

University Of Wisconsin - Oshkosh

Farm To School Initiative

Proposal for the Sustainability Board of Oshkosh, Wisconsin

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Executive Summary

The proposal is that the City of Oshkosh partner with the Oshkosh Area School District (OASD) to support more farm to school programs within the Oshkosh schools. Supporting this program would be beneficial for not only the students of Oshkosh, but also the local farmers, teachers, parents, and the local economy. Most students do not know where their food comes from, and many of them might not care. Through this program, we may help to provide them to learn why healthy and nutritious diets are essential to their education and livelihoods. Providing students with healthy, locally grown food allows children to not only live and adopt a healthy lifestyle, but it also creates a connection to their food. Creating a connection between students and their food helps them build a relationship with their local community. Students who build a meaningful connection with their community through food will be given the opportunity in the future to become productive and positive members of their community.

As of October 2018, according to the Wisconsin Department of Public Instructions, there are 41% of students in Oshkosh on subsidized lunches. By providing nutritious foods to all the students in the Oshkosh Area School District is extremely important as four out of ten students rely on the school district to help provide lunch. This program has been successful in other areas: the Stevens Point YMCA Farm to School Program, Des Moines, Iowa, and the Coulee Region, which includes the city of La Crosse. A farm to school program will generate changes through the school district, and there are some barriers and costs to consider. Seasonality, cost, kitchen supplies, and training staff members are all barriers to consider when starting a program of this magnitude. However, there are ways to overcome these barriers, such as obtaining grants, partnerships with local businesses, and using non-profit organizations to alleviate issues associated with funding. By providing this type of program to their students, it is a chance for Oshkosh to become more sustainable in regards to the environment, economic, and social spheres within our society.

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Problem Identification:

The Oshkosh Area School District does not utilize local foods within their school lunches. Instead, they source all their food from large food vendors, such as Reinhart Food Service. As a result, children enrolled in the OASD school lunch program are not being provided with fresh, locally produced foods from regional farms. The lack of fresh produce from local farmers denies these future citizens of Oshkosh an opportunity to learn about healthier and more diverse food items. Starting a farm to school program will allow children the opportunity to learn about the extensive agricultural community surrounding our community.

Additionally, 40 % of Oshkosh's students receive a form of subsidized lunches through the school district (Sherek, D. 2019). This information is especially concerning because many children are dependent on school lunch programs as their primary source of food.

Furthermore, with the OASD sourcing food for their school lunches through large vendors, it takes money out of our community and different regions of Wisconsin. By using these types of vendors, it only helps large corporations outside of Oshkosh. However, this problem is not due to the food service administrative staff within OASD. This problem can be associated with many different items, such as the industrialization of our agriculture sector, defunding public education, and many more. Utilizing local farmers' produce would help to keep money closer to the city of Oshkosh.

Additionally, when local farms receive more community support, they can purchase more land to expand their services. This aspect is important because the land surrounding Oshkosh is severely drained of nutrients due to industrialized agricultural methods. This information follows what one study stated, "public concerns on increasing industrialization of the modern food system and the social distancing this creates between food production and consumption" (Bagdonis, Hinrichs, and Schafft, 2008 p. 108). Local farmers tend to be more ecologically cautious of their property than large corporations because they have more at stake because of their ties to the community.

Additionally, industrialized agriculture reduces the resilience of the environment in the face of natural disasters and future climate change-related conditions (Capra, F. 2019). Because of this, it is vital to have a more biodiverse landscape and crops that can survive the inevitable changing conditions ahead.

Proposed Action

In order to provide and educate Oshkosh's youth about healthier food options, we propose the city of Oshkosh to partner with the Oshkosh Area School District and support the creation of a farm to school program in our community. A farm to school program is a type of program which provides one healthy meal or side their students once a day. By starting a farm to school program, it could help to improve the well-being of children in our community. When purchasing fresh produce, it will help to create new opportunities to achieve a greater variety of nutritious foods from local farmers, as well as hands-on education with community-supported agriculture. There are multiple communities within the state of Wisconsin that Oshkosh could model their program after, which is the Coulee Region, La Crosse, and the Green Bay area school districts. The Coulee Region is a great program to model our own after since their program has been grant-free since 2015 by using partnerships with the county, school districts, and regional healthcare providers.

Stakeholders

Four different types of stakeholders are essential to our proposal, which are primary, secondary, key, and expert.

Primary stakeholders are individuals who directly affect policy changes. Food and health services administration staff within the Oshkosh Area School District would help setup this type of program and have control in acquiring produce which would be used in their schools. Food co-ops, farmers, and distributors, if working in tandem, are primary stakeholders because they benefit financially from farm to school programs. If a co-op, such as Fifth Seasons, uses large scale distributors and sources the food themselves, then farmers would be a secondary stakeholder. However, we are assuming that the administration staff of Oshkosh would be convening with farmers personally. Another key stakeholder that we believe to be overlooked in this issue are the children themselves. If children do not like fresh produce or are unwilling to participate in this type of program, than it would be a failure from the start. As pointed out in one study by Joshi, Azuma, and Feenstra, "75% of students receiving the farm-to-school salad bar chose a balanced meal without adult supervision as compared to 46% of control students" (2008 p.237).

Secondary stakeholders are individuals or groups who are indirectly affected by farm to school programs, these can be parents and the general public, since knowledge of healthy food sources may help people who have not accessed this information previously. Parents who have children in a farm to school program see positive changes in their families' eating habits.

Key stakeholders are individuals who can be included in the primary or secondary section. Our group placed non-profit organizations in this category because they may not directly influence the structure of a program, they do affect the ability of the program to perform their tasks adequately.

Experts are individuals who may influence any of the other three and have no stake in this process.

Primary Stakeholders

Nicole Howard and Breanna Ellefson

Nicole Howard and Breanna Ellefson are primary stakeholders because they work for the Oshkosh Area School District food service department. Nicole Howard is the Assistant Food Service Director. Breanna Ellefson is the Nutrition Health Coordinator. These two positions did not exist before Michele Stahmann took over as the director of food service with OASD. Our group asked Nicole and Breanna about their distributors, who are Reinhart Food Service and Gordon Food Service. When they bid for distributors, food service administrative staff go for the lowest costs, quantity available, and delivery availability. This information follows our research, which shows the difficulties food service directors deal with in regards to quantities and funding. These challenges are not the only thing the OASD food service administrative staff are concerned with, as they create menus, market apps for their services, support after school programs with their food demands, and maintain their food service staff. This information shows the additional duties food service administrative staff of OASD have to manage.

When interviewing Breanna and Nicole, we asked if they believe Oshkosh was affected by the obesity crisis that is consuming our nation. Breanna thinks "financial issues and food security," or more commonly known as food insecurity, are significant problems with families in Oshkosh. She further illustrated that food insecurity with families is usually linked to the consumption of processed foods and how food stamps lead to foods that make individuals feel full, rather than being nutritious. However, an individual's socioeconomic status does play a part in their health. According to Adler and Newman, "socioeconomic status links to multiple health problems, including low birth weight, cardiovascular disease, hypertension, arthritis, diabetes, and cancer. Lower socioeconomic status is associated with higher mortality, and the greatest disparities occur in middle adulthood, ages 45 to 65 (2002, p.60). By knowing how

socioeconomic status affects an individual's health throughout their life, it can help programs create solutions to these types of problems. Nicole and Breanna described how the OASD food service administrative staff had implemented a program called the Community Eligibility Provision (CEP). The CEP program offers free breakfast and lunch to their students in twelve schools throughout the district, which is two middle schools, and ten elementary schools. This example of creating a program to help lower-income families, and all students within this program, shows how our school district is helping to overcome the problem of students who may not be able to afford meals at school.

Due to the OASD food service administrative staff starting the CEP program to help offer meals to all students, it is only a logical step to look into a farm to school program to help teach children about the benefits linked to fresh foods. When we asked Nicole and Breanna about starting a farm to school program within the school district, they surprised us by saying they have started this type of project. We then asked if they could elaborate on what type of information they have gathered to this point about farm to schools. At the moment, OASD is collaborating with the non-profit organization CESA6, who is trying to secure grants to help cover the initial startup costs of this type of program. However, the food service administrative staff understands how grants will not last forever, and they know they will have to receive help through donations. We should not view this information as an obstacle, but as something that comes through time as the evolution of the farm to school program, and would legitimize this program as imperative to our district. As Maggie Smith, the co-coordinator to the Coulee Region farm to school system informed our group how their program has been grant-free since 2015 because of partnerships within their community to provide this type of program.

Tracy and Richard Vinz

Tracy and Richard Vinz are the owners of Olden's Organics Farm. Olden's Organics Farm's located in Ripon, which is about half an hour outside of Oshkosh. This farm consists of 1,000 acres of land and has multiple active greenhouses that allow

them to harvest their commodities year-round. Their farm is surrounded by other farms that utilize the industrialized agriculture technique known as monocropping. These farms produce items, such as sweet corn, which ultimately ends up at a nearby canning facility. Tracy and Richard's farm is an oasis among the nutrient-poor farmland that surrounds Oshkosh. Improving the health of the environment is what motivates these owners to continue to use organic farming methods. When Tracy and Richard took over the land in 2007, they "could barely find a worm in the soil, as it was stripped of life." Due to the previous practices in this landscape, this process compromised the soil and overall biodiversity of the land. To overcome this, Tracy and Richard looked into natural methods to improve the land. Utilizing compost, mushroom mulch, cover cropping, and eliminating all synthetic compounds from the property resulted in more ecologically-sound land. Tracy and Richard take great pride in being certified organic. The environmental health of the land is a vital aspect because we want our farm to school program to support and improve Oshkosh's local environment, not just the diet and environmental education in our youth. Tracy also believes education is an important tool for children, but to also educate the parents and adults of the community. She noticed that many adults in the Oshkosh community are not only unaware of the benefits of eating fresh produce, but they also lack the knowledge of how to cook fresh foods.

Tracy approves of the idea to start a farm to school program within Oshkosh because if kids eat better at school, they will go home and put pressure on the adults to make similar food choices. Tracy also acknowledged that a large percentage of children in Oshkosh receive subsidized lunches and how there should be more nutritious options available in our schools. Tracy and Richard currently work with school districts in the greater Green Bay area, which is helpful to our project because it is proof that farm to school programs can be successful. Olden Farms also has a licensed processing facility on-site where they produce a line of spiralized veggie noodles (such as zucchini, butternut, sweet potato, beet and carrot, and kohlrabi). They also offer a roasting mix, coleslaw mix, grilling mix, stir-fry mix, sweet potato fries, & cauliflower rice. Kids

significantly favor these products as they make eating vegetables more enjoyable. Olden's Organic Farm's effort to adapt and prepare their produce which is ready to eat, but also fun to eat because fun and easy are significant to the success of a farm to school program.

Jade Carlson

Jade Carlson and her husband Sam are owners of a small family farm located in Stockbridge, WI. Currently, on their farm, they have seven goats, one brown cow, eleven turkeys, and a few chickens. Along with their small but expanding farm, Jade and Sam are also parents to a one-year-old baby girl, Mary Jane. Before their child was born, Jade and Sam were already big advocates for local, organic food. Jade believes there is “more accountability” when you buy local foods. This statement shows how Jade believes this additional accountability gives her “peace of mind.”

Along with local food providing Jade and her family peace of mind, she says that buying local supports her community and helps build relationships with their community and their food. Jade thinks it is crucial to teach her daughter the importance of agriculture and that farm to school programs are a chance to provide other children with this education as well. As their farm is still growing and developing, Jade and Sam are not currently ready to partake in a farm to school program. Jade says it is “definitely” something they would like to participate with in the future. Jade says she would be happy to provide food to a farm to school program, which would be something they would be proud of since they eat themselves. In addition to wanting to provide food for a farm to school program, she also said that she would try to send her daughter to a school that featured a farm to school program within their district.

Secondary Stakeholders

Cheri Geniesse

Cheri Geniesse is a second-grade teacher at Johnston Elementary School in Appleton, WI. Cheri has been teaching at this school for twelve years now and also has four adult children of her own. During our interview, Cheri said how Johnston Elementary provides their student's healthy snacks. However, she could not imagine that these snacks are being locally sourced. Additionally, Cheri believes it would be interesting for her students to learn about the environment and obtaining a connection to their food. Cheri stated how she and her husband enjoy taking weekend trips to the farmers market to buy food items, which they know where they are grown. Cheri also enjoys talking with the farmers and loves supporting her community.

Teachers hold a significant stake in this program and have exceedingly qualified abilities to not only support this program but to teach their students in this subject. Providing both teachers and students with this program will create a new learning objective and a chance to learn real-life skills.

Sarah Wright

Sarah Wright is the Public Health Professional at the Winnebago County Health Department. She works in tandem with the re:TH!NK and United Way programs to provide nutrition education throughout Winnebago County. Sarah is in favor of creating a farm to school program because of the positive factors this program can have on our environment and community. In our interview, Sarah stated the food service director of OASD, Michele Stahmann, is interested in this type of program too.

Sarah's view is that farmers and schools may face different challenges when trying to help provide products to this type of program. The issues that farmers face is usually due to the size of their farms. Some of these issues are the ability to fulfill such large quantities, an inability to package products to specified requirements, and being

unable to meet food safety requirements. However, farm to school programs uses local foods that help lower fossil fuel emissions by traveling fewer miles, commonly known as food miles. Farmers do benefit from this process because of an increase in market diversity and the positive social benefits which come from helping their communities. The reason schools request farms to package their products themselves is because most schools have converted their kitchens for convenience foods. What is meant by convenience foods is that the food service directors buy food that is ready to make from their distributors, such as chopped carrots or other processed food items. This information means that school kitchens are not able to handle raw food products, or they would have to have additional funding to renovate their kitchenware and to train their staff. The district may have to hire more workers to handle the increased workload. One item that Sarah stated could help alleviate this issue is by conglomerating institutions under one umbrella, such as schools, hospitals, and others, who buy local produce together.

Sarah addressed some positives of starting a farm to school program within the district, which deal with both social and environmental elements. Obesity is an epidemic in the United States because of multiple factors, such as high-calorie diets and a lack of exercise. Sarah stated that vegetable consumption by children and teens is at a frighteningly low rate. Food plays an integral part in a child's life because it affects their school work, behavior, mental health, and physical health. By implementing a farm to school program in Oshkosh, we could educate children at a young age about the value of nutrition and offer healthier food items during meals they consume at school because of food. However, it is not only children who would learn about healthy nutrition habits. This program would also help to educate teachers and parents. This item is essential because Sarah addressed how obtaining more resources to help raise awareness on this issue is necessary. However, there needs to be more research on this issue from both the national and local levels to help change perceptions.

Key Stakeholders

Non-Profit Organizations

Non-profit organizations seem to be a crucial element in the creation of farm to school programs. In 2010, the Coulee Region farm to school program partnered with a local non-profit organization to receive a grant from the Center for Disease Control. With Oshkosh's quest for a farm to school program, the OASD has teamed up with CESA6 to obtain grants for new kitchen supplies. However, we do not believe it will be limited to non-profit organizations that will seek grants and other financial means. While researching this project, we found that education is another facet of farm to school programs. This information shows how other non-profits may have to be involved with this program, such as Growing Oshkosh or The United Way of Winnebago County, to help educate children about nutrition and diets.

Experts

Kristen Martinek

Kristen Martinek is an expert stakeholder because she is the Marketing Coordinator at Fifth Season Co-op. Kristen has no stake in this project in Oshkosh. However, she is very knowledgeable about the distribution network within a farm to school program. Kristen's typical day consists of dealing with personal buyers and distributors, which is finding and bringing new members to their co-op.

Kristen states that their co-op uses "multiple large-scaled distributors to move their products, such as SYSCO, Reinhart, and US Foods." This information shows how food service directors could acquire local produce while still using a large distributor. She also explained how Fifth Seasons Co-op "sells to large institutions, such as schools, hospitals, retirement communities, and more." The UW Health system in Madison uses Snowpak frozen vegetables, which are locally manufactured.

Another item Kristen touched on is about government subsidies that benefit large-scale agriculture. Industrial farming techniques help lower the price of our foods, yet these practices push out small and medium-scale farmers. Kristen used asparagus as an example. In Wisconsin this year, asparagus was four dollars a pound, while farmers in California were selling theirs for one dollar a pound. By having such a lower price point, it caused farmers in Wisconsin to pull their asparagus because they could not compete with the lower price point. This practice is very similar to what Wal-Mart was accused of during the 1990s and 2000s by pushing out smaller retailers who could not compete with their prices. By providing subsidies to these types of farming practices, it leads to a streamlining of agricultural practices and creates a lack of diversity in products. Kristen believes we should be using more of a regional foodshed, which is a very practical viewpoint. However, money plays a vital role in this process.

There is a lack of education about our food system, from where it comes from to the subsidies that farmers receive. The general public hears misinformation on the subject of food, which leads to misconceptions. These misconceptions are derived from producers stretching the truth and manipulating consumers due to a lack of education on the topic and a lack of time to research food products. These issues are associated with the rise of supermarkets and an increase in work pressures, such as lack of time to prepare nutritious meals. This public perception of our foods leads to the misunderstanding that healthier foods are harder to find. However, community-supported agriculture (CSA) and farmer's markets are on the rise in the United States and can help turn the tide on this topic.

Issues with starting a farm to school programs are financial, logistical, and types of foods purchased. Healthier foods cost more to obtain, and kids are picky eaters. Schools have to figure out which foods children will consume because they cannot afford to waste their budget. School budgets are underfunded already, and adding more cost to their food budget is unacceptable to most districts, which is why grants play a significant role in farm to school programs. This information shows how schools are

constrained financially. Another issue schools face is the logistics in sourcing food items. As stated before, using large-scaled distributors with local foods and multiple institutions purchasing together helps to solve this problem.

Maggie Smith

Maggie Smith is co-coordinator of the Coulee Region farm to school program. As a member of the La Crosse County Health Department, she is extremely motivated to improving the health of the students in the Coulee Region. Maggie believes that obesity is a dire problem in her school district, and systemic issues perpetuate it within our society. She believes the convenience factor of processed foods leads to an increase in childhood obesity. Family financial situations also play a role within this issue, as long workdays may lead to an increase in readily consumable foods and the lack of available budgets to eat a healthy diet. Another systemic issue is the “generational gap in teaching skills” in preparing foods. Maggie states how a substantial obstacle in farm to school programs is the lack of funding for the program, which is due to the amount of federal funding per tray served. Food service directors are under considerable time and budget restraints, and these issues may cause some schools do not participate in these programs. Maggie also stated how the farm to school program in her region has bipartisan support. This information is an essential aspect because it shows how this program has support from both liberal and conservative sides in the politically turbulent period we live in today. The reason bipartisan support is crucial is that since 2015, the Coulee Region farm to school program has been in partnership with local school districts, La Crosse County Health Department, and local healthcare systems (personal communication, October 30, 2019). Due to her extensive knowledge about conducting a farm to school program in her district, she should be considered an expert in this field.

Benchmarking

Stevens Point - YMCA

The Stevens Point YMCA started a partnership with Americorps, which enabled them to welcome a farm to school program. This program emphasizes three goals: with strengthening local economies by expanding markets for Wisconsin agricultural producers and food entrepreneurs; promoting children's health by providing fresh and minimally processed foods in schools and supporting the development of healthy eating habits; and Increasing children's community knowledge about agriculture, food, nutrition, and the environment. This program at the Point YMCA is championed by Kelsey Newman, who is a nutrition educator, and Becky Herrick, who is a community outreach coordinator. Since the creation of this program, it has been hugely successful and has reached over 450 students. This program has educated these children in five different nutrition education lessons and has reached twenty-six classrooms with nutritional education, through a snack program or garden lessons. In addition to these accomplishments, the healthy snack program sponsored through the farm to school program has provided 250 students in 10 classrooms with a locally-sourced snack once a week for 30 weeks for less than 5 dollars per classroom each week. The cost of the healthy snack program through the farm to school program is significantly low. This particular program is sponsored partially through grants provided by the Community Foundation of Central Wisconsin, Women's Fund of Portage County, and the Stevens Point Area YMCA Foundation (Farm to School Program, n.d.).

La Crosse - Coulee Region Farm2School Program

La Crosse, Wisconsin, is an excellent example of how a community similar to Oshkosh can implement a farm to school program in their school district. According to the U.S. Census Bureau, La Crosse is similar to Oshkosh in size, population, and income (2019). The one item that differs between Oshkosh and La Crosse is the

surrounding communities that make up the Coulee Region. By looking at how La Crosse County started their farm to school program, it could help initiate this program into the OASD.

La Crosse started their farm to school program in September 2010. According to Bethany Kies, this program started through a grant by the Center for Disease Control (CDC) in association with 44 other communities in the United States to receive the Communities Putting Prevention to Work (CPPW) grant. This grant was given to the Wisconsin Department of Health Services and distributed to the La Crosse County Health Department. This program was evaluated over two years from 2010-2012 to conclude if it was feasible to continue (2011). After the study concluded, it was deemed successful and continued onwards.

According to Maggie Smith, the Coulee Region Farm2School program is unified...

By a cooperative agreement with funding from our health department, the school districts, and both of our major health care institutions. Our budget is just over \$50,000. The health department has contracts with each district and health care partner. The schools do put in much work to support farm to school as well without funding. (personal communication, 2019)

Coulee Region Farm2School program allies with the La Crosse County Health Department, Mayo Clinic Health System – Franciscan Healthcare, Gundersen Health System, and Bangor, Holmen, La Crescent-Hokah, La Crosse, Onalaska, and West Salem school districts to help make this program successful. This program promotes a different local food for each month, which is labeled the harvest of the month. They promote the harvest of the month in schools by taste tests and serving it in their local cafeterias. This program helps to educate children on where their food comes from and how it affects them and their communities.

Des Moines, Iowa - Des Moines Public School District Farm To School Program

Des Moines, Iowa, and Oshkosh, Wisconsin, are both identified as Midwest cities that are primarily surrounded by industrialized agriculture practices. Though the population of Des Moines is significantly larger than Oshkosh, their typical families share a similar average income. Besides income and environmental similarities, the populations of Des Moines and Oshkosh are predominantly white, with the rest of the population is comprised of different racial backgrounds. Seventy-six percent of the Des Moines population is white. Eleven percent of the population is black. Another five percent of the residents are Asian. The remaining eight percent of citizens fall under the umbrella of other minorities. Looking at how the Des Moines Public School District(DMPS) utilized grants and structured their program could help Oshkosh initiate a farm to school program into its local K-12 schools.

For six consecutive years, the Des Moines Public School system has earned the Farm to School Grant from the USDA. With this funding, the district was able to introduce local food into six public schools. They were pleased with the ability to purchase more nutritious and diverse vegetables. The Food and Nutrition Department staff continue to work with local farmers, producers, and distributors to find products that will meet the needs and demands of school food programs (DesMoines Public Schools, 2019). One particular initiative we found interesting was at Brubaker Elementary, which received funds to buy locally grown apples as a supplement for pre-packaged applesauce. The school also was awarded classroom supplies, which teach students about the value of eating healthy and supporting local farmers. With these supplies, the students created an educational event called A is For Apple, in which kids got to indulge in local apples and learned about their local apple farmers.

Additionally, the district chose an opportunity to put funds towards flash-frozen, pre-cut apples from Iowa Choice Harvest, which allows their students to enjoy apples year-round. A large part of the success of this program was due to receiving pre-cut apples since presentation and convenience weigh heavily on a child's choice in food. One staff member noted that particularly in "early grades where lots of teeth are loose or missing, an apple could be a tough proposition unless it is portioned" (DesMoines Public Schools, 2019). We understand funding limits what Oshkosh schools can offer to their students. However, by offering just one local vegetable or fruit from a local farm and informing students where it came from allows them to connect with their community while eating healthier.

Costs

The costs associated with implementing a farm to school program within the Oshkosh Area School District is unknown at this time. Several factors could play a role in starting a program of this magnitude. First, the school district may have to hire additional staff members to maintain this program. These members may range from new kitchen or administrative staff to provide optimal efficiency. Secondly, if the food service director cannot source pre-packaged foods, the district may have to renovate their kitchens to prepare fresh foods. Third, federal programs already face budget constraints, and starting a new program in which will raise food costs is not going to be well received by the community. One way to counteract this difficulty is by obtaining grants to help fund this program, but that leads to another item that the school district's administrative staff has to gather. Additionally, there is the possibility of a farm to school program not becoming successful because of a lack of student involvement, which would lead to excessive waste of food and, in turn, money. However, in speaking to individuals who are associated with farm to school programs and through our research, we believe that offering local foods to students will be positively received.

Funding

Currently, the best option for the OASD to fund this type of program would be through grants. Through our research, we learned how farm to school programs rely heavily on grants to fund the costs that come with initiating a farm to school program. The USDA provides many grants for this type of program. “The Food and Nutrition Service anticipates awarding at least two grants with a combined total of \$150,000, to eligible 501(c)(3) non-profit organizations working regionally to promote farm to school activities and support practitioners” (USDA, 2019). Just in this school year, the Wisconsin Department of Agriculture awarded \$98,457 in grants. This type of grant is considered an implementation grant. In the USDA Farm to School list of Awardees in 2019, it stated, “Wisconsin Dairy for Wisconsin Schools will address the documented barriers to procuring local dairy products in K-12 child nutrition programs while providing much needed new markets for small and mid-sized dairy farmers. The Department of Agriculture, Trade and Consumer Protection (DATCP) will work with long-time farm to school program partners, University of Wisconsin Center for Integrated Agricultural Systems (CIAS) and the Center for Dairy Research to work with dairy processors and a school food purchasing group to make affordable and nutritious dairy products available for school food programs across the state”(USDA, 2019). With this grant, efforts are being made to reduce the cost for more nutritious Wisconsin dairy products for farm to school programs across the state, which will benefit Oshkosh. Also, this grant provided an implementation grant for La Crosse County.

Along with many other states and programs, this grant was granted to this county to help fund necessary costs within a farm to school program. The end date to apply for this specific grant is December 27th. Although applying for this grant would be difficult within the designated time frame, this grant is something the OASD food service administrative staff could use in the future. Another grant that would not require a partnership with a 501(c)(3) non-profit is the Walmart Foundation Community Grant Program. This foundation works toward many goals on bettering the community by

providing education, hunger relief, and environmental sustainability. The school district can be a 501(c)(3) to receive this grant, but it stated that K-12 public schools could be eligible. This information means OASD could apply for this grant themselves. This grant ranges in awards from \$250 to \$5,000 (Rural Health Information Hub, 2019). The USDA is a great resource when looking for grants to fund a farm to school program in Oshkosh. The amount offered through these different grants could significantly affect the success of this program. The Walmart Foundation grant, although smaller, is a perfect grant for this program because the goals are very similar to what a farm to school program is trying to create.

Writing grants can be time-consuming, and trying to find the right one can be difficult. However, there are ways to acquire funding, which is beneficial to the community and the school district. By collaborating with the Environmental Studies program at the University of Wisconsin - Oshkosh, the OASD staff may have fewer items on their plate to handle. One idea to help lessen the burden on the OASD staff is by offering to help with the Grant Writing class, which specializes in finding information about grants and how to write them. This task would help the Oshkosh Area School District with not only resources, but also give students hands-on experience. Another possible idea to help both the OASD and university would be to offer an internship. The OASD could partner and help shape the internship to both benefit the student and also the OSDA towards acquiring grants.

After our group presented to the Oshkosh Sustainability Advisory Board, we were informed we should add a cost analysis to our report. Our group tried to explore this topic, but due to time constraints by multiple parties, we were unable to gain any valuable information regarding this topic.

Barriers

Seasonality:

Seasonality is a common barrier for anyone that enjoys fresh produce. For a farm to school program, seasonality is seen as a barrier because it would cause menu changes throughout the year due to the need to produce supplementation. Seasonality issues can be managed, yet, communication between the schools and the local farmers. Through our interviews, we found many farm to school programs overcame the barrier of seasonality is the use of greenhouses. The use of greenhouses helps ensure fresh produce in winter months, once the initial harvest has concluded. Another way to overcome seasonality is by freezing produce to ensure freshness throughout the year. Purchasing vegetables and fruits that are in season is cheaper than trying to maintain a product year-round for the sake of preventing change in a menu. Changing a menu and substituting fruits and vegetables throughout the year also allows kids to try many kinds of vegetables and fruits rather than the few options that are provided by a large-scale food provider.

Costs:

The cost of providing local foods to our school district is an enormous obstacle. As stated above, there are multiple barriers to funding this type of program. By knowing what barriers stand in the way of initiating a program of this magnitude, the school district and our community can try to solve and overcome these problems.

Kitchen supplies and staff:

The majority of school kitchens are not equipped with enough items to prep and prepare complicated meals. Furthermore, produce that needs to be cooked or prepared creates more work for the kitchen staff that works within tight time constraints. One way to surpass this barrier is to purchase local foods from farms that make their products,

like Olden's Organic Farm, because they have a kitchen on sight in which they wash and chop their produce, so it is ready for lunch staff upon arrival to the schools. In order to overcome the shortage of equipment, OASD could potentially utilize grants to purchase the needed equipment.

Significance for Sustainability

Farm to school programs advances Oshkosh's sustainability plan by creating a higher demand for local food and supporting local farmers. A farm to school program helps to reconnect children, families, and the community back to the land through education and exposure in classrooms and cafeterias by providing students with local fruits and vegetables. As well as classroom lessons that teach students about where their fruits and vegetables come from, the farmers who produced them, gardening, and composting. To show how this type of program can affect communities, two studies concluded how "90% of parents change their shopping and cooking habits, 32% of families buy more local foods, 32% believe their diets have improved, and 90% believe lessons their children learn associated with farm to school programs will lead to a better life" (Joshi et al. 2008). Another group of secondary stakeholders associated with farm to school programs is teachers. While one may argue they are a primary stakeholder, they do not directly deal with the program itself until implementation. However, teachers may be called upon to incorporate food items into their curriculum. Joshi et al. state, "in one study, as many as 71% of surveyed teachers... reported making changes to their dietary behaviors as a result of the (farm to school) program" (2008, p. 238). This information shows how teachers' eating habits can be positively affected by a farm to school program.



Economic:

Utilizing a farm to school program would support local farmers and keep money within local communities instead of supporting large corporations located in distant locations. Multiple studies state higher costs are a common concern with food service directors (Colasanti, Matts, and Hamm 2012; Janssen 2014; Botkins and Roe 2018). However, according to one journal entry, this is not the case because their product, apples, were not traveling as far as a distance and required less packaging materials, which saved the school program two dollars per case. Along with minimizing the farm to school programs costs for produce, the boxes were returned to the farmer who provided the apples, which help keep them offering lower prices and help maximize the farmer's profit margins (Izumi et al. 2010).

However, it would not be fair to state that there are not benefits to using large-scaled distribution networks that offer traditionally grown products. As Izumi, Wright, and Hamm (2009) write:

One school district of about 11,000 students in our study saved more than \$30,000 in rebates, and early payment discounts offered through their broad-line distributor, which in the food service professional's own words, is "real money that is hard to give up (p. 340).

These types of savings play an essential part in making ends meet within a set budget that school administrators must meet. However, the benefits of using large-scaled distributors can be overcome. As Kristen Martinek said in her interview, Fifth Season Cooperative uses US Foods, SYSCO, and Reinhart food distributors to transport their produce. These three distributors are the ones who would offer these types of savings, and if they started to distribute local produce to schools in our area, Oshkosh would still benefit from these savings. If food service administrators are still wary about the additional funding needed to achieve making a farm to school possible, then grants are a possible option. The United States Department of Agriculture (USDA) offers grants associated with the USDA Farm to School Grant Program.

Health:

Implementing a farm to school program in Oshkosh would promote the health of Oshkosh students. Health professionals believe schools can and should help improve children's dietary habits (Izumi, Alaimo, and Hamm 2010). Providing local food from local farms will provide children with the opportunity to become educated on the topic of agriculture practices. Childhood obesity is a growing problem in the United States, and children who suffer from obesity have it follow them into adulthood. Four out of 6 of the leading causes of death in the US are diet-related, these are stroke, heart disease, stroke and cancer. If children are given the chance to learn about local agriculture practices, and also get a taste for local and healthy foods they will hopefully practice healthy diets in the future. In addition to students being able to learn and practice healthy lifestyles, they will be able to pass on their knowledge at home and hopefully inspire their parents to buy locally and practice healthy eating habits.

Environment:

A farm to school program is sustainable because it promotes a healthy environment. Sourcing food locally would allow Oshkosh to reduce carbon emissions and promote local farmers who tend to be environmental stewards of their land.

Environmental stewardship is a vital aspect because alternative agriculture and more ecologically sound farming practices make for a stronger environment.

Utilizing local certified organic farms is one way a farm to school program could guarantee that the farms the district is sourcing food from is being conscious of the land there using. Organic farms utilize compost, mulch, and fungus to naturally restore the nutrients in the soil (FoodPrint, 2019). Furthermore, organic farmers practice no-till or low till techniques as well as cover cropping. Cover cropping helps to rebuild soil and sequester carbon. Healthy, carbon-rich soil plays an indispensable role in the fight against climate change (Schwartz, Judith D, 2014). Organic farms do not utilize synthetic fertilizers and herbicides. Instead, they use buffer zones and pasture animals. Industrialized agriculture strips much of the local lands of Oshkosh of its natural nutrients and microorganisms through chemical applications and severe tillage. The overuse of pesticides destroys natural nitrogen-fixing microbes important to soil health and fertility (Hussain, Sarfraz et al.). Excessive fertilizer use can also cause a buildup of salts in the soil, heavy metal contamination, and accumulation of nitrate, which can pollute water sources (Rodriguez-Eugenio, Natalia et al., 2018). Synthetic fertilizer use also contributes to climate change and water pollution through the release of N₂O, causing severe algal blooms. Supporting Organic farming also supports the rebuilding of fertile soils that retain water. Healthy natural soils with high organic matter can hold more water. According to the Natural Resources Defense Council, "Each 1 percent increase in soil organic matter helps the soil hold 20,000 gallons more water per acre" (Bryant, Lara, 2019). Overall, supporting local organic farms through a farm to school program would support the further restoration and mindful use of the surrounding agricultural environment of the City of Oshkosh.

Conclusion

Our proposal is how the city of Oshkosh should adopt a farm to school program in our community to support the well-being of their residents. By starting a farm to school program here in Oshkosh, our community would be combating childhood obesity and help educate children about healthy nutrition and how their food is grown. However, it would not just be the children this program benefits, as parents, teachers, and others linked with this program should make more informed choices regarding their food consumption. Furthermore, by starting a farm to school program, our community would be helping to promote positive environmental procedures with sustainable actions related to agricultural practices used by local farmers. However, there would be challenges associated with this type of program. Costs, seasonality, equipment, and staff increases are barriers to starting a farm to school program. However, with proper planning and execution, all three of these barriers are offset. By creating a farm to school program in Oshkosh, it would benefit our residents' health and promote healthier eating habits.

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