

Summer 2018

Feeding Inequity

Erin Lange
Hamline University

Follow this and additional works at: https://digitalcommons.hamline.edu/hse_all



Part of the [Education Commons](#)

Recommended Citation

Lange, Erin, "Feeding Inequity" (2018). *School of Education Student Capstone Theses and Dissertations*. 4437.
https://digitalcommons.hamline.edu/hse_all/4437

This Thesis is brought to you for free and open access by the School of Education at DigitalCommons@Hamline. It has been accepted for inclusion in School of Education Student Capstone Theses and Dissertations by an authorized administrator of DigitalCommons@Hamline. For more information, please contact digitalcommons@hamline.edu, lterveer01@hamline.edu.

Feeding Inequity

by

Erin Denise Lange

A capstone submitted in partial fulfillment of the
requirements for the degree of Master of Arts in Teaching

Hamline University

Saint Paul, Minnesota

May 2018

Primary Advisor: Letitia Basford
Secondary Advisor: Lea Dahl
Peer Reviewer: Joseph Millard

Copyright by
ERIN DENISE LANGE, 2018
All Rights Reserved

In dedication to:

Jason, who has been supportive of every endeavor I undertook

Kylethan, John, & Carissima, who were so patient and loving while Mommy studied

Mom, who loved me first

Gerry, who was cynical in only the most positive way

“Recent research shows that many children who do not have enough to eat wind up with diminished capacity to understand and learn. Children don’t have to be starving for this to happen. Even mild undernutrition – the kind most common among poor people in America – can do it.”
-Carl Sagan

ACKNOWLEDGEMENTS

I extend special thanks to Intermediate District 287 administration, faculty, and staff for your support in this research and transparency with information about the district. Also, the Jack Kent Cooke Foundation, who paved a road that made my education possible.

TABLE OF CONTENTS

CHAPTER ONE: Introduction.....	9
Personal Connection of Researcher.....	9
Issues with Providing Food On Campus.....	12
Funding Inequality.....	13
Research Purpose.....	15
Chapter Overview.....	16
CHAPTER TWO: Literature Review.....	17
Chapter Overview.....	17
Funding Food in Schools.....	18
Where funding comes from.....	19
Legal interpretations: local examples of how schools fund food.....	20
<i>One case study</i>	21
<i>A case for food service in a standard district</i>	23
Financial Burden.....	25
Necessity of Nutrition.....	29
Academic Health.....	31
Chapter Summary.....	35
CHAPTER THREE: Methodology.....	37
Chapter Overview.....	37
Rationale of Paradigm.....	37
Setting and Participants.....	38
Procedures and Tools.....	39

Data Analysis.....	41
Internal Review Board.....	41
Summary.....	41
CHAPTER FOUR: Results.....	43
Chapter Overview.....	43
Background of Survey Respondents.....	44
Question one.....	44
Question two.....	45
Question three.....	46
What Respondents Thought Minnesota Laws Require.....	47
Question four.....	47
Question five.....	49
Respondents' Opinions Regarding What Minnesota Laws Should Be.....	52
Question six.....	52
Question seven.....	54
Respondent Commentary.....	56
Question eight.....	56
Summary.....	59
CHAPTER FIVE: Conclusion.....	60
Introduction.....	60
Key Findings.....	61
Limitations of the Study.....	62
Future Research.....	64

Moving forward.....	65
Summary.....	66
Appendix A: Survey Questions.....	68
Appendix B: Dear Senator.....	70
Appendix C: Dear Representative.....	71
Appendix D: Facebook Post.....	72
Appendix E: Essential Vocabulary.....	73
References.....	75

CHAPTER ONE

Introduction

Personal Connection of Researcher

I have known hunger.

I distinctly remember myself, a twenty-year-old mother of a disabled child, calling my father in tears to admit that I had eaten nothing apart from bare noodles for weeks and summoning the humility to ask for help. I noticed that I was becoming weak, tired, fuzzy-headed; it was harder to parent in this mental state and I had reached a point where I could no longer deny that I needed food to properly function. At the time, my son had access to the government funded nutrition program, *Women, Infants, and Children* (WIC), which helped me ensure that he, at least, had access to healthy foods, but that program would only be available to us until he reached the age of five. This was my first experience in truly understanding the role access to proper nutrition plays in our lives and the vital part public institutions play in helping members of society function and contribute.

Eventually, I found better paying jobs, learned how to access higher education, and began working towards improving our lives. Grants and scholarships made my schooling possible and access to free school lunches ensured my son received healthy meals at school while we worked to improve our circumstances. Despite progressive improvement in our situation, that infant once relying on WIC, qualified for free and reduced lunches all the way through his freshman year of high school; a mere two years ago. Those ten years of free and reduced lunches helped our family get to a place where we no longer rely on public assistance, but pay our taxes to government funded programs that make this possible for others who depend on them today. I have neither shame nor regret in regard to our past financial hardships, but have been left more aware of the potential I see in recipients of assistance programs and the value I believe in the availability of such essential programs.

Fast forward several years and I have gained employment at an Intermediate school district serving students from member school districts whose special needs require unique educational experiences be provided. In Intermediate districts, some of Minnesota's neediest students come to receive the education they have a right too, but often are not able to be served by their local schools. In the 2016-2017 school year, the Intermediate district I went to work for, served 132 students who qualified for free lunches due to being verified homeless and/or highly mobile (Student Information Services, 2017). In the 2017-2018 school year, we have seen a 40% increase and are on track to exceed last year's numbers of students meeting that designation (District A,

2018).¹ In addition to our homeless and highly mobile students, this district also serves 750 students who qualify for free and reduced lunch due to the socioeconomic statuses of their families (Student Information Services, 2017). That is 52% percent of our district's entire population. I teach Social Studies in one of this district's alternative high schools, where students, ages sixteen to twenty-one, who are behind in their high school credits, can earn credits while experiencing college courses on an actual campus of higher learning. Here, twenty out of eighty-seven students, nearly a quarter of the student body, qualify for free or reduced meals². If anyone is in need of access to nutritional food, it is our homeless and highly mobile population of students and those facing economic hardships.

Despite such a large portion of our population qualifying for support from the National School Lunch Program, this year, our Intermediate district was unable to provide breakfasts or lunches to students attending the secondary program I am employed at. This is my third year as a faculty member here, and in previous years, students qualifying for Free/Reduced lunch were provided with breakfast in the morning, consisting of yogurt, fruit, and cereal, and bagged lunch options of sandwiches and salads. This year, however, the cost of offering lunches to students proved too cost prohibitive and U.S. Department of Agriculture regulations too difficult to meet, that the school had to discontinue providing breakfasts and lunches to all students, even to those

¹ To differentiate between school districts cited, and maintain anonymity due to University requirements, districts have been assigned letters in place of names. Further, district representatives who have provided information did so without desiring anonymity, but have also been assigned pseudonyms.

² These numbers may not even include all qualifying students because many families chose not to fill out the income documents since the school was not offering meals this year.

whom the government has determined are in high need and eligible for assistance³. As someone who had relied on these meals for my own child, I recognize how detrimental this decision is to our students and their families.

Issues with Providing Food On Campus

So what happened? If the district had not opted to cease feeding students in all of their programs, why were students in the high school in question being denied daily nutrition? As students in previous years had lunches shipped over to them daily, and there are several district sites in the area that are cafeteria equipped, it seems senseless to argue that food was not available or was too much of a burden on the district to supply. The district's argument was that 2017-2018 was an audit year and the school in question was not equipped with the appropriate means of safely serving food as mandated by the government. Thus, a lack of on-site staff, gloves, and appropriate storage were preventing students from access to bag lunches. In order to not fail an audit, students were potentially going hungry instead of having someone in gloves hand them lunches that had been pre packed in bags in an actual school cafeteria that already served other district students.

Students could not get food directly from the district, but the college campus that houses this school served lunches to its own college students for a fee. As there was a cafeteria on site, it stands to reason that food could be purchased from the campus

³ When this research began, the Intermediate district I am employed by was not serving meals to students at the particular school I teach at, however, during the course of this study, they did find a way to purchase meals using the general fund. For the sake of continuity, the past tense will be used to describe the meals situation at this school and to recognize that students do now have access to food even if the school is not participating in the Nation School Lunch Program or Breakfast Program.

cafeteria to feed the neediest of our students. The district, not wanting their students to go hungry, did inquire into that possibility. According to a principal and a food manager within the district, the company that oversees food service for the campus was willing to make breakfasts and lunches for our students who qualified for free and reduced lunches, but wanted \$60,000 to do so. That's \$60,000 to feed twenty students for 171 school days. That inordinate sum was out of the question for a district that already receives inadequate and unequal access to funds.

Funding Inequality

It may surprise many to learn that Intermediate schools are not only funded differently than standard neighborhood districts, but that they receive less funding. There are four Intermediate districts currently in Minnesota (Districts 287, 288, 916, and 917) that serve over twenty thousand students with a variety of special needs, including, but not limited to: emotional behavioral disorders, developmental disorders, chemical dependence, pregnant and parenting teens, victims of trauma, and other mental health concerns (Connect, 2017; Intermediate Districts, 2017). Standard districts redirect some of their funds to join Intermediate districts, much like one might join a Sam's Club or Costco. If they determine that it would cost too much for them to serve certain students with high needs, or they just do not have the physical means to do so, they can pay to send students to Intermediate districts that have specialized programs for those needs (Connect, 2017). Intermediate districts provide these students with the services, specialty trained staff, mental health professionals, and specialty equipment required to properly educate them. That means that schools designated to serve the neediest, and arguably the more expensive students, have less money to do so.

Generally, districts are funded through money provided by the state and federal governments per pupil, tax levies, and additional monies they may qualify depending on the needs of the students they serve (e.g. number of low income students served by the school and/or district). An Intermediate district principal, Donna (not her real name), explained that, in the case of Intermediate districts, not all of these funds are available. For instance, since Intermediate districts are not neighborhood schools, and reside within the boundaries of other standard districts, they may not receive money from property taxes through levies. Further, Donna explained that due to an agreement made in the 1940s, they may not access Title I funds that generally help districts support students from low income families. So, while normal districts receive funding through a variety of “buckets,” Intermediate districts are expected to meet the needs of students other districts have deemed too expensive to serve on their own, with inequitable access to funding to do so. Donna elucidated that while the state rate for students follows them to the Intermediate district they attend, the referring district gets to keep the monies from property tax levies, integration funds, and other sources. This means that Intermediate districts are working with about 25% less than your standard neighborhood schools.⁴

Other districts in Minnesota have elected to not participate in the National School Lunch Program (NSLP). Prior Lake High School, for example, felt that the federal laws that mandate lunch requirements did not provide students with enough caloric intake to meet their physical needs nor enough variety to meet their interests (Adler, 2015). As of 2015, three Minnesota schools and six hundred schools across the nation have elected out

⁴ This percentage has also been shared verbally by the Intermediate district’s superintendent at staff meetings.

of participating in the NSLP. The major difference between Prior Lake High School's choice and that of the Intermediate district that inspired this research is that Prior Lake is still providing food options to students, including to those who qualify for free and reduced lunch by paying for it out of district funds (Adler, 2015). For a standard district with greater access to funds, this may be feasible, but for a district, such as an Intermediate, that does not have the option of getting funding elsewhere, it is simply not possible.

Research Purpose

Considering the requirements and increased costs associated with the high needs population that Intermediate districts serve, and the inequitable access to funding that faces them, it might appear to many that students already facing disproportionate challenges in life are also forced to be hungry when food is readily available at nearby schools. Families who qualify for federal food assistance during the school day are unfairly prevented from accessing school lunches due to district audits, inequitable district funding, and the high cost of on-site food options.

Given the known correlations between access to food and success in schools (Centers for Disease Control and Prevention, 2014; Utah Education Policy Center, 2012; Poppendieck, 2010; Anderson, 2017; Kleinman, et al., 1998), it might be assumed by many that all schools should make food available students--especially the neediest . Personally, I know that if my son's school had done this while we qualified for free lunches, the increased cost of those meals would have been injurious to our family. Dismayed, I called a friend of mine, a former school board member, to inquire about the

legality of what I had learned, only to find out that he was not aware that districts could opt to not feed students at all. This led me to my research questions:

1. *What do legislators, educators, and community members know about Minnesota laws as they relate to school meals?*
2. *What do legislators, educators, and community members believe regarding whether laws should be created to ensure that all Minnesota schools serve meals to students?*

If this study shows that people--legislators especially--are not aware, it is my hope that this research can be used to educate and inspire legislation requiring access to food for low income students and motivate educators and community members to support such legislation.

Chapter Overview

In the preceding introductory chapter, I have discussed the problem (Minnesota law does not require secondary schools provide food to low income students) as well as my personal experience with such the situation. In the following chapter, I will review existing literature related to the educational value of feeding students, the impact of socioeconomic status on access to nutritional sustenance, and the numbers of students at risk of not having access to food at schools if laws are not created and enforced.

CHAPTER TWO

Literature Review

Chapter Overview

When it was announced to teachers at an alternative high school that their Intermediate district would no longer be offering food services to students at their particular school, faculty and staff were struck by the legality of the school's ability to do so. Faculty meetings focused on how students, particularly low income students and those from our homeless and highly mobile community, would be able to afford the high costs of eating meals at nearby restaurants on a daily basis. They worried that a lack of available and affordable food for students who would qualify for free and reduced meals could cause a variety of problems for the student body.

The body of research on schools who do not participate in the National School Lunch Program (NSLP) is non-existent and the U.S. Department of Agriculture does not keep information on these schools either (Poppendieck, 2010). Because of the lack of available studies related to this direct research question, this chapter aims to illustrate the value of meals in schools.

Further complicating the process of gathering information on the topic is that schools and their districts do not publish their choices to feed or not feed students, nor the reasoning or regulations that guide their decisions. However, since they are not breaking any laws by declining to serve meals, they have been open to discussing the information when asked. The first section of this chapter, Funding Food, highlights how districts fund their food services, where funding comes from, and interpretations of food service related laws by local districts. This section seeks to illustrate how inequitable funding for

different types of schools impacts what choices that are made and how this impacts students' access to food.

The cost of food is not simply on the schools however, and the next section, Financial Burden, investigates existing research on the cost of poverty for families and how not having school meals might worsen their economic situation. The cost of feeding students also takes its toll on their physical and academic well-being as is discussed in the third section, Necessity of Nutrition, and final section, Academic Health. The research that connects the importance of proper nutrition to physical health, development, and success in schools is investigated. If schools not feeding students is inadvertently preventing students, disadvantaged students in particular, from being successful, it might behoove them to consider their role in preparing all of their students for their post-secondary school years. Further, people may not be aware an absence of compulsory school meals law is deepening the divide between the haves and have nots. It is important to raise awareness of the need to level the playing field for all youth.

Funding Food in Schools

Public school districts, and the individual schools from which they are comprised, obtain their funding from a variety sources and their methodology for supporting food services for students is no different. The cost of schools providing meals to their student body may not be completely covered by the revenue collected from the breakfast and lunch prices charged to students' families, thus districts must seek out additional funds from alternative sources.

This section provides a look into the way in which schools receive funding, particularly the differences in access to funds between standard neighborhood districts

and Intermediate districts. A particular focus will be paid to how schools pay for the cost of meals for students. The second part of this section explores the different choices Minnesota schools are making in regard to their participation, or not, in the National School Lunch Program and the reasoning behind their choices.

Where funding comes from.

Generally speaking, schools receive their funding from many sources, including, but not limited to: property taxes and a large variety of state and federal grants. Many of these grants are based on the student population of those with special needs or whose families have been deemed “low income” and qualify for free or reduced lunches. So, a school may receive a certain amount of funding from the state per student attending and another sum of money from levies on property taxes in the local area that the school serves. Schools can also apply for additional funding offered by the state and federal government to help them serve students who low income or have special education needs. For instance, to help recoup the cost of meals for students whose families may have difficulty providing them, schools can participate in the United States Department of Agriculture’s National School Lunch Program in exchange for proving that the schools are abiding by the USDA’s requirements to serve certain healthy food options (U.S. Department of Agriculture, 2017 b).

In the case of Intermediate districts, they have access to some, but not all, of the aforementioned sources of funding. Donna, a principal in an intermediate district, explained funding this districts by relating that Intermediate districts serve students from multiple areas, no neighborhood is responsible for providing them funding from property taxes. In the 1940s, the government determined that Title I funds would also not be made

available to Intermediate districts. Further, they cannot receive funding from Individuals with Disabilities Education Act (IDEA) grants or integration funds. Intermediate districts collect their funding primarily from billing member districts for tuition (Intermediate District Facts, 2017). Essentially, the traditional neighborhood districts pay to join Intermediate districts as members and then pay tuition for their students to attend the Intermediate district's schools. So, a neighborhood district will get a certain amount of money per student, more if said student qualifies as low income or in need of special education services, and then pays an Intermediate district the state rate for that student, but gets to keep the remainder of the money they received for that student, even though the Intermediate district is providing the education and other services the student requires. The result of this is that a superintendent of a Minnesota Intermediate district has estimated that they receive approximately twenty-five percent less funding per student than standard districts do while those schools keep portions of funding for students they are not even educating. Intermediate districts' inequitable access to funding can make it more difficult to pay to meet the needs of the more costly, high needs, students they serve.

Legal interpretations: local examples of how schools fund food.

Unequal access to funding can make it more challenging for Intermediate districts to pay for the high costs of providing meals to students. It may surprise some readers to learn that there is no law in Minnesota requiring schools to participate in the National School Lunch Program or provide meals to any students, low income or otherwise (Poppendieck, 2010; School Nutrition Association, 2016). Sociologist, Jane Poppendieck, has done extensive research on food programs in the United States and

asserted that the nonexistence of laws requiring schools participate in the USDA's food and breakfast programs stems from fear of an overreaching federal government imposing on states' rights (Poppendieck, 2010). This lack of legal requirement leaves an opening for some schools to opt out of offering food services to their students at certain schools and leaves one wondering what low-income families can do to ensure their children are fed and ready to learn.

One Case Study.

This year, the alternative school that inspired this research was not officially offering food services to its students despite having done so in the previous three years it was operating. This school, which is part of an Intermediate district, has determined that USDA and Minnesota Health Department regulations make serving food here too costly. A Food Services Manager for this Intermediate district, Susan (not her real name), reported that USDA regulations state that schools cannot participate in the National School Lunch Program if they are not Smart Snack compliant. The USDA requires snacks offered during the school day must meet certain nutritional guidelines such as: less than 200 calories, be made up of at least fifty percent whole grain, or have its first ingredient be "fruit, vegetable, dairy, or protein" (U.S. Department of Agriculture, 2016). As this school is housed within the technical college it rents space from, the students have open access to foods and beverages that are not Smart Snack compliant through campus vending machines and shops. Susan argued that school faculty and staffs' inability to prevent students from consuming the college's sale of candies, sodas, chips, and other unhealthy food choices means that this particular high school cannot be Smart Snack

compliant and, thus, cannot participate in the National School Lunch Program and have the cost of feeding students subsidized by the government.

So, the school may choose to opt out of participating in the NSLP, but they have previously delivered bagged school breakfasts and lunches to students who qualified for free or reduced meals. The school may not be able to access NSLP funds, but in the very least, low income students were being fed. Susan stated that the school was not following Minnesota Health Department regulations in previous years and that “satelliting” in meals would require health inspectors to come out to school periodically, new flooring might need to be installed (if the campus that owns the building even allowed it), food licenses would need to be attained, refrigerators purchased, a safe and approved manner to transport food from other locations found, and an on-site food manager hired. The high cost of these changes would be difficult for a small school that serves less than ninety students and has a small staff that is not trained and qualified to serve meals. According to both Donna and Susan, it was an option to purchase lunches for students qualifying for free or reduced lunches from the college campus’ cafeteria, but that catering service would charge the district \$60,000 per year out of the district’s general fund as opposed to using money from government subsidized free and reduced lunch programs. Susan was adamant that it was not the district’s desire to stop food service at this location, and that they had contacted the Minnesota Department of Education in regard to the matter. She stated that they were advised that they should not “provide lunches when it is not fiscally responsible.” In the meantime, students, regardless of socioeconomic status, were forced to bring their own lunch or purchase food from the campus cafeteria or restaurants in the surrounding area.

The alternative school in question is not the only school opting to out of offering lunches. When researching what other schools are doing, Susan contacted other districts to see how they managed to feed students in alternative settings. Some schools were in district-owned buildings, so could remove vending machine options that would not qualify as Smart Snacks. Others she spoke to were also opting not to offer food at certain sites within their districts while still others chose not to participate in the NSLP at all, but instead, paid for meals out of other budgets they had available to them. Some schools, both in Minnesota and out of state have elected to opt out of the NSLP because they feel it is fiscally irresponsible. For schools that primarily serve students from more prosperous families, the cost of meeting the more costly USDA regulations is not supplemented enough because they do not have a large enough population of low-income students for a big enough refund from the USDA, so they have to delve into the general fund to offset the expense and maintain balanced budgets (Aubrey, 2015; Sifferlin, 2013; personal correspondence). As of 2015, three schools in Minnesota had opted out of the NSLP, choosing to feed low-income students from their own budget instead, but they were, in the very least, being provided with food (Adler, 2015).

A case for food service in a standard district.

There are other districts in the area that do continue to provide breakfasts, lunches, and snacks to their alternative programs. As there is no specific law requiring that schools provide food options to students, state and department regulations seem to be up for interpretation. The Director of Food Service Operations and Finance for Sodexo at a standard neighborhood district, Mary (not her real name), disagreed with Susan's

reading of regulations that are supposedly preventing the school in question from serving meals.

Mary stated that her district used to also only provide bagged lunches to their alternative program and had them delivered to the site via a principal's car much like the Intermediate district had done in previous years. When she accepted her position, after researching the laws, Mary found that the district could satellite in hot and cold meals to their alternative programs by using their catering totes, and timing the cooking of the meals with how long the delivery would take, so that the food would maintain a safe temperature. By "satelliting" in meals, students at the alternative program in this district receive a breakfast made up of three components, a healthy snack of two components, and a lunch of five components. She also disagreed with Susan's assessment that meeting the requirements of the Minnesota Department of Health was too onerous for the district to take on. Mary, further, asserted that the alternative program in her district does participate in Department of Health inspections, but that the inspector does not have an issue with meals being served in a carpeted common area that is not specifically intended for food service and that school administrators undergo trainings in safe food handling so that hiring food service staff is unnecessary.

It may be possible to serve food in a common area at alternative schools that do not have a specific food area, but what about the issue with uncontrolled access to unhealthy snacks and beverages? On this topic, Mary again disagreed with Susan's interpretation of the USDA's regulations. She argued that the presence of college campus vending machines should not make the school out of compliance with Smart Snack regulations because the vending machines are not part of the alternative school, but

part of the building the school utilizes. She stated that schools with open campuses are not determined to be out of compliance with USDA regulations and students clearly have access to whatever meal and snack choices, healthy or not, they make during that time. She asserted that the school could point out that the vending machines in question are not in the classrooms or offices, thus not part of the actual school site.

Two people, in the same positions in their respective districts, have completely different interpretations of what regulations mean, but it is important to remember that those regulations, only impact the districts' participation in government subsidies and not necessarily in their physical ability to serve food. Even if Susan is correct, and the Smart Snack requirements make it impossible for the school in question to participate in the NSLP, is it acceptable that schools are not required to provide food options to students, especially those who may not be able to afford food on their own? What impact does this have on the families of students who are low income or homeless?

Financial Burden

The burden to pay for student meals does not rest alone on the shoulders of schools. Families, too, are impacted by the cost of meals while their children are away at school. For families whose students are eligible for free or reduced lunches, such as those who qualify as homeless, or whose incomes fall below the federal poverty guidelines, the high cost of school meals can be significantly onerous. As of 2016, 30.4 million students were participating in the National School Lunch Program because they had been verified as homeless and/or highly mobile or because their families met the federal income guidelines, and 323,531 of those students were in Minnesota (Minnesota Department of Health, n.d.; U.S. Department of Agriculture, 2017 b). If citizenry,

legislators and educators included, do not know that no laws require Minnesota schools provide meals to students, they may not be aware of the financial burden that is being placed on our most economically disadvantaged students.

Students can meet the criteria for free or reduced meals through the National School Lunch Program (NSLP) and School Breakfast Program (SBP) through a variety of qualifiers. Students experiencing homelessness, students attending Head Start, current participants in Federal Assistance Programs, migrant families, and wards of the state all automatically meet the requirements (U.S. Department of Agriculture, 2017 b). For families who do not fall into one of the preceding categories, their students may qualify based on household incomes between 130-185% of the federal poverty level (U.S. Department of Agriculture, 2017 b). For instance, for the 2017-2018 school year, a family of four persons must have an annual gross income of \$45,510 (Federal Register, 2017). That \$45,000 maximum breaks down to \$3,793 gross income a month, but evidence suggests that number is not high enough in our current economy (Federal Register, 2017). In Minnesota, a family of three needs at least \$3,800 in monthly income just meet their basic needs, so the federal government is cutting an entire family member out of their consideration (as cited in Poverty Myths and Issues, 2017). Further, these poverty and income guidelines are based on measures of standard of living that were created nearly seventy years ago and based upon the cost of food in the 1950s despite the costs of food and housing doubling and tripling respectively (Buchheit, 2015; Gabe, 2015). Today, just shy of half of the population of the United States own no wealth and are designated as low income (Buchheit, 2015). Though the Census Bureau utilizes the Consumer Price Index to account for changes in pricing, not accounting for changes in

standard of living has left the federal poverty thresholds based on out of date standards and suggests far more Americans are living in poverty than qualify for government programs (Buchheit, 2015; Gabe, 2015). Based on this information, it is fair to argue that many families are living in poverty, but not qualifying for free or reduced school meals, and these students are at risk of not succeeding in school because they cannot afford school lunch programs even when they are offered.

In Minnesota, the state of economic affairs may be disproportionately having a negative impact on students of color. While Minnesota overall celebrates a mean income higher than the national average, Minnesotans of color are well behind other states when it comes to poverty, unemployment, and income (Minnesota Budget Project, 2013; Buchheit, 2015). While 11.4% of all Minnesotans were living in poverty in 2012, 37.8% of Minnesotan African Americans, and 31.9% of Native Americans in Minnesota were. Unemployment rates in Minnesota were as equally devastating for these two groups in particular. While white Minnesotans had 5% unemployment, African and Native Americans faced rates at 19% and 17% respectively (Minnesota Budget Project, 2013). These far higher rates in unemployment resulted in their median incomes being less than half of their white neighbors (Minnesota Budget Project, 2013).

Despite Minnesota's dedication to closing the achievement gap, it is possible that a disproportionate access to jobs and income is impacting students' access to the financial stability their families require (Minnesota Department of Education, 2017). Minnesota has made progress over the last decade in closing the achievement gap for students of low income families, but the discrepancy between graduation rates of students from low income families and those who are not is significant. In 2003, 79% of students identified

as not being low income were graduating high school within four years (Minnesota Department of Education, 2015). In stark contrast, only 52% of students of low income families could say the same. For low income students of color, those percentages were far worse with less than 40% of Hispanic, African American, and American Indian students graduating on time. By 2015, these numbers have improved for all. Overall, 90% of non-low income students and 67% low income students are graduating within four years and African American and Hispanic low income students graduating at 59% and 62% respectively (Minnesota Department of Education, 2015). Still, only 49% of low income American Indians are completing high school on time (Minnesota Department of Education, 2015). Given these percentages, providing for their children the nutrition they need to be successful in schools, Minnesotans of color may face an uphill battle and schools may be unintentionally preventing these students of color from overcoming this gap in achievement by not ensuring they have equal access to nutritional meals. If more Minnesotans were aware of the impact of poverty on people of color and their access to food, might they want to consider initiating legislation that would better prepare these students for academic success and aid in the much sought after closing of the achievement gap?

The government site, Benefits.gov, advertised that, “almost all public schools participate in [National Food Programs],” but Poppendieck, found seven thousand schools nationwide were opting out of participation (Poppendieck, 2010; Minnesota School and Breakfast Program, n.d.). That is seven thousand schools where disadvantaged low-income students may not have access to affordable nutrition. The USDA does not track schools not participating in the NSLP, but Poppendieck (2010) was

able to find studies of schools who had participated and then decided to no longer take part. In these studies, approximately half had some sort of program for students who lived in poverty, but that still left the other half with no solutions for our economically neediest students (Poppendieck, 2010). Not requiring schools provide nutritional food, especially to low-income students, is leaving a multitude of learners, and a disproportionate number of students of color, in a precarious situation in which they do not have the ability to afford food that maintains their health and prepares them to be as successful in school as they might otherwise be.

Necessity of Nutrition

The intrinsic value of nutrition for a healthy body and brain has long been known. The earliest recognition of the United States federal government's need to help feed children in schools stems from the era of the Great Depression in the 1930s and became law of the land in 1946 (Gunderson, 1971). If students who cannot afford lunches are having their physical health put at risk, impoverished students could be disproportionately and impacted by a lack of laws requiring food be provided to them in schools.

The cost of feeding a family can take its toll on a budget. For those who are low income, that toll can impact not just their wallets, but their ability to access healthier food options too. In fact, healthier foods cost more than less nutritional alternatives and influence the food purchasing choices low income families make (Rao, Afshin, Singh, & Mozaffarian, 2013; Sorhaindo & Feinstein, 2006). Even while eating at school, low-income students may opt for cheaper, less healthy snacks instead of the pricier health food options, as was found in a study in Belgium-Flanders about how school food

policies impacted the eating habits of elementary and secondary students (Vereecken, Bobelijn, & Maes, 2005). When families cannot reasonably afford meals with more caloric value, they may opt for food that fills them, but does not necessarily sustain them. If schools offer nutritional breakfasts and lunches to qualifying students, they can aid in not only relieving the economic pressures put on low-income families, but also improve the overall physical health of their students.

Students facing poverty often present with other health problems due to their lack of access to proper nutrition. For instance, they more often suffer from both, “acute and chronic health conditions,” are more susceptible to injuries, suffer from infections more frequently, and are found to be not in as good as health as their non-low-income peers (Yoo, Slack, & Holl, 2009, p. 829). Yoo, Slack, and Holl (2009) surveyed low-income caregivers and asked them to assess their children’s health. They found that the caregivers often associated their children’s difficulty in accessing healthy foods with their physical health (Yoo, Slack, & Holl, 2009). While self-reported studies have their downfalls, this research does align with the body of evidence that connects health issues with poverty and argues for a greater availability of nutritional foods for low-income children. One way to get nutritional foods into low-income students, and improve upon their overall health, is for schools to be required to, in the very least, offer nutritional meals to students who may not be able to get them elsewhere.

The role of nutrition on the body is to maintain a state a stasis that allows all of the organs to function. Certain nutrients, such as iron, glucose, vitamins, thiamine, zinc, and a plethora of others, are required by the body in order to operate properly (Carroll, 2014; Just, 2014). Carroll (2014) argued that breakfast consumption, and access to

school breakfast programs, provided students with the glucose their brains need to do better academically. She explained that youth require more glucose than adults do and that the breakfasts help students attain the glucose levels they need since the time between dinner and breakfast tends to be a longer interval than between other meals. For students who have less access to nutritional meals at home, school breakfasts may be of even more importance.

Brown, Shepard, Martin, and Orwat (2007) argued that, because students' abilities to function socially and academically are the least of the body's physical concerns, that ability is the first to disappear when students face malnutrition. They assert that the body works first to protect organ health, then normal growth and weight, and only then social and learning functions. They also found that hunger, for even short intervals, and inadequate nutrition, can alter the brain's structure and result in lifelong cognitive issues. Sharman Apt Russell, agreed, arguing that malnutrition causes children to learn to do many activities later than their peers, such as crawling, walking, etc., and that this leaves them not only less prepared for school, but receiving less attention from their teachers (as cited in Poppendieck, 2010). If more people became aware of this connection, they may perhaps be more inclined to value requiring schools participate in ensuring all students receive proper nutrition while within their walls. If students are physically and cognitively undernourished, their academic health is put at risk as their ability to learn is diminished.

Academic Health

If an access to food, or lack thereof, plays a role on the physical development of students' brains, it seems plausible that it also puts students' academic success at risk.

The Center for Disease Control and Prevention (2014) asserted that a lack of healthy foods and vitamins leads to a variety of detrimental effects, such as missing more school days, lower grades, difficulty problem solving, and problems with attentiveness.

Evidence further suggests that a lack of access to food also leads to an increase in behavior problems leading to suspensions and absenteeism, and that chronic absences dramatically increase the likelihood a student will fail to graduate (National Collaborative on Education and Health, 2015; National Education Association, n.d.; Utah Education Policy Center, 2012; Wilder Research, 2014). In Utah, it was found that students who qualified for free or reduced lunch were 90% more likely to be absent from school at least ten percent of the time and that these “chronically absent students” were “7.4 times more likely to drop out of school than student[s] who [were] not chronically absent,” (Utah Education Policy Center, 2012, pp. 3, 9). Students who are missing class, or are otherwise unable to concentrate, due to hunger, have a statistically more difficult time keeping up in school and an increased likeliness that they will not even finish.

For students who are in school, their access to nutritional caloric intake may impact how successful they are regardless of their attendance. Janet Poppendieck (2010), in her book, *Free For All: Fixing School Food in America*, interviewed the Director of the Vermont Campaign to End Childhood Hunger, and he shared with her his experience with hunger and how his grades rose when his family began receiving support from the National School Lunch Program. The director’s recollection of the impact of hunger on his grades may be moving, but the actual impact is hard to measure. The value and impact of standardized tests may be controversial in the current educational landscape, but they are an existing fixture in our schools and are often used to measure everything

from student success to teacher and school effectiveness. As these tests are so frequently utilized as a measurement of student ability, such as in college entrance exams, it is prudent to consider how access to the foods students consume impacts those scores we measure them by.

A group of economists studied the impact of healthier lunches on test scores and found that schools which hired healthier food vendors saw an increase in students' scores (Anderson, 2017). In the study, which covered five years of data and was collected from 9,700 schools, the researchers found that increase to be an entire .03-.04 standard deviations (Anderson, 2017). They also found that the healthier food options were a cheaper means of improving student test scores than other tried methods such as reducing class sizes (Anderson, 2017). Because it costs quite a sum of money to reduce class sizes by hiring more faculty, and healthy food options can qualify schools for subsidies from the National School Lunch Program, the healthier foods option is a cheaper choice for schools wishing to improve their students' standardized test results.

Some schools in Minnesota have breakfasts available to their student bodies. In schools in which more than 33% of the students qualify for free or reduced lunches, serving breakfast is even compulsory because of the plethora of research that supports the assertion that nutritional breakfasts improve school attendance, student behaviors, and academic success (School Nutrition Association, 2016; Wilder Research, 2014). According to the USDA, 8.2 million school age children nationwide participated in school breakfasts in the 2002-2003 school year alone (as cited in McDonnell, Probart, Weirich, Hartman, & Birkenshaw, 2004). Researchers out of Massachusetts General Hospital looked into the value of school breakfast programs in their study of 97 inner city

children considered to be, “at nutritional risk,” (Kleinman, Hall, Green, Korzec-Ramirez, Patton, Pagano, & Murphy, 2002). They found that the children who participated in a school breakfast program not only had better daily nutrition, but also exhibited less undesirable behaviors and showed an increase in academic success, particularly in the field of mathematics (Kleinman, et al., 2002).

In the United Kingdom, Sorhaindo and Feinstein (2006) also noted that students with access to healthier diets also had few issues with disruptive classroom behaviors. They further stated, that there are correlations that connect a lack of nutrition to a diagnosis of Attention Deficit Hyperactivity Disorder. A study in Pittsburg came to similar conclusions in their findings that noted that low income students with problems accessing healthy foods were particularly more likely to suffer from mental health issues that impacted their educational success, such as, “aggression and anxiety,” (Kleinman, et al., 1998). When students are attentive, participating, and following directions, they are more likely to learn the lesson at hand and do better academically. Another study, by Jones, has found that higher levels of sugar, lead to increased behavior problems as well (as cited in Just, 2014). By ensuring students, especially those who may have limited healthy foods at home, access to nutritional lunch programs, it is possible that schools could reduce distracting behavior issues and increase student learning. When schools provide free breakfast to all students, as they do in low income Minnesota schools, students are healthier, less distracted by hunger-borne behaviors, and more ready to learn.

The connections between nutritional breakfasts and success in schools is not a phenomena limited to the United States. Two 2013 studies, in Norway and Korea, investigated the associations between breakfast intake and success in school for

teenagers. The Norwegian study found that breakfast and dinner had the largest impact on academic test scores, and like Kleinman's study, found this particularly true in the content area of math (Kleinman, et al., 1998; Øverby, Ludemann, & Hoigaard, 2013). In Korean adolescents, research also found a positive correlation between how often students ate breakfast and their success in school (Young So, 2013). Interestingly, Young So's research found that teen males required more breakfasts per week than did females of the same age in order to get the same academic results. This particular study did not investigate how much breakfast was consumed, nor what was eaten, at each meal, so it is possible that differences in per-meal consumption between the genders might play a role.

If it is true, as the evidence suggests, that there are links between nutrition and academic success, it is reasonable to consider that low income students who are more likely to have less access to adequate nutrition are disproportionately impacted when schools do not have meals available to them. If schools wish to promote equity by trying to "even the playing field," and address systemic inequities, it should behoove them to prioritize that all students have access to nutrition that impacts their readiness to learn, classroom behaviors, academic scores.

Chapter Summary

This preceding chapter has investigated available data and research in regard to the value of making available nutritional meals to students in schools, the financial difficulties, for both families and schools, to provide those meals, and the physical and academic hardships students face when they cannot afford to provide their own meals when schools do not offer them. This chapter has shown that a lack of access to

nutritional food disproportionately harms, homeless, low-income, and students of color, and further, negatively impacts their families' financial stability as well as students' physical and academic health. Students facing these barriers to success are even less likely to do well in school, or even graduate, which could decrease their likeliness to escape poverty and proliferates the cycle of poverty to the next generation of incoming youth. In order to help students rise from poverty and be most ready to succeed in school and beyond, it is of value to discover if the voting public is aware that a current lack of legislation may be making the opportunity gap harder to close.

The following chapter explains the methodology that will be used to gain a quantitative measurement of what participants believe they know about current Minnesota law, or lack thereof, in regard to school lunches. Gaining an understanding of how many people, particularly those in government and education, are aware that Minnesota schools are not obligated to provide meals, is vital.

CHAPTER THREE

Methodology

Chapter Overview

In this chapter, I reveal how this particular study was conducted, details about the population studied, the survey tool used to collect participants' responses, and the process of data analysis. This chapter begins by explaining the choice of quantitative methodology as being best suited for seeking trends and correlations in data collected.

Rationale of Paradigm

A quantitative methodology was chosen for this study because it essentially counted trends in how many people (legislators, educators, and community members) believed serving meals in schools is required by law. Further, it looked at trends in whether or not respondents believed the law should or should not require it. This study found responses such as, "x% of responding legislators believed that Minnesota law requires schools serve food to students, while y% of educators, and z% of community members believed the same thing." Since this study only counted how many of each group believed certain ideas, and sought of correlations, or not, a quantitative study was the only one that made sense for the type of questions asked and data collected.

This research utilized a quantitative method of surveying participants because the central questions were closed, as opposed to open-ended, and data collection was focused on numerical data (Creswell, 2014). In addition to the closed questions, two spaces were left open for participants to leave any questions or comments they thought important to share with the researcher. This method took a postpositivist-like worldview, as described by Creswell, in that it used numeric measures and collected data that can be replicated

and/or additional tests using other methods could be used to gain new understanding from the findings. This research also took on a transformative worldview in that it was inspired by the impact this research can have on students marginalized by their economic status. Perhaps this research could further be used in the future to inspire legislators to make changes to the laws that would positively impact impoverished students in Minnesota (Creswell, 2014). A survey method was utilized because it aided the researcher in identifying trends in “attitude and opinions” in participants and generalizations were being sought (pp.155-157). This study was cross sectional because it only collected and analyzed the data at one time and not over a length of time (Creswell, 2014).

Setting and Participants

The setting for this project was respondents’ (legislators, educators, and community members) homes, offices, or wherever they received e-mail or had internet access. As the research question is specific to Minnesota, the setting was limited to people who identify as Minnesotan. The study was conducted blindly, without ever meeting participants.

Participants in this study self-identified as legislators, educators, or community members (i.e. Minnesota residents who do not identify as either legislators or educators). Even though this research was inspired by the food service decisions of just one district, the non-existence of laws requiring food service in Minnesota schools has the potential to impact all residents, thus no limit was placed on respondents’ associations with any particular school district. There were no restrictions on age or gender identity. All 201 MN legislators were sent a survey via electronic mail. Postings asking

for MN educators and community members to participate were placed on Facebook because the researcher knew many people who met the criteria and who were willing to share invites to others not known to the researcher to participate in the study.

Facebook was chosen as a means to post an invite to the research survey because it is an easy and economical way to reach out to a multitude of respondents. One issue with this is that it limited non-legislator participation primarily to people who are on Facebook and might see the posts about it. The researcher was cautious to not talk about the study with friends or family so that data collection would not be skewed.

Participants found via Facebook, and those who received invitations from the researcher's thesis committee, were all asked to share the study's link with others. This method of snowball sampling was used to obtain a larger sample size via word of mouth because educators may know other educators, or Minnesotans may know other Minnesotans, who may be interested in the topic as it relates to both groups.

Procedures and Tools

Step-by-step procedures were as follows:

1. A survey and letter explaining the research and anonymity were drafted (see Appendix A).
2. Survey questions were entered into Google Forms. This survey tool had been selected due to the efficiency it offered in speed, ease in sharing, lack of cost, and ability to ease data analysis.
3. Survey was pilot tested with thesis committee.
4. Links to the survey were e-mailed to all 201 Minnesota legislators along with accompanying letter. Identical physical copies of the letter and survey were also

mailed to legislative members in hopes of increasing survey response rates. Links to the survey were also posted on Facebook to give Minnesota educators and community members opportunity to participate in the research and share that opportunity with others.

5. When surveys were returned, they were organized by type of respondent (i.e. legislator, educator, and community member) and the size of each population (n) was counted.
6. What percent of each group answered in each way was calculated (e.g. x% of educators believe MN law should require public schools serve lunch students, but y% believe MN law should require they serve lunch to at least students who qualify for free/reduced meals).
7. Takeaways and correlations were identified (e.g community members were more likely to think that MN law requires breakfast be served to students than legislators were).
8. Results were composed and reported.

The only tool used for data collection in this research was a survey written by the researcher (via google forms and mailed paper versions). Both versions of the survey were identical, but offering different methods for people to respond was done in hopes that it increased the number of responses so that there would be a larger population size from which to analyze data. One of the benefits of surveys is they allowed people to quickly respond, no meetings/times for interviews needed be scheduled, and responses were anonymous. Self-reported studies can suffer from people lying in order to give the

answer respondents view as “correct.” As this survey is anonymous, and respondents had no face-to-face contact with researcher, there was no reason for respondents to feel the need to be untruthful. Questions were limited because too many questions (greater than ten) can turn participants off from wanting to participate (as suggested by SurveyMonkey).

Data Analysis

Collected data was analyzed by counting respondents and putting them into groups (i.e. legislator, educator, or community member). Counting the number of respondents in each separate group is important to establish the size of a participant population each grouping. Then, individual responses were counted and graphed using Microsoft Excel and graphed to find and create visuals of similarities and differences within and between groupings (Creswell, 2014). This method of data analysis had been selected because the intention is to look for correlations and not causal relationships.

Internal Review Board

This study passed all requirements of Hamline University’s Internal Review Board for studies on human subjects. This study utilized anonymous surveys, participant’s identities were protected, and there was little to no risk to said participants. Further, no vulnerable populations were being the focus of the survey population. Due to the type of study, the population of participants, and the anonymity of the research conducted, the Internal Review Board determined that this study qualified to skip the IRB process and confirmed that determination via email to the researcher on April 19, 2018.

Summary

This chapter has explained the methodology used for this study. In this study, Minnesota legislators, educators, and community members answered a brief survey, an instrument of the researcher's own design, to learn what they know about Minnesota laws as they relate to school meals, as well as whether laws should be created to ensure that all Minnesota schools serve meals to students. This data was collected and analyzed for correlations. The following chapter will discuss analysis of respondents' survey results and any correlations, themes, and/or patterns found. Further, it will cover any surprises that were found in the results.

CHAPTER FOUR

Results

Chapter Overview

While conducting this research to find out what legislators, educators, and community members know about Minnesota laws as they relate to school meals, as well as whether they believe laws should be created to ensure that all Minnesota schools serve meals to students, it was striking to find that many of the study participants did not realize that there are no laws requiring public schools serve meals. Further, nearly all respondents believe there should be a law that guarantees students who qualify for free and reduced breakfast and lunch be provided those meals at Minnesota public schools.

This chapter has been divided into three main sections to correspond with the three major sections of the survey provided to study participants. Each section has then been broken down to include data collected for each question that pertains with that particular section. The first section, Background of Survey Respondents, begins as the study did, with a look at the how survey participants self-identify with regard to their career (educator, legislator, or other community member) to determine who was taking the survey and what relationship they might have with laws related to meals served in public schools. This section also took into account data about participants' connection to Minnesota itself to determine if respondents were constituents of the state in question. Section two, What Respondents Thought Minnesota Laws Require, analyzes data collected in regard to what participants believed they already knew about the current state of Minnesota laws and meals in public schools. This information was valuable to collect

in order to determine if respondents believed laws were already in place that require schools serve meals. If they believed so, it could explain a lack in any current movement to add such laws. The third section, Respondents' Opinions Regarding What Minnesota Laws Should Be, asked study participants to decide if they believe there should be a law to provide meals either to all students or to students who qualify for free and/or reduced meals. Collecting this data is important for determining if it might be worthwhile for a legislator to consider introducing such legislation. Lastly, in the final section, Respondent Commentary, this research considers study participants' additional thoughts or feelings that they thought prudent to share with the researcher. In the following section, Background of Survey respondents, questions one through three are discussed.

Background of Survey Respondents

Question one.

Question one asked survey participants to self identify as an educator, legislator, or community member. Of the 127 survey responses collected, the breakdown of participants was as follows:

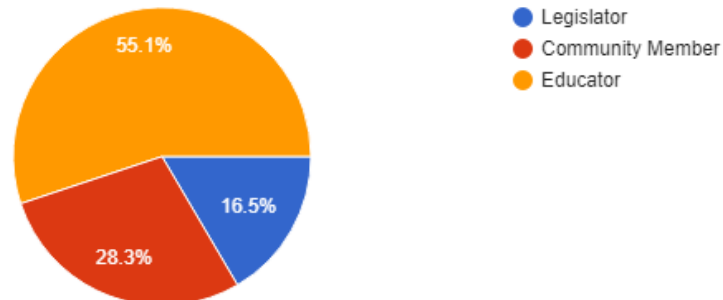
55.1% Educator (70 Responses)

16.5% Legislator (21 Responses)

28.3% Community Member (36 Responses)

Which of the following best describes you:

127 responses



With a total of 127 survey participants, the largest group of respondents was overwhelmingly those who self-identified as educators. This is likely due to the manner in which the research was advertised. Legislators were contacted via electronic mail with personal letters inviting their participation. Community members were solicited using a shareable Facebook post. Educators, on the other hand, were not only invited to participate in the study via Facebook, but also via electronic mail shared by a professor, a principal, and organizations for educators. This type of direct solicitation resulted in a disproportionate number of Minnesota educator respondents, but also greater number of total participants. It is important to gain the perspective of educators in this study, not only because they are also constituents with a stake in our laws, but also because they work with large numbers of children over the course of their careers. In this way, teachers have firsthand experience witnessing the academic impact hunger causes in their students.

Question two.

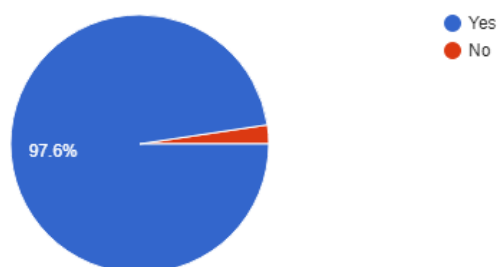
Question two was only asked of those that self-identified as an educator. In this question, educators were given an open-ended short answer space to describe what sort of educator they are (e.g. teacher, professor, paraprofessional). In response to this question, seventy responses were received meaning that one hundred percent of respondents self-identifying as educators responded to the second question. Due to the open-ended nature of the question, responses varied dramatically and often overlapped due to various names being used for the same job by different employers. For example, one district may refer to non-licensed staff that work with students in the classrooms as Paraprofessionals while others may title that position Educational Assistant. In total, thirty-three different types of educators were named as participants in the study and included such educators as teacher, professor, teacher educator, school secretary, school board member, principal, school board member, etc.

Question three.

Question three asked respondents to report if they identify as either a Minnesotan or a resident of Minnesota. Of the 127 respondents, only three participants did not identify as having one of the aforementioned relationships with the state of Minnesota.

Do you identify as either a Minnesotan or a resident of Minnesota?

127 responses



As three participants only make up 2.4% of responses, the researcher determined that these outliers would not significantly impact the data collected, therefore, no changes were made when calculating results.

What Respondents Thought Minnesota Laws Require

This section of the survey consisted of questions four through five and measured what respondents believed they know about current Minnesota laws relating to food in public schools. For both questions, respondents could select, “Yes,” “No,” or, “Not sure.” All 127 survey participants responded to both questions.

Question four.

Question four asked participants, “Are Minnesota public schools required to serve breakfast and lunch to students regardless of financial background?” In general, responses were as follows:

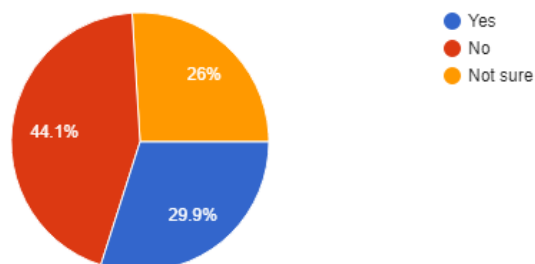
29.9% Yes (38 Responses)

44.1% No (56 Responses)

26% Not Sure (33 Responses)

Are Minnesota public schools required to serve breakfast and lunch to students regardless of financial background?

127 responses



Broken

Down By

Respondent Type

Educator

37.1% Yes (26 Responses)

41.4% No (29 Responses)

21.4% Not Sure (15 Responses)

Legislator

28.6% Yes (6 Responses)

47.6% No (10 Responses)

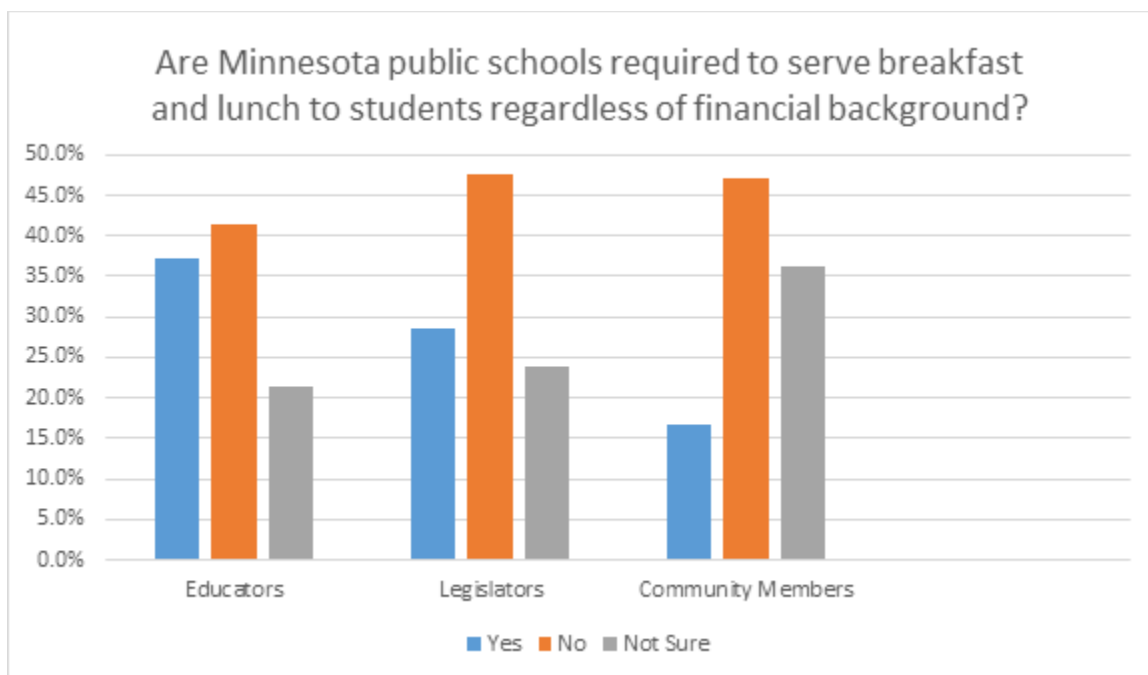
23.8% Not Sure (5 Responses)

Community Member

16.7% Yes (6 Responses)

47.2% No (17 Responses)

36.1% Not Sure (13 Responses)



For this question, survey participants were being asked to set aside students' financial background and consider whether or not current laws require schools serve all students food. As discussed in previous chapters, no such law exists in the state of Minnesota. Data collected for this question found that educators were more likely than other respondents to believe that schools had to serve food to all students without consideration of their socioeconomic status. Overall, all the majority of respondents from all three groups knew that no law requires all students be served breakfast and lunch.

Question five.

Question five asked survey participants, "Are Minnesota public schools required to serve breakfast and lunch to students who qualify for free or reduced meals?" In general, responses were as follows:

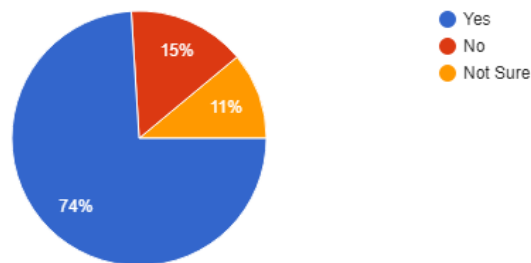
74% Yes (94 Responses)

15% No (19 Responses)

11% Not Sure (14 Responses)

Are Minnesota public schools required to serve breakfast and lunch to students who qualify for free or reduced meals?

127 responses



Broken Down By Respondent Type

Educator

84.3% Yes (59 Responses)

11.4% No (8 Responses)

4.3% Not Sure (3 Responses)

Legislator

57.1% Yes (12 Responses)

23.8% No (5 Responses)

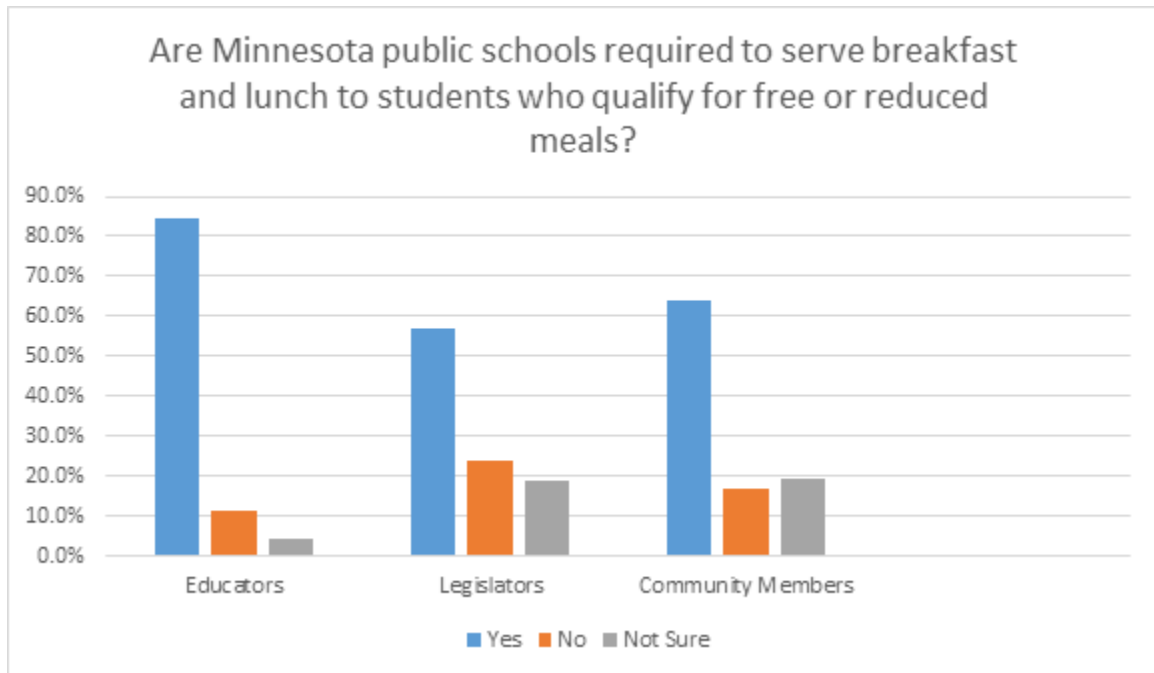
19% Not Sure (4 Responses)

Community Member

63.9% Yes (23 Responses)

16.7% No (6 Responses)

19.4% Not Sure (7 Responses)



For Question Five, respondents from all three groups overwhelmingly believed that schools are required to serve breakfast and lunch to students who qualify for free or reduced meals. As Minnesota public schools are not required to serve meals at all, regardless of socioeconomic status, this suggests that a significant percentage of Minnesotans believe that laws already protect low-income students from hunger at school and those respondents likely do not know that the creation of such a law might protect low-income students who attend schools that are either not participating in the federal breakfast or lunch programs or simply not offering any meals at all.

Respondents' Opinions Regarding What Minnesota Laws Should Be

This section of the survey consisted of questions six through seven and measured what respondents' opinions are about what they thought Minnesota laws should be in regard to food service in public schools. For both questions, respondents could select, "Yes," or "No." All 127 survey participants responded to both questions.

Question six.

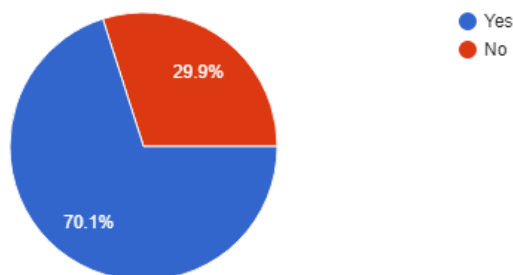
Question six asked participants, "In your opinion, should Minnesota public schools be required to serve breakfast or lunch to students regardless of financial background?" In general, responses were as follows:

70.1% Yes (89 Responses)

29.9% No (38 Responses)

In your opinion, should Minnesota public schools be required to serve breakfast or lunch to students regardless of financial background?

127 responses



Broken Down By Respondent Type

Educator

72.9% Yes (51 Responses)

27.1% No (19 Responses)

Legislator

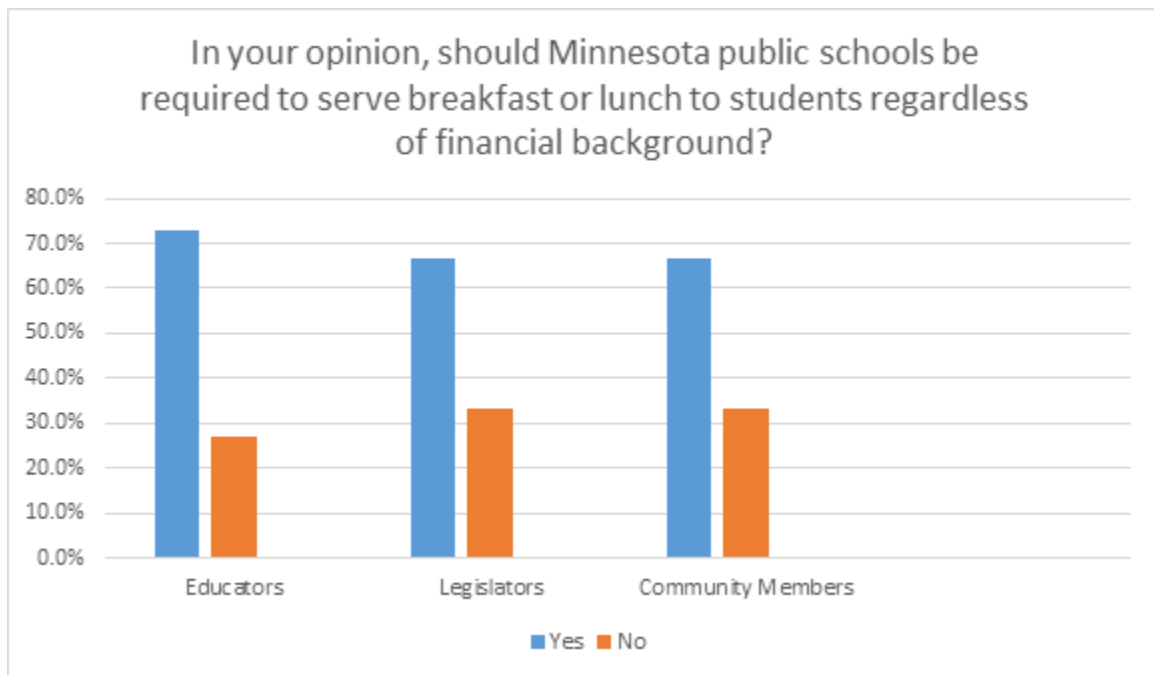
66.7% Yes (14 Responses)

33.3% No (7 Responses)

Community Member

66.7% Yes (24 Responses)

33.3% No (12 Responses)



When survey participants were asked if they believed there should be a Minnesota law requiring public schools serve breakfast and lunch to all students, the majority of respondents from all three groups (70%) responded with a, “yes.” This data suggests that, if a bill to require feeding all Minnesota public school attendees were to be

introduced to Minnesota legislators, it would likely have a large amount of support from constituents.

Question seven.

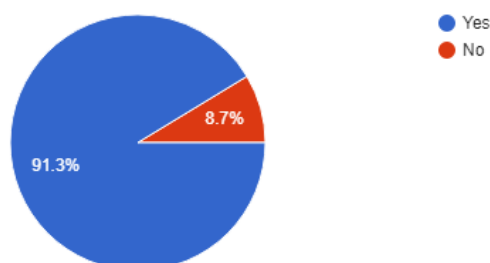
Question seven asked survey participants, “In your opinion, should Minnesota public schools be required to serve breakfast or lunch to students who qualify for free or reduced meals?” In general, responses were as follows:

91.3% Yes (116 Responses)

8.7% No (11 Responses)

In your opinion, should Minnesota public schools be required to serve breakfast or lunch to students who qualify for free or reduced meals?

127 responses



Broken Down By Respondent Type

Educator

95.7% Yes (67 Responses)

4.3% No (3 Responses)

Legislator

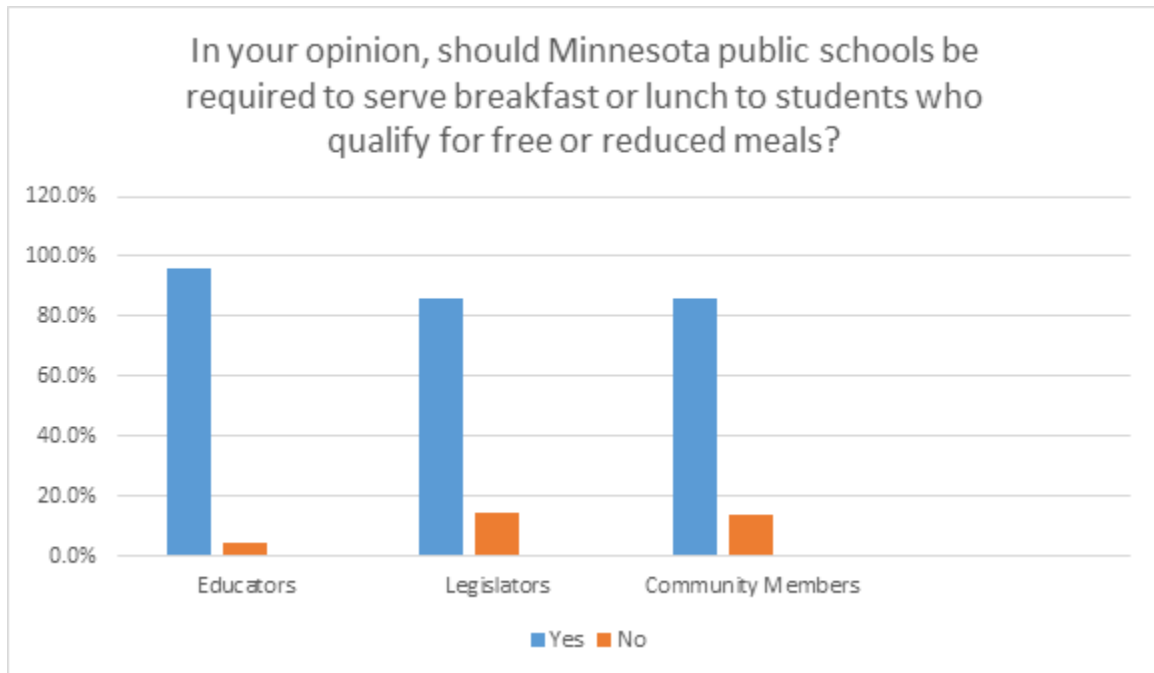
85.7% Yes (18 Responses)

14.3% No (3 Responses)

Community Member

86.1% Yes (31 Responses)

13.9% No (5 Responses)



Data collected for question seven indicated that a significant portion (91.3%) of Minnesotans from all three participant groups believe that laws should ensure that students who qualify for free and reduced meals are provided those meals at public schools. This data suggests that Minnesotans would strongly support the introduction of such a bill.

It is interesting to note, that two of the five “No” responses to this question from community members, stated in their response to question eight (What are your thoughts on whether there should be a Minnesota law that requires public schools to serve

breakfast or lunch?), that they believed that meals should be for all students and not just those who qualify for free or reduced school meals. One respondent wrote, “It should be all or nothing. If you are serving food it should be available to everyone regardless of income.” Another responded, “If this isn’t a legislatively funded priority, I think it should be. I think having it as a universal benefit would be great, to avoid stigmatization of students who might be needier.” From these statements, it seems that these two respondents read the question to mean that if there was a law that required Minnesota public schools serve breakfast or lunch to students who qualify for free or reduced meals, then that law would automatically exclude all other students. The other three respondents who selected, “no,” were clear that they did not believe a law should require schools serve low income students. One felt it would be a, “Waste of Money,” while two others wrote about feeding children being the responsibility of the parents suggesting parents should be, “held accountable,” or, “take a parenting class,” if they cannot feed their children.

Respondent Commentary

Question eight.

Question eight provided respondents opportunity to share any additional thoughts they wished to share with the researcher by asking, “What are your thoughts on whether there should be a Minnesota law that requires public schools to serve breakfast or lunch?” Participants were provided space to answer this open-ended question with paragraph responses so as to not limit their commentary. Eighty-Four participants (66.1%) elected to respond to this question. While the large numbers of responses to this question led to an equally large variety of comments, there were some common themes.

Some respondents expressed concerns about what a law requiring schools to provide meals to students would entail. For instance, some respondents were not necessarily against schools providing meals, but did not want a law that would require students to participate in them. These participants pointed out the cost of wasted food if meals were made for students who did not want them. Finland helps alleviate this issue by collecting student feedback in regard to the meals they are served in an attempt for school lunches to meet both nutritional and student standards (Finnish National Board of Education, 2014). This particular study did not consider the potential wording or details of any law that might be proposed, but this is a valid concern that future research, or legislators introducing a law, should consider.

A few respondents employed at smaller alternative schools raised the point that requiring they serve food could be difficult in that they are not equipped for cafeterias. As addressed in chapters one and two of this thesis, smaller schools that lack kitchen equipment and staff can find alternative methods for providing meals. Satelliting in from other schools and catering being just two of the options available.

Primarily, the most common commentary that raised concern was in regard to funding. Survey participants wanted to know who would fund meals provided by schools. Would it come from the general budget? Would the state or federal government be providing additional stipends to schools? Would Minnesota public schools be required to participate in the National School Lunch Program? One legislator responded, "I favor such a law but believe that it should be accompanied by sufficient funding to support it." The cost and method of payment for such meals is a valid concern, but was not within the scope of this particular project. However, any legislator wishing to

propose a new law about meals in schools would want to be ready with some responses to this in order to convince respondents that it was feasible to pay for it. Said legislator might consider looking into how Finland has funded such meal programs in their schools. While Finland spends significantly less per pupil on their students, they have, “almost completely eliminate[d],” their achievement gap by changing how their schools are funded to ensure equitable access to all aspects of education, including nutritious school meals (National Center on Education and the Economy).

Other respondents to this question lauded the idea of creating an opportunity for greater access to meals in schools. Several educators that participated cited Maslow’s Hierarchy of Needs and his research that identified food as a basic human need that must be met in order for them to meet their cognitive needs (Burton, 2012). These participants’ training and background in the research associated with the impact of nutrition seems to have played a role in the shaping of their responses to survey questions. Respondents were not provided with background research on the impact of nutrition on learning, so it is possible that educating others on such research might alter the thinking of those who did not believe it necessary to create a law that would require serving meals to public school students.

Other respondents suggested that they believed making meals available to all students, regardless of financial need, would reduce the stigma and bullying that can coincide with poverty. A community member wrote, “If this isn’t a legislatively funded priority, I think it should be. I think having it as a universal benefit would be great, to avoid stigmatization of students who might be needier.” A professor echoed that statement, “Any application process (or eligibility requirement) could create stigmas

and/or barriers for students who otherwise won't have access to good nutrition. A full program, open to all, is the most efficient way to ensure access (and access to good nutrition/meals is vital to student success)." With a recent surge in attention to the issue of bullying, respondents appear more aware of the issue, how it relates to access to meals, as well as how providing meals could positively impact students facing poverty related social stigma.

Most responses to this question were short and offered little in the way of sharing participants' reasoning, but they were still very clear in that they believed feeding students would be a positive change. For instance, one legislator wrote, "A hungry child can't learn," another stated, "there should be one [a law]," and another wrote, "I would support a bill to make this part of our educational feasibility and responsibility." Many community members were also adamant in their assertions that feeding public school children should be a priority. A participant affirmed, "this should be mandatory." and another stated, "Children should not have to worry about where their next meal is coming from.

Summary

This biggest take away from these results is that Minnesotans generally support the idea that public schools should be required to provide meals to students, most especially for students who qualify for free and reduced meals. Though there are many questions that would need answers before proposing such legislation, such as funding and deciding whether the law be universal or just for students facing poverty, it seems that Minnesota's constituents would endorse a statute that positively impacted students' hunger and learning.

CHAPTER FIVE

Conclusion

Introduction

At this time, there is no law in Minnesota that requires public schools to participate in the National School Lunch Program (NSLP) or to even serve meals at all. Schools can, if they so choose:

- decline to provide free and reduced meals to impoverished students who qualify for them.
- opt to require families provide their students' school day meals either through home-packed lunches or by allowing students to purchase lunch from nearby food establishments with an open-campus.

These options place a disproportionate burden on low-income families. For families who have already been recognized by the federally funded National School Lunch Program as being in need of meal assistance, they would then need to find other means of feeding their children simply because their school was not offering them options they qualify for. Purchasing food to send pack lunches, or paying the high cost of having their children eat out, costs families money that the government has already determined they do not have. This could potentially lead to the neediest of students simply going without meals at all.

In 2016, 323,531 of Minnesota's public school students qualified for free or reduced meals (Minnesota Department of Health, n.d). In schools not participating in the NSLP, or where meals are not offered at all, disadvantaged families do not have the same opportunities as families whose children attend NSLP schools serving meals because they

are having to use more money to provide meals that would be offered elsewhere, or worse, going without meals at all. This lack of access to affordable, nutritious meals, has also been found to negatively impact students' academic achievement, their chances of graduating, and the general health and cognitive development of youth (Brown, Shepard, Martin, & Orwat, 2007; National Collaborative on Education and Health, 2015; National Education Association, n.d.; Utah Education Policy Center, 2012; Wilder Research, 2014; Yoo, Slack, & Holl, 2009). When Minnesota public schools are not required to serve meals to students, it creates the potential for hundreds of thousands of Minnesota's children to be placed at risk.

Key Findings

The major finding of this study was an existing discrepancy between what Minnesotans think the current laws are around... versus what they believe should be legislated. A large majority of Minnesotans, 74%, do not know that there are no laws ensuring low-income, homeless, and highly mobile youth are provided with school day meals. It is no wonder that residents have not been clamoring for change, most are unaware a problem exists. Despite this lack of knowledge related to current food service in schools laws, large numbers of Minnesotans do believe that schools should be required to serve meals in schools. 70.1% of respondents reported that all K-12 public school students, regardless of their financial background, should be served breakfast and lunch at school. Even greater numbers of all survey participants, 91.3%, believed that, in the very least, students who qualify for free or reduced meals, should be provided those at school. While there were study participants who commented that the onus of providing meals for children, should always fall to the guardians, even those living in poverty, those

responses made up only a small part, 8.7%, or responses. This study show that, overwhelmingly, Minnesotans support legislation that ensures public school children are fed during the school day, most especially for those facing poverty, homelessness, and other difficult challenges.

In order to pass such legislation, it is encouraging to know that it has been done successfully elsewhere. In Finland, they have been serving all students, preschool through high school, free lunches since 1943 (Finnish National Board of Education, 2014). The Finnish National Board of Education argues, “A good lunch is more than nutrition. It is something that gives pleasure, relaxes, refreshes, maintains the ability to work and helps children grow healthy. A good school meal is seen as an investment in the future.” In Finland, they have recognized the value of accessible and nutritional student meals as something that not only helps students’ bodies and learning, but also something that makes their country better long term.

Limitations of the Study

As with any study, this research had limitations. Three limitations were: a.) the time the survey was available to respondents, b.) snowball methodology, and c.) the lack of context to questions respondents were provided. The length of the study’s access to the survey limited the results by not allowing enough time to collect data from more participants, especially those identifying as legislators. The survey was published as a google survey April 24, 2018 and remained accessible to participants through May 6, 2018. While the survey was announced via Facebook on April 24th, legislators were not sent their invitations to participate until April 27th, giving them three less days to take part in the study. Had both of these invitations been released at the same time, it is

possible that there would have been more participation by Minnesota's legislators. Given the time constraints, I am still pleased with the study's sample size.

The manner in which the study's participants were invited to take part was also a limitation to the research. In order to attract a relevant sample size, a snowball method for recruiting survey respondents was chosen. In encouraging participants to recruit others to take part, this study risked limiting its respondents to like-minded individuals. Legislators were the only group of participants to who the snowballing method was not utilized and their responses appeared very similar to those of the community members, suggesting that the snowballing method still managed to collect data representative of the people.

A further limitation was that the questions posed were asked with little context or background on the topic. While this did ensure participants answered based on their current beliefs, without trying to sway their opinions, it may have left some respondents confused by the questions. For instance, some of the participants expressed concern that any law requiring public schools serve meals would automatically require students to ingest said meals and they did not wish for students to be forced to take unwanted food. This study did not presuppose the details of any future proposed legislation and respondents doing so on their own may have impacted their chosen responses. Additionally, due to the anonymity of this study, there was no way for the researcher to clarify the meaning of survey questions for respondents who may have needed clarification. It may be prudent for any researchers replicating this study to provide participants with questions related to more details of what a law of this nature might include.

Future Research

There is, at the time of writing, a lack of available research regarding what Minnesotans believe the laws surrounding food service in public schools are and should be. While innumerable studies have been published on the importance of student access to nutritional meals, this study is original research seeking to answer those questions, so it would be advisable to have future researchers replicate the study to confirm results found here. Further, as results indicated, Minnesotans chiefly support the idea of legislation requiring school food service for at least students who qualify for free and reduced meals. It may be prudent to research how Minnesotans would feel about how school meal legislation might be worded, who they want included, and how they would like to see any costs associated with it appropriated.

Access to affordable food in schools is not just a Minnesota problem, but an affliction that spans the entire United States. Seven thousand schools across the country have opted out of the NSLP, potentially harming disadvantaged students in those schools, both physically and academically, by denying them access to affordable nutrition during the school day (Poppendieck, 2010). Some schools, like one in Prior Lake, Minnesota, have elected out because they feel that federal nutrition guidelines are too restrictive and that active students need more food than allowed by NSLP participating schools (Adler, 2015). For schools which choose to opt out, but still pay for meals for low-income students, like Prior Lake High School does, they have found that they can afford to help their neediest of students without participation in federal programs, but for less-affluent districts, they may not be able to make that choice. If Minnesotans' support of providing school meals to children who qualify for free or reduced meals is representative of how

the nation as a whole feels, it is advisable to replicate this study on a national level to see if Americans would want to see legislation passed that would see schools provide meals to all of the country's disadvantaged children.

Moving forward

At this time, my personal plan to utilize this study is to share it with Minnesota's legislators to encourage them to introduce new legislation that would require public schools to serve school day meals to their students, most specifically, those students that qualify for free or reduced meals through the NSLP. I would contact them via the email addresses I used to send them the survey, include a link to my research, and an offer to speak with them personally and/or to testify to the legislative bodies. It is important to inform our legislators because this study found that 57.1% of them incorrectly thought there is already law requiring schools provide meals to children who qualify for free or reduced school meals. If they do not know there is a problem, there is no impetus for them to solve it. It would also be prudent to inform legislators that already support the idea that their constituents do too. While 85.7% of legislators reported that they believed schools should be required to serve breakfast and lunch to students who qualify for free or reduced meals, 91.3% of their constituents did as well. Sharing this research with Minnesota's legislators would be beneficial in that it may ease concerns they might have about meeting the needs and expectations of their electorates. Further, Minnesota's legislators should be made aware that funding school meals for all of our public school children, most especially the neediest of our students, is not only a positive move towards a more equitable education, but is financially feasible as well. Finland has a long history of making food access equitable, while improving student scores and fixing their

achievement gap, and they do it while paying less per pupil (National Center on Education and the Economy). If Minnesota is serious about closing our achievement gap, research shows that access to nutrition is essential and we have the ability to make that a reality.

Additionally, this research will be shared with the Minnesota Associate of Alternative Programs (MAAP) at the request of their Executive Coordinator, and Legislative Committee Co-Chair, Steve Allen. MAAP would like the study posted on to their website to share information with member educators on public school food service and increasing meal availability for students.

Summary

This chapter provided a synopsis of the conclusions from a study that explored the following questions:

What do legislators, educators, and community members know about Minnesota laws as they relate to school meals?

What do legislators, educators, and community members believe regarding whether laws should be created to ensure that all Minnesota schools serve meals to students?

Existing literature emphasizes the necessity of access to nutritional meals. This study has found that a majority of Minnesotans agree to the essentialness of food and support legislation ensuring students, especially those who qualify for free or reduced meals, have access to it at schools. Considering the high percentage of residents who would support

such a law, it would behoove legislators to research this further and make changes that would improve access to health and education for more of Minnesota's students.

Appendix A

A. Survey Questions

Background

1. Which of the following best describes you:
 - a. Legislator
 - b. Educator (What type of educator are you?)
 - c. Community Member
2. WDo you identify as either a Minnesotan or a resident of Minnesota?
 - a. Yes
 - b. No
3. If you answered, "Educator," to the previous question, what type of educator are you? For example: teacher, professor, principal, paraprofessional, etc. _____

What do you know about current laws around school food service in MN?

4. Are Minnesota public schools required to serve breakfast and lunch to students regardless of financial background?
 - a. Yes
 - b. No
 - c. Not sure
5. Are Minnesota public schools required to serve breakfast and lunch to students who qualify for free or reduced meals?
 - a. Yes
 - b. No

c. Not sure

5. Comments:

What is your opinion about what current laws around school food service should be like in MN?

6. In your opinion, should Minnesota public schools be required to serve breakfast or lunch to students regardless of financial background?

d. Yes

e. No

7. In your opinion, should Minnesota public schools be required to serve breakfast or lunch to students who qualify for free or reduced meals?

f. Yes

g. No

Final comments:

8. What are your thoughts on whether there should be a Minnesota law that requires public schools to serve breakfast or lunch?_____

Appendix B

Dear Senator,

I am a K-12 teacher, pursuing my Master's degree at Hamline University, and am investigating what people, particularly legislators, know and think about Minnesota laws that specifically relate to food service in public schools.

The survey is eight questions long and should take no more than 2-3 minutes to complete.

This survey is completely anonymous, with no identifying data or contact information collected. The link to the survey is: <https://goo.gl/forms/7k4V313oBCptxIZM2>

If you have any questions or concerns, feel free to contact the researcher, Erin Lange, at emcdonald01@hamline.edu. Thank you for taking the time to participate in this survey.

Best Regards,

Erin Denise Lange

emcdonald01@hamline.edu

Appendix C

Dear Representative,

I am a K-12 teacher, pursuing my Master's degree at Hamline University, and am investigating what people, particularly legislators, know and think about Minnesota laws that specifically relate to food service in public schools.

The survey is eight questions long and should take no more than 2-3 minutes to complete.

This survey is completely anonymous, with no identifying data or contact information collected. The link to the survey is: <https://goo.gl/forms/7k4V313oBCptxIZM2>

If you have any questions or concerns, feel free to contact the researcher, Erin Lange, at emcdonald01@hamline.edu. Thank you for taking the time to participate in this survey.

Best Regards,

Erin Denise Lange

emcdonald01@hamline.edu

Appendix D

Facebook Post

Request for Assistance: I'm trying to complete my Master's thesis and it would be great if any of you would be willing to take 2-3 minutes to complete my survey. I'm specifically looking for participants with a connection to MN (live here, use to live here, etc.).

The link is here: <https://goo.gl/forms/SPrPoAkYc3bj78Ql2>

If you'd be willing to share and pass this post/link on, I would appreciate that as well!
Thank you!

The details of the research are as follows: I am a K-12 teacher, pursuing my Master's degree at Hamline University, and am investigating what people know and think about Minnesota laws that specifically relate to food service in public schools.

The survey is eight questions long and should take no more than 2-3 minutes to complete.

This survey is completely anonymous, with no identifying data or contact information collected.

If you have any questions or concerns, feel free to contact the researcher, Erin Lange, at emcdonald01@hamline.edu. Thank you for taking the time to participate in this survey.

Appendix E

Essential Vocabulary

As many of the definitions have legal meaning and ramifications, the lawful definitions are being used for the purpose of this research so that terminologies remain consistent.

- **National School Lunch Program/Free and Reduced Lunch:** “The National School Lunch Program is a federally assisted meal program operating in public and nonprofit private schools and residential child care institutions. It provides nutritionally balanced, low-cost or free lunches to children each school day” (United States Department of Agriculture, 2017).
- **Homeless Student:** (A) means individuals who lack a fixed, regular, and adequate nighttime residence (within the meaning of section 103(a)(1)); and (B) includes--
 - (i) children and youths who are sharing the housing of other persons due to loss of housing, economic hardship, or a similar reason; are living in motels, hotels, trailer parks, or camping grounds due to the lack of alternative adequate accommodations; are living in emergency or transitional shelters; or are abandoned in hospitals;*
 - (ii) children and youths who have a primary nighttime residence that is a public or private place not designed for or ordinarily used as a regular sleeping accommodation for human beings (within the meaning of section 103(a)(2)(C));
 - (iii) children and youths who are living in cars, parks, public spaces, abandoned buildings, substandard housing, bus or train stations, or similar settings; and
 - (iv) migratory children (as such term is defined in section 1309 of the Elementary

and Secondary Education Act of 1965) who qualify as homeless for the purposes of this subtitle because the children are living in circumstances described in clauses (i) through (iii) (The McKinney-Vento Definition of Homelessness, n.d.).

- **Intermediate District:** “Intermediate school districts are specialty school districts that provide defined student services to a group of regular “member” school districts” (Intermediate District Facts, 2017).
- **McKinney-Vento Act:** “Subtitle VII-B of The McKinney-Vento Homeless Assistance Act authorizes the federal Education for Homeless Children and Youth (EHCY) Program and is the primary piece of federal legislation related to the education of children and youth experiencing homelessness. It was reauthorized in December 2015 by Title IX, Part A, of the Every Student Succeeds Act (ESSA)” (National Center for Homeless Education, n.d.).
- **Title I:** “Title I, Part A (Title I) of the Elementary and Secondary Education Act, as amended (ESEA) provides financial assistance to local educational agencies (LEAs) and schools with high numbers or high percentages of children from low-income families to help ensure that all children meet challenging state academic standards” (Programs Title I Part A, 2015).

References

- Adler, E. (2015, June 3). Prior Lake High opts out of federal school lunch program, losing \$170K in funds. *Star Tribune*. Retrieved September 30, 2017, from <http://www.startribune.com/prior-lake-high-opts-out-of-federal-school-lunch-program/305864931/>
- Anderson, M. D. (2017, March 22). Do Healthy Lunches Improve Student Test Scores? *The Atlantic*. Retrieved October 7, 2017, from <https://www.theatlantic.com/education/archive/2017/03/do-healthy-lunches-improve-student-test-scores/520272/>
- Aubrey, A. (2015, September 9). *Class Divide: Are More Affluent Kids Opting Out Of School Lunch?* Retrieved October 29, 2017, from NPR: <https://www.npr.org/sections/thesalt/2015/09/09/438578867/class-divide-are-more-affluent-kids-opting-out-of-school-lunch>
- Brown, J., Shepard, D., Martin, T., & Orwat, J. (2007). *The Economic Cost of Domestic Hunger*. Retrieved November 10, 2017, from http://us.stop-hunger.org/files/live/sites/stophunger-us/files/HungerPdf/Cost%20of%20Domestic%20Hunger%20Report%20_tcm150-155150.pdf
- Buchheit, P. (2015, January 20). *The Real Numbers: Half of America Is in Poverty and It's Creeping Upward*. Retrieved October 10, 2017, from Alternet:

<https://www.alternet.org/economy/real-numbers-half-america-poverty-and-its-creeping-upward>

Burton, N. M.D. (2012, May 23). *Our Hierarchy of Needs*. Retrieved August 2018, from Psychology Today: <https://www.psychologytoday.com/us/blog/hide-and-peek/201205/our-hierarchy-needs>

Carroll, C. M. (2014, October). Better Academic Performance — Is Nutrition the Missing Link? *Today's Dietician*, 16(10), 64. Retrieved October 7, 2017, from <http://www.todaysdietitian.com/newarchives/100614p64.shtml>

Centers for Disease Control and Prevention. (2014, May). *Health and Academic Achievement*. Retrieved October 6, 2017, from Healthy Schools: https://www.cdc.gov/healthyyouth/health_and_academics/pdf/health-academic-achievement.pdf

Connect, I. D. (Director). (2017). *Intermediate Districts - Challenge & Solution - District 287* [Motion Picture].

Creswell, J. (2014). *Research Design: Qualitative, Quantitative and Mixed Method Approaches* (4th ed.). Thousand Oaks: SAGE Publications.

Donna. (2017, September 26). Academic Operations Principal. District A. (E. Lange, Interviewer)

Federal Register. (2017, August 9). *Child Nutrition Programs: Income Eligibility Guidelines (July 1, 2017 - June 30, 2018)*. Retrieved October 17, 2017, from U.S.

Department of Agriculture: <https://www.gpo.gov/fdsys/pkg/FR-2017-04-10/pdf/2017-07043.pdf>

Finnish National Board of Education. (2014). School meals in Finland. Finland.

Retrieved from

https://www.oph.fi/download/155535_School_meals_in_finland.pdf

Gabe, T. (2015, January 29). *Federation of American Scientists*. Retrieved November 10, 2017, from Poverty in the United States: 2013:

<https://fas.org/sgp/crs/misc/RL33069.pdf>

Gunderson, G. W. (1971). *The National School Lunch Program: Background and Development*. U.S. Government Printing Office. Retrieved October 19, 2017, from <https://fns-prod.azureedge.net/sites/default/files/NSLP-Program%20History.pdf>

Intermediate District Facts. (2017, September 30). Retrieved from Northeast Metro Intermediate School District 916: <https://www.916schools.org/Page/2770>

Intermediate Districts. (2017). Retrieved from Minnesota Department of Education: <http://w20.education.state.mn.us/MdeOrgView/search/tagged/DistrictType-06,RootLevel,MARSSOperating?description=Intermediate+Districts>

Just, D. (2014, June 26). *3 Ways Nutrition Influences Student Learning Potential and School Performance*. Retrieved October 7, 2017, from United States Cooperative Extension System: <http://articles.extension.org/pages/68774/3-ways-nutrition-influences-student-learning-potential-and-school-performance>

- Kleinman, R., Hall, S., Green, H., Korzec-Ramirez, D., Patton, K., Pagano, M., & Murphy, J. (2002). Diet, Breakfast and Academic Performance in Children. *Annals of Nutritional Metabolism*, 46(1), 24-30.
- Kleinman, R., Murphy, J., Little, M., Pagano, M., Wehler, C., Regal, K., & Jellinek, M. (1998, January). Hunger in Children in the United States: Potential Behavioral and Emotional Correlates. *Pediatrics*, 101(1).
- Mary. (2017, October 20). District B Food Service Manager and General Manager of Schools Nutrition Department. (E. Lange, Interviewer)
- McDonnell, E., Probart, C., Weirich, J., Hartman, T., & Birkenshaw, P. (2004). School Breakfast Programs: Perceptions and Barriers. *The Journal of Child Nutrition and Management*, 28(2).
- Minnesota Budget Project. (2013, October). *Minnesota Budget Project*. Retrieved November 10, 2017, from Minnesota: The Land of Unequal Opportunity: <http://www.mnbudgetproject.org/research-analysis/economic-security/poverty-income/land-of-unequal-opportunity>
- Minnesota Department of Education. (2015). *High School Graduation*. Minnesota.gov Portal. Retrieved February 23, 2018, from <https://mn.gov/mmb/worlds-best-workforce/key-goals/graduation.jsp>
- Minnesota Department of Education. (2017). *Closing the Achievement Gap*. Retrieved November 9, 2017, from Minnesota Department of Education: <http://education.state.mn.us/MDE/NewSiteLook/gap/056694>

- Minnesota Department of Health. (n.d.). *View Charts: Free and Reduced Price Lunch Eligibility*. Retrieved October 18, 2017, from Minnesota Department of Health: <https://apps.health.state.mn.us/mndata/free-reduced-lunch#year>
- Minnesota School and Breakfast Program*. (n.d.). Retrieved November 10, 2017, from Benefits.gov: <https://www.benefits.gov/benefits/benefit-details/1998>
- National Center for Homeless Education*. (n.d.). Retrieved from The McKinney-Vento Homeless Assistance Act: <https://nche.ed.gov/legis/mv.php>
- National Center on Education and the Economy. (n.d.). *Finland: Governance and Accountability*. Washington, DC. Retrieved August 8, 2018, from <http://ncee.org/what-we-do/center-on-international-education-benchmarking/top-performing-countries/finland-overview/finland-system-and-school-organization/>
- National Collaborative on Education and Health. (2015). *Brief on Chronic Absenteeism and School Health*. Retrieved October 19, 2017, from <http://www.attendanceworks.org/wordpress/wp-content/uploads/2011/03/Chronic-Absenteeism-and-School-Health-Brief-1.pdf>
- National Education Association. (n.d.). *Facts About Child Nutrition*. Retrieved October 4, 2017, from National Education Association: <http://www.nea.org/home/39282.htm>
- Øverby, N., Ludemann, E., & Hoigaard, R. (2013). Self-reported Learning Difficulties and Dietary Intake in Norwegian Adolescents. *Scandinavian Journal of Public Health*, 41, 754-760. Retrieved November 4, 2017, from <http://journals.sagepub.com.ezproxy.hamline.edu:2048/doi/pdf/10.1177/1403494813487449>

- Poppendieck, J. (2010). *Free For All: Fixing School Food in America*. Berkeley: University of California Press.
- Poverty Myths and Issues*. (2017). Retrieved November 10, 2017, from Open Access Connections: <https://mail.google.com/mail/u/1/?tab=wm#inbox>
- Programs Title I Part A*. (2015, October 5). Retrieved from US Department of Education: <https://www2.ed.gov/programs/titleiparta/index.html>
- Rao, M., Afshin, A., Singh, G., & Mozaffarian, D. (2013). Do healthier foods and diet patterns cost more than less healthy options? A systematic review and meta-analysis. *BMJ Open*. doi:10.1136/bmjopen-2013-004277
- School Nutrition Association. (2016). *State School Meal Mandates and Reimbursements: School Year 2015-2016*.
- Sifferlin, A. (2013, August 29). *Why Some Schools Are Saying 'No Thanks' to the School-Lunch Program*. Retrieved October 29, 2017, from Time: <http://healthland.time.com/2013/08/29/why-some-schools-are-saying-no-thanks-to-the-school-lunch-program/>
- Sorhaindo, A., & Feinstein, L. (2006). *What is the Relationship Between Child Nutrition and School Outcomes*. Wider Benefits of Learning.
- Student Information Services. (2017). *Data Request Ticket #41437*. District A. Retrieved October 22, 2017
- Susan. (2017, October 11). Intermediate District A Food Service Manager. (E. Lange, Interviewer)

The McKinney-Vento Definition of Homelessness. (n.d.). Retrieved from National Center for Homeless Education: <https://nche.ed.gov/legis/mv-def.php>

U.S. Department of Agriculture. (2016, July). *A Guide to Smart Snacks in School.* Retrieved October 16, 2017, from U.S. Department of Agriculture: <https://healthymeals.fns.usda.gov/sites/default/files/uploads/USDASmartSnacks.pdf>

U.S. Department of Agriculture. (2017 b, August). *National School Lunch Program Fact Sheet.* Retrieved October 18, 2017, from U.S. Department of Agriculture: <https://fns-prod.azureedge.net/sites/default/files/cn/NSLPFactSheet.pdf>

United States Department of Agriculture. (2017, June 13). *National School Lunch Program.* Retrieved from USDA Food and Nutrition Service: <https://www.fns.usda.gov/nslp/national-school-lunch-program-nslp>

Utah Education Policy Center. (2012). *Research Brief: Chronic Absenteeism.* The University of Utah, Utah Education Policy Center. Retrieved October 19, 2017, from <http://www.utahdataalliance.org/downloads/ChronicAbsenteeismResearchBrief.pdf>

Vereecken, C., Bobelijn, K., & Maes, L. (2005). School Food Policy at Primary and Secondary Schools in Belgium-Flanders: Does it Influence Young People's Food Habits? *European Journal of Clinical Nutrition*, 59, 271-277.

Wilder Research. (2014, January). *Nutrition and Students' Academic Performance.* Retrieved October 6, 2017, from Amherst H. Wilder Foundation:

<https://www.wilder.org/Wilder-Research/Publications/Studies/Fueling%20Academic%20Performance%20-%20Strategies%20to%20Foster%20Healthy%20Eating%20Among%20Students/Nutrition%20and%20Students%27%20Academic%20Performance.pdf>

Yoo, J., Slack, K., & Holl, J. (2009). Material Hardship and the Physical Health of School-Aged Children in Low-Income Households. *American Journal of Public Health, 99*(5), 829-836.

Young So, W. (2013). Association between Frequency of Breakfast Consumption and Academic Performance in Healthy Korean Adolescents. *Iranian Journal of Public Health, 42*(1), 25-32. Retrieved November 4, 2017, from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3595625/pdf/ijph-42-25.pdf>