the school district and the former district F2S coordinator. Two focus groups were conducted in this study; one comprised of a group of parents, and another group was made up of graduates from the school district. Parent participants were selected with the help of elementary, middle,

and high school principals. Six parent participants were selected. Parents were contacted via phone and email. Graduate participants were selected with the assistance of the school district office. The district office provided me with contact information for recent graduates. Six graduates participated in the graduate focus group. These participants were contacted via phone and email.

Surveys were created and distributed using Google Forms. Survey and interview questions were vetted by an expert in the field of agriculture. Dr. Robin W. Kloot of the University of South Carolina, an expert in the field of agriculture, vetted the survey and interview questions used in this program evaluation. Dr. Kloot is a research associate professor at the Center for Environmental Nanoscience and Risk.

Focus group questions for both groups were vetted by Dr. Bonnie Bolado. Dr. Bolado is an associate professor at Gardner-Webb University. Participants for all four instruments (survey, interview, and two focus groups) were contacted via email with a description of the instrument in which they were requested to participate. Invitations to participate can be found in Appendix C.

Instrumentation

Surveys were developed on Google Forms. Google Forms allowed for efficient dissemination of surveys to selected staff. Each staff member had a school laptop and access to a Gmail account for which access to Google Forms was easily accessible. Staff within the district were familiar with the workings of Google, since the school district has moved to a Google-based platform. Google Forms also compiled the data into a malleable spreadsheet and eliminated human error when survey data were compiled. All survey data were saved in a password protected Google Drive, ensuring the anonymity of

participants and survey data.

Interviews and focus groups were recorded using an Aiworth Digital Voice Recorder that was password protected. The recordings were transferred to a Google Drive that was password protected, ensuring the security of the information. Persons interviewed were allocated a fabricated name to protect their identity. The recorded interviews were transcribed using Trint software. Transcriptions and digital recordings were stored in a password-protected file.

Data Analysis Plan

According to Creswell and Plano Clark (2018), quantitative research is weak in understanding the context or setting in which people live. Quantitative researchers are in the background, and their own biases and interpretations are rarely discussed. Qualitative research is seen as deficient because of the personal interpretations made by the researcher. The strengths of one approach make up for the weaknesses of the other (Creswell & Plano Clark, 2018). “By combining the approaches, researchers gain new knowledge that is more than just the sum of the two parts” (Creswell & Plano Clark, 2018, p. 13). “Mixed methods research encourages the use of multiple worldviews, or paradigms, rather than the typical association of certain paradigms with quantitative research and others in qualitative research” (Creswell & Plano Clark, 2018, p. 13). Mixed methods research allows for scholars to produce multiple publications from a single study (Creswell & Plano Clark, 2018).

The quantitative analysis of cost was a direct comparison of prices of produce produced by the school district and the cost of the same organic produce from a third-party vendor. The school district F2S program offers its produce to the school cafeterias

digitally for ordering purposes. The produce ordered from the school district's F2S program is assigned a cost per unit of produce. Ultimately, the district is purchasing the produce from itself, so there is a net cost of zero to the school district. However, a unit price is associated with each item of produce ordered by the cafeterias from the F2S program. This association of a unit price allowed for direct comparison of the district's organic produce to the same quality ingredient from a third-party vendor. The direct comparison of cost of produce showed if there was a cost benefit of producing organic produce in-house by the school district. No data analysis was required since the data were a direct comparison of the same quality produce.

Coding was used to analyze the data collected from the qualitative interviews and focus groups conducted. "A code in qualitative inquiry is most often a word or short phrase that symbolically assigns a summative, salient, essence-capturing and/or evocative attribute for a portion of language-based or visual data" (Saldana, 2016, p. 4). The role of coding was to take the qualitative data collected during the process of interviews and turn them into a usable source of comparison. "Coding is not a precise science; it is primarily an interpretive act" (Saldana, 2016, p. 5). The act of coding was a means to reflect on the core meaning of data. Encoding is the process of identifying an appropriate code. The core idea was to find patterns in the data. Patterns make the findings of the research more trustworthy. "Patterns demonstrate habits, salience, and importance in people's daily lives" (Saldana, 2016, p. 6). Patterns can be categorized by similarity, differences, frequency, sequence, correspondence, or causation. Filters can influence the types of questions asked in a survey (Saldana, 2016).

Coding of the interview and focus group transcripts entailed first and second cycle

coding. The results from the coding processes led to a broader picture of the F2S program. The first cycle coding of the information within the transcripts was evaluation coding. This style of coding “is appropriate for policy, critical, action, organizational, and evaluation studies” (Saldana, 2016, p. 141). The primary reason for utilizing evaluation coding was it derived from “the evaluation perspective of the researcher or from the qualitative commentary provided by participants” (Saldana, 2016, p. 141). Second cycle coding of the data involved pattern coding. The pattern coding process involved developing major themes from the transcripts. “Pattern coding, as a second cycle method, is a way of grouping those summaries into a smaller number of categories, themes, or concepts” (Saldana, 2016, p. 236).

The qualitative surveys consisted of three parts: demographic data of survey participants, Likert scale questions, and rating scale questions. The Microsoft Excel Data package was used to analyze the categorical questions in the first part of the survey and the numerical questions in the second part of the survey and allowed for associations to be made between the answers and the demographic data.

Threats to Validity

Threats to validity included several factors. From the quantitative cost side, there are many factors that challenged the validity of the study. For one example, crop failures must be taken into account. In farming, there are many unknowns. While it is a scientific process, unforeseen circumstances like pests, drought, and equipment malfunction can lead to a crop failure. In the case of crop failures, cost increases if there is a loss of one or multiple crops. These costs factor into the labor cost of the crops as well as time delays and ultimately an increased input of cost by the district.

Threats to validity from the qualitative aspect included a low participation number for the survey participants. Another threat to validity was the random selection of teachers from the building. Some teachers may have implemented agriculture in the classroom but that may have been missed by the survey.

Ways threats to validity from a quantitative aspect were alleviated was to only utilize sources of data that directly pertained to successful crop production. In any study there will be outliers; but by only focusing on successful yields, the data became more accurate within the study.

To alleviate threats to validity in the qualitative portion of the study, participants were contacted thoroughly with not only a presurvey email but also with a follow-up email after the survey was sent. This highlighted the importance of the survey to the selected participants.

Ethical Procedures

All survey participant data were saved in a password protected Google Drive, ensuring the anonymity of participants and survey data.

Interviews and focus groups were recorded using a password protected Aiworth digital voice recorder. These recordings were password protected on a Google Drive ensuring the security of the information. Persons interviewed were allocated a fabricated name to protect their identity. The recorded interviews and focus groups were transcribed using Trint software. Transcriptions and digital recordings were stored in a password-protected file.

As teachers completed the Google Form Survey for F2S, Google collected the data into a Google Sheet. The Google Sheet was password protected on my computer.

All information collected during the course of this study was kept confidential to the extent permitted by law. Aggregate data may be published along with results. Only I had access to the information given during surveys and interviews; however, the Institutional Review Board (IRB) at Gardner-Webb University may review records.

Participants were made aware that the purpose of this study was to complete a program evaluation of the school district's F2S program. In addition, this study was conducted to fulfill the requirements of a Doctorate in Education (EdD) from Gardner-Webb University. Contact information for me was also given to survey participants. The participants in the survey also knew that there were minimal risks for participation in the study. Participants did not have to respond to any question that made them feel uncomfortable. They could stop participation at any time, all information would be reported as aggregate data, and no names or identifiers were used for any participant. Finally, participants knew that there were no costs for participating and no benefits other than the furthering of research. A copy of the participation waiver can be found in Appendix C.

No one interviewed or surveyed was identified by name. A numerical code was used, assigning each volunteer a number for anonymity. No interviewee's name appeared on any published work. No one knew the identity of those surveyed except me. After completion of surveys, survey data were saved in a password-protected digital file. Upon completion of the interviews and focus groups, I transcribed all interviews. The transcriptions of the interviews were saved digitally and were password protected. Participation in the study was voluntary. A copy of the participation waiver can be found in Appendix C.

Summary

The study discerned the sustainability of the program as well as identified areas of possible growth. Gaps within the existing program were identified from a thorough program evaluation. The quantitative data analysis was derived from existing financial records within the school district. The qualitative nature of the program was evaluated from a comprehensive survey, interviews of key program stakeholders, and focus groups of current parents and graduates. Triangulation of data from a variety of sources was the goal of the study in an effort to solidify the conclusion.

The quantitative data collected from the school district on the cost of in-house produce versus the cost of produce purchased from a third-party are directly compared in Chapter 4. The qualitative data collected from surveys were analyzed using the Microsoft Excel data analysis package to associate data points to give a clearer picture of implementation and perceptions of the F2S program in schools throughout the district. The qualitative data collected from interviews and focus groups were coded appropriately to yield major themes associated with the F2S program, the vision for the program by the school district's leadership, and perceptions from parents and former students.

Chapter 4: Results

The purpose of this study was to evaluate the effectiveness of the school district's F2S program. This study was a mixed methods approach comprised of quantitative and qualitative data over five data points. Quantitative data included financial data of produce purchased by each of the school district's cafeterias over the course of a year. Qualitative data collected included interviews of key influencers of the program, a focus group of parents of current students, a focus group of former students (graduates), and a staff survey. The validity of the program was determined utilizing two metrics: the cost of production and the qualitative educational dynamic.

Quantitative survey data were obtained from the food service department of the school district. Data were comprised of orders for produce from the farm over the course of the year. Orders were separated by each of the school district's 16 cafeterias. The school district assigned costs to the unit price of each item sent from the farm to the cafeterias. The district's unit prices for produce were compared to 2019 and 2020 unit prices of USDA organic produce. The difference between the price of the district produce and the prices of USDA organic produce were compared. The comparison shows district savings on cost per item. It is important to note as well that organic produce is not available to the school district for purchase from outside vendors. Third-party vendors do not offer organic produce for sale to the school district; therefore, the only way the school district is able to acquire organic produce is through its own farm.

Qualitative data were divided into four sections. The first piece of qualitative data consists of interviews of key influencers of the F2S program in the school district. Interviews were conducted with the deputy superintendent of the school district and the

former F2S coordinator of the school district. The parent focus group, another piece of qualitative data, was comprised of eight parents with current students in the school district: five elementary, three middle, and six high school students total. The next piece of qualitative data was a focus group of former students who had graduated from the school district. Of that group, two graduated in 2016, one in 2017, one in 2018, one in 2019, and one in 2020. The final piece of qualitative data was a staff survey of teachers and administrators from across the district. These individuals were randomly selected and invited to participate in the study. Of the 62 invitations, 50 participated in the survey and submitted answers.

The mixed methods program evaluation of the school district's F2S program was comprised of five pieces of data as previously described. The rest of this chapter is broken down into two main sections, quantitative data and qualitative data. The findings are given throughout the chapter for each of the five elements of data: financial data, staff survey, parent focus group, graduate focus group, and interviews.

Quantitative Data

Financial Data

Financial data of the school district's cost associated with the organic produce grown on the farm and in the two greenhouses comprised the quantitative data for the study. The financial data in its entirety can be found in Appendix D. Cafeterias order organic produce from the farm utilizing an online ordering system. This produce is delivered to the cafeterias each month depending on the orders. The data collected range from November 2019 to October 2020. This segment gave a snapshot of a year's worth of orders from each cafeteria in the school district.

There are several crops grown by the school district on the farm and in the greenhouse. The fall and winter crops are collards, lettuce, broccoli, cauliflower, and cabbage. The spring and summer crops are garlic, sweet potatoes, cucumbers, Roma tomatoes, slicing tomatoes, cherry tomatoes, bell peppers, sweet peppers, eggplant, squash, zucchini, okra, green beans, cantaloupe, blueberries, and jalapeno peppers.

Table 1 shows the total year savings for each school. Savings are a comparison of the district cost of produce to the USDA listed price for the same quantity of organic produce. The total district savings from purchasing organic produce from the farm was \$8,257.12 over the course of the year.

Table 1

Total Amount of Savings on Organic Produce for Each School District Cafeteria

Cafeteria in school district	Total savings in organic produce
Child Development Center	\$693.78
Elementary School 1	\$377.00
Elementary School 2	\$624.08
Elementary School 3	\$587.35
Elementary School 4	\$162.29
Elementary School 5	\$533.88
Elementary School 6	\$417.47
Elementary School 8	\$275.57
Elementary School 9	\$922.71
Middle School 1	\$476.30
Middle School 2	\$886.26
Middle School 3	\$604.89
High School 1	\$675.40
High School 2	\$457.99
High School 3	\$170.71
Total Savings	\$8,257.12

Note. Totals presented for each cafeteria are totals of all savings for over a year of

organic produce orders from the school district's farm.

One key aspect to note is the price of Roma tomatoes. The price fluctuation was substantial between the months of August 2020 and September 2020. The price change of production decreased \$10 between those 2 months. The price dropped from \$37.75 to \$27.75 from August to September. The initial price of production in August 2020 for the school district was \$37.75, which is \$.75 more than the USDA price of Roma tomatoes. The district expenditures changed from \$.75 a box on Roma tomatoes in August to the school district saving \$10 a box on Roma tomatoes in September. The reduction in cost of production for a box of Roma tomatoes was substantial and therefore both prices are included in Table 2.

Table 2*Single Unit Price of Organic Produce Offered by School District's Farm*

Single unit of each item	District price	USDA	Savings
Bell Pepper Green 1 1/9 Bu Box Loose USA	21.95	52.92	30.97
Broccoli Wax Box 18 ct Loose USA	28.50	54.00	35.58
Cabbage Green Wax Box 50 lb Loose USA	17.00	36.00	19.00
Cantaloupe Wax Box 12 ct Loose USA	21.00	21.48	0.48
Collard Champion Wax Box 12 ct Loose USA	15.95	24.00	8.05
Cucumber 1 1/9 Bu Box 1 ea Loose USA	18.95	53.35	34.40
Eggplant Diamond 1 1/9 Bu Box 1 ea Loose USA	14.00	17.00	3.00
Lettuce Summer Crisp Wax Box 24 ct Loose USA	24.00	42.00	18.00
Lettuce Red Leaf Wax Box 24 ct Loose USA	24.00	34.08	10.08
Lettuce Green Leaf Wax Box 24 ct Loose USA	24.00	34.56	10.56
Lettuce Romaine Wax Box 24 ct Loose USA	24.00	30.96	6.96
Okra Clemson Spineless 1/2 Bu Box 1 ea Loose USA	27.50	28.00	0.50
Pepper Jalapeño 1 1/9 Bu Box Loose USA	21.00	22.00	1.00
Pepper Sweet Lunchbox Mix 1 1/9 Bu Box Loose USA	21.00	52.92	30.97
Squash Yellow 1/2 Bu Box Loose USA	17.00	19.40	2.40
Squash Zucchini 1/2 Bu Box Loose USA	17.00	19.40	2.40
Sweet Potato Orange Box 40 lb Loose USA	28.00	59.6	31.60
Tomato Cherry Gold Box 12 ea 1 Pint Clam Shell USA	15.00	35.16	20.16
Tomato Roma Box 25 lb Loose USA	37.75	37.00	+0.75
Tomato Roma Box 25 lb Loose USA	27.75	37.00	9.25
Tomato Grape Box 12 ea 1 Pint Clam Shell USA	15.00	35.16	20.16

Note. The items listed are single unit organic produce items offered by the school district's farm. The school district's price per unit item is listed in the first column. The second column contains the USDA price for each of the listed items. The third column are the savings for each item listed when comparing the school district's price per item to the USDA price per item.

All produce grown on the district's farm is organic produce. Food vendors contracted by the school district do not offer organic produce for purchase. The price savings for the district are correlated to USDA organic food prices. The data compiled

relate to purchases by each cafeteria at each school in the district. The data pertain to purchases by the district's child development center cafeteria, nine elementary cafeterias, three middle school cafeterias, and three cafeterias at the high school level (one cafeteria at the freshman campus, one at the high school, and one at the college and career center for the high school; see Table 1).

The quantitative aspect of the study posed the research questions, "Do the operational costs of the school district's F2S program justify the existence of the program? Will the program become financially stable over time?" The null and alternative hypotheses were as follows:

- H_0 : The null hypothesis: The cost of growing organic produce is equal to or less than the cost of purchasing organic produce.
- H_a : The alternative hypothesis: The cost of growing organic produce is greater than the cost of purchasing organic produce.

After reviewing the data, the null hypothesis holds true that the cost of growing organic produce is equal to or less than the cost of purchasing organic produce. In evaluating the hypotheses, the independent variable was the expenditure on production of the organic produce. These prices were compared to published USDA prices for organic produce. One key aspect is the dependent variable was determined to be the quantity of organic produce procured. The study showed the only way to procure organic produce is by the school district growing the produce itself. Organic produce was not available for purchase from the school district's third-party vendors. Evaluation of the research questions is reviewed in Chapter 5.

Qualitative Data

One of the primary research questions posed was, “How and to what extent does the educational aspect of the F2S program make a noticeable impression on the students and faculty of the school district?” The evaluation of the four qualitative data points (staff survey, parent focus group, graduate focus group, and interviews) determined the answer to this research question.

Staff Survey

One piece of qualitative data in this mixed-methods study was the use of a staff survey. The population to be surveyed consisted of teachers, administrators, and district-level personnel. A random sampling of teachers was taken from each of the district’s nine elementary schools, three middle schools, and single high school. The sampling process was completed by assigning each teacher a number and then utilizing a random number generator to select the teachers at each school. Also, a random sampling of the administrative staffs at each school was selected to take the same survey utilizing the same protocol.

The surveys given to teachers and administrators were analyzed using Microsoft Excel Data Analysis Package. Surveys were distributed through Google Forms to staff school email accounts. Survey questions can be found in Appendix A The invitation letter to participate in the study can be found in Appendix C. Two teachers were randomly chosen from each of the elementary schools, totaling 18 elementary teachers. Four total administrators were chosen and invited to participate from the nine elementary schools, giving a total of 22 elementary level individuals invited to participate in the staff survey. Four middle school teachers were invited to participate from each of the three middle

schools, totaling 12 middle school teachers and four total administrators invited to participate in the survey. This gave a total of 16 middle school staff invited to participate in the survey. Ten high school teachers were invited, three from the freshman campus and seven from the main campus. Four administrators were also invited from the high school level, three administrators from the main campus and one from the freshman campus. A total of 14 high school staff were invited. A random sampling of district-level personnel was invited to participate in the survey, three district personnel from the administrative side of the district office and three district personnel from the curriculum side of the district office.

A total of 22 elementary staff, 16 middle school staff, 14 high school staff, and six district-level staff were invited to participate in the survey, totaling 58 people. The rationale for the number of individuals was to equalize the results from the administrative side at each level and to make the sample size comparable to not skew the final results but large enough to ensure adequate participation from all levels.

Survey Data

The F2S survey was comprised of a random sampling of individuals from elementary, middle, high school, and district office personnel. Of the 58 invitations to complete the survey, 50 staff responded. Of those respondents, the results were as follows (Table 3).

Table 3*Staff Survey Data*

Question	Responses
With what level of students are you associated?	16 (32%) elementary, 8 (16%) middle school, and 26 (52%) high school.
Which of the following duties do you perform at your school?	14 administrators, 34 teachers, 2 did not respond.
How many years have you been at your present school?	16 (32%) of participants have been at their current school five years or less, 14 (28%) of participants have been at their current school five to ten years, and 20 (40%) have been at their current school ten years or more.
Do you personally have any agricultural background?	4 (8%) said they had significant agricultural background and experience. 24 (48%) said they have some agricultural background and experience. 22 (44%) said they had no agricultural background and experience.
In your use of agriculture in the classroom do you consider yourself to be a user or nonuser?	42 (84%) stated that they were a nonuser of agriculture in the classroom. 8 (16%) used some level of agriculture in the classroom.
Have you ever eaten produce grown on the district's farm in your school's cafeteria?	42 (84%) had eaten produce grown on the district's farm in their school's cafeteria. 8 (16%) had not eaten farm grown produce in the cafeteria at their school or were not sure if they had.
Have you ever attended an educational training program about connecting farm to school to your classroom?	31 (62%) had not attended a training program concerning farm to school and classroom curriculum. 19 (38%) had attended some training connecting F2S to their classroom.
How much time a week do you spend using agriculture in the context of teaching?	44 (88%) surveyed spent no hours using agriculture in their classroom lessons. 6 (12%) of those surveyed used agriculture one to two hours a week within their classrooms.
I have adequate time during the day to prepare lessons related to agriculture.	30 (60%) agreed or strongly agreed that they had time to prepare lessons related to agriculture. 20 (40%) disagreed or strongly disagreed that they had time to prepare lessons related to agriculture.
I have knowledge of Farm to School.	42 (84%) had knowledge of F2S. Only 8 (16%) did not have knowledge of F2S.
I would like to learn how to use Farm to School in my classroom and have age-appropriate agricultural resources available to me.	44 (88%) would like to learn how to use F2S in their classrooms. 6 (12%) did not wish to learn how to use F2S in their classrooms.

(continued)

Question	Responses
I would like my students to participate in agricultural-based activities within my school.	48 (96%) wished for the students in their schools to participate in agricultural-based activities.
I feel the school district supports me in using agriculture in the classroom.	48 (96%) of participants agreed that the school district would support them.
Do you believe agriculture education is important to students?	50 (100%) believe agriculture education is important to students.
Have you ever been to the school district's farm?	20 (40%) had been to the district's farm. 30 (60%) had not been to the district's farm.
Have you ever been to the school district's greenhouse?	26 (52%) had been to the district's greenhouse. 24 (48%) had not.
Have you ever been to the district's farmer's market?	22 (44%) had been to the district's farmer's market. 28 (56%) had not.
Do you have a school garden at your school?	20 (40%) had a school garden. 30 (60%) did not.
Have you ever done any taste tests of fresh produce with your classes?	12 (24%) had completed taste tests with their students. 38 (76%) had not.
Have you had any training on the district's Farm to School program?	28 (56%) did not have any training on the district's F2S program. 20 (40%) did have some training on the district's F2S program. 2 (4%) did not respond to this question.
Are your students exposed to fresh produce in the school's cafeteria?	40 (80%) said yes, 2 (4%) stated no, and 8 (16%) were unsure.
Do you believe fresh produce to be important to your students?	44 (88%) stated that fresh produce is important for students (5 on the numerical scale), 4 (8%) gave a response that produce is important (4 on the numerical scale), and 2 (4%) gave a response of stating a neutral opinion (3 on the numerical scale).

Survey Data Analysis

The survey revealed that the majority of the respondents (84%) were aware that the F2S program existed in the district, but most (88%) had not incorporated F2S lessons in their curriculum. The majority of those surveyed (60%) had never even been to the farm or the farmer's market. Most (88%) expressed interest in learning how to utilize F2S in their classrooms. Sixty percent confirmed that they had time to prepare lessons on the topic, but few resources or training had been made available to them. Eighty-four percent

of respondents had eaten produce grown on the district's farm in their school cafeterias, and 96% believed that fresh produce was important for students.

The survey indicated that there is little emphasis on F2S curriculum development throughout the district. One hundred percent of those surveyed believe agricultural education is important for students, but there is a need for more classroom support. According to the survey, staff do have a desire to participate in agriculturally based activities. The educational aspect of the F2S program is ripe in harvest but lacking in curriculum.

Coding of Transcripts

Coding was used to analyze the data collected from the interviews and focus groups conducted. The role of coding is to take the qualitative data collected during the process of interviews and turn it into a usable source of comparison (Saldana, 2016). Coding of the interview and focus group transcripts entailed first and second cycle coding. The rationale for coding of these transcripts was to find patterns in the data (Saldana, 2016). Patterns make the findings of the research more trustworthy. Patterns can be categorized by similarity, differences, frequency, sequence, correspondence, or causation (Saldana, 2016).

The results of the coding processes are to give a broader picture of the F2S program. The first cycle coding of the transcripts was evaluation coding. The primary reason for utilizing evaluation coding is it derives from "the evaluation perspective of the researcher or from the qualitative commentary provided by participants" (Saldana, 2016, p. 141). Second cycle coding of the data involved pattern coding. "Pattern coding, as a second cycle method, is a way of grouping those summaries into a smaller number of

categories, themes, or concepts” (Saldana, 2016, p. 236).

Parent Focus Group

Eight parents participated in the focus group. The original format of the study was to select six parents to participate in the study. Eight parents were contacted through the help of administrative staffs at different schools. Of the parents contacted, eight agreed to participate in the parent focus group. Since eight parents agreed to participate, all eight parents were included in the focus group. The focus group was conducted via Google Meet. The parents in the focus group had students at the following levels: five elementary, three middle school, and six high school students. A transcript of the focus group session was created using Trint software. Upon coding of the transcript, it was found that parents were generally familiar with the F2S program. Many of the parents stated that their students had taken field trips to the farm. Many of the parents attended the farmer’s market the district hosts on Saturdays at the farm. Questions for the parent focus group can be found in Appendix E.

The second question in this focus group asked if the children had talked about growing their own produce. Two of the eight parents responded that they themselves were gardeners and that their students were actively involved with gardening at home. The remaining six parents stated that they were not actively interested in gardening at home but were somewhat agriculturally aware.

The third focus group question asked if the parents’ children were aware or discussed the fresh produce in the school cafeterias. Three of the eight parents stated that their students did like the vegetables provided in the lunches, whereas five of the parents stated that their students did not mention vegetables to them at all.

The fourth question asked the parents if their students had ever been a part of a taste test at their school. Only one of the elementary students had been a part of a taste test in a science class. The seven other parents stated that they were not aware of their children being part of a taste test in school.

The fifth question asked if the parents or their family had ever attended the farmer's market hosted by the school district. The overwhelming 100% response from the parents was that they all had attended the district's farmer's market.

The sixth question which asked the parents what could be done to better promote the F2S program was met with a variety of ideas. Some of the ideas included improved advertisement, fliers, teaching lessons about agriculture, field trips, and involving students in agriculturally based activities during spirit week.

The seventh question asked if the parents would like to give any additional comments. This was met with few responses from the focus group. The only response to this question was improving community involvement and utilizing the food truck owned by the school district to distribute produce grown by the district throughout the local community.

Graduates Focus Group

Six graduates from the school district were surveyed. Of the graduates, two were from 2016, one from 2017, one from 2018, one from 2019, and one from 2020. These participants were contacted via email and agreed to participate in the study. The graduate focus group was conducted via Google Meet. A transcript of the focus group session was created using Trint software. Graduate focus group questions can be found in Appendix E.

The first question asked if the participants were familiar with the F2S program. None of the six focus group participants were familiar with the program. The second question asked if the graduates had ever taken a field trip to the farm or greenhouse. None of the participants had taken a fieldtrip to either during school.

The third question asked the participants if they had any lessons pertaining to agriculture. Of the six participants, only one had a science lesson related to agriculture. In that lesson, students sprouted beans and cucumber plants.

The fourth question asked participants if the F2S program had influenced healthy eating habits. The response from all six was that the program had not influenced any healthy eating habits, citing that they had never heard of the program prior to the focus group interview.

The fifth question asked if they were aware that during high school they were being served 100% organic produce. The participants did not know that any of the produce was organic.

The sixth question asked the participants what they typically ate for lunch in high school. All six of the participants stated that they ate Subway sandwiches the most during high school. Of the six graduates, four were athletes during high school, citing that Subway was the healthiest eating option offered in the cafeteria.

The seventh question asked if lunches in high school influenced healthy eating habits. All six participants stated that high school lunches did not influence healthy eating habits in their lives.

The eighth question asked the participants what could have been done better to promote the F2S program. Answers from participants included more information

publicized about the program, information given to students on food options in the cafeteria, lessons in the classroom about agriculture, and engaging the students at the farm and greenhouse.

The ninth question in the focus group asked if there was anything else they would like to add. The four athletes in the group stated that they wish they had known more about the program when they were in school, specifically about the healthy eating options. See Table 4 for the interview question analysis.

Interview Data

Table 4

Interview Question Analysis

Interview question	Interviewee 1	Interviewee 2
What do you know about Farm to School programs?	I am the district level administrative liaison over the program.	I served as director of the program for a year.
What do you believe are benefits of the district's F2S program?	Healthy food for students. Education.	There is great potential to make an impression on students of the district by developing a well-rounded education program.
What goals or expectations do you have for the district's F2S program?	To produce quality product students will eat. Growth in education programs	More products. Increased education opportunities.
What do you believe are positive aspects of the current F2S program?	The quality of product produced. The opportunity to teach students a healthier lifestyle.	Farmer's markets Educating students
What do you believe are drawbacks to the district's current F2S program?	Financial commitment.	Expensive. Location.
Have you learned anything from the district's implementation of the F2S program?	Hard to successfully involve all factions in planning.	Logistical aspects need to be addressed between the farm and food service. Very expensive
Are you familiar with any F2S activities being implemented in the school district?	Greenhouses Processing plant	Farmer's market Greenhouses Processing plant
What do you believe is the status of the educational aspect of the F2S program?	Template is in place, but not enough has been done to ensure its success.	Create coloring book Visits to farm Ability to teach to SCDE standards Taste tests in school
What do you believe is the status of the production aspect of the F2S program?	The processing plant was just started in the 2020-2021 school year. We are producing now what we get on the table.	Need to define processing center responsibilities.

Note. Information was compiled and summarized from two interviews, one from the current deputy superintendent of the school district who oversees the F2S program and the other from the former F2S coordinator from the school district.

Interview Data Analysis

The two interviewees were both very familiar with the district's F2S program. One had served as former director, and the other was the current administration liaison for the program. Both were questioned on a variety of topics related to the current state of the program. Research questions driving the interview process were

- Do the operational costs of the school district's F2S program justify the existence of the program? Will the program become financially sustainable over time?
- How and to what extent does the educational aspect of the F2S program make a noticeable impression on the students and faculty of the school district?

The two interviewees were well acquainted with both the educational aspect and the operational costs of the district's F2S program. There was agreement on the potential educational benefits of the program and its ability to make an impression on the students of the district, but both admitted that the potential of the program was not currently being realized.

The initial program goal was to incorporate agriculture/nutrition lessons into the curriculum for every level. The former director of F2S stated that education is the most important part of the program. The deputy superintendent stated that he thinks the district has a template in place, but he does think there is room for improvement by providing students opportunities to get involved. Many schools have their own gardens, which provide students with hands-on experience. There is also a greenhouse at the high school that allows the district to continue production year-round. A traveling farmer's market was instituted targeting people/students who could not logistically make a visit to the

farm. The former director of F2S noted field trips to the farm were popular among students. She stated that teachers could tie in their standards from the South Carolina Department of Education to the hands-on experiences offered at the farm.

Lessons on agricultural production are only one of the educational emphases. Lessons on nutrition and eating choices are invaluable lifetime tools for students. An important goal of the program was to help students develop healthier lifestyles, as stated by the former director of F2S.

The operational cost of the F2S program was discussed by both participants. Operating a farm on the scale of the school district in the study is a significant financial obligation. The processing plant began production during the 2020-2021 school year. The former director of F2S did note she believed the program was fiscally responsible since it was able to provide and grow organic produce rather than paying higher prices for local product. She also noted the ability to generate revenue with excess produce that is organically certified. The addition of the greenhouses and the processing plant contribute to the educational opportunities for the students but also to the expenditure for the district.

A farmer's market was set up and took place on Saturdays to sell excess produce. The deputy superintendent stated that the hope of the district was to provide produce not only for district employees but for the community. This contributed to the district goal of community outreach for the program. Similarly, the former director of F2S stated that it was "important that we find a way to get the vegetables that we are growing into our homes in our community so that none of that goes to waste."

Both interviewees stated that the COVID-19 outbreak has proved challenging for

the district's F2S program. Students were not in school to take advantage of the produce. It prohibited continuing activities like field trips and going into the schools to show videos and do taste tests and other lessons. The educational aspect was and remains stalled. The district is committed to extending its reach into the community it serves. The deputy superintendent stated that it is important for the district to find a way to get the vegetables that are being grown into the homes in the community. He noted that the district sells excess produce to third-party vendors so the produce can be utilized by the community. The former director of F2S also mentioned that the district was making prepackaged boxes of organic produce for the employees of the district. One idea was to begin this process with staff and then move on to receiving public orders for prepackaged boxes of produce. Both agreed that it is important to make a difference in the community.

Conclusion

The program evaluation focused on five data points: financial data, interviews of key influencers, a focus group of parents of current students, a focus group of graduates, and a staff survey. The validity of the program was determined utilizing two metrics: the cost of production and the qualitative educational dynamic. The research questions that guided the study of these two metrics were

- Do the operational costs of the school district's F2S program justify the existence of the program? Will the program become financially sustainable over time?
- How and to what extent does the educational aspect of the F2S program make a noticeable impression on the students and faculty of the school district?

The mixed methods study gleaned information from all five data points. The

financial data provided by the school district showed monetary savings for the district by growing its own organic produce rather than purchasing organic produce from a third-party vendor; though it is important to note that the school district's two providers of produce do not offer organic options. The school district producing its own organic produce was the only source for the school district to obtain organic produce.

Interviews with the deputy superintendent and the former F2S coordinator gleaned significant information about the inner workings of the program such as the system of production put into place by the school district. The produce grown was delivered from the farm and greenhouses to the processing facility then to the cafeterias. The interviews also provided information about new aspects of the program such as the inclusion of premade boxes that staff can order.

The parent focus group gave data that showed a parent population that was supportive of the program, though not exceedingly knowledgeable of the inner workings of the program. Parents were generally supportive of agricultural education and the addition of organic produce to the school cafeterias. The graduate focus group was unaware of the existence of an F2S program in the school district during their time in school. The focus group was telling in that it showed a picture of a lack of knowledge of the program from students. Staff surveys told a different story; one of a staff that was supportive of agricultural education and the addition of organic produce to the cafeterias but was lacking in training on agricultural education and how to implement agricultural education in the classroom.

The goal of the F2S program in this school district was to elicit greater access of organic produce to students and staff while at the same time educating the students on the

benefits of agricultural education and healthy eating through shared experiences. The second research question was, “How and to what extent does the educational aspect of the F2S program make a noticeable impression on the students and faculty of the school district?” The data showed that the program does make an impression on faculty but did not make an impression on students. Key dynamics to this finding are discussed in Chapter 5. The first research questions were, “Do the operational costs of the F2S program justify the existence of the program? Will the program become economically stable?” Financial data gathered about the cost of the organic produce grown shows that the school district saves money by growing their own produce. While other costs of the program were not studied in the strictest way, the produce does show that the program is economically stable, and the cost associated with the program justifies the existence of the program.

Chapter 5: Discussion

Introduction

School districts across the nation participate in agricultural education programs in conjunction with the F2S movement. The number of schools and districts participating has increased significantly over the past 10 years (Ugalde, 2012). The school district in this study has gone a step further than other programs by growing produce on their own farm. The undertaking by the school district is unique in that it produces, processes, packages, and serves its own food to students. A school district taking on a project of this scale in the realm of education and production is rare, and research on the benefits of such a program is lacking.

The purpose of the study was to determine the effectiveness of the school district's F2S program. The validity of the program was determined utilizing two metrics: the quantitative cost of production and the qualitative educational dynamic. Qualitative data answered the question, "Is the program worthwhile?" Qualitative data gave insight into the utilization of the organically grown produce, the reception of the educational dynamic, and the overall perception of the program. Quantitative data asked the question, "Is the F2S program cost effective," determining if the program could be self-sustaining from a financial perspective.

Key Findings

The combined study of the quantitative financial aspect of the school district's F2S program and the qualitative nature of the educational portion give a balanced evaluation of the program in totality. The quantitative aspect of the study posed the research questions, "Do the operational costs of the school district's F2S program justify

the existence of the program? Will the program become economically stable over time?"

The quantitative analysis of finances shows the district saved \$8,257.12 over the course of a year on organic produce. This number was calculated by comparing the district cost of produce to USDA market organic produce cost. By comparing the cost of the produce grown on the farm and the cost of market USDA certified organic produce, it was found that the null hypothesis for this study was proven true: H_0 : The cost of growing organic produce is equal to or less than the cost of purchasing organic produce.

The qualitative aspect of the study posed the research question, "How and to what extent does the educational aspect of the F2S program make a noticeable impression on the students and faculty of the school district?"

The staff survey showed that the majority of respondents had not attended any training related to F2S and classroom curriculum. Those surveyed believed that agricultural education is important for their students, and they showed great interest in learning how to use F2S in their classrooms with age-appropriate materials.

The parent survey revealed that their students had not had any significant agricultural education and that their students were unaware that organic vegetables from their district garden were being served in the cafeterias. Parents offered suggestions for publicizing the initiative and involving students through classroom lectures and by their participation in agriculturally based activities.

Of the six graduates surveyed, none were familiar with any part of the F2S program or of its goal to encourage healthy eating habits. They also made suggestions for improvement including publicity, education on healthy eating habits, and classroom activities.

Interpretation of Findings

Most previous research conducted on F2S initiatives concentrates on the procurement of product from third-party vendors. This study was unique in that the school district invested time and money into developing its own fully functioning farm to provide fresh organic produce to the cafeterias in the school district. Additionally, the district was to provide classroom and enrichment experiences that put students in contact directly with gardens and produce. Primary objectives were to not only feed children but to instill healthy eating habits at an early age to quell the rise of childhood obesity and to promote agricultural education. This is where the Theory of Planned Behavior explains the structure of the F2S program. F2S programs are designed to give students access to fresh fruits and vegetables as well as educate students on the production of those foods. By exposing students early in their school years to fresh produce, educating those students on how the produce is grown, and exposing students to these factors, these students will continue to make healthy eating choices. Utilizing the graduate focus group, it was found that former students were not influenced by the program to make healthy eating choices.

The overwhelming response of those surveyed, both former students and parents of current students, indicated that there was little to no familiarity with the district's F2S program or the fact that the organic produce was served to the students in the school cafeterias. The Theory of Planned Behavior in the context of the F2S program makes sense, but the program was lacking its ability to influence healthy eating habits for students.

Recommendations for the F2S Initiative

Finding: Lack of Health Data

One of the key findings of this study is a lack of data on childhood obesity and the resulting health benefits of the F2S program. The school district does not currently examine the health benefits of its organic produce or the impact on healthy eating habits of students.

Recommendation for Health Data. It is my recommendation to include a district-wide study of health data. These data could include childhood obesity rates and other related health information. “Childhood obesity is a chronic health condition, and foods available in schools may play a role in the development of childhood obesity” (Muckian, 2015, p. 17). Data collection could follow a select group of students throughout their career in the school district. The data could then be compared to state and national rates of diabetes, obesity, or some other parameter. The study of health data would give a clear and concise rationale for the F2S program in the school district regarding the health benefits of the program. “The impact of these programs on child health and nutrition is a relatively new area of study” (Hayes et al., 2018, p. 435). The F2S program in the district could lead to a greater impact on the national F2S movement if health data are gathered and analyzed. This will garner important information for the program as well as information for other school districts contemplating implementation of an F2S program.

Schools with a farm-to-school program also reported benefits, including greater community support for meals (38%), greater acceptance of Healthy and Hunger Free Kids Act changes (28%), lower meal costs (21%), increased participation

(17%), and reduced food waste (18%). Although these metrics are impressive and positive, evidence for specific benefits on food choice, meal consumption, nutrient intake, and health status of students is mostly qualitative in nature. (Hayes et al., 2018, p. 435)

The guiding theory of the F2S program is the Theory of Planned Behavior. The Theory of Planned Behavior centers around the idea that behavior is a function of beliefs. The Theory of Planned Behavior states that the more “favorable the beliefs norms, and self-efficacy a person presents towards a behavior, the stronger the intentions become to perform the behavior” (Bishop, 2014, p. 65). This theory seeks to explain concepts behind individuals’ dietary habits and behaviors that result from individuals’ intentions to perform certain behaviors. These intentions are related to beliefs, subjective norms, and perceptions of control over the specified behavior (Bishop, 2014). The application of the Theory of Planned Behavior is that F2S programs improve the health and well-being of students based on education and exposure to fresh fruits and vegetables. This is one of the driving forces behind the implementation of F2S programs nationwide (Curwood, 2016). An assumption within this theory is that by impacting the core beliefs of students, the students will make healthier eating choices (Ajzen, 1991).

Knowledge of healthy eating habits will help combat childhood obesity and ideally transfer into adult healthy eating habits (Moss et al., 2013). “Districts should thus develop comprehensive and strong policies that promote health. Schools should not only motivate and teach the knowledge and skills for children to make healthful choices, but also should provide an environment fostering healthful eating” (Hayes et al., 2018, p. 436).

Implications of healthy eating habits for students cannot be overstated.

“Combating childhood obesity is the driving force behind all F2S research, articles, legislation, and movements” (Schafft et al., 2010, p. 24). A goal of F2S is to give students exposure to fresh produce in an effort for those students to experience new produce in developmental years, ideally leading to improved healthy eating habits later in life. “The longer a child is overweight, the more likely that child is to continue this pattern into adulthood” (Biro & Wien, 2010, p. 1501). “Schools and/or districts should adopt evidence-based strategies and techniques in establishing nutrition education goals, develop coherent behavior-focused curricula for all grades using existing resources, and provide adequate funding for professional development and resources” (Hayes et al., 2018, p. 436).

Another way to improve students’ eating habits is for school staff to display role modeling. Students benefit from role modeling healthy behaviors and informal education (Muckian, 2015). “School nurses can promote the health of children through modeling healthy behavior such as eating fresh fruit and vegetables at school and drinking water instead of soda in schools” (Muckian, 2015, p. 101). Teachers and administrators can model healthy eating habits for their students. “Participants in this study discussed using their educator role to promote health by providing information to help students learn about healthy food choices” (Muckian, 2015, p. 102).

Drawbacks to the school district studying health data of its students would be the amount of time to collect and process the data. This includes permission from parents to collect the data, storage of the data, and comparison of data over the course of a student’s career in K-12th grades. Though the collection of health data would take a considerable

effort, the positive effect of the data and study outweighs the input of time and effort on the part of the school district administration. This data collection would enhance the validity of the program in the school district as well as the validity of F2S programs nationwide.

Finding: Lacking Educational Component

This study found that the educational impact of the program was almost nonexistent according to data collected from both the graduate focus group and the parent focus group. During the focus group data collection, neither former students nor current parents were aware of the program or educational aspects within the program. The data collected showed a group of students who had not participated in lessons pertaining to agriculture. Neither sample group was informed about organic food options or the health benefits of the produce provided to them in the cafeterias. Similarly, data collected from the parents gave a picture of a group with a vague idea of the program and its subsequent goals. Teachers and staff lacked proper resources and support to enhance the educational component of the district's F2S program. These data were collected from the staff survey. As a result, most teachers have not incorporated agriculture into their lesson plans or classrooms, and students have not reaped the potential benefits of the F2S program.

Recommendation for Educational Component. The educational aspect of the F2S program requires internal and external supports. Having adequate support structures will strengthen the program. Glickman et al. (2014) stated a need for internal and external support in regard to the success of new initiatives. Internal support should begin at the district level. A district mandate to incorporate agricultural education into every level of the school curriculum is needed. District leaders need to clearly present a mission

statement, support curriculum development, and encourage staff to take ownership of the program.

Establishing and giving leadership to teachers of the F2S initiative is essential. Balls et al. (2016) identified a need for teacher leadership. As with any successful district initiative, the staff must be included and given leadership within a program. Most of the driving change for new initiatives is accomplished by the teachers (Fullan, 2016). Teachers who feel empowered are more likely to drive change. New initiatives can be embraced or shunned by teachers, leading to the success or failure of a given reform initiative (Glickman et al., 2014). Teacher leadership proves to have a positive impact on the educational climate of a school. When teacher leadership is achieved, a school's culture tends to move towards an inclusive and collaborative environment (Balls et al., 2016). Fullan (2016) stated that leadership is central to success and is an important part of driving change initiatives in day-to-day school operations. It is important for the school district to foster and encourage teacher leadership of the F2S program within individual schools.

Each school in the district should provide hands-on experiences such as creating school gardens and provide taste tests and visits to the farm to enhance the educational dynamic. These activities are conducted at some schools but not at every school in the district. Empowering teacher leaders can improve the implementation of such activities at every school in the district. Another benefit to internal supports such as teacher leadership include the creation of lesson plans. Lesson plans should be developed on cross-curriculum topics: the benefits of diet, obesity issues, agricultural education, math lessons on serving sizes and calculating calorie intake, and the benefits of exercise and

body mass index calculations in physical education courses. The support of teachers for the F2S program will be a harnessing of professional capital. “Professional capital is a function of the interaction of three components: human capital, social capital, and decisional capital” (Fullan, 2016, p. 44). Disseminating leadership of the F2S program to teachers and staff will utilize professional capital of the staff and act as a major internal support system for the F2S program.

External supports for initiatives can lead to a stronger implementation of said initiative. External support such as networks of schools involved in similar change efforts could be utilized in this program (Glickman et al., 2014). External supports need to be seen as mutually beneficial relationships between institutions (Rhodes et al., 2018). External support could include events such as regional conferences. Conferences between schools and districts undergoing similar change efforts can allow educators and district personnel to exchange ideas, data, and successes and problem solve. Another external support should be educator mentor programs between schools or districts. Schools involved in the same change efforts need to network in order to provide those supports. These programs can help with improving teacher ability within a given change effort as well. Material resources from outside a school district can also be considered an external support for a program (Glickman et al., 2014). “Other key stakeholders are the farmers and distributors whose experience and local knowledge are equally valuable to inform the initial design of farm-to-school programs, as they are to their successful implementation and maintenance” (Carbone et al., 2016, p. 182).

A well-chosen advisory council can be a sounding board for new ideas and unit initiatives; call on political connections for support; be proactive in identifying

targets for external fiscal support, including philanthropy; and most importantly, spread the word of institutional value throughout the circle of influence of its members. (Rhodes et al., 2018, p. 15)

External support, like an advisory council, can “provide vital input on how the school is serving its community, independent advice, and public support for the value of the school to its local constituents” (Rhodes et al., 2018, p. 16). A district-wide focus on internal and external support systems for the F2S program is recommended.

Finding: Sustainability of the Program in Relation to Cost

The cost analysis of the program confirmed that the cost of growing organic produce is less than purchasing organic produce. Prices of district grown organic produce were compared to USDA organic prices. The cost of district grown organic produce was less than the market price of organic produce. It is important to note as well that other produce providers did not sell organic produce. The school district growing its own organic produce was the only way for the school district to procure organic produce.

An aspect not analyzed in this study is the capital investment of the program such as land and facilities. The overall cost analysis that must be carried out by the school district is to compare the savings from the organic produce grown to the yearly expenditures of the program such as salaries, seeds, and organic fertilizer, among others. Sustainability would ultimately be reached through the program paying for all yearly expenditures. It should be evaluated to see if the savings on organic produce would, over time, outweigh the initial capital investment of the program.

Recommendations for Sustainability of the Program in Relation to Cost. The financial sustainability of the program will increase as the district explores new options

of generating revenue. The most recent development for revenue generation has been the advent of prepackaged boxes of produce. These boxes will elicit more revenue as well as allow access to a greater number of staff across the school district. The program will become profitable over time as the district continues the program. This is reinforced by the monetary savings of producing organic vegetables versus buying regular produce on the open market for the district's cafeterias. Profit and utilization of produce will also be reinforced by utilization of the processing facility. This will give the district's cafeterias greater ordering options for the raw materials produced by the farm. Carbone et al. (2016) stated that having a strong organizational infrastructure that supports the use of fresh produce emerged as an important theme in successful F2S programs.

Finding: Lack of Knowledge of the Program

The F2S program is not familiar to many in the school district. This became apparent during the focus group data collection that neither graduates nor current parents were fully aware of the program. There is a need to enhance the visibility of the program within the school district in order to improve its sustainability. The limited knowledge of stakeholders is a hindrance to the growth and implementation of the F2S program.

Recommendations for Promotion of the Program. First, the school district needs to address the advertisement of the program. Lee et al. (2019) stated that increased awareness of the program suggests that there will be more support for the F2S program by stakeholders. The idea is that the more awareness of the program, the more support for implementation by key community stakeholders (Lee et al., 2019). Lee et al. found that collaboration and partnership between F2S practitioners and key community stakeholders were critically needed for the F2S program to be successful. The advertising of the

program must be aligned with the larger goals of the program as well. “The goal of the school planning process is to encourage school personnel to give careful attention to how they will implement reforms and instructional strategies to improve student achievement and other outcomes in their schools” (Strunk et al., 2016, pp. 260-261). Ideally, within the conceptual plan for the F2S program, the district outlines ways to involve the students, parents, staff, and community in this program. Hayes et al. (2018) described the need for advertisement in endeavors regarding nutritional education. Hayes et al. highlighted a need to include posters on display for students along with a host of other methodologies as a way to advertise the program.

Nutrition education is defined as all of the educational activities that engage students, not only through direct classroom education but also through other venues throughout the school campus during the school day that are designed to motivate students and facilitate adoption of healthful food choices accompanied by a supportive school environment. (Hayes et al., 2018, p. 436)

Second, it is important to note that knowledge of healthy eating habits is not enough to change student behavior (Hayes et al., 2018). Engagement in the F2S process must happen as well. Hayes et al. (2018) noted that positive behavioral changes occur when an initiative targets specific behaviors, enhances motivation through cultural diversity, includes experiences in growing and preparing foods, delivers coherent and clearly focused curriculum, uses active methods of multimedia technology, and provides appropriate teacher training and support. “Engagement and encouragement were the two most commonly cited strategies to increase students’ fruit and vegetable consumption by all levels (administrators, teachers, and staff)” (Carbone et al., 2016, p. 180). Carbone et

al. (2016) identified that engagement of students is imperative to have a successful program. Engagement includes finding fun and creative ways for students to experiment with new foods (Carbone et al., 2016).

Building social capital is another major way to promote the F2S program. “Social capital in a school affects teachers’ access to knowledge and information; their senses of expectation, obligation, and trust; and their commitment to work together for a common cause” (Fullan, 2016, p. 44).

Modeling is another way to promote the program in schools. Carbone et al. (2016) found that positive role models in the school help to support students making a selection of healthier eating choices. “Positive role modeling was observed in all sites and described by administrators, teachers, and children alike as a way of increasing consumption of healthy foods” (Carbone et al., 2016, p. 181). Carbone et al. stated that teachers have opportunities to be role models and model healthy eating habits for their students. “Evidence of positive role modeling was also noted between children” (Carbone et al., 2016, p. 181). Lee et al. (2019) stated that it was increasingly important to have school staff members who were interested in and supportive of F2S. “Organizations support the use of practitioner time and resources to build relationships with community stakeholders to increase support for implementation of farm-to-school” (Lee et al., 2019, p. 376).

Finally, one of the highest ranked indicators of motivation for an F2S program, as described by Lee et al. (2019), is awareness and support from parents and students. In promoting the program, it is important to include highly motivated individuals in the implementation of the F2S program. “Participants discussed lack of parental support as a

barrier for implementing new programming such as farm-to-school” (Lee et al., 2019, p. 378). Lee et al. also stated that awareness of an F2S program by parents can be improved by raising the number of students who participate in F2S activities. It is important that community leaders are aware of existing F2S initiatives. Lee et al. indicated that “leaders in their communities tended to be unaware of farm-to-school which can be a barrier to successful implementation” (p. 378). Promoting the program with parents, students, and community stakeholders is necessary to improve the existing F2S program.

Culture and Change Implementation

The purpose of any change initiative is to avoid a temporary culture change that does not have a long-term impact. Hughes et al. (2014) noted that alignment within an organization must happen for an initiative to be successful. Alignment exists in an organization when the decisions and tactics are coordinated, coherent, and consistent with the overall strategy (Fullan, 2016). Creating a collaborative environment is the single most important factor for successful school improvement initiatives (Balls et al., 2016). Ultimately, alignment must exist within this program throughout the varying entities of the district. Sustainability and alignment apply to the coordination efforts of the program. The program comprises the farm, food services, processing facility, as well as each individual school in regard to curriculum. The greater coordination among the entities that make up the program, the more successful the program venture (Rhodes et al., 2018).

Alignment exists in an organization when the decisions and tactics are coordinated, coherent, and consistent with the overall strategy (Fullan, 2016). Creating a collaborative environment is the single most important factor for successful and

sustainable school improvement initiatives (Drago-Severson et al., 2013). Balls et al. (2016) stated that school reforms focus on five major areas: curriculum, instructional delivery, resourcing/personnel, organizational structure, and assessments.

One way to enhance leadership and alignment between the varying entities of the school district would be to create an advisory board for the F2S program. Advisory boards can be seen as an external support system. The district's F2S advisory board should consist of individuals knowledgeable in the areas of food production, harvesting, processing, and distribution. Lee et al. (2019) described that a successful F2S program must have multiple stakeholders that are involved in the process of implementing an F2S program. "There are multiple stakeholders involved in the process of farm-to-school implementation. They included teachers and school administrators, nurse and cafeteria manager, school board members and superintendent, parents and students, community leaders, food distributors, and farmers" (Lee et al., 2019, p. 379). Members of the advisory board would include individuals from a local university, the local farm bureau organization, local farmers, or food service agencies. This advisory board would enhance the district's ability to maximize the program and foster community involvement in the F2S program. The advisory board must have clear expectations as to philanthropic goals, events, and representing the school and district in the community (Rhodes et al., 2018). "It provides vital input on how the school is serving its community, independent advice, and public support for the value of the school to its local constituents" (Rhodes et al., 2018, p. 16). Schools involved in the same change efforts need to network in order to provide those supports. External support could also include the utilization of resources, training, best practices, and technical assistance from the USDA and other agencies

(Hayes et al., 2018).

School capacity was ranked the highest by the expert panel in terms of perceived importance for the successful implementation of an F2S program (Lee et al., 2019). The capacity of the school refers to the school's resources and ability to implement an F2S program. "The degree to which farm-to-school interventions are integrated into school curricula and activities also seemed to play a critical role in their perceived success and sustainability" (Lee et al., 2019, p. 376). Strunk et al. (2016) identified the importance for a school or district to return to the conceptual framework of its founding principles and consider what would lead to the implementation of high-quality plans.

Lee et al. (2019) identified networks and relationships as key factors to implement a successful F2S program. Lee et al. stated that social capital is necessary to promote a successful F2S program. "The second highest weighted theme was networks and relationships, which is defined as social capital, or the networks of relationships, which practitioners and community members can draw on to implement and support farm-to-school" (Lee et al., 2019, p. 376). Lee et al. found that by having someone who is passionate about F2S, that can drive change efforts in schools.

In summary it is important to develop a culture of change when implementing a change initiative. Implementation of a new change initiative is best supported when decisions are coordinated, coherent, and consistent. Successful implementation of a change initiative needs to ensure that alignment and leadership exist, external supports are utilized, and networking and relationships are fostered.

Recommendations for Future Studies

As stated by Carbone et al. (2016), studies of F2S programs remain limited by the

fact that F2S is a relatively new area of study. Carbone et al. also stated that there are many challenges involved in conducting research for F2S programs. “Many of the studies are descriptive or theoretical examinations, focus on the potential of farm-to-school programs, or are progress reports” (Carbone et al., 2016, p. 178). Carbone et al. also stated that many F2S studies are conducted by those directly involved in the program itself, not allowing the study to be randomized or to include a control group. Most studies also “are limited by statistical power due to small sample sizes and lack of long-term data” (Carbone et al., 2016, p. 178). This study strove to provide an unbiased picture of the program by compiling quantitative and qualitative data from a variety of sources. Future studies need to consider possible shortcomings of summarizing the F2S program as a progress report of the program or utilizing a small sample size.

Future academic endeavors related to the district’s F2S program could include a study of childhood obesity rates in the school district. Many other studies include childhood obesity rates and review the implications of healthy eating choices and diets on school-age children. Areas for future evaluation of the program could include the implications of organic produce on childhood obesity rates within the school district.

Future studies could also review the effect of COVID-19 on the overall production aspect of the program as well as a fundamental shift in how the program operates. While COVID-19 was not intended to be a part of this program evaluation, the implications of this virus on the operations of the F2S program as well as the operations of the entire school district should be evaluated. A study on COVID-19’s impact on the program could evaluate the cafeteria orders from the farm in the school district, the amount of produce utilized from the farm, or the reduction of hands-on activities of

students.

A full review of the food service branch of the school district and its functionality with the farm and processing facility could be reviewed in future studies. These studies could focus on the amount ordered by each cafeteria in sequential years. The numbers compiled could be compared to see if there was a notable shift in ordering once the processing facility was created as well as if there is an increase in orders from the farm year after year. Another focus of a food service study could be on the processing facility. The processing facility now takes the raw materials from the farm and processes them into specific utilizable products for the cafeterias in the school district. Future studies could also include direct student surveys and/or focus groups related to food service.

Strengths of this study include the diversity of data points within the program evaluation. Recommendations for future studies could include the use of the existing data points to see how the program progresses in the future. Utilizing existing data from the graduate focus group and comparing the existing data to a review of the program in the future could lead to understanding if more students are reached by the program which, in turn, would lead to healthier eating habits.

Weaknesses of the study would be the lack of direct current student information. Future studies could include a full IRB review to include direct student data. Surveying current students could be beneficial in understanding which produce the students prefer to eat and which produce has the greatest impact on student health and well-being. Also, a student perspective of current agricultural education practices could be conducted by surveying current students.

Limitations of Study

There are limitations to the F2S program evaluation conducted. Limitations of this study include that the initial startup costs for the program (greenhouse, farm, or processing plant) were not included in this study. The startup costs and methodology to begin such a large scale undertaking could be a study in its own right. A second limitation in this study is information about the new processing plant. The processing plant was not accounted for in the study since its conception was after the beginning of this dissertation. The first year of the district's new processing facility was the fall of 2020. A third limitation of the study is the current student perspective of the program. Current student perspectives were not taken into account in this study. A fourth limitation would be the yearly planting procedures of the farm. Yearly planting procedures, costs, and crop rotations were not taken into account in this program evaluation. In conjunction with planning, crop failures were not taken into account in this study. Crop failures do occur at the school district's farm as well as in the greenhouses. Crop failures waste time and resources (seeds, labor, and land availability).

A major variable that could not properly be accounted for was the effect of COVID-19 on the F2S program. The educational dynamic and the production aspect of the F2S program were majorly impacted by COVID-19. The impact of COVID-19 on the production aspect and the financial aspect of cafeteria orders and ultimately savings were not explored in this study. The impact of COVID-19 on the study cannot be overstated. COVID-19 has a far-reaching impact on the 2019-2020 and 2020-2021 school years. Schools were shut down in the 2019-2020 school year beginning in March 2020. From that point forward, the school district delivered breakfast and lunch to students in need.

The meals the district provided consisted mainly of prepackaged items. While cafeterias did order produce from the farm, quantities of the organic produce could have been skewed due to a lack of necessity. Researching quantities of produce ordered from the cafeterias was an aspect not highlighted in this study. Another aspect of the F2S program affected by COVID-19 were the educational aspects. Since students began learning virtually, no students took field trips to the farm or greenhouses. Also, students were not in school buildings to participate in school gardens. The school district also stopped operating a farmer's market due to COVID-19 restrictions. The restrictions on the farmer's market began in March 2020 and have continued through January 2021. The shutdown of the farmer's market gave rise to the district beta testing premade boxes of organic produce that staff can order from the farm. These boxes were tested at varying schools in the fall of 2020. This is another aspect the study did not highlight. The study did look at a larger picture of the program over several years in the utilization of the qualitative data.

Quantitative research of the study focused on a snapshot of a year of orders for the school district's cafeterias, but no data were gleaned from years prior. No issues of trustworthiness arose from the study. The study was conducted following all ethical parameters established by the Gardner-Webb University IRB. Problems that arose during research included lack of school board member participation and lack of superintendent participation. School board members declined to participate in the study. Two school board members were invited to participate in the study; however, neither board member responded to the invitation to participate in the study. The same was true for the superintendent of the school district; however, the assistant superintendent when invited

did agree to participate in an interview.

Implications

Implications of this program evaluation are extensive. One implication of this study is its influence on other school districts' investment in F2S. The national F2S program model is centered around the utilization of locally grown produce (Lee et al., 2019). Produce is purchased from local farmers and used in school cafeterias. The utilization of locally grown produce supplements local farmers as well as the local economy. In the F2S program studied, the school district grew its own organic produce on its own farm. The school district growing its own produce changed the dynamic of the traditional model. This model eliminates the local farmers from the equation. The financial feasibility of this new paradigm would be of interest to other school districts pursuing an F2S program.

In the school district's current model of production, financial feasibility and stability can be reached if the district explores new options to increase revenue. The most recent development to increase revenue has been the addition of prepackaged boxes of produce to the program. These premade produce boxes are sold to staff and will elicit more revenue, distribute more product, and allow greater access of staff to the district's organic produce. This model shows promise in its efficiency.

The educational impact of the program had minimal effect on students as determined by graduates from the school district. During the interview process, it was found that neither former students nor current parents were fully aware of the program. The educational aspect of the program has limitless potential in years to come. The utilization of school gardens at each school can help students engage in hands-on

activities related to agriculture. This can be combined with state classroom standards to reinforce existing lessons on agricultural education. The driving force for success in the educational aspect of the program will be consistent leadership. Some aspects of the educational program are lacking due to inconsistencies in turnover of the F2S leadership. Districts determining the needs of implementing a successful F2S program must be conscious of these factors affecting the educational component of a program.

Other implications of the program evaluation relate to the need for advertisement. Advertising the availability of organic produce grown as well as the existence of the program itself will bolster the image of the program within the district and the community. There is currently little visibility in the community of the school district's program. Community involvement, staff involvement, and student involvement in the program can be improved with proper advertising of the program itself. Any organization taking on such an initiative must remember to advertise the program properly. A possible study related to advertising and improved visibility of programs could be conducted from this existing study. There is a need to advertise the availability of organic produce grown as well as the existence of the program itself. There is currently little visibility in the community of the school district's program. Community involvement, staff involvement, and student involvement in the program could be improved with proper advertisement of the program itself.

Implications of healthy eating habits for students cannot be overstated. An entire study reviewing the healthy eating habits of students related to this specific program should be conducted. A goal of F2S is to give students exposure to fresh organic produce. This goal is designed for students to experience new produce in their developmental

years. Ideally, this exposure to healthy produce will lead to improved healthy eating habits later in life. On the same trajectory, a study of childhood obesity rates could be conducted as directly related to this specific program.

The impact of COVID-19 cannot be overstated in every aspect of every school across the nation. The impact of COVID-19 is also felt in the school district's F2S program. There were no in-person classes for much of the spring semester in the 2019-2020 school year. Also, the school district participated in hybrid learning. The hybrid system is where students attend school 2 days a week in-person rather than 5 days and are online virtual learning 3 days a week. The purchasing habits of the cafeterias and need for the produce grown on the farm were limited. This was due in part to the meals delivered during the quarantine which were predominantly composed of prepackaged items.

Conclusion

The implementation of an F2S program is a risk for any school but has great educational potential. In the case of the school district studied, the school district has invested a great deal of time and money to develop a fully functioning farm. The school district also invested in greenhouses and a processing facility to get organic produce in cafeterias of the school district. The F2S program in this study was also designed to provide hands-on educational aspects to accompany the fresh produce in the school cafeterias. The production aspect of the program is moving forward with the goal of increasing the amount of produce grown and utilizing the processing facility to turn the raw produce into usable items for the cafeterias in the district to order. The educational dynamic is progressing but lacking on a district-wide scale.

The study found that the F2S program is viable from a production standpoint.

Organic produce can be produced for less than it would cost to purchase organic produce. The study also found that the F2S program is worthwhile from an educational standpoint, though the program did determine that more emphasis must be placed on the educational aspects of the program.

References

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Process*, 50, 179-211. University of Massachusetts at Amherst.
https://www.dphu.org/uploads/attachements/books/books_4931_0.pdf
- Balls, J. D., Eury A. D., & King, J. C. (2016). *Rethink, rebuild, rebound: The three R's of education* (3rd ed.). Pearson.
- Benson, M. C. (2013). *Exploring food system change through a mixed methods analysis of cooperative extension's role in the farm to school movement* (Publication No. 3585715) [Doctoral dissertation, Virginia Polytechnic Institute and State University]. ProQuest Dissertations and Theses.
- Biro, F. M., & Wien, M. (2010). Childhood obesity and adult morbidities. *The American Journal of Clinical Nutrition*, 91(5), 1499-1505.
<https://doi.org/10.3945/ajcn.2010.28701B>
- Bishop, R. K. (2014). *Evaluation of a theory-based farm to school program* (Publication No. 13) [Master's thesis, University of Southern Mississippi]. The Aquila Digital Community. https://aquila.usm.edu/masters_theses/13
- Botkins, E. R., & Roe, B. E. (2018). Understanding participation in farm to school programs: Results integrating school and supply-side factors. *Food Policy*, 74, 126-137. <https://doi.org/10.1016/j.foodpol.2017.12.006>
- Carbone, E. T., DiFulvio, G. T., Susi, T., Nelson-Peterman, J., Lowbridge-Sisley, J., & Collins, J. (2016). Evaluation of an urban farm-to-preschool and families program. *Applied Research and Evaluation*, 36(3), 177-187.
<https://doi.org/10.1177/0272684X16637722>

- Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research* (3rd ed.). Sage Publications.
- Curwood, S. C. (2016). *Exploring school foodservice directors intentions to implement farm-to-school procurement methods considering food safety practices* (Publication No. 10239027) [Doctoral dissertation, Iowa State University]. ProQuest Dissertations and Theses.
- Drago-Severson, E., Blum-DeStefano, J., & Asghar, A. (2013). *Learning for leadership: developmental strategies for building capacity in our schools*. Corwin.
- DuFour, R., & Eaker, R. (1998). *Professional learning communities at work*. National Educational Service.
- Feenstra, G., & Ohmart, J. (2012). The evolution of the school food and farm to school movement in the United States: Connecting childhood health, farms, and communities. *Childhood Obesity*, 8(4), 280-289.
<https://doi.org/10.1089/chi.2012.0023>
- Fullan, M. (2005). *Leadership and sustainability*. Corwin Press.
- Fullan, M. (2016). Amplify change with professional capital. *Journal of Staff Development*, 37(1), 44-48. <https://learningforward.org/wp-content/uploads/2016/02/amplify-change-with-professional-capital-feb16.pdf>
- Glickman, C. D., Gordon, S. P., & Ross-Gordon, J. M. (2014). *Supervision and instructional leadership: A developmental approach* (9th ed.). Pearson.
- Grenny, J., Patterson, K., Maxfield, D., McMillian, R., & Switzler, A. (2013). *Influencer* (2nd ed.). McGraw Hill.

- Hayes, D., Contento, I. R., & Weekly, C. (2018). Position of the Academy of Nutrition and Dietetics, Society for Nutrition Education and Behavior, and School Nutrition Association: Comprehensive nutrition programs and services in schools. *Journal of Nutrition Education and Behavior*, 50(5), 433-439.
<https://doi.org/10.1016/j.jneb.2018.03.001>
- Hughes, R. L., Beatty, K. C., & Dinwoodie, D. L. (2014). *Becoming a strategic leader* (2nd ed.). Jossey-Bass.
- Izumi, B. T., Alaimo, K., & Hamm, M. W. (2010). Farm-to-school programs: Perspectives of school food service professionals. *Journal of Nutrition Education and Behavior*, 42(2), 83-91. <https://doi.org/10.1016/j.jneb.2008.09.003>
- Jones, M., Dailami, N., Weitkamp, E., Salmon, D., Kimberlee, R., Morley, A., & Orme, J. (2012). Food sustainability education as a route to healthier eating: Evaluation of a multi-component school programme in English primary schools. *Health Education Research*, 27(3), 448-458. <https://doi.org/10.1093/her/cys016>
- Kelly, C. J. (2015). *A financial analysis of implementing a farm to school program in Suffolk County, Long Island* (Publication No. 10805102) [Doctoral dissertation, St. John's University]. ProQuest Dissertations and Theses.
- Lee, E., Smathers, C., Zubieta, A.C., Ginnetti, S., Shah, A., & Freedman, D. A. (2019). Identifying indicators of readiness and capacity for implementing farm-to-school interventions. *Journal of School Health*, 89(5), 373-381.
<https://doi.org/10.1111/josh.12747>
- Maxwell, J. C. (2007). *The 21 irrefutable laws of leadership*. Harper Collins.

- McCarthy, A. C., Steiner, A. S., & Houser, R. F. (2017). Do state farm-to-school-related laws increase participation in farm-to-school programs? *Journal of Hunger & Environmental Nutrition, 12*(4), 466-480.
<https://doi.org/10.1080/19320248.2017.1284026>
- McQueen, S. (2015). *Empowering students to care: An edible garden and farm education approach* (Publication No. 3689567) [Doctoral dissertation, University of Denver]. ProQuest Dissertations and Theses.
- Merriam-Webster. (2014). Agriculture. In *Merriam-Websters collegiate dictionary* (11th ed., p. 26).
- Merriam-Webster. (2014). Farm. In *Merriam-Websters collegiate dictionary* (11th ed., p. 454).
- Merriam-Webster. (2014). Greenhouse. In *Merriam-Websters collegiate dictionary* (11th ed., p. 549).
- Merriam-Webster. (2014). Hydroponics. In *Merriam-Websters collegiate dictionary* (11th ed., p. 609).
- Moss, A., Smith, S., Null, D., Roth, S. L., & Tragoudas, U. (2013). Farm to school and nutrition education: Positively affecting elementary school-aged children's nutrition knowledge and consumption behavior. *Childhood Obesity, 9*(1), 51-56.
<https://doi.org/10.1089/chi.2012.0056>
- Muckian, J. (2015). *School nurses' perceptions of their role in healthy eating school environments* (Publication No. 3712728) [Doctoral dissertation, University of Wisconsin-Milwaukee]. ProQuest Dissertations and Theses.
- National Farm to School Network. (2019). Retrieved from <http://www.farmentoschool.org/>

- Ratcliffe, M. M., Merrigan, K. A., Rogers, B. L., & Goldberg, J. P. (2011). The effects of school garden experiences on middle school-aged students' knowledge, attitudes, and behaviors associated with vegetable consumption. *Health Promotion Practice, 12*(1), 36-43. <https://doi.org/10.1177/1524839909349182>
- Rhodes, S. J., Heinzman L. N., & Lees, N. D. (2018). Maximizing the benefits of an external advisory council. *The Department Chair, 28*(4), 14-16. <https://onlinelibrary-wiley-com.ezproxy.gardner-webb.edu/doi/epdf/10.1002/dch.30189>
- Saldana, J. (2016). *The coding manual for qualitative researchers* (3rd ed.). Sage Publishing.
- Schafft, K., Hinrichs, C. C., & Bloom, J. D. (2010). Pennsylvania farm-to-school programs and the articulation of local context. *Journal of Hunger and Environmental Nutrition, 5*(1), 23-40. <https://doi.org/10.1080/193202240903574155>
- Sinek, S. (2009). *Start with why*. Penguin.
- Strunk, K. O., Marsh, J. A., Bush-Mecenas, S. C., & Duque, M. R. (2016). The best laid plans: An examination of school plan quality and implementation in a school improvement initiative. *Educational Administration Quarterly, 52*(2), 259-309. <https://doi.org/10.1177/0013161X15616864>
- Thornburg, D. G., & Mungai, A. (2011). Teacher empowerment and school reform. *Journal of Ethnographic and Qualitative Research, 5*(4), 205-217.

- Tuck, B., Haynes, M., King, R., & Pesch, R. (2010). The economic impact of farm-to school lunch programs: A central Minnesota example. *Economic Impact Analysis*. http://www.farmtoschool.org/Resources/Economic_Impact_of_F2S_Central_MN.pdf
- Ugalde, M. (2012). *Results from an assessment survey for school food service directors and school foodservice managers participating in the 2011-2012 South Carolina Farm to School program* (Publication No. 1518327) [Master's thesis, Clemson University]. ProQuest Dissertation and Theses.
- United States Department of Agriculture. (n.d.). Organic. <https://www.ams.usda.gov/grades-standards/organic-standards>
- Watson, J. A. (2016). *Creating successful farm to school programs in Florida: A county-wide feasibility study of direct procurement* (Publication No. 10409597) [Doctoral dissertation, University of Florida]. ProQuest Dissertations and Theses.
- Yoder, A. B. B., Foecke, L. L., & Schoeller, D. A. (2015). Factors affecting fruit and vegetable school lunch waste in Wisconsin elementary schools participating in Farm to School programmes. *Public Health Nutrition*, 18(15), 2855-2863. <https://doi.org/10.1017/s1368980015000385>

Appendix A
Staff Survey Questions

Farm to School Survey

Thank you for taking the time to answer these survey questions. Your response is greatly appreciated.

Demographic Data

1. With what level of students are you associated?
2. What subject do you teach?
3. Which of the following duties do you perform at your school?
4. How many years have you been at your present school?
5. Do you personally have any agricultural background?
6. In your use of agriculture in the classroom do you consider yourself to be a:
7. Have you ever eaten produce grown on the district's farm in your school's cafeteria?
8. Have you ever attended an educational training program about connecting farm to school to your classroom?
9. How much time a week do you spend using agriculture in the context of teaching?

Please indicate how strongly you agree or disagree with each statement

10. I have adequate time during the day to prepare lessons related to agriculture.
 11. I have knowledge of Farm to School.
 12. I would like to learn how to use Farm to School in my classroom and have age-appropriate agricultural resources available to me.
 13. I would like my students to participate in agricultural based activities within my school.
 14. I feel the school district supports me in using agriculture in the classroom.
 15. Do you believe agriculture education is important to students?
 16. Have you ever been to the school district's farm (Cragmoor Farms)?
 17. Have you ever been to the school district's greenhouse?
 18. Have you ever been to the district's farmer's market?
 19. Do you have a school garden at your school?
 20. Have you ever done any taste tests of fresh produce with your classes?
 21. Have you had any training on the district's Farm to School program?
 22. Are your students exposed to fresh produce in the school's cafeteria?
 23. Do you believe fresh produce to be important to your students?
-

Appendix B
Interview Questions

Farm to School Program Evaluation Interview Questions

Note: Each interview will be conducted in person or via Zoom. Each interview will be recorded on a password protected Aiworth digital voice recorder.

Opening

Thank you for participating in this program evaluation. My goal is to better understand your knowledge regarding Farm to School and what you perceive your role to be in increasing access to fruits and vegetables in the schools of District Six.

Introductory Questions

1. Please state your name, position with the school district, and how many years you have been with the school district.
2. What comes to mind when you hear the term "farm to school?"
3. Tell me what you think of when you hear the phrase "fruit and vegetable consumption in school."
4. Do you have any interest in healthy foods and/or providing healthy foods to the students of the school district?
5. To what capacity are you familiar with the district's Farm to School Program?
6. To what capacity are you involved with the district's F2S program?
7. Have you had any input in the implementation of F2S? If so, how?

Key Questions

8. What do you know about Farm to School programs?
 9. What do you believe are benefits of the district's F2S program?
 10. What goals or expectations do you have for the district's F2S program?
 11. What do you believe are positive aspects of the current F2S program?
 12. What do you believe are drawbacks to the district's current F2S program?
 13. Have you learned anything from the district's implementation of the F2S program?
-

Appendix C
Invitation and Waiver

Dear Parents,

My name is _____, and I am a doctoral student at _____. I am conducting a research study on the district's Farm to School Program for my doctoral dissertation and I would like for you to participate in a focus group interview on the Farm to School Program.

For the study I will be assessing factors associated with implementation of Farm to School in the school district. This focus group interview will give insight into you and your child's experience with the Farm to School Program.

The focus group interview will be conducted via Google Meet. A link to the Google Meet is included below. After completing the interview, your data will be collected anonymously. No personal data will be revealed after completion of this interview. Your participation in this study is completely voluntary.

If you have any questions or concerns about this study, please contact _____ at _____ or email at _____. Thank you for your collaboration.

Thank you in advance for your time and effort.

Best regards,

Informed Consent Form for Focus Group
Farm to School Program Evaluation

The purpose of this research is to evaluate the _____ Farm to School Program. As a participant in the study, you will be asked to participate in a focus group. It is anticipated that the focus group will require about thirty-five minutes of your time. Participation in this study is voluntary. You have the right to not participate in the study by telling the researcher you would not like to participate and exit the Google Meet. You may choose not to participate in the study without penalty. You also have the right to refuse to answer any question(s) for any reason without penalty. The information that you give in the study will be handled confidentially. Data from the transcript of this focus group will be kept confidential. This means that your name will not be collected or linked to the data. Participants should protect the confidentiality of other participants by not sharing what is discussed in the focus group. There are no anticipated risks in this study. You will receive no payment for participating in the study. You have the right to withdraw from the focus group at any time without penalty by exiting the focus group. Data from this study will not be used or distributed for future research studies.

If you have questions about the study, contact:

By logging onto the meeting you have consented to participate in the interview.

If you are not 18 years of age or older you may not participate in the interview, please close this window. If you do not consent to participate, please close this window.

Appendix D

Farm to School Financial Data

	Type	Date	Item	Qty	Sales Price	USDA	Savings
Elementary School #1							
	Invoice	12/04/2019	S2096 (Lettuce Summer Crisp Wax Box 24 ct Loose USA)	1.00	24.00	42.00	18.00
	Invoice	01/13/2020	S2095 (Lettuce Red Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.08	10.08
	Invoice	02/25/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56
	Invoice	04/15/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	2.00	24.00	69.12	21.12
	Invoice	05/01/2020	S2095 (Lettuce Red Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.08	10.08
	Invoice	05/15/2020	S2095 (Lettuce Red Leaf Wax Box 24 ct Loose USA)	2.00	24.00	68.16	20.16
	Invoice	08/20/2020	S2038 (Cantaloupe Wax Box 12 ct Loose USA)	1.00	21.00	21.48	0.48
	Invoice	08/20/2020	S2060 (Cucumber 1 1/9 Bu Box 1 ea Loose USA)	1.00	18.95	53.35	34.40
	Invoice	08/28/2020	S2043 (Cantaloupe RPC 12 ct Loose USA)	1.00	21.00	21.48	0.48
	Invoice	09/03/2020	S2165 (Tomato Cherry Gold Box 12 ea 1 Pint Clam Shell USA)	1.00	15.00	35.16	20.16
	Invoice	09/03/2020	S2038 (Cantaloupe Wax Box 12 ct Loose USA)	1.00	21.00	21.48	0.48
	Invoice	09/03/2020	S2116 (Pepper Sweet Lunchbox Mix 1 1/9 Bu Box Loose USA)	1.00	21.00	52.92	30.92
	Invoice	09/09/2020	S2170 (Tomato Roma Box 25 lb Loose USA)	1.00	27.75	37.00	9.25
	Invoice	09/09/2020	S2020 (Bell Pepper Green 1 1/9 Bu Box Loose USA)	1.00	21.95	52.92	30.92
	Invoice	09/09/2020	S2116 (Pepper Sweet Lunchbox Mix 1 1/9 Bu Box Loose USA)	1.00	21.00	52.92	30.92
	Invoice	09/24/2020	S2170 (Tomato Roma Box 25 lb Loose USA)	1.00	27.75	37	9.25
	Invoice	09/24/2020	S2116 (Pepper Sweet Lunchbox Mix 1 1/9 Bu Box Loose USA)	2.00	21.00	105.84	63.84
	Invoice	10/01/2020	S2167 (Tomato Grape Box 12 ea 1 Pint Clam Shell USA)	2.00	18.00	70.32	34.32
	Invoice	10/01/2020	S2116 (Pepper Sweet Lunchbox Mix 1 1/9 Bu Box Loose USA)	2.00	21.00	52.92	10.92
	Invoice	10/19/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56
Elementary School #1				25.00			377.00

	Type	Date	Item	Qty	Sales Price	USDA	Savings
Elementary School #2							
	Invoice	11/18/2019	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	3.00	24.00	103.68	31.68
	Invoice	12/04/2019	S2090 (Lettuce Romaine Wax Box 24 ct Loose USA)	2.00	24.00	61.92	13.92
	Invoice	12/04/2019	S2096 (Lettuce Summer Crisp Wax Box 24 ct Loose USA)	1.00	24.00	42.00	18.00
	Invoice	12/16/2019	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56
	Invoice	01/07/2020	S2095 (Lettuce Red Leaf Wax Box 24 ct Loose USA)	2.00	2.00	3.23	1.23
	Invoice	01/07/2020	S2090 (Lettuce Romaine Wax Box 24 ct Loose USA)	1.00	24.00	30.96	6.96
	Invoice	01/07/2020	S2055 (Collard Champion Wax Box 12 ct Loose USA)	1.00	15.95	24.00	8.05
	Invoice	01/21/2020	S2142 (Sweet Potato Orange Box 40 lb Loose USA)	1.00	28.00	59.6	31.60
	Invoice	02/17/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	2.00	24.00	69.12	21.12
	Invoice	02/17/2020	S2142 (Sweet Potato Orange Box 40 lb Loose USA)	1.00	28.00	59.60	31.60
	Invoice	02/17/2020	S2030 (Cabbage Green Wax Box 50 lb Loose USA)	1.00	17.00	36.00	19.00
	Invoice	02/18/2020	S2055 (Collard Champion Wax Box 12 ct Loose USA)	1.00	15.95	24.00	8.05
	Invoice	02/24/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	2.00	24.00	69.12	21.12
	Invoice	02/24/2020	S2142 (Sweet Potato Orange Box 40 lb Loose USA)	1.00	28.00	70.00	42.00
	Invoice	02/25/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	2.00	24.00	69.12	45.17
	Invoice	02/25/2020	S2055 (Collard Champion Wax Box 12 ct Loose USA)	1.00	15.95	24.00	8.05
	Invoice	04/15/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	2.00	24.00	69.12	21.12
	Invoice	05/08/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	2.00	24.00	69.12	21.12
	Invoice	08/20/2020	S2130 (Squash Yellow 1/2 Bu Box Loose USA)	1.00	17.00	19.40	2.40
	Invoice	08/20/2020	S2140 (Squash Zucchini 1/2 Bu Box Loose USA)	1.00	17.00	19.40	2.40
	Invoice	08/27/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56
	Invoice	08/27/2020	S2130 (Squash Yellow 1/2 Bu Box Loose USA)	1.00	17.00	19.40	2.40
	Invoice	08/27/2020	S2140 (Squash Zucchini 1/2 Bu Box Loose USA)	1.00	17.00	19.40	2.40
	Invoice	08/27/2020	S2043 (Cantaloupe RPC 12 ct Loose USA)	2.00	21.00	42.96	0.96
	Invoice	08/27/2020	S2060 (Cucumber 1 1/9 Bu Box 1 ea Loose USA)	1.00	18.95	53.35	34.40
	Invoice	09/03/2020	S2165 (Tomato Cherry Gold Box 12 ea 1 Pint Clam Shell USA)	2.00	15.00	70.30	40.30
	Invoice	09/03/2020	S2043 (Cantaloupe RPC 12 ct Loose USA)	2.00	21.00	42.96	2.96
	Invoice	09/10/2020	S2165 (Tomato Cherry Gold Box 12 ea 1 Pint Clam Shell USA)	3.00	17.00	105.48	54.48
	Invoice	09/17/2020	S2167 (Tomato Grape Box 12 ea 1 Pint Clam Shell USA)	2.00	15.00	70.30	40.30
	Invoice	10/01/2020	S2167 (Tomato Grape Box 12 ea 1 Pint Clam Shell USA)	1.00	18.00	35.15	17.15
	Invoice	10/01/2020	S2116 (Pepper Sweet Lunchbox Mix 1 1/9 Bu Box Loose USA)	1.00	21.00	52.92	31.90
	Invoice	10/28/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	2.00	24.00	69.12	21.12
Elementary School #2				48.00			624.08

Child Development Center									
	Invoice	11/06/2019	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
	Invoice	11/08/2019	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
	Invoice	11/08/2019	S2142 (Sweet Potato Orange Box 40 lb Loose USA)	1.00	28.00	59.60	31.60		
	Invoice	11/08/2019	S2030 (Cabbage Green Wax Box 50 lb Loose USA)	1.00	17.00	36.00	19.00		
	Invoice	11/18/2019	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
	Invoice	12/04/2019	S2096 (Lettuce Summer Crisp Wax Box 24 ct Loose USA)	1.00	24.00	42.00	18.00		
	Invoice	12/09/2019	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
	Invoice	12/16/2019	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
	Invoice	01/07/2020	S2095 (Lettuce Red Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.08	10.08		
	Invoice	01/13/2020	S2095 (Lettuce Red Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.08	10.08		
	Invoice	01/13/2020	S2030 (Cabbage Green Wax Box 50 lb Loose USA)	1.00	17.00	36.00	19.00		
	Invoice	01/13/2020	S2026 (Broccoli Wax Box 18 ct Loose USA)	1.00	28.50	54.00	35.58		
	Invoice	02/17/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	2.00	24.00	69.12	21.12		
	Invoice	02/17/2020	S2142 (Sweet Potato Orange Box 40 lb Loose USA)	1.00	28.00	59.60	31.60		
	Invoice	02/18/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.50		
	Invoice	02/24/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	2.00	24.00	69.12	21.12		
	Invoice	02/24/2020	S2142 (Sweet Potato Orange Box 40 lb Loose USA)	1.00	28.00	59.60	31.60		
	Invoice	02/25/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	2.00	24.00	69.12	21.12		
	Invoice	02/25/2020	S2142 (Sweet Potato Orange Box 40 lb Loose USA)	1.00	28.00	59.60	31.60		
	Invoice	08/20/2020	S2170 (Tomato Roma Box 25 lb Loose USA)	1.00	37.75	37.00	0.75		
	Invoice	08/20/2020	S2038 (Cantaloupe Wax Box 12 ct Loose USA)	1.00	21.00	21.48	0.48		
	Invoice	08/20/2020	S2060 (Cucumber 1 1/9 Bu Box 1 ea Loose USA)	1.00	18.95	53.35	34.40		
	Invoice	08/28/2020	S2130 (Squash Yellow 1/2 Bu Box Loose USA)	2.00	17.00	38.80	4.80		
	Invoice	08/28/2020	S2043 (Cantaloupe RPC 12 ct Loose USA)	1.00	21.00	21.48	0.48		
	Invoice	08/28/2020	S2060 (Cucumber 1 1/9 Bu Box 1 ea Loose USA)	1.00	18.95	53.35	34.00		
	Invoice	08/28/2020	S2020 (Bell Pepper Green 1 1/9 Bu Box Loose USA)	1.00	21.95	52.92	30.97		
	Invoice	09/03/2020	S2038 (Cantaloupe Wax Box 12 ct Loose USA)	1.00	21.00	21.48	0.48		
	Invoice	09/03/2020	S2116 (Pepper Sweet Lunchbox Mix 1 1/9 Bu Box Loose USA)	1.00	21.00	52.92	31.92		
	Invoice	09/09/2020	S2167 (Tomato Grape Box 12 ea 1 Pint Clam Shell USA)	1.00	15.00	35.16	20.16		
	Invoice	09/09/2020	S2116 (Pepper Sweet Lunchbox Mix 1 1/9 Bu Box Loose USA)	1.00	21.00	52.92	31.92		
	Invoice	09/11/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
	Invoice	09/11/2020	S2170 (Tomato Roma Box 25 lb Loose USA)	1.00	27.75	37.00	9.25		
	Invoice	09/11/2020	S2107 (Okra Clemson Spineless 1/2 Bu Box 1 ea Loose USA)	1.00	27.50	28.00	0.50		
	Invoice	09/17/2020	S2170 (Tomato Roma Box 25 lb Loose USA)	1.00	27.75	37.00	9.25		
	Invoice	09/17/2020	S2116 (Pepper Sweet Lunchbox Mix 1 1/9 Bu Box Loose USA)	1.00	21.00	52.92	31.92		
	Invoice	09/17/2020	S2063 (Eggplant Diamond 1 1/9 Bu Box 1 ea Loose USA)	1.00	14.00	17.00	3.00		
	Invoice	09/24/2020	S2170 (Tomato Roma Box 25 lb Loose USA)	1.00	27.75	37.00	9.25		
	Invoice	09/24/2020	S2063 (Eggplant Diamond 1 1/9 Bu Box 1 ea Loose USA)	1.00	14.00	17.00	3.00		
	Invoice	10/01/2020	S2116 (Pepper Sweet Lunchbox Mix 1 1/9 Bu Box Loose USA)	1.00	21.00	52.92	31.92		
	Invoice	10/01/2020	S2063 (Eggplant Diamond 1 1/9 Bu Box 1 ea Loose USA)	1.00	14.00	17.00	3.00		
	Invoice	10/07/2020	S2116 (Pepper Sweet Lunchbox Mix 1 1/9 Bu Box Loose USA)	0.00	21.00	0	0		
	Invoice	10/07/2020	S2063 (Eggplant Diamond 1 1/9 Bu Box 1 ea Loose USA)	0.00	14.00	0	0		
	Invoice	10/07/2020	S2167 (Tomato Grape Box 12 ea 1 Pint Clam Shell USA)	1.00	18.00	35.16	17.16		
	Invoice	10/19/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
Total Child Development Center				46.00			693.78		

Middle School #1									
	Invoice	11/08/2019	S2116 (Pepper Sweet Lunchbox Mix 1 1/9 Bu Box Loose USA)	1.00	21.00	52.92	31.92		
	Invoice	11/08/2019	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
	Invoice	11/08/2019	S2030 (Cabbage Green Wax Box 50 lb Loose USA)	1.00	17.00	36.00	19.00		
	Invoice	12/04/2019	S2096 (Lettuce Summer Crisp Wax Box 24 ct Loose USA)	3.00	24.00	42.00	18.00		
	Invoice	12/09/2019	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
	Invoice	12/09/2019	S2030 (Cabbage Green Wax Box 50 lb Loose USA)	1.00	17.00	36.00	19.00		
	Invoice	01/07/2020	S2095 (Lettuce Red Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.08	10.08		
	Invoice	01/07/2020	S2090 (Lettuce Romaine Wax Box 24 ct Loose USA)	1.00	24.00	30.96	6.96		
	Invoice	01/13/2020	S2026 (Broccoli Wax Box 18 ct Loose USA)	1.00	28.50	54.00	25.50		
	Invoice	01/21/2020	S2142 (Sweet Potato Orange Box 40 lb Loose USA)	1.00	28.00	59.60	31.60		
	Invoice	01/21/2020	S2030 (Cabbage Green Wax Box 50 lb Loose USA)	1.00	17.00	36.00	19.00		
	Invoice	02/17/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	3.00	24.00	103.68	31.68		
	Invoice	02/18/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
	Invoice	02/24/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	3.00	24.00	103.68	31.68		
	Invoice	02/24/2020	S2142 (Sweet Potato Orange Box 40 lb Loose USA)	1.00	28.00	59.60	31.60		
	Invoice	02/25/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
	Invoice	08/20/2020	S2140 (Squash Zucchini 1/2 Bu Box Loose USA)	2.00	17.00	38.80	4.80		
	Invoice	08/20/2020	S2170 (Tomato Roma Box 25 lb Loose USA)	2.00	37.75	74.00	1.50		
	Invoice	08/27/2020	S2170 (Tomato Roma Box 25 lb Loose USA)	1.00	27.75	37.00	9.25		
	Invoice	09/09/2020	S2167 (Tomato Grape Box 12 ea 1 Pint Clam Shell USA)	2.00	15.00	70.32	40.32		
	Invoice	09/09/2020	S2020 (Bell Pepper Green 1 1/9 Bu Box Loose USA)	1.00	21.95	52.92	30.97		
	Invoice	09/11/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
	Invoice	09/11/2020	S2165 (Tomato Cherry Gold Box 12 ea 1 Pint Clam Shell USA)	2.00	17.00	35.16	1.16		
	Invoice	09/17/2020	S2170 (Tomato Roma Box 25 lb Loose USA)	1.00	27.75	37.00	9.25		
	Invoice	09/21/2020	S2170 (Tomato Roma Box 25 lb Loose USA)	0.00	27.75	0	0		
	Invoice	09/21/2020	S2165 (Tomato Cherry Gold Box 12 ea 1 Pint Clam Shell USA)	2.00	15.00	35.16	5.16		
	Invoice	09/21/2020	S2115 (Pepper Jalapeño 1 1/9 Bu Box Loose USA)	1.00	21.00	22.00	1.00		
	Invoice	09/24/2020	S2170 (Tomato Roma Box 25 lb Loose USA)	1.00	27.75	37.00	9.25		
	Invoice	09/24/2020	S2167 (Tomato Grape Box 12 ea 1 Pint Clam Shell USA)	2.00	17.00	70.32	36.32		
Middle School #1					40.00			476.30	

High School #1									
	Invoice	12/04/2019	S2096 (Lettuce Summer Crisp Wax Box 24 ct Loose USA)	1.00	24.00	42.00	18.00		
	Invoice	01/13/2020	S2142 (Sweet Potato Orange Box 40 lb Loose USA)	1.00	28.00	59.60	31.60		
	Invoice	01/13/2020	S2030 (Cabbage Green Wax Box 50 lb Loose USA)	1.00	17.00	36.00	19.00		
	Invoice	01/13/2020	S2055 (Collard Champion Wax Box 12 ct Loose USA)	1.00	15.95	24.00	8.05		
	Invoice	01/13/2020	S2026 (Broccoli Wax Box 18 ct Loose USA)	1.00	28.50	54.00	25.50		
	Invoice	01/21/2020	S2055 (Collard Champion Wax Box 12 ct Loose USA)	1.00	15.95	24.00	8.05		
	Invoice	01/21/2020	S2026 (Broccoli Wax Box 18 ct Loose USA)	4.00	28.50	216.00	102.00		
	Invoice	02/24/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
	Invoice	02/24/2020	S2030 (Cabbage Green Wax Box 50 lb Loose USA)	1.00	15.95	36.00	15.95		
	Invoice	05/15/2020	S2095 (Lettuce Red Leaf Wax Box 24 ct Loose USA)	2.00	24.00	102.24	54.24		
	Invoice	05/15/2020	S2030 (Cabbage Green Wax Box 50 lb Loose USA)	1.00	17.00	36.00	19.00		
	Invoice	05/15/2020	S2076 (Kale Green Darkibor 3/4 Bu Box Loose USA)	2.00	24.00	78.00	30.00		
	Invoice	05/28/2020	S2026 (Broccoli Wax Box 18 ct Loose USA)	2.00	28.50	108.00	51.00		
	Invoice	07/14/2020	S2095 (Lettuce Red Leaf Wax Box 24 ct Loose USA)	2.00	12.00	68.16	44.16		
	Invoice	07/14/2020	S2030 (Cabbage Green Wax Box 50 lb Loose USA)	1.00	24.00	36.00	12.00		
	Invoice	07/14/2020	S2076 (Kale Green Darkibor 3/4 Bu Box Loose USA)	2.00	24.00	60.00	12.00		
	Invoice	07/14/2020	S2026 (Broccoli Wax Box 18 ct Loose USA)	2.00	28.50	108.00	51.00		
	Invoice	08/20/2020	S2140 (Squash Zucchini 1/2 Bu Box Loose USA)	1.00	17.00	19.40	2.40		
	Invoice	09/03/2020	S2165 (Tomato Cherry Gold Box 12 ea 1 Pint Clam Shell USA)	2.00	15.00	70.32	40.32		
	Invoice	09/03/2020	S2108 (Okra Clemson Spineless Plastic Crate Loose USA)	1.00	27.50	28.00	0.50		
	Invoice	09/03/2020	S2020 (Bell Pepper Green 1 1/9 Bu Box Loose USA)	1.00	21.95	52.92	30.97		
	Invoice	09/03/2020	S2116 (Pepper Sweet Lunchbox Mix 1 1/9 Bu Box Loose USA)	1.00	21.00	52.92	30.97		
	Invoice	09/03/2020	S2115 (Pepper Jalapeño 1 1/9 Bu Box Loose USA)	1.00	21.00	22.00	1.00		
	Invoice	09/17/2020	S2170 (Tomato Roma Box 25 lb Loose USA)	1.00	27.75	37.00	9.25		
	Invoice	09/17/2020	S2165 (Tomato Cherry Gold Box 12 ea 1 Pint Clam Shell USA)	1.00	15.00	35.16	20.16		
	Invoice	09/24/2020	S2167 (Tomato Grape Box 12 ea 1 Pint Clam Shell USA)	1.00	18.00	35.16	17.16		
	Invoice	10/20/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
High School #1					37.00			675.40	

High School #2									
	Invoice	11/06/2019	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
	Invoice	12/04/2019	S2096 (Lettuce Summer Crisp Wax Box 24 ct Loose USA)	1.00	24.00	42.00	18.00		
	Invoice	02/17/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
	Invoice	02/24/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
	Invoice	08/20/2020	S2140 (Squash Zucchini 1/2 Bu Box Loose USA)	6.00	17.00	116.4	14.40		
	Invoice	08/28/2020	S2170 (Tomato Roma Box 25 lb Loose USA)	1.00	27.75	37.00	9.25		
	Invoice	08/28/2020	S2020 (Bell Pepper Green 1 1/9 Bu Box Loose USA)	1.00	21.95	52.92	30.97		
	Invoice	09/11/2020	S2165 (Tomato Cherry Gold Box 12 ea 1 Pint Clam Shell USA)	4.00	17.00	140.64	72.64		
	Invoice	09/11/2020	S2115 (Pepper Jalapeño 1 1/9 Bu Box Loose USA)	1.00	21.00	22.00	1.00		
	Invoice	09/15/2020	S2165 (Tomato Cherry Gold Box 12 ea 1 Pint Clam Shell USA)	0.00	17.00	0	0		
	Invoice	09/15/2020	S2115 (Pepper Jalapeño 1 1/9 Bu Box Loose USA)	0.00	21.00	0	0		
	Invoice	09/15/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	2.00	24.00	69.12	21.12		
	Invoice	09/24/2020	S2167 (Tomato Grape Box 12 ea 1 Pint Clam Shell USA)	3.00	17.00	105.45	54.45		
	Invoice	09/24/2020	S2116 (Pepper Sweet Lunchbox Mix 1 1/9 Bu Box Loose USA)	3.00	21.00	158.76	95.76		
	Invoice	10/01/2020	S2167 (Tomato Grape Box 12 ea 1 Pint Clam Shell USA)	2.00	18.00	70.32	34.32		
	Invoice	10/01/2020	S2116 (Pepper Sweet Lunchbox Mix 1 1/9 Bu Box Loose USA)	2.00	21.00	105.84	63.84		
	Invoice	10/19/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
High School #2				30.00			457.99		
High School #3									
	Invoice	12/04/2019	S2096 (Lettuce Summer Crisp Wax Box 24 ct Loose USA)	3.00	24.00	42.00	18.00		
	Invoice	01/07/2020	S2095 (Lettuce Red Leaf Wax Box 24 ct Loose USA)	3.00	24.00	102.24	30.24		
	Invoice	02/24/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.50		
	Invoice	08/20/2020	S2140 (Squash Zucchini 1/2 Bu Box Loose USA)	1.00	17.00	19.40	2.40		
	Invoice	08/27/2020	S2170 (Tomato Roma Box 25 lb Loose USA)	4.00	27.75	148.00	37.00		
	Invoice	10/01/2020	S2167 (Tomato Grape Box 12 ea 1 Pint Clam Shell USA)	3.00	18.00	105.45	51.45		
	Invoice	10/19/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	2.00	24.00	69.12	21.12		
High School #3				17.00			170.71		
Elementary School #3									
	Invoice	11/06/2019	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.50		
	Invoice	11/08/2019	S2116 (Pepper Sweet Lunchbox Mix 1 1/9 Bu Box Loose USA)	1.00	21.00	52.92	31.92		
	Invoice	11/08/2019	S2020 (Bell Pepper Green 1 1/9 Bu Box Loose USA)	1.00	21.95	52.92	30.97		
	Invoice	11/08/2019	S2142 (Sweet Potato Orange Box 40 lb Loose USA)	2.00	28.00	59.60	3.60		
	Invoice	11/08/2019	S2030 (Cabbage Green Wax Box 50 lb Loose USA)	1.00	17.00	36.00	19.00		
	Invoice	11/18/2019	S2116 (Pepper Sweet Lunchbox Mix 1 1/9 Bu Box Loose USA)	1.00	21.00	52.92	31.92		
	Invoice	11/18/2019	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
	Invoice	12/09/2019	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
	Invoice	12/09/2019	S2030 (Cabbage Green Wax Box 50 lb Loose USA)	1.00	17.00	36.00	19.00		
	Invoice	12/16/2019	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
	Invoice	01/07/2020	S2095 (Lettuce Red Leaf Wax Box 24 ct Loose USA)	2.00	24.00	68.16	20.16		
	Invoice	01/21/2020	S2030 (Cabbage Green Wax Box 50 lb Loose USA)	1.00	17.00	36.00	19.00		
	Invoice	01/21/2020	S2026 (Broccoli Wax Box 18 ct Loose USA)	1.00	28.50	54.00	25.50		
	Invoice	02/24/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
	Invoice	02/24/2020	S2142 (Sweet Potato Orange Box 40 lb Loose USA)	1.00	28.00	59.60	31.60		
	Invoice	02/25/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
	Invoice	08/20/2020	S2130 (Squash Yellow 1/2 Bu Box Loose USA)	1.00	17.00	19.40	2.40		
	Invoice	08/20/2020	S2140 (Squash Zucchini 1/2 Bu Box Loose USA)	1.00	17.00	19.40	2.40		
	Invoice	08/20/2020	S2170 (Tomato Roma Box 25 lb Loose USA)	1.00	37.75	37.00	0.75		
	Invoice	08/20/2020	S2038 (Cantaloupe Wax Box 12 ct Loose USA)	1.00	21.00	21.48	0.48		
	Invoice	08/27/2020	S2130 (Squash Yellow 1/2 Bu Box Loose USA)	1.00	17.00	19.40	2.40		
	Invoice	08/27/2020	S2140 (Squash Zucchini 1/2 Bu Box Loose USA)	1.00	17.00	19.40	2.40		
	Invoice	09/03/2020	S2165 (Tomato Cherry Gold Box 12 ea 1 Pint Clam Shell USA)	2.00	15.00	70.32	40.32		
	Invoice	09/03/2020	S2043 (Cantaloupe RPC 12 ct Loose USA)	1.00	21.00	21.48	0.48		
	Invoice	09/11/2020	S2165 (Tomato Cherry Gold Box 12 ea 1 Pint Clam Shell USA)	2.00	17.00	70.32	40.32		
	Invoice	09/17/2020	S2116 (Pepper Sweet Lunchbox Mix 1 1/9 Bu Box Loose USA)	1.00	21.00	52.92	31.92		
	Invoice	09/24/2020	S2116 (Pepper Sweet Lunchbox Mix 1 1/9 Bu Box Loose USA)	2.00	21.00	105.84	63.84		
	Invoice	10/01/2020	S2021 (Bell Pepper Red 1 1/9 Bu Box Loose USA)	1.00	21.95	52.92	30.97		
	Invoice	10/07/2020	S2021 (Bell Pepper Red 1 1/9 Bu Box Loose USA)	0.00	21.95	52.92	30.97		
	Invoice	10/07/2020	S2116 (Pepper Sweet Lunchbox Mix 1 1/9 Bu Box Loose USA)	1.00	21.00	52.92	31.92		
	Invoice	10/19/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
Elementary School #3				35.00			587.35		

Middle School #2									
	Invoice	11/18/2019	S2116 (Pepper Sweet Lunchbox Mix 1 1/9 Bu Box Loose USA)	1.00	21.00	52.92	31.92		
	Invoice	11/18/2019	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
	Invoice	12/04/2019	S2096 (Lettuce Summer Crisp Wax Box 24 ct Loose USA)	1.00	24.00	42.00	18.00		
	Invoice	01/07/2020	S2095 (Lettuce Red Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
	Invoice	01/07/2020	S2090 (Lettuce Romaine Wax Box 24 ct Loose USA)	1.00	24.00	30.96	6.96		
	Invoice	02/17/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
	Invoice	08/20/2020	S2140 (Squash Zucchini 1/2 Bu Box Loose USA)	1.00	17.00	19.40	2.40		
	Invoice	08/20/2020	S2038 (Cantaloupe Wax Box 12 ct Loose USA)	1.00	21.00	21.48	0.48		
	Invoice	09/03/2020	S2116 (Pepper Sweet Lunchbox Mix 1 1/9 Bu Box Loose USA)	4.00	21.00	211.68	127.68		
	Invoice	09/08/2020	S2165 (Tomato Cherry Gold Box 12 ea 1 Pint Clam Shell USA)	1.00	15.00	35.16	20.16		
	Invoice	09/08/2020	S2116 (Pepper Sweet Lunchbox Mix 1 1/9 Bu Box Loose USA)	4.00	21.00	211.68	127.68		
	Invoice	09/08/2020	S2167 (Tomato Grape Box 12 ea 1 Pint Clam Shell USA)	1.00	15.00	35.16	20.16		
	Invoice	09/10/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
	Invoice	09/10/2020	S2165 (Tomato Cherry Gold Box 12 ea 1 Pint Clam Shell USA)	1.00	17.00	35.16	18.16		
	Invoice	09/10/2020	S2116 (Pepper Sweet Lunchbox Mix 1 1/9 Bu Box Loose USA)	6.00	21.00	317.52	191.52		
	Invoice	09/17/2020	S2116 (Pepper Sweet Lunchbox Mix 1 1/9 Bu Box Loose USA)	3.00	21.00	158.76	95.76		
	Invoice	09/17/2020	S2165 (Tomato Cherry Gold Box 12 ea 1 Pint Clam Shell USA)	1.00	15.00	35.16	20.16		
	Invoice	09/24/2020	S2167 (Tomato Grape Box 12 ea 1 Pint Clam Shell USA)	2.00	18.00	70.32	34.30		
	Invoice	09/24/2020	S2116 (Pepper Sweet Lunchbox Mix 1 1/9 Bu Box Loose USA)	4.00	21.00	211.68	127.68		
	Invoice	09/24/2020	S2115 (Pepper Jalapeño 1 1/9 Bu Box Loose USA)	1.00	21.00	22.00	1.00		
Middle School #2				37.00			886.26		

Middle School #3									
	Invoice	11/06/2019	S2116 (Pepper Sweet Lunchbox Mix 1 1/9 Bu Box Loose USA)	1.00	21.00	52.92	31.92		
	Invoice	11/06/2019	S2020 (Bell Pepper Green 1 1/9 Bu Box Loose USA)	1.00	21.95	52.92	30.97		
	Invoice	11/08/2019	S2116 (Pepper Sweet Lunchbox Mix 1 1/9 Bu Box Loose USA)	1.00	21.00	52.92	31.92		
	Invoice	11/08/2019	S2020 (Bell Pepper Green 1 1/9 Bu Box Loose USA)	1.00	21.95	52.92	30.97		
	Invoice	11/08/2019	S2142 (Sweet Potato Orange Box 40 lb Loose USA)	2.00	28.00	119.2	63.2		
	Invoice	12/04/2019	S2096 (Lettuce Summer Crisp Wax Box 24 ct Loose USA)	2.00	24.00	42.00	18.00		
	Invoice	12/09/2019	S2030 (Cabbage Green Wax Box 50 lb Loose USA)	1.00	17.00	36.00	19.00		
	Invoice	01/07/2020	S2090 (Lettuce Romaine Wax Box 24 ct Loose USA)	2.00	24.00	61.92	13.92		
	Invoice	02/17/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
	Invoice	02/17/2020	S2030 (Cabbage Green Wax Box 50 lb Loose USA)	1.00	17.00	36.00	19.00		
	Invoice	02/18/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
	Invoice	03/03/2020	S2142 (Sweet Potato Orange Box 40 lb Loose USA)	1.00	28.00	59.60	31.60		
	Invoice	03/10/2020	S2142 (Sweet Potato Orange Box 40 lb Loose USA)	1.00	28.00	59.60	31.60		
	Invoice	04/15/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	2.00	24.00	69.12	21.12		
	Invoice	04/23/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
	Invoice	05/01/2020	S2095 (Lettuce Red Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.08	10.08		
	Invoice	05/08/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
	Invoice	08/27/2020	S2043 (Cantaloupe RPC 12 ct Loose USA)	6.00	21.00	128.88	2.88		
	Invoice	08/27/2020	S2020 (Bell Pepper Green 1 1/9 Bu Box Loose USA)	1.00	21.95	52.92	30.97		
	Invoice	09/09/2020	S2167 (Tomato Grape Box 12 ea 1 Pint Clam Shell USA)	2.00	15.00	70.32	40.32		
	Invoice	09/09/2020	S2020 (Bell Pepper Green 1 1/9 Bu Box Loose USA)	1.00	21.95	52.92	30.97		
	Invoice	09/09/2020	S2115 (Pepper Jalapeño 1 1/9 Bu Box Loose USA)	1.00	21.00	22.00	1.00		
	Invoice	09/17/2020	S2116 (Pepper Sweet Lunchbox Mix 1 1/9 Bu Box Loose USA)	1.00	21.00	52.92	31.92		
	Invoice	09/21/2020	S2165 (Tomato Cherry Gold Box 12 ea 1 Pint Clam Shell USA)	2.00	15.00	70.32	40.32		
	Invoice	09/21/2020	S2020 (Bell Pepper Green 1 1/9 Bu Box Loose USA)	1.00	21.95	52.92	30.97		
	Invoice	09/21/2020	S2116 (Pepper Sweet Lunchbox Mix 1 1/9 Bu Box Loose USA)	0.00	21.00	0	0		
Middle School #3				36.00			604.89		

Elementary School #4									
	Invoice	11/08/2019	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
	Invoice	12/16/2019	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
	Invoice	02/18/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	2.00	24.00	69.12	21.12		
	Invoice	08/20/2020	S2130 (Squash Yellow 1/2 Bu Box Loose USA)	2.00	17.00	19.40	4.80		
	Invoice	08/20/2020	S2140 (Squash Zucchini 1/2 Bu Box Loose USA)	1.00	17.00	19.40	2.40		
	Invoice	08/20/2020	S2038 (Cantaloupe Wax Box 12 ct Loose USA)	1.00	21.00	21.48	0.48		
	Invoice	09/03/2020	S2165 (Tomato Cherry Gold Box 12 ea 1 Pint Clam Shell USA)	1.00	15.00	35.16	20.16		
	Invoice	09/03/2020	S2043 (Cantaloupe RPC 12 ct Loose USA)	2.00	21.00	42.90	0.96		
	Invoice	09/03/2020	S2116 (Pepper Sweet Lunchbox Mix 1 1/9 Bu Box Loose USA)	1.00	21.00	52.92	31.92		
	Invoice	09/11/2020	S2170 (Tomato Roma Box 25 lb Loose USA)	1.00	27.75	37.00	9.25		
	Invoice	09/11/2020	S2165 (Tomato Cherry Gold Box 12 ea 1 Pint Clam Shell USA)	1.00	17.00	35.16	18.16		
	Invoice	09/11/2020	S2116 (Pepper Sweet Lunchbox Mix 1 1/9 Bu Box Loose USA)	1.00	21.00	52.92	31.92		
Elementary School #4				15.00			162.29		

Elementary School #5										
	Invoice	11/06/2019	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56			
	Invoice	11/08/2019	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56			
	Invoice	11/08/2019	S2030 (Cabbage Green Wax Box 50 lb Loose USA)	1.00	17.00	36.00	19.00			
	Invoice	11/18/2019	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56			
	Invoice	12/04/2019	S2096 (Lettuce Summer Crisp Wax Box 24 ct Loose USA)	1.00	24.00	42.00	18.00			
	Invoice	12/16/2019	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56			
	Invoice	01/07/2020	S2095 (Lettuce Red Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.08	10.08			
	Invoice	01/21/2020	S2026 (Broccoli Wax Box 18 ct Loose USA)	1.00	28.50	54.00	25.50			
	Invoice	02/17/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56			
	Invoice	02/18/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56			
	Invoice	02/25/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56			
	Invoice	02/25/2020	S2142 (Sweet Potato Orange Box 40 lb Loose USA)	2.00	28.00	59.6	3.60			
	Invoice	02/25/2020	S2055 (Collard Champion Wax Box 12 ct Loose USA)	1.00	15.95	24	8.05			
	Invoice	04/15/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56			
	Invoice	08/20/2020	S2130 (Squash Yellow 1/2 Bu Box Loose USA)	1.00	17.00	19.4	2.40			
	Invoice	08/20/2020	S2140 (Squash Zucchini 1/2 Bu Box Loose USA)	1.00	17.00	19.4	2.40			
	Invoice	08/20/2020	S2170 (Tomato Roma Box 25 lb Loose USA)	1.00	37.75	37	0.75			
	Invoice	08/20/2020	S2038 (Cantaloupe Wax Box 12 ct Loose USA)	2.00	21.00	42.96	0.96			
	Invoice	08/27/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	12.56			
	Invoice	08/27/2020	S2130 (Squash Yellow 1/2 Bu Box Loose USA)	1.00	17.00	19.4	2.40			
	Invoice	08/27/2020	S2170 (Tomato Roma Box 25 lb Loose USA)	1.00	27.75	37	9.25			
	Invoice	08/27/2020	S2043 (Cantaloupe RPC 12 ct Loose USA)	1.00	21.00	21.48	0.48			
	Invoice	09/03/2020	S2165 (Tomato Cherry Gold Box 12 ea 1 Pint Clam Shell USA)	2.00	15.00	70.32	40.32			
	Invoice	09/03/2020	S2038 (Cantaloupe Wax Box 12 ct Loose USA)	1.00	21.00	21.48	0.48			
	Invoice	09/09/2020	S2167 (Tomato Grape Box 12 ea 1 Pint Clam Shell USA)	2.00	15.00	70.32	40.32			
	Invoice	09/11/2020	S2165 (Tomato Cherry Gold Box 12 ea 1 Pint Clam Shell USA)	2.00	17.00	70.32	36.32			
	Invoice	09/17/2020	S2167 (Tomato Grape Box 12 ea 1 Pint Clam Shell USA)	2.00	15.00	70.32	40.32			
	Invoice	09/17/2020	S2116 (Pepper Sweet Lunchbox Mix 1 1/9 Bu Box Loose USA)	1.00	21.00	52.92	31.92			
	Invoice	09/24/2020	S2167 (Tomato Grape Box 12 ea 1 Pint Clam Shell USA)	2.00	17.00	70.32	36.32			
	Invoice	09/24/2020	S2116 (Pepper Sweet Lunchbox Mix 1 1/9 Bu Box Loose USA)	1.00	21.00	52.92	31.92			
	Invoice	10/01/2020	S2167 (Tomato Grape Box 12 ea 1 Pint Clam Shell USA)	2.00	18.00	70.32	34.32			
	Invoice	10/01/2020	S2116 (Pepper Sweet Lunchbox Mix 1 1/9 Bu Box Loose USA)	1.00	21.00	52.92	31.92			
	Invoice	10/19/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56			
Elementary School #5				41.00			533.88			

Elementary School #6										
	Invoice	11/06/2019	S2116 (Pepper Sweet Lunchbox Mix 1 1/9 Bu Box Loose USA)	1.00	21.00	52.92	31.92			
	Invoice	11/06/2019	S2020 (Bell Pepper Green 1 1/9 Bu Box Loose USA)	1.00	21.95	52.92	30.97			
	Invoice	11/18/2019	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56			
	Invoice	11/18/2019	S2030 (Cabbage Green Wax Box 50 lb Loose USA)	1.00	17.00	36.00	19.00			
	Invoice	12/04/2019	S2096 (Lettuce Summer Crisp Wax Box 24 ct Loose USA)	2.00	24.00	42.00	18.00			
	Invoice	12/04/2019	S2055 (Collard Champion Wax Box 12 ct Loose USA)	1.00	15.95	24.00	8.05			
	Invoice	01/07/2020	S2095 (Lettuce Red Leaf Wax Box 24 ct Loose USA)	2.00	24.00	68.16	20.16			
	Invoice	01/13/2020	S2095 (Lettuce Red Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.08	10.08			
	Invoice	01/13/2020	S2026 (Broccoli Wax Box 18 ct Loose USA)	1.00	28.50	54.00	25.5			
	Invoice	01/21/2020	S2095 (Lettuce Red Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.08	10.08			
	Invoice	02/17/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	2.00	24.00	69.12	21.12			
	Invoice	02/18/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56			
	Invoice	02/24/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56			
	Invoice	02/24/2020	S2055 (Collard Champion Wax Box 12 ct Loose USA)	1.00	15.95	24.00	8.05			
	Invoice	08/28/2020	S2130 (Squash Yellow 1/2 Bu Box Loose USA)	1.00	17.00	19.40	2.40			
	Invoice	08/28/2020	S2170 (Tomato Roma Box 25 lb Loose USA)	1.00	27.75	37.00	9.25			
	Invoice	09/03/2020	S2165 (Tomato Cherry Gold Box 12 ea 1 Pint Clam Shell USA)	1.00	15.00	35.16	20.16			
	Invoice	09/03/2020	S2020 (Bell Pepper Green 1 1/9 Bu Box Loose USA)	1.00	21.00	52.92	31.92			
	Invoice	09/09/2020	S2167 (Tomato Grape Box 12 ea 1 Pint Clam Shell USA)	1.00	15.00	35.16	20.16			
	Invoice	09/09/2020	S2020 (Bell Pepper Green 1 1/9 Bu Box Loose USA)	1.00	21.95	52.92	30.97			
	Invoice	09/11/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56			
	Invoice	09/24/2020	S2167 (Tomato Grape Box 12 ea 1 Pint Clam Shell USA)	2.00	17.00	70.32	36.32			
	Invoice	10/19/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56			
	Invoice	10/20/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56			
Elementary School #6				28.00			417.47			

Elementary School #7									
	Invoice	12/04/2019	S2096 (Lettuce Summer Crisp Wax Box 24 ct Loose USA)	1.00	24.00	42.00	18.00		
	Invoice	01/13/2020	S2095 (Lettuce Red Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.08	10.08		
	Invoice	01/13/2020	S2026 (Broccoli Wax Box 18 ct Loose USA)	1.00	28.50	54.00	25.50		
	Invoice	02/17/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
	Invoice	08/20/2020	S2130 (Squash Yellow 1/2 Bu Box Loose USA)	1.00	17.00	19.40	2.40		
	Invoice	08/20/2020	S2140 (Squash Zucchini 1/2 Bu Box Loose USA)	1.00	17.00	19.40	2.40		
	Invoice	08/20/2020	S2170 (Tomato Roma Box 25 lb Loose USA)	1.00	37.75	37.00	0.75		
	Invoice	08/20/2020	S2107 (Okra Clemson Spineless 1/2 Bu Box 1 ea Loose USA)	1.00	27.50	28.00	1.50		
	Invoice	08/20/2020	S2038 (Cantaloupe Wax Box 12 ct Loose USA)	1.00	21.00	21.48	0.48		
	Invoice	08/20/2020	S2060 (Cucumber 1 1/9 Bu Box 1 ea Loose USA)	1.00	18.95	53.35	34.40		
	Invoice	08/28/2020	S2130 (Squash Yellow 1/2 Bu Box Loose USA)	2.00	17.00	38.80	4.80		
	Invoice	08/28/2020	S2170 (Tomato Roma Box 25 lb Loose USA)	1.00	27.75	37.00	9.25		
	Invoice	08/28/2020	S2043 (Cantaloupe RPC 12 ct Loose USA)	1.00	21.00	21.48	0.48		
	Invoice	08/28/2020	S2020 (Bell Pepper Green 1 1/9 Bu Box Loose USA)	1.00	21.95	52.92	30.97		
	Invoice	09/03/2020	S2165 (Tomato Cherry Gold Box 12 ea 1 Pint Clam Shell USA)	2.00	15.00	70.32	40.32		
	Invoice	09/03/2020	S2038 (Cantaloupe Wax Box 12 ct Loose USA)	2.00	21.00	42.96	0.96		
	Invoice	09/03/2020	S2116 (Pepper Sweet Lunchbox Mix 1 1/9 Bu Box Loose USA)	2.00	21.00	52.92	10.92		
	Invoice	09/09/2020	S2167 (Tomato Grape Box 12 ea 1 Pint Clam Shell USA)	2.00	15.00	70.32	40.32		
	Invoice	09/09/2020	S2020 (Bell Pepper Green 1 1/9 Bu Box Loose USA)	1.00	21.95	52.92	30.97		
	Invoice	09/09/2020	S2116 (Pepper Sweet Lunchbox Mix 1 1/9 Bu Box Loose USA)	2.00	21.00	52.92	10.92		
	Invoice	09/11/2020	S2165 (Tomato Cherry Gold Box 12 ea 1 Pint Clam Shell USA)	1.00	17.00	35.16	18.16		
	Invoice	09/17/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
	Invoice	09/24/2020	S2170 (Tomato Roma Box 25 lb Loose USA)	1.00	27.75	37.00	9.25		
	Invoice	09/24/2020	S2167 (Tomato Grape Box 12 ea 1 Pint Clam Shell USA)	2.00	17.00	70.32	36.32		
	Invoice	10/01/2020	S2116 (Pepper Sweet Lunchbox Mix 1 1/9 Bu Box Loose USA)	1.00	21.00	52.92	31.92		
Elementary School #7					32.00			391.44	

Elementary School #8									
	Invoice	11/06/2019	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
	Invoice	11/08/2019	S2020 (Bell Pepper Green 1 1/9 Bu Box Loose USA)	1.00	21.95	52.92	30.97		
	Invoice	11/08/2019	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
	Invoice	11/08/2019	S2142 (Sweet Potato Orange Box 40 lb Loose USA)	1.00	28.00	59.60	31.60		
	Invoice	11/18/2019	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
	Invoice	12/04/2019	S2090 (Lettuce Romaine Wax Box 24 ct Loose USA)	1.00	24.00	30.96	6.96		
	Invoice	12/09/2019	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
	Invoice	12/09/2019	S2142 (Sweet Potato Orange Box 40 lb Loose USA)	1.00	28.00	59.60	31.60		
	Invoice	01/07/2020	S2095 (Lettuce Red Leaf Wax Box 24 ct Loose USA)	2.00	24.00	68.16	20.16		
	Invoice	02/17/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	2.00	24.00	69.12	21.12		
	Invoice	02/18/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
	Invoice	02/18/2020	S2142 (Sweet Potato Orange Box 40 lb Loose USA)	1.00	28.00	59.60	31.60		
	Invoice	02/18/2020	S2030 (Cabbage Green Wax Box 50 lb Loose USA)	1.00	17.00	36.00	19.00		
	Invoice	05/01/2020	S2095 (Lettuce Red Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.08	10.08		
	Invoice	08/20/2020	S2130 (Squash Yellow 1/2 Bu Box Loose USA)	1.00	17.00	19.40	2.40		
	Invoice	08/20/2020	S2038 (Cantaloupe Wax Box 12 ct Loose USA)	1.00	21.00	21.42	0.42		
	Invoice	08/28/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
	Invoice	08/28/2020	S2130 (Squash Yellow 1/2 Bu Box Loose USA)	2.00	17.00	38.80	4.80		
	Invoice	08/28/2020	S2107 (Okra Clemson Spineless 1/2 Bu Box 1 ea Loose USA)	1.00	27.50	28.00	1.50		
Elementary School #8					22.00			275.57	

Elementary School #9									
	Invoice	11/18/2019	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
	Invoice	11/18/2019	S2142 (Sweet Potato Orange Box 40 lb Loose USA)	2.00	28.00	119.20	63.20		
	Invoice	11/18/2019	S2030 (Cabbage Green Wax Box 50 lb Loose USA)	1.00	17.00	36.00	19.00		
	Invoice	12/04/2019	S2096 (Lettuce Summer Crisp Wax Box 24 ct Loose USA)	4.00	24.00	42.00	18.00		
	Invoice	12/16/2019	S2142 (Sweet Potato Orange Box 40 lb Loose USA)	3.00	28.00	178.80	94.80		
	Invoice	12/16/2019	S2055 (Collard Champion Wax Box 12 ct Loose USA)	4.00	15.95	96.05	32.25		
	Invoice	01/07/2020	S2095 (Lettuce Red Leaf Wax Box 24 ct Loose USA)	3.00	24.00	102.24	30.24		
	Invoice	01/07/2020	S2090 (Lettuce Romaine Wax Box 24 ct Loose USA)	2.00	24.00	61.92	13.92		
	Invoice	01/13/2020	S2026 (Broccoli Wax Box 18 ct Loose USA)	1.00	28.50	54.00	25.50		
	Invoice	02/17/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	2.00	24.00	69.12	21.12		
	Invoice	02/18/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	2.00	24.00	69.12	21.12		
	Invoice	02/24/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	2.00	24.00	69.12	21.12		
	Invoice	02/24/2020	S2142 (Sweet Potato Orange Box 40 lb Loose USA)	1.00	28.00	59.60	31.60		
	Invoice	02/24/2020	S2030 (Cabbage Green Wax Box 50 lb Loose USA)	1.00	17.00	36.00	19.00		
	Invoice	02/24/2020	S2055 (Collard Champion Wax Box 12 ct Loose USA)	1.00	15.95	24.00	8.05		
	Invoice	02/25/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	2.00	24.00	69.12	21.12		
	Invoice	02/25/2020	S2142 (Sweet Potato Orange Box 40 lb Loose USA)	1.00	28.00	59.60	31.60		
	Invoice	04/15/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	3.00	24.00	103.68	31.68		
	Invoice	04/23/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	2.00	24.00	69.12	45.12		
	Invoice	05/01/2020	S2095 (Lettuce Red Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.08	10.08		
	Invoice	05/08/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
	Invoice	05/21/2020	S2030 (Cabbage Green Wax Box 50 lb Loose USA)	1.00	17.00	36.00	19.00		
	Invoice	05/21/2020	S2076 (Kale Green Darkibor 3/4 Bu Box Loose USA)	1.00	24.00	39.00	15.00		
	Invoice	06/29/2020	S2135 (Squash Yellow Crookneck 3/4 Bu Box Loose USA)	2.00	17.00	38.80	4.80		
	Invoice	07/14/2020	S2135 (Squash Yellow Crookneck 3/4 Bu Box Loose USA)	1.00	17.00	19.40	2.90		
	Invoice	08/20/2020	S2107 (Okra Clemson Spineless 1/2 Bu Box 1 ea Loose USA)	1.00	27.50	28.00	1.50		
	Invoice	08/20/2020	S2038 (Cantaloupe Wax Box 12 ct Loose USA)	1.00	21.00	21.48	0.48		
	Invoice	08/28/2020	S2130 (Squash Yellow 1/2 Bu Box Loose USA)	1.00	17.00	19.40	2.40		
	Invoice	09/03/2020	S2165 (Tomato Cherry Gold Box 12 ea 1 Pint Clam Shell USA)	2.00	15.00	70.32	40.3		
	Invoice	09/03/2020	S2108 (Okra Clemson Spineless Plastic Crate Loose USA)	1.00	27.50	28.00	1.50		
	Invoice	09/03/2020	S2038 (Cantaloupe Wax Box 12 ct Loose USA)	1.00	21.00	21.48	0.48		
	Invoice	09/03/2020	S2116 (Pepper Sweet Lunchbox Mix 1 1/9 Bu Box Loose USA)	1.00	21.00	52.92	31.92		
	Invoice	09/09/2020	S2167 (Tomato Grape Box 12 ea 1 Pint Clam Shell USA)	2.00	15.00	70.32	40.32		
	Invoice	09/09/2020	S2116 (Pepper Sweet Lunchbox Mix 1 1/9 Bu Box Loose USA)	2.00	21.00	52.92	10.92		
	Invoice	09/11/2020	S2165 (Tomato Cherry Gold Box 12 ea 1 Pint Clam Shell USA)	1.00	17.00	35.16	18.16		
	Invoice	09/11/2020	S2116 (Pepper Sweet Lunchbox Mix 1 1/9 Bu Box Loose USA)	1.00	21.00	52.92	31.92		
	Invoice	09/11/2020	S2020 (Bell Pepper Green 1 1/9 Bu Box Loose USA)	1.00	21.95	52.92	31.92		
	Invoice	09/11/2020	S2109 (Okra Burgandy 1/2 Bu Box 1 ea Loose USA)	1.00	27.50	28.00	0.50		
	Invoice	09/17/2020	S2170 (Tomato Roma Box 25 lb Loose USA)	1.00	27.75	37.00	9.25		
	Invoice	09/17/2020	S2063 (Eggplant Diamond 1 1/9 Bu Box 1 ea Loose USA)	1.00	14.00	17.00	3.00		
	Invoice	10/01/2020	S2167 (Tomato Grape Box 12 ea 1 Pint Clam Shell USA)	2.00	18.00	70.32	34.32		
	Invoice	10/07/2020	S2167 (Tomato Grape Box 12 ea 1 Pint Clam Shell USA)	0.00	15.00	0	0		
	Invoice	10/07/2020	S2116 (Pepper Sweet Lunchbox Mix 1 1/9 Bu Box Loose USA)	1.00	21.00	52.92	31.92		
	Invoice	10/19/2020	S2085 (Lettuce Green Leaf Wax Box 24 ct Loose USA)	1.00	24.00	34.56	10.56		
Elementary School #9				67.00			922.71		

Appendix E

Focus Group Questions

Focus Group Questions

Former Student Focus Group

1. Are you familiar with the district's Farm to School program? If so, how? If not, please elaborate.
2. Did you ever make a fieldtrip to the greenhouse or farm?
3. Did you ever have any lessons pertaining to agriculture while in middle or high school? If so, how? If not, please elaborate.
4. Has the farm to school program influenced any healthy eating choices for you? If so, how? If not, please elaborate.
5. Were you aware you were being served 100% organic produce in your high school lunches?
6. What did you typically eat for lunch in high school?
7. Did school lunches influence any healthy eating habits?
8. What could the school district have done better to promote the Farm to School program?
9. Is there anything else you would like to add about the Farm to School program?

Current Parent Focus Group

1. Are you familiar with the district's Farm to School program? If so, how? If not, please elaborate.
 2. Do your children ever talk about growing their own fruits and vegetables? If so, how? If not, please elaborate.
 3. Does your child ever talk about the fresh produce provided in the school lunches? If so, how? If not, please elaborate.
 4. Has your child ever done any taste tests at their school with fresh produce?
 5. Have you ever gone to the district's Farmer's Market?
 6. What could we as a school district do better in promoting our Farm to School program?
 7. Is there anything else you would like to add about the Farm to School program?
-