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Food For Thought: Addressing Food Insecurity in Public Schools for Optimal Student

Success

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Abstract

The focus issue addressed in this Capstone Project is the presence of food insecurity throughout a county on the coast of California and what can be done to improve it. This issue is important because of the negative impact that food insecurity has on students' health, development, and academics. An evidence-based argument is offered that public education has a responsibility to address food insecurity through its institutions as a means of supporting students' academic and developmental success. The stakeholder perspectives chosen were of 1 individual working as a Community Partnership Coordinator for a local food aid organization, one individual who experienced years of childhood food insecurity, and one individual who has years of experience in school food distribution. Through a thorough analysis of interviews and relevant research, three action options emerged and were explored as ways to address the issue. These included (1) Backpack Food Programs, (2) Mobile Food Pantries, and (3) Awareness; destignatize food insecurity and educate families on available resources. Through this Capstone project, the researcher has identified partnering with outside organizations to set up mobile food pantries at schools as being the most effective way of achieving the goal of supporting student development by increasing food security.

Food For Thought: Addressing Food Insecurity in Public Schools for Optimal Student Success

Within the walls of Sunnyside Elementary is a first-grade student named Maya who loves learning and dreams of becoming a scientist. Unlike her peers, Maya's ambitions and achievements were hindered by the invisible challenge of food insecurity that Maya was facing. Every day at lunchtime students race to the lunch tables with their lunchboxes in hand excited to show off what was packed in their lunch that day or ready to trade snacks amongst each other. While other kids traded snacks and started eating, Maya sat alone, sad and embarrassed, trying to hide her empty lunchbox from her classmates. She felt ashamed and did not know how to explain that her family was unable to afford food. Maya watched as other students complained about what they got in their lunch, ham instead of turkey or apples instead of chips.

After lunch, students come back to class buzzing with energy, filled up from their lunches, and riled up from playing on the playground. With the fuel to help support their learning, students are engaged in what is going on around them. While other kids are alert and paying attention, Maya is tired and withdrawn. She struggles to concentrate on anything but the sound of her growling stomach. Maya is physically, mentally, and developmentally hindered by the unavailability of food in her life.

Across the United States, thousands of children, much like Maya, grapple with the daily struggle of hunger. While some resources exist, numerous obstacles—such as inadequate transportation, time constraints, and feelings of shame—hinder many from accessing the help they desperately require. Public schools possess a unique opportunity to bridge this gap by providing students with the essential nourishment they need to pursue their passions and explore the world with newfound energy and optimism. The objective of this project was to increase awareness and identify practical solutions to assist students like Maya, who confront the challenges of hunger on a daily basis.

Literature Synthesis

This project will examine the effects of food insecurity on students in public schools to raise awareness and find practical solutions to support students who are food insecure. Food insecurity is described by Jyoti et al. (2005) as the "limited or uncertain availability of or inability to acquire nutritionally adequate, safe, and acceptable foods due to financial resource constraint". Despite the presence of various programs, resources, and legislation designed to improve children's access to food within the public education system, the problem of food insecurity among children in public schools remains prevalent (Jyoti et al.). This project aims to find a way for public schools to be the bridge that connects food-insecure students to various resources to improve the adverse effects of food insecurity.

Why is it an Issue/Opportunity?

Food insecurity is an issue because of the adverse effects that it has on students and their families. Research has shown that food insecurity has developmental consequences and negative effects on students' mental health (Coughenour et al, DeBate et al., Jyoti et al., Leung et al., Perez-Escamilla & Pinheiro de Toledo Vianna, Williams). Things such as poor social skills, behavioral problems, depression, suicidal ideation, mental disorders, and more have all been linked to students' food insecurity (Jyoti et al., Leung et al., Williams). Additionally, students have identified feelings of worry, stress, anger, sadness, or embarrassment in regards to their food insecurity (Perez-Escamilla & Pinheiro de Toledo Vianna, Williams). Students who are food insecure are also affected physically by lower immunity, nutritional deficiencies, higher levels of chronic conditions, and higher rates of hospitalization (Lindow, Yen, Xiao, & Leung, Tamiru & Belachew, Williams,). Furthermore, not only does food insecurity affect students, but it also affects their families and subsequently their home environment (Lindow et al., Williams, Perez-Escamilla & Pinheiro de Toledo Vianna).

Despite food insecurity being a home based issue, this issue exists as an educational issue specifically because of the impact that food insecurity has on students' attendance and academic performance (Coughenour et al., Faught et al., DeBate et al., Jyoti et al., Pearlman, Perez-Escamilla & Pinheiro de Toledo Vianna, Raskind et al.). When it comes to attendance, students experiencing food insecurity are more likely to be late or absent from school (Perez-Escamilla & Pinheiro de Toledo Vianna, Tamiru & Belachew). Research also notes that the aforementioned adverse affects food insecurity has on student psychosocial health also have their own association to lower student achievement (Raskind et al.). With these achievement

barriers persisting between food-secure and food-insecure students, the public education system has an additional responsibility to take action and increase equity in their schools.

What Has and/or Should Be Done?

While there are public resources available to families, such as going to the food pantry, public schools have the unique opportunity to aid their students' families by bringing the resources to them. Tackling food insecurity through public education could open the door to more programs and resources given the significant influence and reach that public institutions have within the community. The California Department of Education describes schools as a "hub of activity and trusted resource center for families" (2023) which further strengthens the argument for public schools to take action.

Across America only five states have independently enacted free school meals for all students; California, Maine, Colorado, Minnesota, and New Mexico (Pearce et al.). In California, Education Code Section 49501.5 requires public school districts to provide students from transitional kindergarten to twelfth grade with two meals per school day for students who want it, regardless of their free or reduced-price meal eligibility (California Department of Education Nutrition Services). Another code in California that is in place is Education Code Section 49564.3 which requires high poverty schools, schools with more than 25 percent of enrolled students being eligible for free school meals, to implement a federal universal meal service provision (California Department of Education Nutrition Services). On top of school breakfast and lunch, the two meals provided by California EC 49501.5, some schools offer after school meals however these are only available to those in a supervised afterschool program through the Child and Adult Care Food Program (Rural Health Information Hub).

Even with federal efforts to cut down on food insecurity in schools, the problem still persists which has led to more school based programs. One example of the different programs schools have implemented is known as a backpack food program. In backpack food programs, schools "provide food to students at no cost, prepackaged in a grocery bag or in a backpack to take home over the weekend" (California Department of Education), such as the Feeding San Diego Backpack Program.

Another option schools can offer is on-site food pantries and mobile food pantries. By offering school based food resources, schools are providing families with a designated place or time to get access to food at no cost. This is done for the most part through the help of a sponsor such as an outside food bank or local businesses according to the Rural Health Information Hub. The California Department of Education Nutrition Services also notes that some districts across the state have resourced their programs through partnerships with "local charitable organizations, food waste management agencies, and community food banks" (2023). In North Carolina, the Wake County Public Schools implemented an Edible School Garden Initiative to address food insecurity across their district (Dobbis, 2022). They also created the Wake County Public School Gardens Resource Site which "offers guidance and resources for schools and communities to plan and organize... the successful curricular implementation of school gardens" as a means of combating food insecurity (WCPSS).

The WCPSS aren't the only ones to provide resources to help other schools implement their own programs and resources. Other examples are the Dare to Care Partner Agency School Food Pantry Handbook or the Hunger Free Colorado Toolkit for Starting Backpack Food Program. These resources help guide schools on how to implement food pantries and backpack programs, provide information on the roles of partners, guidance on how to set up partner agreements, and various document templates (California Department of Education).

Conclusion

As we can see, addressing food insecurity in public schools is an important topic with many different perspectives and factors needing to be considered. Despite what is currently being done, the literature shows that food insecurity is still posing a detriment to student success mentally, physically, and academically. The system of education has an obligation to strive for student success by addressing food insecurity because of the variety of ways that food insecurity can affect a child's day at school and their ability to learn. By addressing food insecurity through systems of education, schools are dismantling the barriers hindering student success while supporting the needs of the student and the family.

Method

Food insecurity is a persistent issue faced by countless students and their families throughout educational institutions in America. It is a burden students must carry that negatively affects their ability to thrive and succeed in the school environment. For this Capstone Project, the researcher investigated how members of food relief organizations, individuals who experienced childhood food insecurity, and individuals who work in school food distribution view food insecurity in schools and what they think could be done to improve it. Based on an analysis of the data and the relevant research literature, the researcher used what they learned to formulate an action that responds to children facing food insecurity in a way that inspires, informs, or involves a particular audience.

Context

Across America there are thousands of various food aid organizations. A food aid organization is a public or nonprofit organization that provides resources to those in need to relieve situations of food insecurity. Food assistance programs exist in various forms like financial assistance such as food stamps, a government provided voucher to be used for food, or in resources that directly provide people with the food they need, such as food pantries.

In the coastal California county that I focused on, more than 40% of the community is food insecure. The county spans a wide variety of geographic and socioeconomic communities and is the fourth-highest agricultural-producing county in California. With the presence of a large agricultural industry in combination with wealthy communities, this county is uniquely well-resourced in terms of its ability to fight food insecurity.

Participants and Participant Selection

For this study, three participants¹ were interviewed with three different perspectives on food insecurity in schools. These participants were invited to participate because of their relevant experience or expertise. Participant A is a 30 year old Hispanic female with over 3 years of experience working as Community Partnership Coordinator at a local food aid organization. Participant B is a 22 year old white female who experienced years of childhood food insecurity in a Central California county.

Participant C is a white female who has worked in school lunch distribution in Central California with over 20 years of experience.

Researcher

Food insecurity in the education system was something I was privileged enough to not even consider until high school. It was not until college that I learned the true severity and detriment of food insecurity in children. When I came to school here at California State University Monterey Bay, it was the first time I had seen a school offer aid programs such as the Basic Needs food hubs or the produce truck. Because of the stories and philosophies of my prior educators, I became conscious of the role of food availability in students' lives. As a result of that and learning about the different types of programs at CSUMB, I felt passionate about doing my project on this topic. As I carried out this research project, I remained open-minded to the perspectives of those involved who differed from my own. With this research project, I am committed to bringing attention to a struggle that impacts students and their education but that is not being addressed with adequate resources.

Semi-Structured Interview and Survey Questions

¹ The names of people, places, and organizations are pseudonyms to protect anonymity.

The interview questions asked to participant A were:

1. What is currently being done by your organization to address the food insecurity in schools? What are the strengths and weaknesses of these efforts?

2. What do you think should/could be done about food insecurity in schools?

3. What do you think are the challenges to doing something about food insecurity in schools?

4. What benefits if any does your organization get from the geographic location of where you serve?

5. How can schools collaborate with community organizations, food banks, and other resources to support students facing food insecurity?

6. Does your organization do anything to support families specifically as opposed to the individual?

7. Are there opportunities for schools to partner with local farmers or community gardens to provide fresh produce for school meals?

8. What challenges have you faced in connecting with people and families in need?

9. Can you share any challenges related to fundraising, food sourcing, or distribution that your food bank has experienced, and how have you overcome them?

10. What are your thoughts on the importance of addressing the root causes of food insecurity, such as poverty, unemployment, and systemic inequalities, and how can food banks contribute to these efforts?

11. Is there anything else that you would like to say about how schools could help students and their families facing food insecurity?

The questions asked to participant B were:

- 1. Personal description
 - a. Age, gender, race/ethnicity, siblings
- 2. How old were you when you experienced food insecurity?
- 3. What city/state?
- 4. Describe your food insecurity?
 - a. Quality or quantity?
- 5. Did you take advantage of any resources or aid?
 - a. What resources;
 - b. Quality?
 - c. Was it helpful? What made it a positive experience?
 - d. What could have been improved?
- 6. Were there any initiatives at your school/s to help you access food?
 - a. What services/resources?
 - b. When/how often if applicable
 - c. Pros
 - d. Cons
- 7. Did your food insecurity ever affect your mental health?
 - a. poor social skills, behavioral problems, depression and suicidal ideation, mental disorders?
 - b. Lower immunity?
- 8. Did you experience any physical side effects from your food insecurity?
- 9. Presence of hospitalization or chronic conditions in you or your family?

- Did you ever experience being unable to focus in class as a result of your food insecurity?
 Elaborate;
- 11. What other ways did food insecurity affect your life/wellbeing?
- 12. Did your food insecurity affect your attendance?
- 13. What factors prevented you from having access to food or resources
 - a. Transportation
 - b. Money
 - c. Knowledge of resources
 - d. Inadequate quantity of aid
 - e. No adult present
- 14. What was the best/most helpful resource for you? Why was it beneficial?
- 15. What was the worst resource experience?

What made it a poor experience?

- 16. Did you ever experience feelings of worry, stress, anger, sadness, or embarrassment in regards to their food insecurity?
 - a. Any others?
- 17. Do you think having more resources available at school would have been beneficial to you? How or why? Just at school/for the individual or home/family support?
- 18. Were your family members also affected by the same food insecurity?
 - a. Same access?
 - i. Adults skip meals?
 - b. Same mental effects?
- 19. What do you think could or should be done to address food insecurity in schools?

20. Is there anything else you would like to say about food insecurity or addressing it through public education?

The questions asked to participant C were:

- 1. What is your role at your job?
- 2. Have you observed food insecurity in the schools you worked in? A lot or a little?
- 3. What issues have you seen in the schools that stem from food insecurity?
- 4. Was there anything being done by the school to address limited access to food aside from state regulated meals?
- 5. Does your school do anything to provide students with meals outside of school hours?
- 6. Did you notice a behavior difference between food secure and insecure students?
- 7. Have you seen unfair treatment towards students facing food insecurity?
- 8. Do you think schools do enough to help students who don't have access to food?
- 9. Do you have any suggestions as to what would help your role at the school help students facing food insecurity?
- 10. Any reservations or potential challenges about schools increasing students' access to food?
- 11. Does your school partner with any outside organizations to get food donations or non-conventional vendors?
- 12. Do you see on-site resources such as a food bank being achievable in schools?
- 13. Do you see something like a backpack program being achievable in schools?
- 14. Do you see partnering with outside agencies to resource food (like taking donations from a food bank) as achievable in schools?
- 15. Any other comments or concerns regarding food security in relation to schools?

Procedure

Through my research, I identified various prominent organizations in the county that worked in food-related aid/resources. I reached out to the organizations and their board members/coordinators via the emails on their websites, and had one organization interested in helping. The participant was sent a questionnaire via GoogleForms to gather their feedback. The interview/survey process was completed at the convenience of the participant. Participants B and C were both found through the researchers' existing personal relationships. Participant B was interviewed in person while Participant C was interviewed over the phone. Any necessary consent was received from all participants before the interview process.

Data Analysis

Transcribed interviews have been analyzed for emergent themes.

Results

For this Capstone Project, members of food relief organizations, individuals who experienced childhood food insecurity, and individuals who work in school food distribution were interviewed to see what they think could be done to improve food insecurity in schools. This is important because food insecurity negatively impacts students' mental health, academic achievement, health, and development, and puts students facing food insecurity at a disadvantage to their peers. Based on an analysis of the data and the relevant research literature three themes emerged (see Table 1). Evidence-based decision-making required evaluating each potential action option by the following criteria: effectiveness, resources needed, and accessibility. The effectiveness of the options is based on the resources ability to provide students with food. For example, action option 3 of awareness is the most achievable in resources needed, but it isn't effective because it is not directly providing students with the food they need. The accessibility of resources is an important criteria because many barriers exist between families in need of help and the resources that will provide them with the help that they need. If an action option is located on campus, it can be utilized by families who may otherwise be unable to obtain help. The last evaluation criteria is the resources needed to carry out the action. The most effective options require the most amount of resources because they are doing the most to directly put food in the hands of students. The resources needed are obviously important because school funds and resources are limited in a variety of ways.

Table 1

Evaluation of Action Options

	Effectiveness	Resources Needed	Access
Backpack Program	High	High	Medium
Mobile Food Pantry	High	Medium-High	High
Awareness: Destigmatize in schools and educate parents on available resources	Low-Medium	Low	High

Backpack Programs

Backpack programs have a high effectiveness, high resource needs, and medium accessibility. Backpack programs are an effective option to fighting food insecurity because it directly puts food in students' hands. However by doing this the option also requires the highest amount of resources. With this option being something that would only be available to those who need it, there may be families ashamed to come forward for help. Participant B revealed in her interview that part of her food insecurity was due to parental neglect. The option of backpack programs ensures students like her are receiving food even when parents are absent. One potential problem with backpack programs is if families are eligible based on socioeconomic status, some families who need support may be overlooked. As noted by Coughenour et al., "6.5 % of households with children at or above 185 % of the federal poverty level remained food insecure" (2021) which is a substantial number of students remaining hungry.

Mobile Food Pantries

Taking advantage of food pantries was beneficial as noted by Participant B during the interview. Mobile food pantries have the benefit of families only needing to take what they need and not just being sent items blindly by the school. The drawback of mobile food pantries is that they can't be available all the time and with more people being able to take advantage since they do not have to come forward to ask for help, there may be an increase in the quantity of food needed. However one advantage that both mobile food pantries and backpack programs possess is that there is an opportunity for schools to outsource food from different vendors. The California Department of Education states that, "Schools and districts across the state have adopted school food pantry programs that partner with local charitable organizations, food waste management agencies, and community food banks to offer food pantries is that this option assumes a parent has the ability to be on campus at the time the food pantry is present, excluding someone like Participant B may not have a parent who shows up.

Awareness; Destigmatization and Parent Education

The benefit of destigmatizing food insecurity through awareness is that schools are lessening the feelings of shame that parents experience as described by Lindow et al. (2021). On top of that, awareness has a high accessibility with it being an option that schools can provide to everyone at little to no cost. It also has the lowest need for resources as a result of it not providing families with any direct aid. However because it doesn't directly provide students with food and doesn't create any easier access to food, this option is the least effective in actually decreasing food insecurity. This option is also partially undermined by Participant B who acknowledged her family's knowledge and use of available external resources, so schools telling parents of external resources would not be beneficial.

Conclusion

Recommendation. My recommendation after considering all three options is for schools to partner with food aid organizations to implement school backpack systems. This recommendation would prioritize putting food into the hands of students to directly fight food insecurity. Schools that want to create more equitable learning environments can help remove multiple of the barriers for students that are food insecure.

Concessions. The options of mobile food pantries and increasing awareness both have their own benefits. Mobile food pantries have the benefit of being able to help the most people without the need for families to directly ask for support. This limits the shame that people experience when asking for help. The option of awareness is an achievable option because it is the most accessible and requires the least amount of resources or funding.

Limitations. In choosing the first option of backpack programs, there is the possibility of people being scared or ashamed to ask to take advantage of the backpack system.

Potential negative outcomes. I am unable to identify any potential negative outcomes.

Conclusion. Based on the pros and cons of all three options, my recommendation is that partnering with food aid organizations to implement school backpack programs would have the most positive impact. Though backpack programs do have a high resource requirement, the ability to partner with outside organizations helps mitigate the possible costs associated with food sourcing. While backpack programs requiring families to reach out for support could prevent some families from coming forward, by implementing additional food assistance programs on site, schools are still destigmatizing getting support within the school community which could lead to more families feeling comfortable asking for assistance.

Action Documentation and Critical Reflection

The focus issue addressed in this capstone project is how food insecurity is affecting students in public schools and how schools can help provide students with the resources they need. For the interview section of this project I interviewed 1 individual working as a Community Partnership Coordinator for a local food aid organization, one individual who experienced years of childhood food insecurity, and one individual who has years of experience in school food distribution. Through an analysis of the data collected during my interviews, the three action options that emerged were implementing backpack food programs, providing students with mobile food pantries, or raising awareness in schools through destigmatization and parental education of resources. Based on the resources needed, effectiveness, and accessibility of all the options, I chose to provide schools with the information they need to create a partnership that focuses on resourcing food for their students as my action. This action is effective in its ability to provide students with the food they need, it is accessible in being a resource within the school and not an outside location, and it helps mitigate the high resource need through a potential partnership.

Action Research Project Documentation and Reflection

For the action documentation of this capstone project I wrote an email to local principals that informed them of their ability to potentially partner with an organization to help combat food insecurity in public schools, as seen in image 1. Dear Principal

My name is Emma Stillwagon and I am a student at California State University Monterey Bay where I recently conducted a research project on food insecurity in public schools. Through my research on relevant literature and personal interviews I conducted, I have found a promising partnership opportunity that could benefit your school.

The Food Bank of Monterey County offers various programs and opportunities for partnerships between schools and the organization as a means of connecting families with the resources that they need. is the Community Partnership Coordinator for the organization and is the point of contact to enroll interested schools in the programs that would benefit them. This partnership offers an opportunity for schools to help students **and** their families with access to food outside of school hours.

I highly recommend you reach out to at The Food Bank of Monterey County to see the available resources that they can connect your school with to help students who need additional support. If you are interested in a potential partnership or would like more information, you can reach at <u>@food4hungrv.org</u>. This opportunity has been supported by my research, as a feasible solution to the ongoing issue.

I sincerely hope you will consider pursuing additional resources for students facing food insecurity, and want to thank you for taking the time to read this letter.

Sincerely, Emma Stillwagon

Image 1. Letter to Monterey County Principals.

I completed this action by finding the Community Partnership Coordinator local to the schools I reached out to, and provided the schools with their contact information as well as the information on how the partnership could help. Going into the project I expected food insecurity to be present in schools, but I didn't expect just how many children are food insecure and how heavily it impacts their life. So far there have been no responses from school principals. If I were to modify this in the future I would try to meet with principals in person to discuss why food insecurity is a problem and why the partnership would be beneficial. By meeting in person I would be able to stress the detriment of food insecurity and why schools have an obligation to improve it without boring administrators with a long letter that they may not read. The issue addressed is very important and meeting in person would stress the severity of the issue more than sending a letter.

Critical Reflection

In my completion of this capstone project I bettered myself as an individual, a student, and a future educator. I learned that I have the knowledge and skills that it takes to move for a change in my field of interest. Through this project I was able to expose myself to classroom and school environments different from the ones I experienced growing up which gave me the opportunity to reflect on what was and wasn't working within education then and now. I was able to observe equity issues in education and how our students are directly impacted by systems and practices in place. I was reminded of why I want to be an educator and how much of an impact we can have on our students' lives.

Synthesis and Integration

Through my Capstone Project and my courses at CSUMB, I have acquired the knowledge, skills, and confidence to become an effective educator in our progressing world. I am able to engage critically with the content and actions that will help shape me into a better educator in today's society, aiding in my fulfillment of MLO 1. With the school's dedication to helping students meet MLO 2 through our courses, I was exposed to new situations and experiences in an educational setting more diverse than my own. This opened my eyes to all the ways my own experience could have been improved for those it was not serving equitably. By fulfilling MLO 3 through my education at CSUMB, I was able to use technology to enhance my research project in an effective manner. This research project helped me fulfill MLO 4 by cultivating what I have gained from my experience at CSUMB to take action towards a social justice issue in education. There is always improvement to be made in the system of education and this project took away the pressure of taking that first step towards change. I was able to use my deep understanding of subjects within education that I obtained through my courses and

experiences at CSUMB to confidently and competently show my knowledge on the subject matter. Through the meeting of all of the Liberal Studies MLOs, I am able to carry the education and desire for change that I received at CSUMB to become the educator I want to be. The emphasis on taking action and accepting that there is always more to be done and learned in regards to social justice in education in CSUMB coursework shaped my idea of what it means to be a good educator and what my responsibilities are as a future teacher. Going forward it is necessary that I continue to educate myself and others on issues in education and take action towards progress where I can. I need to continue to expose myself to other cultures, experiences, and identities that are present in students' lives so I can excel in creating a culturally sustaining curriculum in my classrooms.

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