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Agricultural Impacts on Rural Food Access in Vermont: A Situational Analysis and Ideas for the Future

Created by Meghan Brooks in partial fulfillment of the Requirement for the Degree of Master of Science in Food Systems at the University of Vermont

September 16, 2016

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Introduction

Vermont's rich agricultural history has created great opportunity for the current generations to contribute extensively to the food system in the state (National Park Service, n.d.). The expansion of farmer's markets, Farm-to-School programs, and non-profit organizations have increased local knowledge within Vermont about their food systems, and has led to a burgeoning food culture within the state. Despite the expansion of food opportunity in Vermont, the state has a persistent element of the population that is either food insecure, goes hungry, or lacks steady access to food. Nearly 80,000 people or 13 percent of Vermont households are food insecure, which is defined as "the lack of access to enough food to fully meet basic needs at all times due to lack of financial resources" (Hunger Free Vermont, n.d.). This statistic surprises many people considering the abundance of food in the country, the food culture in Vermont, and the state's pro-active food initiatives. Many organizations have emerged to combat these food issues and expand healthier local food to those lacking access.

The organizations that are working to increase food access in Vermont greatly vary in size and scope, but all place a strong emphasis on finding ways to make healthy foods inexpensive and available to those who were previously unable to access them. Describing the work of all these organizations is beyond the scope of this report. Instead, I have outlined specific organizations and farms and researched them based on their leadership and their location in Vermont. All of these organizations represent different parts of the food system in Vermont;

- *Footprint Farm* is a small vegetable farm located in Starksboro, VT that works hard to meet the needs of their CSA members and their surrounding community.
- **Salvation Farms** is a gleaning organization based out of the Lamoille Valley that recovers food that would otherwise be wasted and donates it to those who need it most across the state of Vermont.
- **The Vermont Food Bank** is an organization that strives to eliminate hunger in the state of Vermont. As an organization, they have previous experience working directly with a farm to donate vegetables to their food shelves.
- *Windham Farm and Food* is a food hub and distribution network in Southern Vermont founded out of a growing need for buyers and institutions to gain more reliable access to healthy local food.

Each of these organizations operates using different methods but all with the same goal to increase food access to rural parts of Vermont. This report aims to analyze the work of these organizations, explore those that have had a positive impact and use that as a

model for future organizations to follow in this worthy endeavor. This analysis provides a foundation to assist in creating successful future programs that increase rural food access in communities in Vermont and beyond. Analyzing the ongoing food access issues in Vermont leads me to conclude where there is room for future improvement to advance food access in rural areas. This project presents one example for how and where agriculture may assist in the advancement of food access in rural areas, taking the shape of a community farm. The community farm's main goal is first and foremost to bridge the food access gap in rural Vermont that will allow for a decreased percentage of Vermont residents going hungry each day. This will occur through the implementation of a CSA that operates on a sliding scale to offer a lower cost to those of lower income levels, and by also offering distribution services to those who require or desire them. The community farm will also have a space to offer educational classes and sessions for members who may be new to farm-fresh produce or for those who want to learn more about how to cook the food items in their CSA-share each week. The ideas and feasibility for the community farm are outlined within this report in the form of a situational analysis, consisting of the 5W's, 5-C analysis and a Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis. The 5 W's outline the Who, What, When, Where, and Why of the community farm, and provide extensive information about how the farm would function.

The 5-C analysis is common when conducting a situational analysis, as it identifies internal and external factors of the business's performance and decision-making (Business Dictionary, 2016a). It analyzes the company, competitors, customers, collaborators, and climate of the business and the surrounding environment. The SWOT analysis provides a comprehensive view of the internal and external factors of the business, and how different aspects of the business and business environment would be strengths, weaknesses, opportunities, or threats. This project aims to present one example of where the future of food access work can go, not just in Vermont, but also across rural areas of the United States. The goal for the future would be to utilize this analysis as a baseline to create new agricultural businesses that hope to achieve similar goals.

Literature Review Food Access in the United States

With the United States population rapidly increasing to over 320 million people (U.S. Census Bureau, 2016), the importance of all members of society having adequate amounts of nutrient-rich foods becomes increasingly challenging. As the U.S. population continues to grow, pressure is applied on resource availability and agricultural resources, thus making the achievement of food security for all more difficult. When U.S. residents have "access to sufficient, safe, and nutritious food to maintain a healthy and active life" at all times they are considered to be food secure (World Health Organization, 2016). There are three defining pillars within food security that help to build the concept: food availability, food access, and food use (World Health Organization, 2016). Food access is also related

to "having sufficient resources to obtain appropriate foods for a nutritious diet" (World Health Organization, 2016). As a result, especially when fewer and fewer people grow their own food, food access often becomes dependent on income bracket, education level, and physical location of individual residents. Individuals and their choices can sometimes drive these characteristics, but when it comes to location, those who are isolated without the means to drive further or pay more for food are unable to adapt.

Rural Food Access

Evidence suggests that food security and food access research is less studied in rural areas as compared to urban areas (Canto, Brown & Deller, 2014). Even in studies where the two are compared, unequal levels of importance have been placed upon urban areas because of the greater concentration of people that are affected, even though both types of food access are of great importance (Hosler, Rajulu, Ronsani & Fredrick, 2008). Those living in rural communities are increasingly relying on convenience stores for their food shopping as research has shown that for many rural residents it is often a lengthy twenty mile drive to the nearest supermarket (Gantner, Olson, Frongillo & Wells, 2011). Given the distance, walking is not an option; without transportation residents in rural areas are forced to purchase food wherever they can gain access, which can sometimes be convenience stores or other non-preferred and non-traditional food stores. In many cases, these non-traditional food stores have to charge a higher price to compete with the chain supermarkets that exist in the area, forcing residents to pay a higher price. Transportation is not the only issue for those who reside in rural food deserts, as rural areas are more susceptible to inclement or severe weather and "unfriendly rural terrain" including mountainous and desert areas (Lucan, Gustafson & Pitts, 2012).

Food Access in Rural Vermont

As of 2010 roughly 61 percent of the Vermont population lives in a rural area, indicating that addressing rural food access issues will affect a greater number of the population as opposed to urban food access issues (U.S. Census Bureau, 2012). Besides Vermont, only two other states have a greater percent of their population living in rural areas than urban areas; Maine and Mississippi (Iowa State University, n.d.). For a state that deeply values their agricultural heritage and small-scale agriculture (Batie, 2003), rural food access becomes incredibly important since a majority of the agricultural production is occurring within rural regions of the state.

Scholarly research showcases Vermont's pioneer projects regarding agricultural impacts on food access. One partnership that will be explained in greater depth later in this report is the Kingsbury Market Garden, a farm that was grown out of the Vermont Food Bank's desire to have a farm associated with their organization. This partnership allowed farmer tenants to "grow enough food on their land to supply area food shelves as well as sell products for profit to area consumers" (Berlin, Schattman & Hamilton, 2012). The Kingsbury Market Garden supplied fresh produce to the Vermont Food Bank, allowing those who are not food secure to gain access to fresh produce through their local emergency food shelf (Berlin et al., 2012). The Intervale Center and associated food hub, house a wide variety of farms that sell to markets throughout the state (Schmidt, Kolodinsky, DeSisto & Conte, 2011). The Intervale Center also runs a gleaning program that helps to give 150 households in the area a CSA at no cost each week (The Intervale Center, 2016). This is beneficial in two ways, ensuring that local low-income residents are able to access healthy food, and that no food on the associated farms is going to waste. These are just two examples of the emerging ways that both food producers and food distributers in Vermont are already working to increase rural food access, and the positive response from the programs showcases the potential for further advancement in the future.

Agricultural impacts

Because most agricultural production occurs in rural areas it is important to uncover the reasons as to why rural food access continues to exist. The proximity and relationships of rural areas to surrounding farms indicate that there is a future for small and medium scale agricultural ventures to contribute to increasing food access and food security in rural areas. Especially in rural areas of the Northeastern United States, much of the population is focused on uncovering the public benefits from agriculture (Batie, 2003). This concern and desire to uncover the public benefits of agriculture leads to more positive impacts on the surrounding local communities (Batie, 2003). Batie (2003) suggests that this positive impact can be seen in three categories; food security, environment, and socioeconomic factors. Not only do farms increase food security through increased food production, but also many people in the Northeast value the appearance and landscapes that are associated with agriculture (Batie, 2003). Having more small-scale agricultural operations in rural areas also increases the job availability. and opportunities for those living in the area to get involved in their local economy. The public interest in the local food movement has placed more focus on small-scale agriculture and to their markets (McEntee, 2007). The focus can have a ripple effect onto food security and food access in rural areas, where the food is being produced. This impact on the local economy is often referred to as the multiplier effect, which is the amount of local economic activity that is generated from the purchasing of local goods and items (Swenson, 2009). Money spent on local purchasing, strengthens the local economy and well-being of local people. Simply the act of marketing of local food can assist in increasing rural food access, as residents may become exposed to new farms and food markets to which they were not previously exposed (McEntee, 2010). More concrete research on possible solutions for rural food access such as GIS mapping, concept mapping, and implementation of working groups can assist in food access and food security issues, but the development and implementation of new markets is a key to creating food access solutions. The ability to create new markets, whether they are physical farmer's markets, new avenues for purchasing within an existing market, or building more successful agricultural businesses all assists in the ability to increase rural food access. Schmit and Gómez (2011) argue that to have the greatest benefit, understanding the area where the market is located, and how the people in the

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community utilize that market is critical. Strategic planning and research prior to implementation will ensure the greatest reach and impact on the residents who will utilize the market (Schmit & Gómez 2011). The authors suggest that increased market diversification of foods will assist markets to fill the void in the market currently occupied by supermarkets (Schmit & Gómez 2011). Through four steps of: "larger, centrally located markets; target variety in products and vendors; increased attention to marketing; and reducing cost burdens to underserved residents" markets in rural areas will have the greatest impact to increase food access and food security (Schmit & Gómez 2011).

Situational Analysis

As Schmit and Gómez (2011) stated, understanding the area where the market is located and how people in the community utilize that market is critical to having the greatest benefit on rural food access in the local community. Because the creation of a new farm business establishes a new market it is critical to understand the affects that the market may have on the community. Situational analysis was used because its purpose is to predict or explain a certain type of behavior (Bichlbauer, 1998). Emerging and established businesses both use situational analysis for it's in depth and detail analysis that forces business managers to think strategically about their businesses plans, and future. The situational analysis consists of a 5C analysis, SWOT analysis and can also include a Porter's 5 forces analysis. The situational analysis aims to identify internal and external factors that may influence performance and decision making of the business (Business Dictionary, 2016a). The concluding result of a situational analysis is a SWOT analysis (sometimes also referred to as TOWS), which analyzes the internal strengths and weaknesses of the business and the external opportunities and threats (Business Dictionary, 2016b). Determining how the successes of a new business will unfold in the market is a complex process that requires extensive thought and preparation on the business manager (Weihrich, 1982). Because the situational analysis examines such a wide range of details for where the business will fall in the market, it forces business managers to think about every aspect of the business and be confident in the future successes and outcomes.

Methods

In order to begin this project, preliminary research was done to determine which farms and organizations would be considered for analysis and impact on rural food access in Vermont. This preliminary research was done online and through consultation with those who are familiar with the farms and organizations that meet the criteria for this project. Once these farms and organizations were chosen, semi-structured, in-person interviews were conducted with one person from each of the farms or organizations. As the primary investigator on this project, I also conducted participant observation at Footprint Farm, where I observed plantings and animal feedings. Following the

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interviews, I worked to transcribe them using transcription software, Express Scribe. The interviews were then coded for common themes using HyperResearch software.

Vermont's Impacts

The four organizations or farms that were chosen for this project are all working to increase rural food access in the state of Vermont, and each of them focus on a different aspect of the food system. These four were chosen in an attempt to be as comprehensive as possible within the time constraints of conducting this research. Each one of these entities serves a different purpose and reaches a varied population group in terms of both location and demographics in Vermont.

Footprint Farm

Located in a valley in rural Starksboro, Vermont, Footprint Farm is a small, 10-acre farm that is owned and operated by a duo that gained most of their previous farming experience in California. They began Footprint Farm in 2013 after discovering that the land they desired was in Vermont, not California. Of the 10 acres that make up Footprint Farm, only 2 acres are in production. They are growing vegetables, flowers, and eggs that are all certified organic and pork and maple syrup that are not yet certified, but follow the same principles. Implementation of Footprint Farm over the past three years has not been easy for two newcomers. In addition to their task to know the soil and the land they have also had to learn the wants, needs and desires of their surrounding community. Fully understanding how their community functions allows them to tailor their business to suit the needs of the community, and become more profitable. Because they are still such newcomers to the area, finding their niche has proved to be more difficult then expected, and they have entered into a number of different ventures to try and find what works best for both the community and their business. The amount in which the farm has been able to evolve in the three short years of its existence proves their dedication to improving the food environment of their community.

Initially, the founders of Footprint Farm wanted their main product to be a Community Shared Agriculture (CSA) program that would be delivered to members living in the neighboring towns of Hinesburg, Bristol, and Shelburne. Although one day this may be the direction that the farm will go, for now they have started on a different path. Instead of advertising that they would offer a CSA during their first year of production and promising people a share of vegetables and eggs, they decided to learn their land, plant what they could and then sell whatever they produced. Establishing their product in the local farmer's markets helped to get the word out regarding their produce. As they continued to grow over the next two years, they were able to establish a summer-time CSA, listening to their members to serve them best. For instance, one summer their CSA members unanimously stated "no more fennel," so the farmers stopped, even though it was a crop they greatly enjoyed growing. Or tomatillos, a vegetable that proved to be too much work for customers to prepare, and as a result, did not sell well. Adapting to these changes, even if the farmers don't desire them, has been one example of the farmers' ability to stay relevant and successful. In continuing to learn about their community, the farmers discovered that many of those living within their market reach are homegardeners who don't need a CSA's worth of produce in the summer months. What they need is produce throughout the winter and spring. Listening to their community, Footprint Farm built one high tunnel, applied and received a grant to build a second one. These high tunnels will become the future home to the vegetables for Footprint Farm's winter CSA to better fit the needs of those in their community.

For these farmers, their work doesn't end at the end of a season, or sale of their produce. They can often be seen in their local elementary schools teaching the schoolchildren about agriculture and produce. Taylor, one of the farmers, noted that their work has allowed them to become somewhat of poster children for Addison County. Most of the farmers in the area are all older, and the younger farmers in the county lean to dairy operations, not vegetable, and especially not organic. With both farmers having backgrounds in education, they are perfectly suited for the job. Their goal is to show those in the community that their agricultural history is not lost, simply evolving and to show them how to evolve with it. Making these connections and teaching children about food and cooking are two of the main ways that these farmers are increasing food access in this rural area of Vermont. Aside from making a profit, being able to increase food access in their area is a main goal of the farmers. They have begun to make their products more accessible, one way has been going through the process to be able to accept Electronic Bank Transfer or EBT cards where they sell their produce. The ability in which they are able to sell their winter crops is still to be seen, but if it is successful they will have tapped into another market in which they are able to feed more community members, and increase food access.

Best Practices

Because starting a farm from the ground up can be incredibly difficult, and having it be successful even more so, I questioned Taylor about what she believes are the best practices of building Footprint Farm. When beginning to start a business it can be easy to get lost in the grand plans for the future, but starting out small, and remembering that it is okay to grow steadily and to take it easy. Taylor remarked that, "the first year was just, oh look, we grew something and now we'll go and sell it," which allowed them to be free of obligations and really learn their market (T. Hutchinson, personal communication, May 18, 2016). Slowly and steadily growing will allow you to analyze each year, and see what worked, what didn't work, and to allow you to take advice from those around you. Farming elders in a community who are eager to share with young farmers, should be heeded. They act as a mentor, which can be your biggest asset to assist in guiding you through the process of starting up a new farm business (T. Hutchinson, personal communication, May 18, 2016). Farming, more so than other businesses becomes your lifestyle, and it is important to be passionate about the work that you're doing. But, at the same time, successful farming businesses truly know the

market, and work to find their niche within the community. Being able to be flexible and adaptable as farmers will allow the farm business to be successful, and have a lasting affect on the customers. As farms grow over time, they will adapt practices that allow them to be more efficient, Taylor brought to my attention that this was the first year they were able to keep track of all their planting dates and improve their record keeping. Implementing this system took them a few years, but now will allow them to increase their organizational capabilities.

Challenges

Although Footprint Farm has begun to overcome some challenges, and transform them into successes, there are still many challenges that the farm faces daily. The biggest and most difficult challenge that they have had to face is the lack of infrastructure and capital in beginning their business. New farmers often go to wherever the land is available for them, and sometimes that means there isn't anything but bare land to work with. This then requires farmers to do everything, "You have to be a carpenter, you have to be a gardener, you have to be a marketer, and you have to be a bookkeeper and to learn all those skills quickly and efficiently is really hard" (T. Hutchinson, personal communication, May 18, 2016). In the beginning of starting a farming business, this can be one of the most difficult things, since at first the amount of farming being done is minimal compared to the amount of other work being done. Another challenges that they have faced has been in learning their markets, which as previously stated has also been one of their successes. But, if the market wants something that is different from what you want your business to look like, a decision needs to be made about serving your community versus profitability. For the case of Footprint Farm, they had to let go of some of their business goals to better serve their community, and that has been a personal challenge for them.

Salvation Farms

Started in 2005 Salvation Farms began as a grassroots gleaning organization, and over ten years later has pioneered much of the gleaning effort throughout the state of Vermont. The USDA defines gleaning as "the act of collecting excess fresh foods from farms, gardens, farmers markets, grocers, restaurants, state/county fairs, or any other sources in order to provide it to those in need" (USDA, 2010). Salvation Farms achieved the main source of momentum when they partnered with the Vermont Food Bank in 2008. This partnership allowed them to perfect their model for gleaning, and to create relationships with farmers throughout the state. After a few years Salvation Farms separated and in 2012 received federal nonprofit status. The organization grew organically out of the life experiences of the

executive director, Theresa Snow. Snow stated the following as how the organization evolved in the beginning, "If we're going to have more independent, stable, wholesome, intentional, sincere communities, we've got to start working together to meet our needs together. I think that's what gleaning is; that's what it was for Salvation Farms when it started. It was about meeting our collective needs" (T. Snow, personal communication, May 18, 2016). Today, the main goals of Salvation Farms are to create and gather an agricultural surplus in Vermont and distribute that surplus to those who need it most. The organization has applied these goals through the creation of the Vermont Gleaning Collective, and the Vermont Commodity Program. The Vermont Gleaning Collective was established to increase gleaning statewide, and give responsibility to a number of entities across the state to do their own work. At present, six gleaning organizations exist across the state in Addison, Chittenden, Franklin, Lamoille, Rutland, and Washington counties. These organizations work independently to manage gleaning in their respective counties, as gleaning has grown so extensively that Salvation Farms cannot do it on their own. Throughout the time of gleaning harvests, the surplus produce can be donated to the Vermont Commodity Program. This program supplements institutions throughout the state that either want or need more fresh produce and local food. This program has gained a large amount of momentum, and in September 2016 Salvation Farms will launch a new phase of the program to be able to better clean and pack the gleaned produce, which will end up serving a greater number of institutions in Vermont.

Through Salvation Farms and the Vermont Gleaning Collective's work to create regional hubs for gleaning have been assisting to create increased food access. But, Salvation Farms still struggles with the association that gleaned produce can carry. According to Snow many still see the food as being charitable since there is no monetary association with gleaning. It is easy to see the connections between hungry people and food waste, and saying that of course gleaned food should be going to hungry people. But, the gleaned produce can also have an impact on the day-to-day actions within Vermont's food system. The Vermont Commodity Program is one way that Salvation Farms is working to get gleaned produce into the mouths of those who typically wouldn't have access to it. Because the produce is gleaned, it can still be donated under the Good Samaritan Act, but Salvation Farms will plan to charge a small fee for processing or distribution to institutions such as schools, prisons, and nursing homes. Despite the fact that the food is still being donated and is of minimal cost to the institutions it can begin to separate from the thought that gleaned food is charitable food, achieving a new goal of Salvation Farms.

Best Practices

Many of Salvation Farms' best practices are directly related to the best ways to glean produce. But, Snow also remarked on the many different avenues that you can take to glean produce, and reiterated that every farm is different, and every farmer must be approached differently. The most important best practice that Salvation Farms utilizes is that they make sure to meet their farmers at whatever stage in the process they may be.

"And then you ask for a farm visit, you go have a farm visit, you learn about who they are, what their business is, what their farm looks like, how long they've been there. You start to build rapport and understand who they are as a person, and what their farm is as a business. And then as a gleaner you can start to say well these are the ways in which we can serve your farm and we recommend starting at this place if that feels comfortable for you. So it may be just a weekly farm pick up, it might just be well we'll plan to see you at Farmer's Market and if you have anything left over at farmer's market we'll collect it there. And then you just you maintain your relationship based on kind of the previous conversation. So if the conversation is yeah I'm interested in doing X with you, okay great well then we will follow up with you when we get closer to the season, probably late June, yeah late June sounds good. So then you do it and you do exactly as you said you'd do. And you let the farmer lead, you feel their comfort level if it's a text then you text, if it's a call then you call, if it's an email you email and you do it when you said you were going to do it and you're almost - like they could almost set their clock or calendar to you."

-Theresa Snow

In the spring and summer farmers are busy, so it is critical that they can depend on you when you make a claim or promise to them. This means that there may be more work needed to be done on the end of the gleaner or gleaning organization, but that effort will most likely pay off in a strong and positive relationship with the farmer.

Challenges

For Salvation Farms the challenges lie on both ends of the spectrum; on the farm side, and on the gleaner's side. The varying skill levels of the farm hands means that some will know which types of produce to leave in the field for gleaners, but some will pick everything, forcing gleaners to work in a number of locations. They must be ready for any type of gleaning, whether it is direct gleaning from the fields, from wash/pack houses, or from farmer's markets. There are many challenges associated with logistics, communication, and especially trust. The gleaners must work very hard to build and maintain these relationships with farmers, so the work is always ongoing. Then there are the challenges associated with the concept of gleaning, and moving it to a place where it is engrained in the larger food system. Snow faces the question of "how can we manage available quality food that is on farms in a way that creates a more resilient food system, a more independent food region and can positively impact the market viability of farms?" every day as she works with Salvation Farms. Creating the regional gleaning organizations in different regions of Vermont is one way they have been working towards achieving this, but there are still gaps in trying to answer this question.

Vermont Foodbank

The Vermont Foodbank is the largest organization in the state of Vermont that has taken on the task of achieving hunger relief of its citizens. Traditionally food banks in the United States have been mostly concerned with volume and pounds of food to be able to

distribute to as many people as possible. But more recently, The Vermont Foodbank has become interested in increasing the amount of fresh produce they can distribute to their food shelves all across the state. Because of this, when a large piece of conserved farmland came up for sale through The Vermont Land Trust, the Vermont Foodbank was interested. The property was a 20-acre farm located in Warren, Vermont along prime riverbed soil nestled in the Mad River Valley. Through a Request for Proposal (RFP) process the Vermont Foodbank applied to purchase the land for a farm that would donate its produce to the food bank's entities and local food shelves, and they won. The Vermont Foodbank then worked to develop plans to begin to staff farmers, grow crops, and keep the land working for the community, eventually forming The Kingsbury Market Garden. The agreement, written in a formal Memorandum of Understanding (MOU) stated that the farmers would pay the annual lease of the farm in produce. Although the produce was of the highest quality, and allowed The Vermont Foodbank to distribute fresh produce, it simply wasn't profitable to continue. The Vermont Foodbank went on to sell the farm to the farmers who were operating it, and because of a private CSA they had started, they had adequate funding to be able to purchase the farm. The relationship still remains positive and the farm is still serving those living in the Mad River Valley.

The Vermont Foodbank has recognized that solving problems associated with food access doesn't end just because consumers have food in their hands. From this idea, they created a program called VT Fresh, which "is a nutrition education program that aims to increase access and improve availability of fruits and vegetables at community food shelves" (The Vermont Foodbank, 2015). VT Fresh works to change the food environment at food shelves, making participants feel more comfortable, welcome, and able to have the experience of "walking into what smells like your grandmothers kitchen" (J. Stermer, personal communication, May 17, 2016). The local food shelves have simply shifted some of the displays to be more appealing to consumers, distributed recipes and offered cooking demonstrations of the produce being offered. This program has begun to shift the stigma that is often associated with charitable food, and create a more dignified experience for those who frequent food shelves. Ultimately this has brought many people together, and generated interest around new foods that normally may not have been purchased. The transformation that has occurred in food shelves around VT Fresh has assisted in increased food access all across the state of Vermont.

Best Practices

For The Vermont Foodbank, a large organization that has a statewide presence and impact, learning what works has spanned over many years and requires adaptability to best assist those living in Vermont. Over time The Vermont Foodbank has worked to bring more produce to their consumers, which is one of the reasons for beginning the farm and partnership with the Kingsbury Market Garden. Because The Vermont Foodbank is such as established, and successful organization, they are able to serve as a backbone organization assisting smaller organizations in their ventures. This was seen in their partnership with the Kingsbury Market Garden as they offered both technical and physical support to the farmers. The variety of other partners that they work with, help to assist those who utilize the food bank's services, such as VT Fresh. These partnerships are what has allowed The Vermont Foodbank to make a large impact on the smaller scale and local level, and will only continue to grow in the future.

Challenges

The Vermont Foodbank's partnership with the Kingsbury Market Garden faced many challenges along the way, which led to the completion of the partnership. Both sides of the partnership faced different challenges that have allowed both sides to learn what is needed for success. The Vermont Foodbank realized early on that employing a farmer as full-time staff was not going to be as easy as they initially thought, as the aspects of farming that motivate farmers were gone. Receiving a steady salary, and being assisted in all the decision-making of growing, made it difficult to find a committed farmer. Once they found a farmer, the problem of volume came about. The food being produced in the Kingsbury Market Garden was of the highest quality, and was beautiful produce, but in the end the cost was simply too high for the amount of produce they were receiving. The farmers who ended up working with The Vermont Foodbank in this partnership also faced many challenges within the community. From the beginning they were criticized and seen as getting a leg up on the competition in the area because they were leasing the land from The Vermont Foodbank. They had to make concessions and compromises to do their work, one of which included not selling in any of the local farmers markets while The Vermont Foodbank owned the farm. This became a limiting factor for growth and their business became halted until the end of the partnership. In the end, the amount of work needed from The Vermont Foodbank to successfully complete this project was just too much, and the challenges outweighed many of the benefits of the partnership. The Vermont Foodbank has stated that if the timing and other characteristics worked out well another time they would consider getting into the farming business again, but for now they are refraining from direct agricultural partnerships.

Windham Farm and Food

In the 1990's in Vermont the options for available fresh produce in the school system were very limited (Scanlon, 2012). Paul Harlow, of Harlow Farm began planting a small garden for his children to bring produce to school, and following that Harlow Farm only began expanding (Scanlon, 2012). In 2009 a few major food buyers in the southern Vermont area expressed concern and frustration with the difficulties associated with sourcing local products from a number of different producers (A. McCullough, personal communication, May 19, 2016). This type of sourcing involved networking, invoicing, payments, and delivery that these buyers could not take care of all on their own. Out of this need grew Windham Farm and Food (WFF), with Harlow Farm at the forefront of the network. Presently WFF operates as both a food hub and distribution network throughout Windham County, picking up a variety of food items from produce to milk to

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meat, and even pudding; then distributing them to buyers which can include restaurants, buying clubs, and schools. In 2015 their management shifted to be done by Food Connects, a non-profit in Brattleboro with the goal of creating food and farm connections in schools throughout Windham County. Because the missions of WFF and Food Connects are so closely aligned, merging the management is beneficial for both parties. Merging the two networks has allowed them to be more efficient, reduce costs, and streamline delivery service, with the plan to bring more buyers on board, and further increase efficiency.

Operating out of Brattleboro, WFF aggregates and distributes food all across Windham County. They do not have any storage or processing facilities, so they have to pick up and deliver in the same day to ensure freshness of the products they are transporting. They are also relying on their vendors to do any processing that the buyers are requesting. Operating in this manner has its obvious benefits, they are light, efficient and don't have to pay any overhead or storage costs, but also has its obvious downsides in that they cannot accept any bulk items, and logistics for delivery days can be challenging to overcome. One way they have been able to reduce some of the logistical challenges is by moving their ordering system to be a completely online system. Vendors are able to go online and update the products they have, the prices they would like to offer them for, and the different ways the products can be processed. Then buyers can go on the system, and place their orders depending on what they want and need. In order to become a vendor, the vendors must sign a vendor agreement form, have proper liability insurance, and agree to give 20% of their profits back to WFF to cover the delivery costs. The delivery schedule is set every week, and the vendors all know what date and time they need to have their orders in to WFF to ensure that delivery goes smoothly. The system is not set up that individuals can purchase food, as it is more geared towards institutions and retailers, but there have been buying clubs in the past that work with WFF. As long as the delivery minimum is met, they will distribute the products to buyers, no questions asked. For the future, the goals are to expand the distribution networks without overextending their current capabilities. If possible, this could include partnering with other food hubs and distribution networks to share resources and expand the variety of products that they can offer.

The distribution networks that are offered through WFF are working to increase food access by providing local food to retailers within Windham County. Although not directly providing food to individuals, they are providing the service to bring this local food from farms to locations that are more easily accessible for Windham County residents to gain access to. The strong presence that their food has in schools is also a great way that they are increasing food access. WFF was built to fill a need in the communities within Windham County, and create new networks for local food distribution. They have been successful in filling this need, but do not intend to stop growing until they have reached even more consumers in this area.

Best Practices

Because WFF works with many vendors and retailers in the Windham County area, keeping consistency has been critical for the success of the organization. What works the best for WFF is their online platform for which the vendors can log on and edit the products, prices, and inventory that they have and if there are any different ways that the product can be processed. Using this platform helps to reduce the mistakes that could be made through more traditional communication methods. They also make sure that all of their vendors have the same requirements such as liability insurance, and that vendor agreements that are frequently updated. The expectations and communication from WFF to the vendors is very clear; the vendors know exactly which days WFF will be picking up products, and where they need to have them ready for pick up. The pick-up days are the same each week, allowing for consistency on both ends, and leaving little room for error. Working with such a large amount of vendors requires that everything is organized and consistent, something that over the years WFF has been able to accomplish with great success.

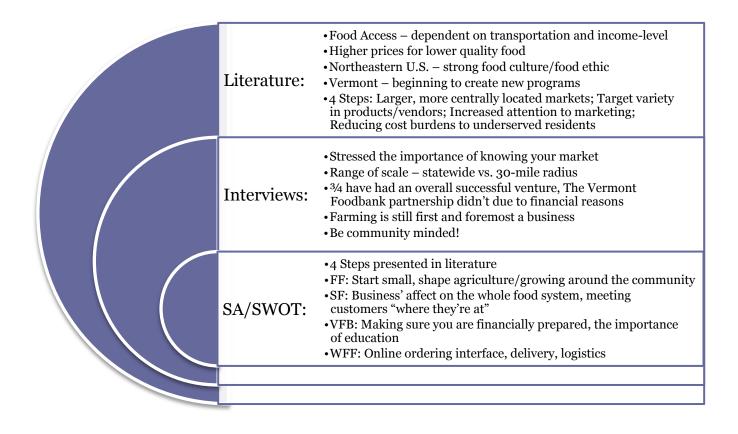
Challenges

WFF itself was founded to fill a gap in the Brattleboro area as buyers' had great difficulty sourcing local ingredients. But the creation of WFF didn't reduce any of those challenges, it only streamlined them into one central organization. As WFF expands they continue to source from more vendors and serve more buyers, but their physical space has not grown with their organization. At present, they do not have any storage or stocking space associated with their distribution, which is why they need to do all of their distributing the same day as pick up. This creates many challenges associated with logistics, and location for pick up and delivery in Windham County. The geography of the vendors and buyers forces WFF to drive longer distances to reach people and places resulting in a lack of efficiency in their routes. Because they maintain a hands-off approach with their vendors, and allow them to maintain their websites and product inventory WFF relies heavily on their vendors to ensure quality and consistency among orders. Because they do not have a warehouse, this is not something that WFF can take on, and the more vendors that are added to the mix, the more potential sources of error there are in each delivery day. This is a huge place for growth for WFF, not only for the ability to add buyers and vendors to their network, but also to offer more processed goods and greater options for buyers. The future for WFF has a lot to do with their ability for growth, which will most likely come from storage and warehouses.

Interview Conclusions

In order to for this report to be as comprehensive as possible the main themes from the literature were analyzed alongside the main themes from the interviews and then both were utilized throughout the writing of the situational analysis. The most common themes from both the literature and interviews, and how they assisted in shaping my situational analysis can be seen in the following figure, which outlines the progression.

Because I chose to interview different organizations from different sectors of the food system, I received a wide variety of responses. Each interview added a new perspective toward shaping my business plan for the community farm, but there was one theme that continually surfaced in each interview. This was the idea of making sure that your business is tailored to the community that it is in, and that its main purpose is meeting the needs of that community. I kept this sentiment in mind as I created the plan for the community farm, taking this into account at each step of the process.



Future Involvement

After conducting four in-depth interviews with the leaders of these agricultural organizations in Vermont regarding the current standing of agricultural impacts on food access within the state I have developed a number of conclusions regarding where there is room for further improvement in the future. As Taylor from Footprint Farm so eloquently stated about farming, "it feels like it's one of the only industries where you need more, you just need more no matter what." This sentiment was reiterated throughout all of my interviews, that agriculture in Vermont will continue to grow, and lead to a greater percentage of residents that have access to fresh and healthy foods.

The way to achieve this is through managing the high quality food being produced on farms so that it creates not only a more resilient food system, but also a more independent food system in Vermont. Getting to a place where this is achieved may take many years of building relationships and connections to integrate the food system around agriculture.

Throughout my interviews, another important topic of change that I heard was the importance of bringing Vermont communities together around food, and making sure to listen to the community needs as a way to increase food access. Organizations such as Salvation Farms and the Vermont Food Bank have recognized that it's not all about their organization as one single entity, but rather about the food system as a whole, as both work to make sure their organization is sustaining the food system. Continuing the work being done by these two organizations, and seeing consistent growth will help to facilitate this change in the system. Having partnerships between organizations such as these will also bring about this type of change and create a more integrated food system. In the future, working with new organizations such as Windham Farm and Food, could create a centralized network of food hubs and food organizations that will help to streamline their pick-ups and delivery, and offer a more diverse set of products to their buyers from across the state. This theme of community-minded expansion of the food system is a promising way to increase food access in rural Vermont, and it will be exciting to see how these practices evolve.

The places for an improvement in the future of Vermont's food system circulate around community building through agriculture and food access. One way to achieve this will be through a creation of a community farm and a surrounding network that helps to increase food access in rural areas in an affordable manner, and provides resources for residents who wish to learn more about their food system in Vermont. This following description and analysis for a community farm is intended to serve as a model that can be replicated and implemented in the future in other regions of the Northeast and the United States. I will present a brief description using the 5W's - who, what, when, where, and why - to describe a potential business that can fill this gap, and then conduct a situational analysis on this business using the 5C Analysis - company, competitors, customers, collaborators, and climate. The analysis will conclude with a SWOT analysis of the strengths, weaknesses, opportunities, and threats of this new business, and its feasibility of implementation.

Business Introduction

This community farm will contain a variety of types of farms that work under a network that distributes the products from the farms. The community farm will generate most of its profit from a Community Shared Agriculture (CSA) program in which the price is based upon on a sliding scale according income level, and by selling wholesale to restaurants and institutions in the area. The community farm will have a main location in which the storage of the products will be, and there will be space for educational programs and activities for the CSA members to learn more about the food they're eating. The farmland will have the potential to be located in the same location, or dispersed throughout the community. This community farm is intended to serve as a model that can be replicated and implemented in the future to increase rural food access in other regions of the Northeast and the United States, but here will be analyzed in the state of Vermont.

The 5 W's: What, Where, Who, When, and Why What

The community farm will offer a wide variety of different products in the hope that it will be able to serve most of the dietary needs of the customers. There will be 1-2 farms in each category of food group to promote a cohesive business as opposed to competition. There will be fruits and vegetables that can successfully grow in Vermont ranging from blueberries and apples to carrots and squash. There will be meat operations that sell chickens, pigs, and cows with the possibility of expanding to include goats and ducks depending on the desire for that meat. There will be a farm with laying hens to offer eggs to customers, and a dairy for milk and other value added dairy products such as yogurt and cheese. There will also be a farm for grains including wheat and barley to allow for fresh breads and other value-added products for the customers. The community farm will also have an apiary and sell the honey to customers, in addition to tapping maple trees for maple syrup if there are any on the property. Offering and selling those will cover most of the dietary needs of the customers, and what needs to be supplemented will most likely be produce or products that cannot be grown in Vermont.

Where

This community farm is going to serve as a model in the state of Vermont, with the ability to be altered to fit throughout all of the Northeastern United States. Over time expansion to the entire United States would be the desired outcome, but starting with Vermont and the Northeast will allow for different aspects to be tested out and perfected before expanding. When examining the Food Access Research Atlas, created by the Economic Research Service of the United States Department of Agriculture it is easy to see the regions in the state of Vermont that are both low-income and low-access. Using this Atlas the region of Vermont with the greatest amount of people that are low-income (LI), low-access (LA), and have a high percentage of people without vehicle access is the town of Fair Haven in Rutland County of Vermont (Ver Ploeg & Breneman, 2016). This parcel of land will be the basis for this analysis because of its great opportunity to increase food access. When choosing future locations to place this business model around the United States, using the Food Access Research Atlas will assist in finding the locations that will have the most impact.

The business will always be located in rural regions, and will need to be on prime agricultural land. The business can operate in a few different ways since there will be different types of farms and each of them may require different types of land. If it were to work out that there is a single plot of land where all the farming can be done, and there is a site for the storage, and central marketplace for the food then that would be ideal. But, if finding that type and size land is not possible, then each farm will be located wherever the land is best for them, and the main storage and market site will be located in a central location that allows for easy access for the farmers, distributers and customers. The customers will have an option of how they would like their products; they can choose to either have them delivered or to pick them up from the storage area and market. Those with the income capabilities and who live nearby will be strongly encouraged to pick up directly, allowing for increase efficiency on the delivery routes unless there are extenuating circumstances. But those with lower income levels or those who may live farther away without reliable transportation will be able to have the goods delivered to them, therefore increasing their food access. Depending on where they are located, and if there are others in the area that would also like certain goods, they may be delivered to a central location and customers will be asked to pick them up. This will vary depending on the where the customers are located. For restaurants and institutions all of the goods will be delivered directly through the distribution services from the community farm.

Who

This project will involve a number of people and organizations to assist in the start-up and succession. I will spearhead the project, but this cannot be done alone and from the beginning will require a large community effort and involvement. The goal of the community farm is to increase food access in the rural town of Fair Haven, by supporting as much of the customer's diet as possible, through the different farms that make up the community farm. A social mission drives the farmers and founders to grow and distribute their food to customers who otherwise may not have been able to access it because of either a lack of transportation or a high cost.

The farmers and founders have a passion for increasing food access in their community, which is why they are in this business. Because farming profits are often marginal, this socially minded business model that these farmers follow makes them unique. They place a greater importance on solving food access issues in their community over creating a large profit for their businesses. All of these farmers share a common interest, but they are many different people who come from a variety of backgrounds, so working together and agreeing on business practices can become tricky. The ability for the farmers to remember the greater purpose of the venture is critical for the success of the business and networks. Each farmer works to fill a different niche within the business, and all the farmers must agree that they will not over step boundaries on the other farms that may cause friction.

The customer base for this CSA from the community farm includes low-income residents of the Fair Haven region of Rutland County Vermont. Because the goal is to be able to give low-income residents lower cost food, there will need to be a portion of the CSA members who are of a higher income level and can afford to pay more. This is the basis behind the sliding scale for payments. The customer base will also include restaurants and schools in the area that will buy products at a wholesale price, which will also contribute to the community farm's ability to offer lower-cost CSA's. The customers in the region who do not have access to a car are another key section of the population. In Fair Haven 11% of households do not have access to a vehicle and live over $\frac{1}{2}$ mile away from a supermarket (Ver Ploeg & Breneman, 2016). That 11% of the population is a key customer because the community farm will be offering distribution services to those who require them.

When

This model is for a business that has not been established yet, and what is outlined are the goals for where the business will go within the next couple of years. The founders recognize that it will take time to accomplish, but the hope is that this business will be successful and sustain itself, allowing consumers in Fair Haven, Vermont to have access to healthy local foods. The anticipated changes include increasing the quantity of available food, and radius of delivery as the business gets more successful. What follows is a basic timeline of the goals for establishment and growth of the community farm.

Year 1: Purchase land; establish farm and build awareness; prior to the growing season, prepare beds; during the growing season, plant, harvest, and sell whatever appears to be of the highest quality; after the growing season, assess what went well and where there is room for improvement in terms of quality and quantity of product; build any structures in the off season that may allow for increased growing time.

Years 2-3: Grow similar types of products, and try to increase quantity to form CSA; form CSA; marketing to bring in new customers for the CSA; begin to build connections with restaurants and institutions for increased profit; map out distribution networks; throughout the growing season, continue as previously year with the intention of getting more efficient; after the growing season, survey customers of the CSA, firm up relationships with wholesale customers, and continue building infrastructure.

Years 4-5: Continue expanding and growing off of the years 2-3 plan, and increasing efficiency of both the CSA and the distribution network; begin to grow new or different types of produce or meat in order to satisfy all of the customer needs in the region.

Years 5+: Continue growth and efficiency with expansion as the market allows. By the end of the 5th year the goal is to have all parts of the business up and running smoothly together. That includes all of the different types of farms working cohesively together, and not in competition with one another.

Why

This business is driven mostly by a social desire and drive to assist those in the community gain access to healthy local food. There is not a very high profit associated with this business, but those involved believe that the work they are doing is more important than making a large profit.

Mission: To increase food access by providing a low-cost CSA containing produce, meat, and dairy products to residents of Fair Haven, VT and the surrounding communities.

Vision: The community farm aims to achieve this mission by providing a variety of products to residents with limited food access and low-income through a CSA. The CSA is offered to residents on a sliding scale, so that those of lower-income levels can afford to become members of the CSA and enjoy the food that is produced. Because transportation is such a large obstacle to solving rural food access, the community farm will provide delivery and distribution services to those within the community who require them. By tackling two of the largest obstacles to rural food access: transportation and income, the community farm will begin to increase food access for the residents of Fair Haven, VT.

The 5C Analysis

Company

Goals & Objectives:

The goals of the community farm are to increase food access in a rural area in Vermont where residents may have a difficult time gaining access to fresh produce, whole grains, and sustainably raised meats. These difficulties most often arise from a lack of reliable transportation, and low-income levels. The community farm will achieve this goal by selling its products through a CSA for individuals that will be priced on a sliding scale to increase affordability for a variety of income levels, and wholesale for restaurants and institutions. The community farm will offer distribution services with multiple drop-off points that allow the farm to reach large numbers of people who live in the area. The farm will also work with a local bakery to mill their grain and produce flours and breads for the CSA members. The profit made from value-added products, and being able to offer multiple distribution sites will attract many members and allow the farm to provide their CSA on a sliding scale to be more affordable for low-income residents in the area. The farmers work closely with their members to determine where their income levels fall, and work to help low-income residents as best as they can. The farmers also try to educate their consumers as best as they can on new uses for unique produce, and utilizing as many cuts of meat as possible. They will accomplish this by offering classes and seminars for members to learn more about the food they are consuming.

Position:

The community farm has a unique position in the marketplace because they are involved in many different aspects of the food system. In order to determine the position of the farm within the market a number of variables must be examined, these include but are not limited to: price, convenience, variety, quality and consistency.

Price: The position of the CSA in the market in terms of price falls somewhere in the middle when compared with other similar ventures in the market. The price of the CSA will fluctuate based on the income level of the customer, but generally will aim to be as low as possible in order to increase food access for those of lower income levels. Often, the price of farm products is much more expensive than that of products found in the grocery store, for this reason the community farms falls somewhat in the middle. There will always been less expensive food available from the grocery stores, but at the same time, there will also be more expensive food available at other farms that share similar values.

Convenience: The community farm's position in the market in terms of convenience is one of the best. The customers who need their food delivered directly to their home will be able to have this, no questions asked. The customers who would like their food delivered directly to their home but don't necessarily need it will still be able to, but will just pay a slightly higher fee. Because there are not many farms that will deliver on an individual level, this community farm is one of the best for that reason and the convenience it offers to its members. There are a number of grocery stores that will do delivery, but they do not have the same high quality products as the community farm.

Variety: The variety of the products produced from the community farm is low compared to its' direct competitors, because there is a shorter growing season in Vermont as compared to California, so the products offered are more limited. But when compared to their indirect competitors they have more variety because of the number of different farms that have come together to form this community farm.

Quality: The community farm will work very hard to make sure that all of their goods are high quality, and among competitors will rank highly in terms of their product quality. As with any food provider, the quality of good should be high and consistent so that customers know what they can expect. The quality will rank much higher than the direct competition's good found in grocery stores and fast-food restaurants, but will be similar to that of other farms in Vermont. Because of the location, and lack of farms in the area the quality of their goods will be the highest around.

Consistency: The community farm will need to have consistency within their CSA, making sure customer's have the correct orders, they are delivered on time, and they are of the same high quality each and every week. They will rank in the middle of the

competition, because the grocery stores in the area operate based on consistency. They know almost exactly the type and quantity of products they are going to sell at specific days and times of the week. For this reason, the community farm will need to be strategic in their planning to make sure that they can keep orders consistent for their customers.

Overall, the community farm ranks in the middle-high end of the food market that it is trying to enter. The prices and consistency may not be the highest when compared with other competition in the market, but over time and with experience this is likely to change. The variety of products available as compared with grocery stores is low, so that is something that will need to be addressed in the future, but it is difficult when growing produce and raising animals in a short growing season. The consistency and convenience of the community farm will allow the farm to thrive, since customers will be able to rely on their goods getting to them when they need, and being easy to obtain.

Performance:

In the future a performance analysis would examine the amount of members in the full cost CSA and the low-income CSA to determine if the business is economically sustainable. Assuming it is, the next step would be to see if the owners/operators are doing what their goals achieve by increasing food access, and increasing education levels of the residents in the area. A performance analysis will need to occur annually, so that the business can stay productive and profitable. The community farm will also need to conduct a separate performance analysis on the restaurants and wholesale accounts to determine that serving those needs are also proving to sustain the business economically. The wholesale accounts also help to subsidize the low-income CSA's, so although those accounts are not directly increase food access, they are indirectly helping to increase affordability.

Product line:

In the first 2-3 years of the community farm the product line is going to be as diverse as possible, while still being efficient. Offering a diverse product line in the first years of business will allow the farmers to better understand what their community desires. They will focus on streamlined production, with the fruit and vegetable growers only growing 1-2 varieties of each crop in order to have a greater overall diversity among their crops. This will help them to discover what is both needed and wanted in the community if it isn't already clear to the farmers. In the start up of this business, conducting the farming practices this way will be the best way to determine what products customers want the most. The farmers and founders of the community farm will analyze the customer's decisions after the first year and adjust accordingly. They will do this by surveying customers after the growing season, and taking inventory regarding which products sold the best and which are not worth growing again. They will continue to do this each winter after the growing season, and determine what is the most successful and efficient. In the future years after the farmers have determined what the community most desires; they can begin to grow new varieties and expand their product line accordingly. But, they

will be cautious while doing this, and make sure that they aren't over-producing a crop that nobody in the community wants. In order to run this business in a successful manner, listening to the customers is very important. Aside from building the product line around customer choice, the products also need to be economical to produce. For example, if it is taking much more money to produce, maintain and harvest than the customers are paying for it, and it's not the most popular item, then the product should no longer be produced.

Competitors

Identify competitors:

Direct competitors include food service providers that are able to offer food to customers at a very low cost and/or take Electronic Bank Transfer (EBT) cards and Supplemental Nutrition Assistance Program (SNAP) benefits. These may include grocery stores such as Shaw's, Hannaford, and Price Chopper or fast food restaurants such as McDonald's and Subway, or even gas station convenience stores. Other farms that are in the area that offer similar types of produce and meat are also in direct competition, but according to the Vermont Food Systems Atlas from Vermont Farm to Plate, the town of Fair Haven is only home to three vegetable farms, and the rest are either dairy farms or vineyards (Vermont Farm to Plate, n.d.). The low amount of vegetable farms implies that there will not be a lot of competition among the businesses, as the market is not saturated.

Indirect competitors include other farms in the state of Vermont that share the same values and mission of the community farm, but are not located in the same region. These may include but are not limited to: Shelburne Farms, Full Moon Farm, Maple Wind Farm, and Grafton Village Cheese. Some restaurants that may be competitors are farm-to-table restaurants that hold the same values about food and agriculture that this business does, but are found in other regions of the state so they are not in direct competition. With the growing interest in local food it is very likely that additional businesses and competitors will emerge in the future. These types of businesses all serve as competitors because they are offering either the same or a similar product to what the community farm will be offering. As food hubs begin to grow and become more common, they may become future competitors to this business, since they often provide distribution services for farm fresh products, and some even have kitchens to process this food for wider distribution. There is also a chance that they may not be competition, but rather become partners and that all depends on the particular food hub, and the position of the food hub within the market.

Assessment of competitors:

The grocery stores and fast food restaurants that are in direct competition with the community farm have a different set of goals, missions, strategies, and resources. One example, Shaw's states their philosophy as, "offering customers the products they wanted to buy at a fair price, with lots of tender, loving care" (Shaw's, n.d.).

As a grocery store they aim to give customers as many products as they can, with little regard to where they are sourced, and what goes into producing them. They are conscious about the price they offer their products, and sustainability of their business, but they do not reflect the same goals as the community farm. For customers who are driven to purchase food based on growing practices and supporting small, local businesses, the community farm will benefit from having direct competition that does not have a lot of the same goals. This will allow them to cater to the population that cares a lot about the food they eat and the businesses they support. For the low-income populations, they will be able to offer comparable prices for higher quality produce, meats, and value added dairy products when compared to the local grocery store's products.

Indirect competitors mentioned above are all farms, and they all have very similar goals, missions, strategies and resources as the community farm does, but they are not located within the Fair Haven region of Vermont. Taking one as an example, Full Moon Farm is a certified organic farm in Hinesburg, Vermont that works very hard to give their CSA members the freshest fruits and vegetables possible. They sell to farmer's markets in Chittenden County and have a large CSA with the option to add on pork and chickens that they raise. In addition to their farming, they have started a Buy-Food-Not-Crap campaign where they ask for donations so that they are able to donate food to the Chittenden Emergency Food Shelf, and the Hinesburg Emergency Food Shelf (Full Moon Farm, n.d.). They are strongly motivated to give consumers in their region access to fresh produce and healthy food at the lowest possible cost, but because of their location they are indirect competition to the community farm. Additionally, what each of these farms does not have, is that they are each single entities and they do not have each other. A customer would have to go to each of these farms or their stands if they are all at the same farmer's market, but the community farm synthesizes all of the customer's needs into one central location and market. Restaurants are also indirect competition, but consumers go to restaurants for different reasons then they purchase groceries and produce, so although the farm-to-table restaurants have similar goals and missions, they ultimately provide different services to consumers.

Predict future initiatives of competitors:

There is a growing trend in the amount of quality of local food and farms that cater to a small amount of their local populations through CSA shares. This venture will need to be strategic in their planning to stay a relevant part of the community, and showcase their ability to offer unique products to consumers. In their advertising the most important piece to stress will be their ability to offer lower-prices for lower-income customers in the area, and that the customers will be able to do most, if not all, of their produce and other food products shopping in this one location. Being able to offer the delivery and distribution will assist the 11% of households without access to a vehicle in getting their necessary products (Ver Ploeg & Breneman, 2016). In this area, there aren't any farms

that offer distribution services to individual customers; the distribution is only to restaurants and more general CSA drop-off sites that still require customers to drive to the drop-off site. Unless a new farm enters the market offering the same type of distribution services and low-cost CSA, this community farm will have an advantage among the competition.

Customers

Demographics:

The town of Fair Haven reflects a lot of the same demographics as the entire state of Vermont. The median annual income in the town is \$44,185; the population is 96% white, and there is an aging population, with the median age being 41 (U.S. Census Bureau, 2014a; U.S. Census Bureau, 2014b). The community farm will work to adapt its business model to reach the customers that fall into these different demographics, but will mostly aim to reach those who are lower-income, and those who do not have access to a vehicle. These two groups of people are the main demographics of customers that the community farm will make the greatest impact on, but the farm also needs to generate a large profit to support these lower-income customers, so recognizing this third demographic when determining how to advertise the business will aid in success. Although some of these three demographic categories may overlap they can for the most part be analyzed separately. A basic description of the demographic category and other related characteristics of those customers are listed below to better understand the future customer base and their motivations.

Low-Income: The low-income group that the CSA will try to reach will mostly want their food at an inexpensive cost. They may have heard that local or organic food from local farms is more expensive and be either turned off by this, or decide they don't want to try it because of the associations it holds. There may also be some potential customers in low-income group who do want local and organic food, but can't afford it in the grocery stores, so they will be interested in trying this CSA. Because the median age in the Fair Haven area is 41 there may also be people in this demographic group who have established their own grocery shopping and eating habits and do not want to change the way they do things. Whether or not they are interested in local food or supporting small farms, they have their patterns and habits and aren't willing to change their minds.

Low Vehicle Access: For those with low to no vehicle access, they likely desire stability, since each week or two their grocery shopping schedule is mostly likely altered with however they can get rides, or if they rely on the availability of public transportation. This group is most likely hoping to gain increased access to fresh foods, since if they are only going grocery shopping weekly or bi-weekly they aren't able to purchase a lot of fresh fruits and vegetables. They likely they have a strong desire to get the products they want they are just unable to do so because they don't have access to a vehicle. The customers that have low vehicle access may also fall under the same category of the

customers with low-income, and they will strongly desire inexpensive food that can be delivered to them. This demographic will be the ideal customer, as the people within that demographic are exactly those who fit the mission of the community farm.

Median Income Level: This group will be the hardest to attract because they have the most options for purchasing food when it come to both cost and location. Some in the group will be interested in purchasing local food and supporting local businesses that have a strong social mission, and they will be the customers to try to attract. That population may have a stronger knowledge base regarding the food they consume as compared to the other two, and may be interested in trying something new out when it comes to the CSA. This group will be interested in new products that they are unable to get elsewhere, and will not be attracted to the CSA for the more basic fruits and vegetables.

In the end, the farmers and founders of the community farm will have to learn exactly how to cater to each of these demographic groups, and make sure their desires and needs are being met. This will take time, but will emerge through the first few years of experience once they are successful in recruiting customers for their CSA.

Advertising:

The advertising for the community farm will be done through a number of avenues including through a webpage and social media websites. The advertising will need to differ in order to reach the most people. Advertisements will need to be placed in key areas that reach many people including community centers, local restaurants, and at common places such as schools and churches. Once more formal advertisements have been placed; word-of-mouth is one of the best ways to increase awareness about the community farm in a small rural town.

Market size and potential growth:

The market will need to begin small, and grow gradually to make sure that expansion doesn't occur too rapidly and the farm can't keep up with demand. The best way to begin would be to simply grow produce and raise a few animals. The farm should start to sell whatever products they can at some farmers markets in order to establish a customer and income base. Then, once they have customers who enjoy their products, want more, and believe in their mission they can begin to form their CSA. Once the CSA is established and successful in the community, expanding or perfecting the product line and reaching out to new customers can begin. The CSA will strive to feed as many people as it can on whatever land is available but because the exact land parcel is still to be determined, it isn't clear as to how many shares the community farm will be able to offer. The goal of the CSA will remain to serve a small regional area, so that it can help to increase food access in the rural community it is in.

Customer wants and needs:

Once the CSA is established, each year the farmers and founders will need to assess their business, and see which products worked the best, which may need to stop being produced, and add new products based on consumer desires. The CSA will be strongly based upon what the customers want and need, because of the strong goals of the CSA to assist in rural food access. Because of this, the CSA may think about in later years having an online market where customers can pick and choose what they would like each week in their basket. As the use of online interfaces increases over time, this may prove to be the most successful way to reach their customers, and allow them to get the products that they desire.

Motivation to buy the product:

Customers who are motivated to buy the product include those who are interested in gaining increased amounts of fresh, local foods from farmers that they can trust. Another motivation to buy the product will be because it is coming from a central location that also provides distribution for those who need or want the service. For those who are of lower-income levels, they will be motivated to buy the product because of the low cost being offered for such high quality foods. For the residents of Fair Haven without vehicle access, they will be motivated to buy the product because of the distribution services offered. These are the main motivations for buying these products, and there may be others such as specific products being offered, but that is to be determined once the business is established.

Distribution channels:

The distribution channels of the community farm will vary based upon each customer's desires. The community farm will offer the option to customers to have their products delivered to their homes, or to another central location such as a school or church if there are a large number of customers in close proximity to one another. The farmers will be able to adjust their online interface to reflect their inventory and their prices, so that customers can go online and customize their orders to be delivered. Customers will also have the option to become a member of a more traditional type of CSA program in which the farmers will determine what products and how much the members will get. If the members want additional products they will be able to go on the online market and add whatever they would like to their basket for the week. Any restaurants that the community farm provides food to will also uses the same type of online interface, but on a much larger scale, and the farmers adapt to this for restaurants and other large scale food service providers.

Quantity and frequency of purchase:

Customers will get their market products or CSA basket once a week, and will have to go online by a certain date and time in order to get their delivery. The delivery day will

change based upon the location, so that the community farm can have the most efficient delivery schedules. Restaurants will also have the same delivery schedule of once a week, and they also need to get their orders in by a certain date and time. If the locations of both restaurants and customers are located in close proximity, they will be delivered on the same day to increase efficiency. Customers will also have the option to pick up their orders from the main storage location if they are able to and prefer.

Income level of customer:

Because the CSA's main goal is to improve food access among those in the community, the price will be on a sliding scale to accommodate a variety of income levels. There will need to be a large enough group of medium to high-income level customers to be able to support lower-income residents living in the area. The variation of income level and the sliding scale will hopefully be able to support the range of customers and allow for diversity within the customer base.

Collaborators

Agencies:

This community farm will serve as an agency, and will also internally contain agencies, which are the individual farms that together make up the community farm. The farm will have farmers of all different types, including fruit and vegetables, a variety of meats, bees, grains & bakers, and dairy products. The community farm will contain 1-2 farms from each type, but will inevitably vary based on the desire and need of certain foods. Those farmers will be involved in the start up and will ensure success of the community farm. The farmers and founders are all motivated by a larger social mission relating to farming. The ability to grow and distribute healthy food to those who may not be able to gain access to it is something these farmers consider to be an honor. It is difficult at times, but the end result of a community having increased access to locally grown fruits, vegetables, meats, and other products at a cost that each of the individuals can afford makes all the difficult parts well worth it. The farmers are passionate about making their products accessible to people of all different backgrounds and income levels because they believe that everyone should be able to have access to high quality, healthy foods. This community farm will connect consumers who want local food to farms who are suppliers of that local food. The business will cut out many of the difficulties associated with logistics and distribution and instead allow for consumers to have an easier time accessing the local foods they desire and a less expensive cost.

Suppliers:

The community farm will need seeds, seedlings, lumber for buildings, any fertilizers, produce boxes and bins, infrastructure for washing, and many more items. Where the farm gets these supplies will depend on the price, and the location of the supplier and the

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farm. If the farm chooses to purchase local seeds within the state of Vermont, they may choose High Mowing Seeds, but if they are trying to save money they may go to Johnny's Seeds which are less expensive for many vegetables. This will likely be the pattern for many of the supplies that the farm will, and it will depend on the success of the farm and their own desires to be able to afford the local products if they choose to.

Distributors:

The farm will serve as a distributor, having multiple drop-off locations for CSA pick-ups, but there is the potential for partnering with a local food hub if there is one in the area to increase the distribution radius. If the product line gains so much attention that there is need for even more increased distribution, then there is an option to partner with a larger food distribution service, but they must have a similar mindset as the farm.

Partnerships:

Partners may include silent partners who support the ventures and ideas surrounding the business, but they may also include partners who are actively involved in the business. This can include local food hubs, and even community spaces where the farmers and founders can teach the community members about the food they're eating. Each farm that is involved is also a partner in the community farm. They all work together to make sure that the needs and goals of the business as a whole are met and working in a successful manner. They also work together to make sure that the wants and needs of the community are met. The community farm will also have partnerships with local restaurants and institutions such as schools and nursing homes. This will help to increase the awareness and the access of food in the community, and will increase business and revenue for the farm.

Climate

Political and regulatory environment:

Since this business works directly with food and agriculture, there are a number of political and regulatory bodies that need to be involved. In the beginning if this model is implemented only in Vermont those that would need to be involved include: The Department of Health, and The Agency of Agriculture, Food and Markets just to name a few. But as it expands to more states within the Northeast, and possibly even to the United States as a whole these bodies will vary from state to state. With the implementation of the Food Safety Modernization Act (FSMA) of 2011, the Food and Drug Administration (FDA) monitors food safety through all steps along the food chain, which now requires more work and economic resources for farmers. This becomes very difficult for small farms that have limited employees, money and time. Because of the difficulties associated with this, some small farms are exempt from the more stringent FSMA rules, but are still required to report all of their information to the FDA. Farms that are exempt must gross less that \$500,000 per year in income, and sell the majority of their products to qualified end users who are "consumers, restaurants, or grocery

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stores that are in the same state as the farm or that are within 275 miles of the farm" (Damewood, 2013). The farm will be selling to qualified end users, so if the farm is producing gross revenue of over \$500,000 annually, then they will need to understand and comply with the FSMA rules. These rules will have a significant affect on the way the business functions, and manages the products. The community farm will also have to comply with health regulations, and make sure that their entire infrastructure is approved for food storage and production. Complying with political rules and regulations is critical to the success of this project, and will ensure the success and impact the business can have on the community.

Economic Environment:

Using the town of Fair Haven, VT as an example for where this business could be located allows for certain conclusions to be drawn. As the median income level for Fair Haven is slightly lower than the United States average, there is a good chance that this type of business will be welcomed in the area (DeNavas-Walt & Proctor, 2015). This coupled with the low inflation rate that has been steadily decreasing over the past five years (U.S. Inflation, 2016), may mean that Fair Haven residents have a greater percent of their income to spend on their food. This can positively influence business, as residents may be more interested to try out the services that the community farm offers. This will also ensure that the wealthier populations will be able to afford the food, allowing the business to still make money on the lower-income customers. Anticipating that the economy will continue to function this way and the desire for local food continues to grow, the business will be able to thrive.

In the first few years of building the business, the main goals will need to be profitminded in order to create success in the future. The founders and farmers may need to make certain tradeoffs such as purchasing less expensive supplies and even accepting less personal profit to keep the money in the business. Once the business has existed for a number of years and the operation has found its niche there are some grants that the community farm can apply for to assist in the high costs. One grant that the community farm would be eligible for is the Community Food Projects Competitive Grant Program through the USDA. This grant is designed to assist community based food programs that help to assist in increasing food security in low-income communities (USDA, 2016). Making sure to keep track of grants that the community farm is eligible for will be beneficial in gaining enough capital to keep the business successful.

The CSA will be offered to customers on a sliding scale based on income level, so those levels have been identified based on a number of online resources including federal income tax brackets, and examining the cost of CSA's across Vermont. The following table is a preliminary estimate based on this online research, and is subject to change once the true cost of producing the CSA is calculated. The income range is based upon

Vegetable Only Meat/Vegetable/ **CSA Category Income Range CSA Dairy CSA** High Income Level \$65,000 and above \$800 \$550 Medium Income Level \$35,000-\$65,000 \$700 \$450 Low Income Level Below \$35,000 \$600 \$350

combined household income, and the CSA spans a traditional 22-week summer season ranging from early June until late October.

Social and cultural environment:

It is clear that the desire for local food in the United States is growing, and especially in the Northeastern states. If this farm is successful at filling a need in the area where it is located there is no reason why it shouldn't be successful. But there will come a time where the market is saturated, and there is no more room for new farms. This farm has unique characteristics in that it is not serving a typical population; instead it is trying to reach out to those who may not necessarily reach out themselves. This takes more effort on the side of the farmers and founders to build and sustain a customer base, but in the end the result will be achieving the original goals of those who founded the business. The demographics of the customers will vary, but assumptions can be made as to what those customers may look like in the town of Fair Haven. Food and agriculture are already a prominent topic of discussion in terms of the culture of Vermont, so this business would most likely add to that discussion as it is a new way of thinking about farming and CSA's.

Although there can be negative associations with the concept of subsidizing the same food for those of lower-income it is beginning to gain more positive recognition and socially lose the negative stigma associated with it. In the city of Los Angeles there are a number of restaurants that have two locations offering the same food and meals, but in the wealthier neighborhoods the cost is greater to be able to offer a lower cost in the lower-income neighborhoods (Strom, 2016). One restaurant, Everytable hope that the more affluent customers will understand that they are helping to allow the same quality food become available to those who couldn't necessarily afford it (Strom, 2016). The owners are working hard to allow the less affluent neighborhoods the same opportunities for eating out, something that residents may not have been able to do previously. Ventures like this one are beginning to pave the way for new ideas and opportunities that increase food access and food security in diverse ways. As business models like this one become more prominent, there is a high probability that the negative stigma associated with subsidizing lower cost food will fade, and this will become a social norm.

Technological analysis:

Utilizing technology in the most efficient way possible will allow for the community farm to be successful and create the most impact. Having the online market interface will allow for users and customers to log on at their own convenience and place their order at their own pace. The community farm will also utilize a variety of social media platforms such as Facebook, Twitter, and Instagram in addition to having a website in which all the current information is listed. The community farm will use Mail Chimp, an email platform service to send weekly updates about the products that are available and any additional information about them that may be necessary for customers. This helps to make things easiest for the customers, and allows them to fully understand all the products that are offered. After each year of the business the farmers and founders will need to consult on what technology worked the best for them, and if there are any new tools that will assist in the streamlining of their work. They will need to allow for time each winter to learn and become proficient with new technological tools.

SWOT Analysis

After conducting the 5C analysis on the community farm, the most important Strengths, Weaknesses, Opportunities, and Threats are summarized in a table to easily understand. The strengths and weaknesses are internal factors that the business can control for, and the opportunities, threats are external factors that occur separately from the business.

	Helpful	Harmful
Internal	 Strengths: High quality products are offered Low cost available for low-income Delivery and distribution services Increasing education and awareness around local food 	 Weaknesses: In the start up, the costs may be high and prevent growth Lower variety of products are sold because of the Vermont climate Prices may not be able to meet direct competitors because of scale
External	 Opportunities: Operating in a region that has low access to food Customers will be attracted to the new business Lack of vegetable farms in the area means there is not as much competition Local residents have decreased access to vehicles 	 Threats: High costs associated with purchasing land and other infrastructure Direct competition may be able to offer lower prices and wider variety FSMA guidelines could apply if the business grosses over \$500,000

Conducting the 5-C and SWOT analysis, allows for a complete understanding of where the business will fit into the larger food environment. Overall the feasibility of this business is high, so long as the right precautions are taken to ensure success. The community farm will have to be sure to promote the best parts of the business, including the low-cost and the delivery services that they will offer. These aspects of the business will draw customers in, and keep them attracted. The more harmful aspects of the business environment such as the high costs associated with purchasing land and starting a business will need to be strategic, and the founders will need to be sure not to grow too quickly. It is in their best interest to start out small, and to make sure that their marketing and business reach is as expansive as possible in order to obtain the largest amount of customers and business. This operation will be a success if the 5-C analysis is used as a guide, and the details for the business are strategic and well thought out. If those are accomplished there is no reason why this community farm shouldn't be thriving and increasing rural food access.

Conclusion

The progress and momentum that Vermont has created around increasing rural food access through agricultural ventures has been commendable. But the amount of Vermont residents that continue to go hungry indicates that there is still work to be done within the state. This project has allowed me to outline the progress that Vermont has begun to make towards increasing rural food access and present a new business that works to further increase this. Conducting interviews with a variety of food organizations and farms in Vermont to understand what their greatest successes and challenges have been, assisted in shaping the business plan for the future community farm. The 5-C Analysis was written based on examples from each of the interviews I conducted, as I determined what could work the best for my new business. Building off of the common theme heard in my interviews of the importance of bringing communities together around food to increase rural food access was the driving force behind the creation of the community farm. But, as it was discovered from the analysis, implementing a community farm such as the one described in this project has the potential to be very difficult, and has an inherent risk of failure. Success will hinge on the founder's ability to understand and prepare for this risk. Using the SWOT analysis will provide clarity to where the risk will be, and provide insight on how to alleviate risk. If prepared and started correctly, this community farm has great potential to have positive results that increase the community's access to food.

Because this project was completed in a short time, the interviews that were chosen had to cover many topics within the food system of Vermont. The interviews were as comprehensive possible, but if conducted with more time, a larger amount of interviews could have been done to further inform the research.

Other challenges I uncovered doing this research were mainly related to the implementation of the business. The criteria for success include a location in the right community, leadership by a group of like-minded individuals who strongly believe in their work, and targeting of the most needy populations. But, these variables cannot always be accounted for and have the potential to either prevent the community farm from being successful or make progress over time difficult. The high costs and small profit margins associated with farming, and this business's reliance on higher income residents to assist in subsidizing the lower income CSA members will be a challenge for the business to be successful. Recognizing the other weaknesses and threats of this business is important for the planning and success of the community farm. As the future founder of this business, conducting the situational analysis has allowed me to better understand all aspects involved that will result in a successful business and better prepare for the future, as the implementation of these plans come about.

In the future, the work being done on this community farm will be able to serve as a guide for new businesses who also wish to increase rural food access through agriculture, and who believe that conducting this on a community level is the best way to go about doing this. The situational analysis outlined in this report, although specific to the town of Fair Haven and the state of Vermont, will serve as a model to assist those who wish to begin a community farm similar to this. The analysis done in this report addresses almost every aspect of beginning and running an agricultural business, and showcases the importance of fully assessing and understanding the business environment in the start-up phase. Future research in other regions of the country would help in assisting the progression of this type of business model statewide. Gaining a better understanding about food access research and progress in other areas of the United States. As the awareness around rural food access increases it is the hope that this model for a community farm will be at the forefront of agricultural solutions for increasing rural food access.

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