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**REDESIGNING OUR CONCEPTION OF LOCAL FOOD SYSTEMS UTILIZING A  
VALUE-BASED APPROACH**

**HEATHER LYNNE RIESENBERG**

**MAY 2020**

**A Master's Paper**

**Submitted to the faculty of Clark University, Worcester, Massachusetts, in partial  
fulfillment of the requirements for the degree of Master of Science in the Department of  
Environmental Science and Policy**

**And accepted on the recommendation of**

**Prof. Ramón Borges-Méndez, Chief Instructor**

## **ABSTRACT**

### **REDESIGNING OUR CONCEPTION OF LOCAL FOOD SYSTEMS UTILIZING A VALUE-BASED APPROACH**

**HEATHER LYNNE RIESENBERG**

The goal of this study was to design a new method of evaluating and building local food systems which is based on a new conception of how we view local food. Beginning with a review of the current literature on how local food is defined and its apparent goals, I begin to pick apart the dated idea that local needs not be more complex than the 400-mile limit offered by the USDA. Utilizing the literature review, I bring together a host of values that local food seems to (want to) embody and use these to form a pathway toward the creation of ideal food systems. I then evaluate this new value-based definition by applying it to three separate case studies in Hardwick, Vermont, Fort Worth, Texas, and Prince George's County, Maryland. Each offers a unique perspective on food security, one of the six values embodied by local food, and provides insight into the ways this new system can be useful in working to make sustainable, equitable change in community food systems. I ultimately conclude that this new method which is value-centric in designing what our local food systems should look like is a non-comprehensive, valuable starting point to help us begin to evaluate our current food systems and how we would ideally like to see them.

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## ***1. Introduction***

The only widespread working definition of local food that we have available to us as participants in food systems is what the USDA gives us: any food product that has traveled no more than 400 miles from production to market.<sup>1</sup> This distance-based definition does injustice to the practice of local food systems because it fails to embody the values so closely connected to these systems. Through a thorough review of the literature available concerning local food and local food systems, I found that in order to build local food systems that are equitable, resilient, and dynamic, we need to start from the ground up, beginning with a thoughtful and consistent system of values that we can use to guide our actions in actualizing our ideal food systems. Purchasing local food is, after all, a nod to the communities behind the label. This action represents the practice of ethical, value-oriented consumption which acknowledges and directly benefits those communities for their commitment despite the threat of large-scale agriculture.

## ***2. Review of the Literature***

Though the USDA definition is most common, there many other ways in which local food is identified from place to place, and in order for this review to be comprehensive and applicable, each should have a place within our literature framework and analysis. For one, many times local will be advertised based on a specialty product that is significant for its origination from a certain place, rather than from close by.<sup>2</sup> The most well-known examples of this practice in the US are state branding programs which market products like Florida

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<sup>1</sup> Steve Martinez, et al., "Local Food Systems: Concepts, Impacts, and Issues," *United States Department of Agriculture: Economic Research Service*, no. 97 (May 2010): 3.

<sup>2</sup> Lauren Kaplin, "Energy (In)Efficiency of the Local Food Movement: Food for Thought," *Fordham Environmental Law Review* 23, no. 1, (2011): 143.

oranges, Vermont maple syrup, or Washington apples. The idea of *terroir* is similar to state branding, though French in origin, and it takes this ideology a step further. *Terroir* was demonstrated through qualitative research in Italy which suggested that foods could still be considered local within the country if they came from a region where there was a history and traditions of production of a certain food. This study expands the definition of local food to be “valued as a factor linking farmers and food products to a certain area” and stressed the importance of food traditions and land suitability.<sup>3</sup> Finally, another expansion on the definition of local food seeks to give the consumer a voice. Rather than relying solely on producers to assign the term, one set of researchers used qualitative research to understand how consumers perceive local and how their shopping practices are impacted by local food. The study found that “consumers negotiate the term local through relational consumption practices.”<sup>4</sup> More specifically, consumers have a more flexible relationship with local which includes factors such as convenience, health, and status.<sup>5</sup> These alternative definitions and characteristics of local food will be taken into account as we explore the nature and purpose of going local.

Working from the definitions generally accepted to be the standard for local food, the literature presented five key themes which further helped to define local food in terms of its advantages and disadvantages in comparison to non-local food. In addition to understanding

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<sup>3</sup> C. Bazzini, M. Canavari, “Is Local a Matter of Food Miles or Food Traditions?” *Italian Journal of Food Science*, 29 (2017): 152.

<sup>4</sup> Megan K. Blake, Jody Mellor, and Lucy Crane, “Buying Local Food: Shopping Practices, Place, and Consumption Networks in Defining Food as ‘Local’,” *Annals of the Association of American Geographers* 100, no. 2 (April 2010): 422.

<sup>5</sup> *Ibid.*

further what these themes meant in the context of local food, I used the literature to explore to what extent local food actually embodies them.

*i. CO<sub>2</sub> and energy conservation*

One major perceived benefit that the local food movement claims is a result of bringing food closer to home is a decrease in one's carbon footprint. It is commonly thought that decreasing the distance food must be transported to get from field to market will lower pollution rates because a shorter distance means less fuel needs to be used. According to the literature, the carbon benefits of distance-based local food are actually much more complex than what is thought and generally are not significant compared to the carbon pollution of other elements of agricultural production such as fertilizer and greenhouse energy use.

For example, one study done using a theoretical university's produce intake and its switch from distant to local tomatoes, lettuce, strawberries, and chicken concluded that the switch resulted in a significant decrease in GHG emissions.<sup>6</sup> This was largely due to the scale at which the university was purchasing this produce, and this was a stipulation mentioned in the results, the need to make changes at a large scale for the change to be impactful. Another paper agreed with these conclusions in that local food often needed to be shipped in large quantities to be worth it, carbon-wise, but stated that this often was not the case, due to the generally smaller scale of local food production and the use of less efficient means of transportation needed to move smaller amounts of food.<sup>7</sup> Unfortunately, smaller trucks and even airplanes are much less efficient than boats and trains, which means that for reducing energy in the transportation stage of production, it may be more useful to change to more

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<sup>6</sup> Bradley Striebig, Eric Smitts, and Samuel Morton, "Impact of Transportation on Carbon Dioxide Emissions from Locally vs. Non-locally Sourced Food," *Emerging Science Journal* 3, no. 4 (August 2019): 232.

<sup>7</sup> Kaplin, "Energy (In)Efficiency of the Local Food Movement," 140.



efficient modes of production rather than go local. A tangential conclusion which occurred throughout some of the literature was that although one could shrink the carbon footprint of food by shortening the distance it travelled, this decrease was insignificant in comparison to the footprint of food systems as a whole. It was found that out of the seven stages of production, transportation consumed the least amount of energy at 4-11% of the life cycle's energy.<sup>8 9</sup> Researchers in a paper by Gareth Edward Jones concluded that if we want to shrink the food industry's carbon footprint, we must start production stage where much more energy is used for fertilizer, pesticide, and feed production or building and operating greenhouses.<sup>10</sup> Overall, it was concluded that it is a misconception that going local can significantly reduce the carbon footprint of consumers or the food industry as a whole.

*ii. Local economic welfare of farmers and consumers*

A second common benefit attributed to going local is its economic benefit on both the farmers producing locally and the surrounding community who can often feel the effects of supporting their own economy. In the field this type of benefit is the effect of what is referred to as the creation of a 'sustainable community'.<sup>11</sup> Research on sustainable communities is generally scarce, and finding literature with the focus of food was even more difficult, understandably, given the complexity of analyzing community economic vitality based on a single factor. That being said, there is some literature that exists which focuses more on

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<sup>8</sup> Ibid, 152.

<sup>9</sup> Stacy M. Philpott, "How to Make 'Local' Food Good Conservation, Too," *Cool Green Science*, 29 March 2014.

<sup>10</sup> Gareth Edward Jones, et al., "Testing the Assertion that 'Local Food is Best': The Challenge of an Evidence-Based Approach," *Trends in Food Science & Technology*, 19 (2008): 265.

<sup>11</sup> Alex Franklin, Julie Newton, and Jesse C. McEntee, "Moving Beyond the Alternative: sustainable communities, rural resilience and the mainstreaming of local food," *Local Environment* 16, no. 8 (September 2011): 771.

individual advantages and disadvantages of going local. For example, Hinrichs found that these local, direct transactions were economically beneficial to some farmers and consumers, but that the predetermined economic status of both parties dictated whether participation would be worth it.<sup>12</sup> Hinrichs explicitly stated:

“many direct agricultural markets involve social relations where the balance of power and privilege ultimately rests with well-to-do consumers. Struggling farmers and poor consumers, in contrast, must weigh concerns with income and price against the supposed benefits of direct, social ties.”<sup>13</sup>

This literature suggests that the notion of the sustainable community may only be accessible to those consumers and producers who already experience economic privilege and have the means to make this sort of transition to local markets. Another team of researchers analyzed the results of attempting to create a sustainable and resilient community: Stroudco, a community food initiative in the UK. This local food-based program sought to include socially deprived communities in an initiative and create a sustainable food system which promoted social, economic, and environmental resilience. Ultimately, the study suggested that local food community initiatives continually face the challenge of adapting to the economic means of the subcommunities they are working to serve.<sup>14</sup> The success of locally produced food in accessing and benefitting all members of a community is dependent on internal socio-cultural groupings of that community and how flexible the actors within the system are willing to be to be inclusive.

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<sup>12</sup> C. Clare Hinrichs, “Embeddedness and local food systems: notes on two types of direct agricultural market,” *Journal of Rural Studies* 16 (2000): 301.

<sup>13</sup> Ibid.

<sup>14</sup> Franklin, “Moving Beyond the Alternative,” 783.

*iii. Nutrition/food security and food deserts*

A third intended impact of supporting local food efforts is their role in both contributing to alleviating food insecurity and eliminating food deserts, but also offering nutritional and health benefits. After all, many individuals consider local food to be inherently healthier than its alternatives.<sup>15</sup> This is obviously a wide field of impact to consider, but nutrition, food security, and food deserts often go hand in hand. Much of the literature on this topic looks specifically at the impact of farmer's markets, one way of direct-marketing local food, rather than local food as a whole.

The literature analyzes farmer's markets in a number of different ways relating to this theme. For example, one study, which looked at Washington state's urban and rural area food deserts concluded that farmer's markets could be impactful in removing the food desert status of urban communities, but they were generally not sufficient to change the status of rural areas.<sup>16</sup> Another author whose article aimed to critique and ultimately condescend the dichotomy between localism and supercentrism<sup>17</sup> spoke extensively on the perception versus reality of farmer's markets. The comparison found that farmer's markets had a limited role in increasing fruit and vegetable intake, decreasing the persistence of food deserts, and that it was difficult to measure whether farmer's markets encouraged healthier eating in general because most people rely on several outlets to shop and could be buying more processed

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<sup>15</sup> Blake, "Buying Local Food," 422.

<sup>16</sup> Jeremy L. Sage, Vicki A. McCracken, and Rayna A. Sage, "Bridging the Gap: Do Farmer's Markets Alleviate Impacts of Food Deserts?" *American Journal of Agricultural Economics* 95, no. 5 (October 2013): 1278.

<sup>17</sup> Supercentrism is the belief/mindset that supercenters and huge grocery markets are the most efficient and useful way in helping the most amount of food reach the most amount of people.

foods elsewhere.<sup>18</sup> This analysis additionally concluded that “little is known about the impact of supercenters vs food retailers on the nutritional quality of purchases and subsequent health,” suggesting that there is not enough evidence available to attribute better health outcomes to alternative food networks more generally.<sup>19</sup> A final study suggested that local urban agriculture could increase access to produce among low-income communities but that there is a growing criticism that there is not enough evidence in the field yet to confirm this. Ultimately, there seems to be no conclusive agreement on the impact of local food outlets, specifically farmer’s markets, on nutrition and food security in their respective communities. A main recommendation is that more literature should be written on the subject.

*iv. Environmental conservation*

Beyond energy conservation, there is some association of sustainability that is attached to the local food movement whether it be water or land conservation or agroecological production methods.<sup>20</sup> Rather than results, on farm conservation is generally measured based on practices traditionally tied to sustainability. The USDA Economic Research Service reported on the use of conservation practices comparing direct-to-consumer (DTC) and non-DTC farms in 2012, finding DTC farms to be not so progressive compared to non-DTC (consider DTC to be synonymous with local).<sup>21</sup> While DTC farms were more likely to harvest biomass for energy, produce alternative energy, and possess conservation easements, non-DTC farms were more likely to use no-till practices, use conservation tillage, and participate in land

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<sup>18</sup> Lindsey Smith Taillie and Lindsay M. Jaacks, “Toward a Just, Nutritious, and Sustainable Food System: The False Dichotomy of Localism versus Supercentrism,” *The Journal of Nutrition* 145, no. 7 (April 2015): 1380-1383.

<sup>19</sup> *Ibid*, 1381.

<sup>20</sup> Philpott, “How to Make ‘Local’ Food Good.”

<sup>21</sup> Sarah A. Low, et al., “Trends in the U.S. Local and Regional Food Systems: A Report to Congress,” United States Department of Agriculture: Economic Research Service, no. 68 (January 2015).

conservation programs.<sup>22</sup> The extent to which these practices actually substantiate conservation outcomes is not thoroughly discussed in the literature. This literature further concluded that if there were significant overlap between DTC and organic (organic being known to practice no chemical use and have strict guidelines), it could be stated that DTC practiced conservation more so than conventional farming, but there is no such overlap. Another opinion stated that there is no evidence to suggest that local systems are tangibly successful in conservation, but that there needs to be research done on best practices and ways to implement conservation practices.<sup>23</sup> The lack of literature in this area as well spoke for itself, suggesting that there is no conclusive evidence to suggest that local food is more successful in using conservation and agroecological production methods than traditional, large scale farming methods, despite this general assumption and association.

*v. Agency, empowerment, food sovereignty, and citizenry*

A final theme that historically correlates with local food revolves around capacity building in individuals and communities. Creating local food systems is said to have the benefit of empowering individual and community actors and provide a sense of citizenry. In contrast to the previous four themes, the literature generally agrees and provides evidence that these effects result from moving food to a local setting. One paper, focusing on a shepherding network of farmers in Northeast Iowa, suggested that local systems and communities of food were entirely beneficial to the actors within them, and more beneficial when individual farmers were engaged with each other.<sup>24</sup> This article went further to suggest that there was

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<sup>22</sup> Ibid.

<sup>23</sup> Philpott, "How to Make 'Local' Food Good."

<sup>24</sup> Arlene E. Enderton, "Shepherding community engagement to strengthen the local food system in Northeast Iowa," *Journal of Agriculture, Food Systems, and Community Development* 7, no. 2 (March 2017).

positive feedback between the two factors: community engagement and local food. More community engagement strengthened the local systems and vice versa, which also strengthened the empowerment of each individual who became part of a community. This insight was limited in that it focused specifically on engagement of farmers. Another theme which emerged was the empowerment of the consumer to decide the modes of production for their food, which can be seen specifically through the use of CSA's and the French parallel (AMAP). When consumers are directly linked with the producers of their food, they have more power over what they are consuming because they have the ability to know what they are getting and choose between alternatives.<sup>25</sup>

Some of the literature focused more on food sovereignty, seeing local food and food sovereignty going hand in hand as necessary in the fight against the growing global food system.<sup>26</sup> The Rachel Carson Center suggested just this, stating that local food systems built community, and food sovereignty was an obvious end goal from them, associating both with economic prosperity and empowerment, and many of the subjects discussed earlier as benefits of local food systems. Overall, the literature suggests that local food is rightfully connected to individual and community empowerment at both the consumer and producer level. Being closely connected to one's food system allows for engagement, choice, and power which are not available when participating in the global food system.

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<sup>25</sup>Sophie Dubuisson-Quellier and Claire Lamine, "Consumer involvement in fair trade and local food systems: delegation and empowerment regimes," *GeoJournal* 73, no. 1 (2008).

<sup>26</sup> Michel Pimbert, "Food Sovereignty and Autonomous Local Systems," *RCC Perspectives* No. 1, Think Global, Eat Local: Exploring Foodways, (2015): 37.

*vi. Analysis of the literature review*

Following a review of the literature, further analysis is needed in order to move forward productively from the literature review. This analysis will include an examination of conclusions on the key themes explored and the development of a new structure for local food systems which is value-based and emphasizes distance less and narrative more.

In analyzing the five key themes I explored more in depth, it seems that all are in contention except for the final theme: agency, empowerment, food sovereignty, and citizenry. There seems to be truth in the extent to which local food contributes to these values, at least for those who are able to participate. That local food does embody this final, community-centric theme should be noted moving forward as a good place to start, and we should be thinking about the community first when we are designing local food systems as this seems to be working well. Much of the inconclusiveness in the other four themes seems to come from a lack of comprehensive research on the effects of local food systems on environmental and energy conservation, food security, and economic welfare, which is understandable given their complex and somewhat nuanced role in our communities. Beyond case studies, it is difficult to draw general conclusions about the effects of local food systems, especially because they are, well, place-based and therefore can have significantly different impacts depending on the community they exist within. Sometimes they may accomplish one or some of the above themes, but this seems to be case dependent and often a side effect of going local rather than a direct result.

*vii. A values-based narrative for local food*

In tying together my dissatisfaction with current local food definitions and the inability of local food to measure up to the outcomes it claims to pursue, I have found that we must

reevaluate how we define and pursue local food. The current conception of local is limiting because it focuses on the literal definition of local (short distances) when it should be highlighting the values attached to it which make it an alternative food network in the first place. From the literature emerged six values that were stressed either implicitly or explicitly as essential to the pursuit of local food systems:

- 1) Economic stability and equity for producers
- 2) Commitment to environmental sustainability
- 3) Empowerment of food system actors
- 4) Universal food security
- 5) Reduced community vulnerability
- 6) A narrative and relationships that connect links of the production chain beyond logistics

The value of economic stability and equity for farmers reflects a commitment of local food systems to economically support the farmers who are producing food. Local food should be affordable to purchase while also supplying its producers with, at the very least, a modest living. The second value very purposefully uses the term commitment due to the ever-present environmental burden that agriculture places on the earth. Although it is almost impossible to make a farm entirely sustainable, our food systems should commit to sustainability-focused endeavors whenever possible. The third value insists that beyond economic stability, local food systems should give the producer and the consumer more freedom and capacity in deciding how they are participating in their food systems. For farmers this means having control over what and how they are producing and for consumers, this often means not being forced to choose the cheapest, brandless option at a supermarket, and being given more information about the origins of what they are consuming. Value four is seemingly obvious but has underlying consequences. Our ideal food system should work to provide adequate food to consumers to meet their needs, but additionally, it often should be



able to feed its own community rather than solely exporting to markets (even if this means to the closest metropolitan area) where they may feel there are greater economic possibilities. The fifth value stresses the importance of a local food system serving its community. Food systems should be built to last and have the infrastructure necessary to withstand the ups and downs that come with any market. Despite being a single aspect of a community, a stable and supportive food system has the capacity to build resilience within its community to the ever-growing risks of large-scale agriculture. Finally, value six, the existence of a narrative and relationships which connect stages of the food system, seeks to fulfill the vision that food can revert back to something more than simply a commodity. Food systems should aim to organize longstanding networks of people and relationships that enhance food products to include a narrative which can connect the consumer to entire production chain.

These values are likely not exhaustive but do present a foundation for building new food systems that support the communities in which they operate. They are understandably rooted in the five themes of local food that were explored in the literature review, but they are meant to establish a starting point for constructing local food systems rather than act as end results or side-effects. These values should be inherent to our food systems if we want to move away from the status quo which allows food to many times hold us hostage structurally, socially, and economically.

### ***3. Testing the value system in context***

Local contexts have a crucial role in determining which of these values should be prioritized and how they should be operationalized. One of the important aspects of restructuring our conception of local food is that we must come to an understanding that there is no one-size-fits-all definition to an ideal food system, they cannot all look the same and be successful.

This is because each place has a different set of needs and would benefit from giving preference to certain of the above values over others. These six fundamental values are useful as guiding principles for beginning to think about how to change our food systems, but ultimately it is essential to take into consideration how the community at hand will best be served.

I will be testing the usefulness of this system by utilizing three case studies which all face a similar concern: embodying value four, food security. These cases in Hardwick, Vermont, Fort Worth, Texas, and Prince George's County, Maryland all are working to try to feed more of their people with local food structures and programs. They offer an excellent example of how from community to community, there are unique needs to be met by food systems. Hardwick, VT, the main case study included, struggles with ensuring that a substantial portion of their locally-produced food is actually maintained in the area in order to feed northeastern Vermont.<sup>27</sup> In Fort Worth, TX, efforts to build local food systems are the result of an abundance of food deserts within the metropolitan area and a specific lack of fruits and vegetables to residents. Finally, we will evaluate Prince George's County, MD where communities are overwhelmed by prepared food as their main food outlets and suffer from unusually high health risks.

The question I will aim to answer is this: *How can we operationalize this new value-based system to help communities actualize local food systems that meet their unique needs, and how useful is it at doing just that?* I've chosen three contexts that all have the similar focus of food security because this will help to focus our discussion and better understand

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<sup>27</sup> Ben Hewitt, *The Town that Food Saved: how one community found vitality in local food* (New York: Rodale, 2009).

how this general value structure can be pliable to different circumstances even within the narrow scope of food security which presents numerous challenges. Ultimately, it would be ideal to evaluate the value system by zoning in on each value and examining how the system can be useful in achieving a wider range of community goals, but that must be a future endeavor.

#### ***4. Methods***

This case study utilizes two research methods, a secondary literature review of case studies and a series of semi-structured interviews. These two methods were useful compiled as they were able to cover the current evidence available and offered an element of new knowledge through current actors. I chose to do a secondary review of the literature because I needed foundational knowledge about how we perceive local food systems, how we define them, and that evidence exists to show that we are indeed meeting our goals as we actualize local food systems. I utilized JSTOR, the Robert Goddard Library, Google Scholar, and my professor to find a comprehensive body of literature to analyze. The second method, semi-structured interviews, I chose because interviews allowed me to create primary knowledge by involving the first-hand voices of folks with experience in local food systems. Hardwick, Vermont was accessible to me, and so I designed a mini case study and interviewed two participants. I made contact via phone and email and performed phone interviews that lasted 30 and 60 minutes each using IRB protocol. Participants, once interviewed, helped lead the researchers toward people of interest who were then reached out to. A list of questions was prepared in advance and can be found in the Appendix of this paper, but questions were followed

loosely, and interviews were highly conversational.<sup>28</sup> Interviewees were then asked for any contacts or information which might be relevant to the researcher.

I performed two separate methods of analysis of my data within this research. First, when analyzing my compiled body of literature, I was careful to organize the literature into five themes that I had preconceived before beginning research, and read it based on that organization. I chose the categories that I did because they aligned with common beliefs that exist about the benefits of eating locally. I then assessed each piece within the context of the five themes, testing it against that preconceived belief. I ultimately concluded the extent to which each theme could be held up as a true notion about and benefit of local food systems. The second method of analysis which I used for the interview data in this research was inductive in nature, as I organized my data into three themes only after I collected it. The three themes I chose to use emerged from what participants spoke about similarly and where their interviews were interwoven. From there I related the data back up against my original research question and further spoke about it in the context of my literature review. For the two additional secondary case studies, I followed the same approach, finding common themes and relating them back to my original research question.

There are several limitations which must be addressed in this research. The first is a lack of comprehensive primary knowledge and participants in the interview section of research. Due to outstanding circumstances surrounding COVID-19 which began to have an impact right in the middle of data collection, I was unable to interview as many folks from Hardwick as I would've liked. The pandemic created much stress both in my life and the life of my

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<sup>28</sup> Appendix A.

participants, and so interviewing more than two people was unrealistic. I had also planned to go visit the town and widen my knowledge but was unable to due to the unforeseen circumstances of COVID-19. Therefore, this limits the applicability of my data and my ability to analyze Hardwick. Although I can get an answer to my research question from those interviews, it is likely my perception of the experience of the town is not wholly accurate because I was unable to accommodate for more voices.

Another limitation to my methods were lack of funds and therefore lack of access to all the research that would be relevant to my literature review. I pulled from free databases and had to leave out relevant works which were not free to access. I also spent less time on this portion, only three months, than I believe is necessary to comprehensively review the literature on a subject. This being said, I gathered a total of 42 sources, making my conclusions generally significant.

Finally, the method of using inductive data is a limitation because there are no objective conclusions to be made with the data. We are trying to make conclusions on a subjective value system based on what we find, which is data that can always be disproven. Our lack of comprehensive data also further limits the usefulness of an inductive approach which generally is only able to establish patterns and find commonalities.

##### ***5. Hardwick, Vermont and the northeastern region***

Hardwick is a small town of 2,868 people in the northeastern corner of Vermont in the county of Caledonia, which has a population of 30,425.<sup>29</sup> The area's staple economy for as long as the folks there can remember has been dairy.<sup>30</sup> Beyond dairy, northeastern Vermont

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<sup>29</sup> United States Census, *Annual Estimates of the Resident Population for Incorporated Places: April 1, 2010 to July 1, 2018, Vermont*, "sub-est2018\_50,".

<sup>30</sup> Hewitt, *The Town that Food Saved*.

is fairly agricultural with 585 farms in Caledonia county alone.<sup>31</sup> Whether it is due to Vermont's smaller size or rural nature, an overwhelming portion of these farms are quite small by today's standards, with 95% of them holding fewer than 500 acres and 72% of them holding fewer than 180 acres. Measured in sales values, 83% of these farms are valued at less than \$100,000, and 35% are valued at less than \$2,500.<sup>32</sup> Smaller scale agriculture is a staple of the region.

Although agriculture has continually been fundamental, within the past 30 or so years, a local food movement has emerged which has made Hardwick, and the surrounding region, quite famous.<sup>33, 34</sup> The story is that Hardwick, dependent on agriculture to stay afloat following the decline of the granite industry, was revitalized by this transformation toward benefitting farmers for producing local and place-based products. With an economy slowing as folks tended to move toward bigger cities, away from areas like Hardwick, the region needed some sort of momentum to help uplift those who still sought out rural life. Members of the community began the project individually and collectively to put Hardwick back on the map, and that's exactly what's happened.<sup>35</sup> In 2008, the New York Times came to town to get the scoop on how local food was revitalizing Hardwick, and Ben Hewitt wrote a book titled, *The Town that Food Saved: how one community found vitality in local food.*<sup>36</sup>

In the book, Hewitt asks many questions about how the food system was affecting change: is the food profitable for farmers? Do locals actually eat the food? Is this system

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<sup>31</sup> 2017 Census of Agriculture - County Data: Vermont 223.

<sup>32</sup> Ibid.

<sup>33</sup> Burros, Marian, "Uniting Around Food to Save an Ailing Town," *The New York Times*, 7 October 2008.

<sup>34</sup> Shields, Keith, "Hardwick, Vermont: The Poster Child for Local Food Movement," *New Hampshire Public Radio*, 18 May 2010.

<sup>35</sup> Hewitt, *The Town that Food Saved*.

<sup>36</sup> Burros, "Uniting Around Food".

truly creating community? In its final chapters, Hewitt concludes that the system was doing all of these to some extent, but there was one very apparent drawback. Very few citizens in the region could afford to each much of what was locally produced, so farmers were utilizing markets in Boston, Providence, and New York. Therefore, many folks in the regions were still attaining most of their food from larger retail outlets and places where large-scale agriculture was the main supplier.<sup>37</sup> On the other hand, there had been substantial growth and profit in farming due to these circumstances, as there was an increase in related jobs, and it became worth it to consider a career in local, more place-based agriculture.<sup>38</sup>

These circumstances are what make Hardwick an excellent case study. Hardwick's experience details an important perspective when it comes to local food working to create food security. The local food system in Hardwick and the area, although flourishing for producers who are outsourcing their Vermont-made products, is currently working to make itself beneficial consumers within its community which is a crucial factor to Value 4 of our new structure. This case study presents the difficulty of balancing all five values while operationalizing this system. Hardwick is currently finding itself caught in the middle between Value 4 which prioritizes the needs of consumers with Value 1 which prioritizes the needs of producers. It is essential to find a solution to this delicate balance if we are to continue forward with this new value-based food system.

## **6. *Fort Worth, Texas***

Fort Worth could not look more different from Hardwick. The city, with a population of just over 895,000, ranks 13<sup>th</sup> in the nation and 5<sup>th</sup> in the state of Texas.<sup>39</sup> According to the July

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<sup>37</sup> Hewitt, *The Town that Food Saved*, 204.

<sup>38</sup> *Ibid*, 2.

<sup>39</sup> "List of United States cities by population," *Wikipedia*, Last Updated 11 April 2020.

2019 US Census Bureau estimates, Fort Worth is much farther south than Hardwick with a warmer climate, and looks demographically different as well.<sup>40</sup> Whereas in Hardwick's greater county, 96.1% of folks are white, 0.9% of folks are Black, and only 1.7% are Hispanic or Latinx in ethnicity, Fort Worth is much more diverse.<sup>41</sup> In the latter, 64.1% of folks are white, 19% are Black, and 35% are Hispanic or Latinx in ethnicity.<sup>42</sup> Hardwick has a lower median household incomes compared to the US average, with at \$49,348 whereas Fort Worth sits at \$59,255, yet the Fort Worth has a significantly higher poverty rate (16% as compared with 12.5%).<sup>43</sup>

Fort Worth's main concern when it comes to food security, which also differs from Hardwick's, is the 11 entire zip codes that can be defined as food deserts, and a notable lack of access to fresh fruits and vegetables.<sup>44</sup> Food deserts are areas where there is no access to a full service supermarket or grocery store within 1 mile, although usually food deserts offer an abundance of convenience stores and fast food chains. This is a concern because if families are finding a majority of their food from the latter options, it is likely that this food is high in sugar and fat content because these options are generally cheaper and more available.

Fort Worth offers a unique perspective as a case study because there have been recent initiatives in the city to increase access to healthy food via local initiatives such as community gardens and urban farms.<sup>45</sup> These initiatives prioritize empowerment of actors

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<sup>40</sup> "QuickFacts: Prince George's County, Maryland; Fort Worth city, Texas; Caledonia County, Vermont; United States," *United States Census Bureau*.

<sup>41</sup> *Ibid.*

<sup>42</sup> *Ibid.*

<sup>43</sup> *Ibid.*

<sup>44</sup> Salyer-Caldwell, Ann, Jing Chen, Michele S. Markham, "Tarrant County Food Desert Project: Nutrition Environment Assessment Report," *Texas Department of State Health Services*, (September 2013): 37.

<sup>45</sup> "How Fort Worth, TX, is Using Urban Farming to Improve Healthy Food Access & Economic Development," *Healthy Food Policy Project: Case Studies: Fort Worth, TX.*, Accessed 1 April 2020.



within the food system, or Value 3 of our new structure, by getting folks involved in the food production process and hope to benefit the community in ways beyond just providing them with healthier food.<sup>46</sup> This case study can be used to witness how operationalizing some values can actually work to benefit others as well, as we see Values 3 and 4 embodied together through a single initiative.

### **7. *Prince George's County, Maryland***

Prince George's County (PG County) is section of Maryland which borders Baltimore City, and is "one of the highest-income African-American majority counties in the country."<sup>47</sup> PG County, yet again, provides a uniquely different context where we can observe the usefulness of this value-based definition of local food. PG County's demographic and income makeup differs noticeably from our previous two studies. The county is 64.4% Black, 19.1% Hispanic or Latinx, and only 27.0% white, making it the only place we are studying where population is majority POC.<sup>48</sup> Using 2019 Census estimates, PG County also differs from our previous two case studies in that, as mentioned earlier, the county has a much higher median household income of \$81,969 and a poverty level of 8.3%, or half that of Fort Worth.<sup>49</sup>

Affluence aside, PG County is concerned with the aspect of food security which relates most closely to health. The area suffers from health inequities and generally high rates of weight-related chronic diseases.<sup>50</sup> It is thought that this is due to the fact that the county has too high a prevalence of fast food and unhealthy food sources. PG County does have

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<sup>46</sup> Ibid.

<sup>47</sup> "Prince George's County Food Equity Council: Taking on Food Swamps through Policy Change," *Healthy Food Policy Project: Case Studies: Prince George's County, MD.*, Accessed 1 April 2020.

<sup>48</sup> "Quick Facts."

<sup>49</sup> Ibid.

<sup>50</sup> "Prince George's County."

adequate numbers of healthy places to buy food, but because these only consist of about 45% of all available food outlets, what is labeled a “food swamp” is taking place where these conditions are drowning communities in health-related impacts and disparities.<sup>51</sup>

I have chosen to look at Prince George’s County because the dimension of food security that is the focus of policy makers in PG County is reducing community vulnerability, or Value 5 of our structure. By taking several policy initiatives aimed at providing folks incentives and resources for buying healthy, this case is working to promote community resilience in an indirect, but tangentially crucial way: prioritizing a food system that sustains the health needs of the people. This case highlights the intersectional nature of our value-focused definition of local food and shows the necessity of focusing on more than just food security when we are creating sustainable food systems.

## **8. Results**

### *i. Hardwick, Vermont: equitable local food system*

Three themes resulted from conversations with folks from Hardwick when speaking about the challenge of this inherent contradiction of values: 1) difficulties in balancing consumer and producer needs, 2) challenges of the Vermont context, and 3) knowledge that other food systems should take away from Hardwick’s experience. Although very few folks were able to interview due to global circumstances, those who participated brought about important knowledge concerning how Hardwick is addressing this issue.

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<sup>51</sup> Ibid.

*a. Difficulties in balancing consumer and producer needs*

This theme highlights the purpose of including Hardwick in this research because participants went into detail about the challenges of pursuing the food needs of consumers in a food system which is designed to value its producers. As mentioned previously, the experience in Hardwick is such that Value one, farmer equity and economic prosperity, is the focus of the local food system, so much of the content of the interviews was on how the economy was adapting to meet the needs of the consumers when that came to food security and affordability. While one participant suggested that locals were generally participating in the local food economy, although they still could more, the other suggested that not much change in this mindset had occurred over in recent years.

Both participants mentioned a number of aspects to this challenge. It seems that one large issue is that there is too much food being produced by the region to *not* export to larger economies. In order to make a livable profit, producers have to provide a quality product, which usually ends up being something value-added and high end, but they much also make a large quantity, and so they must sell outward:

“We’ve come to realize all this local production is great, but we’re still limited on being able to do it at a big enough scale to make enough money, and because of that that’s where we’ve seen some of these other things evolve about like infrastructure for us to reach down to Boston or NY.” – *J. Cleary, resident and involved consumer*

That being said, Cleary also sees a lot of locals buying food, specifically produce, which is able to be kept at a lower price. He does say that folks could be buying more local food, but that it is made easier by having co-ops and local stores well within reach whereas large retail marts are further away with the region.

“[S]o looking at that region in general, instead of being mixed, some of those farms are going to produce directly to the local population...and all their produce is sold, is purchased from local farms there. There are plenty of people that live there that do buy that produce and can afford it, you know produce is something that works pretty well, it’s just not that expensive even when it’s done well.” – *J. Cleary*

“[T]here still is a lot more we could do that would help the local farms if everyone was more focused on buying locally... But I’m sure that people like myself and a lot of people in Hardwick do purchase a much higher percentage than the general American consumer of local products.” – *J. Cleary*

On the other hand, Ben Hewitt, another local consumer and the author of the aforementioned book does not see the progress that Cleary mentions. Hewitt finds that there has been a continued focus on the prosperity of businesses and that the latter’s growth should stay a priority.

“It feels to me like in some ways it’s not changed a lot.. I guess in the sense that...there is still a sort of overall belief that we need to grow the businesses and have prosperous businesses in order to provide the jobs and that the first and foremost you know consideration is ensuring the sort of viability of the businesses.” – *B. Hewitt, author and community member*

Regardless of this viewed lack of progress, Hewitt believes it is not necessarily the fault of the town or members involved. He makes it clear that the solution is moving away from capitalist system because the system is ultimately ensuring that justice is not being found for both consumers and producers.

“Well let’s be clear, the inherent contradiction is a direct result of a capitalist economy, there’s, you know and so I guess I would say if anything and you know has changed for me over across the years, it’s an increasing awareness that we will continue to only eek out sort of marginal gains without an actual structural reset.” – *B. Hewitt*

“[Y]ou know it’s never been more apparent than it is right now, really, the extent to which our economy is really, really fragile, and the people are really, really dependent on the status quo and that things really in some ways really just haven’t changed that much.” – *B. Hewitt*

*b. Challenges of the Vermont context*

The second theme which came up within interviews was the extent to which the context of Vermont presented challenges to overcoming the contradiction between producer equity and consumer food security. Participants saw the size of Vermont, at just 623,989 as a limit to producers' abilities to maintain only local markets.<sup>52</sup> Because there are fewer metropolitan area and more producers, there is a much higher rate of competition among vegetable or milk producers if they confine their markets to local.

“And with small populations it only takes a couple vegetable farms to sort of provide produce for the local population. It only takes one or two cheese makers to provide that.” – *J. Cleary*

“[T]hey're targeting a high-end demographic but part of it is just the reality of there's also just targeting areas where there are a lot more people. You know Vermont, our population of the state is 600,000, and the state's population is actually shrinking. And if you look at a lot of the rural areas across the country, you will see that that our rural populations are shrinking,” – *J. Cleary*

This was presented as a challenge to farmers who would, in theory, like to sell a larger percentage of their product locally. Additionally, a concern that Hewitt presents as a challenge to selling locally in Vermont's community is a loss of identity. He brings up how it can be difficult for small towns to remain in a local mindset when the rest of the world pushes toward large-scale agriculture, and there is a reality of being forgotten if one does not join the fight.

“[B]ut I think we're all sort of in our rural communities trying to figure out what is, what's our place in a world that's sort of increasingly moving in the other direction. And, how do we create opportunities for people to have viable livelihoods and to stick around and keep our communities feeling vibrant and like places people really want to live,” – *B. Hewitt*

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<sup>52</sup> “Quick Facts.”

*c. Knowledge that other food systems should take away from Hardwick's experience*

Finally, participants reflected on what lessons Hardwick has learned as a town/region committed to sustaining a vibrant local food system and uplifting the priority of consumer's needs. Part of the goal of this research is to use participation as a way to move knowledge to other communities facing similar challenges, and both Cleary and Hewitt offered knowledge that other food systems should take when facing the difficult challenge present in their community and this paper.

Two general conclusions were made by both participants: support from regulatory authorities for agricultural endeavors and consumer education are both essential to creating ideal food systems. They each had different perspectives on these conclusions offering several entry points in making sustainable change where communities can begin. In terms of support from regulatory authorities, both feel that it is integral to have a supportive system that values the economy that local food provides. Hewitt mentions that land allocation is a useful tool to supporting farmers who would like to farm at a smaller scale.

“[T]hey can look at issues related to zoning and land access and looking and seeing how they can encourage this kind of enterprise through those mechanisms...You know, we're fortunate here to live in a sort of agriculture landscape in a state that really values agriculture. And which has pretty ag-friendly zoning regulations. But that's not always the case.” – *B. Hewitt*

On the other hand, Cleary focuses on government regulation through infrastructure as a method of supporting community food systems. He emphasizes the support of the government through funding, regulations which encourage rather than restrict the local agriculture, and the support of other private organizations.

“So, our local infrastructure with the land grant universities and service providers here in Vermont I think have been very supportive of these new ideas.” – *J. Cleary*

“Whereas like here the service providers say, ‘look that commodity stuff, that’s not what fits Vermont anyway,’ the whole system is a little, the Department of Ag. here is very supportive of all these direct market, local market type things,”  
– *J. Cleary*

Both participants also mention education as a crucial tool in helping to feed communities local food and promote growth of small-scale agriculture. Where Cleary comes at it from a specifically consumer standpoint, Hewitt focuses on school education which encourages agriculture as something youth should consider getting involved in.

“I think that they can within their communities, and within their schools even, give kids exposure to the possibility of agriculture and food-based enterprise as a viable and even desirable way of life, and sort of livelihood...Right now it’s basically the opposite of that. It’s either totally ignored or basically largely considered to be something that second-class citizens would maybe aspire to.”  
– *B. Hewitt*

“It’s hard for the consumer to tell if there’s no transparency on that, and some of that can come to better enforcement of the standards of say the organic label...Like somehow we need to make it easier for consumers to tell, but we’re fighting against you know the whole advertising industry that is always trying to confuse or convince consumers that theirs is the best, so I don’t know that transparency and fair labeling and good enforcement of standards.” – *J. Cleary*

Finally, Cleary offers up scale as an important factor in helping local food systems to maintain their ability to both feed folks and sustain a profit. Speaking about finding a balance between big agriculture and subsistence farming, Cleary states that communities have more than two options.

“I think we still have work to do, to build the infrastructure that will support this kind of mid-scale. Because we know we’re not going to expand up to the big scale, we just don’t have the land base to get to for in Vermont in general. But this is kind of economy of the middle or whatever people talk about it.” –  
*J. Cleary*

Both participants found that although Hardwick has much to do in finding a balance in fulfilling all of the values it hopes its food system will eventually embody, there are

significant lessons to be learned from Hardwick by other communities who are pursuing similar endeavors.

*ii. Fort Worth, Texas: Blue Zones*

In Fort Worth, the government is working to make local food easier to produce and increasing the abundance of fresh produce in effort to help empower folks within the food system and encourage people to become participants. The project is tagged the “Blue Zone Initiative.”<sup>53</sup> The project consists of several elements which look to increase the number of community gardens, urban farms, and aquaponics in communities where they are needed most.

First, in 2012 the Tarrant County Food Policy Council was created to collaborate with many of the actors in the current food system and put them into communication with one another. Second, “[i]n 2013, the Texas Department of State Health Services funded Tarrant County Public Health to perform a local assessment of all zones in the county identified as food deserts and to obtain local data on healthy food availability, cost, and quality for these areas.”<sup>54</sup> The results of this assessment eventually led the approval of a 5 year initiative known as the “Blue Zones Project” which utilizes economic well-being to incentivize communities into committing to the health of their members.<sup>55</sup>

In beginning the process of the Blue Zones Project, a committee was introduced to survey major cities across the US and find best practices for urban agriculture models. This working group also spent over a year gathering input from many experts in

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<sup>53</sup> “How Fort Worth, TX.”

<sup>54</sup> Ibid.

<sup>55</sup> Ibid.



gardening, food justice, and agriculture around the cities to ensure a community voice in the final directives. Ultimately, the final ordinance made changes to zoning laws to support urban agriculture in all the city's zones, making it easier for farmers to grow and sell product on lands of their choosing.

This policy does not offer monetary support or mandate the existence of local food production/sale in food desert zip codes, but rather it shows government support and acknowledgement of such initiatives, if they are pursued by folks in the community. It is too early for there to be an assessment of the impacts that stem from this initiative, but there was overwhelming support for its adoptions which is noteworthy.

*iii. Prince George's County, Maryland: Food Equity Council*

PG County followed a similar path to Fort Worth when it began a policy initiative that would address its food security concerns. In 2013, the city launched the Food Equity Council, a council which held equity specifically in mind as it built a platform for the most disadvantaged folks to be heard. The coalition is independent of the county and city government which helps it to stay committed to pursuing "both racial and economic equity in a way that is responsive to the needs of the community."<sup>56</sup>

The committee worked with a multitude of organizations, businesses, and actors to develop three points of intervention. The first policy is called SNAP to Health, and its purpose is to make it easier for low-income folks to utilize farmer's markets to buy healthy food. The policy creates a fund which is used to support farmer's markets in providing the technology necessary for farmers to accept SNAP credits, and it also

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<sup>56</sup> "Prince George's County."

creates a “double value coupon” which can be used to purchase twice the produce for the price being asked, empowering people to choose those healthier foods. The second policy focused on the limits placed on urban farming and lifting them to encourage urban farming as both a way of increasing produce access, but also economic initiatives. First the policy created an urban agriculture tax credit, therefore advocating for their persistence and financially backing actors. Second, the policy expanded the terms under which one could farm by making the county’s definition include for-profit ventures and widened the zoning laws to allow 73% of the county legal bounds for urban farming. The third policy changed vending machine laws to require that the contents of all vending machines on county property consist of at least 50% healthy food, and that those foods are put in the top selling geography of the machines. This is to help the county to stop contributing to the food swamp by providing healthier alternatives.

With this policy creation, the FEC addresses food security utilizing several different methods and points of entry. There is an emphasis on equity, which is novel when comparing this case to the former two. There is little evidence surrounding the outcomes of this policy, but it can be discussed in terms of its purpose and structure, similarly to the case of Fort Worth.

## **9. Discussion**

### *i. How useful is this value-based approach?*

These case studies offer three different experiences of three different places all after the same goal for their community: food security. Each is challenged by a different complexity of this common goal and together provide a breadth of evidence to examine this new values-based

approach to local food systems. The goal of this new approach is to create a foundation for rebuilding equitable and sustainable food systems and to evaluate current ones. These case studies show how we can do just that.

The case of Hardwick demonstrates an important lesson to be learned if we are to utilize this structure moving forward. The participants speak about the difficulty the region is having with prioritizing consumer needs within the local economy. It seems that the local food system has been made to work exceptionally in favor of farmers and producers with less thought to the consumers. This offers evidence for the concern that there is an important contradictory relationship in our value-based structure that must be overcome. Value 1 insists on prioritizing the needs of the producer while Value 4 insists on prioritizing the needs of the consumer. Hardwick shows that there is a complex relationship between these two actors that can be further complicated by circumstance. For example, Vermont's large agricultural population within a small state population means that many farmers must export their products in order to make a living.

This brings to light a number of things conceptually. First it brings into question whether this model is useful if it cannot be fully fulfilled and presents contradiction. But then a different question must be asked: should a model be generalized enough that it works perfectly and comprehensively for every place? This difficulty of meeting all the criteria equally reaffirms that this value-based model is meant to help communities to focus on what they need most from their food system. Hardwick shows the necessity of prioritizing different values at different times and how those priorities are likely to change over time. The Hardwick local food system was being built in a time when the priority was to help create jobs for a town that was severely lacking and reduce the vulnerability of a town which was

suffering from economic turmoil. Although the other goals could have been in the back of the minds of the community, Values 1 and 5 was prioritized and accomplished. Now it is clear to the participants that I spoke to that a different value must come forward—food security. A food system is not meant to be static and neither is this model. There must be a constant reevaluation of the needs of a community, and this model allows actors to reevaluate, and think about the different dimensions that should be considered in a food system, even if only one or two of them can be prioritized at a time.

This value-based structure is also meant to help folks be reflective on how these different aspects intersect, which can be seen in the cases of Prince George’s County, MD and Fort Worth, TX. In the former, we can see that PG County actors have found that there is an intersection between community vulnerability and food security and have built their local food model around this intersection. By utilizing multiple policies that approach local food from the producer (urban farm zoning), the consumer (SNAP and Health), and the government’s role (vending regulations), the case shows that no one policy is enough to fix a food system because there are always a multiplicity of factors at stake. Each of these policies intervenes to impact food security at different places, but they also intervene in different ways to reduce the community’s vulnerability. The urban farm zoning changes makes it easier for folks to economically benefit off of their farms and sustain them over many seasons, while the SNAP policy helps to make it easier for consumers to buy healthy options, thus working to support healthier diets which can prevent a whole host of diet-related chronic diseases which are prevalent among PG County. It is important to think about these intersections because generally you cannot improve one social problem if you do not work to

improve the others, and our value-based structure is useful in helping to point out these intersections.

The case of Fort Worth provides a good example of how food systems can be less equitable and sustainable if they do not see the important intersections that this value-based system highlights. Fort Worth's Blue Zone initiative works to empower food system actors (Value 3) by making urban agriculture more attainable through the change of zoning laws, but they have failed to consider that this single policy is not a long-term solution to their original stated problem of food deserts and food security. They fail to take into account that empowerment of actors to some extent also requires reducing vulnerability, finding equity for farmers, and increasing sustainability.

*ii. What can other communities take away from this?*

Substantively, there seems to be a fairly straightforward path to be taken from here for communities that want to build sustainable, resilient, and equitable local food systems. Each of the cases, regardless of their flaws, emphasized the use of collaboration between community members, the government, and food actors in designing their food systems. Both John Cleary and Ben Hewitt of Hardwick mentioned that their food system benefits from a government which listens to the needs of food actors and makes producing more feasible with laws that support rather than restrict the work of farmers. Both interviewees also spoke of the need for education of communities both in how food systems work, and why it might be a career worth pursuing.

In Fort Worth, this collaboration is seen in the creation of the Tarrant County Food Policy Council to oversee the solution to food deserts. Although their solution was less comprehensive than our ideal model would suggest, their process of community engagement

and inclusiveness of so many voices in the process is notable and worth following. They brought together actors from many different sectors of the food system and government and reached out to the surrounding community for input. Additionally, they utilized easing zoning law restrictions, something the folks from Hardwick mentioned they found important, in order to empower community members to take part in the food system.

PG County followed a similar process to bring a large number of voices to the table, but they were able to take it a step further than Fort Worth with their Food Equity Council. With a focus on equity, as the name suggests, PG County moved to find a multitude of policy interventions by ensuring that they stayed focused on whose voices were most important. By forming as an independent, nongovernmental body, they were able to further remove themselves from the bureaucracy which unfortunately often limits the extent to which policy can make change. The Food Equity Council utilized their relational power with the government of PG County in order to change zoning laws to help producers and provide funding to support producers.

I think what can be taken away from this study for communities pursuing local food systems is they need to utilize the places where power lies to uplift the needs and voices of the actors in their food systems. As mentioned in the previous section, the first step in building a food system is understanding the direct needs of the community, which should comprise the goal of the work, and how those goals intersect with other facets of a community whether those be social or economic. Our system of values that we present here can be useful in better comprehending the characteristics and outcomes that can result from an ideal system, but to find out what characteristics and outcomes are best for a certain community, those with the power to make change must listen to those who understand the

context of the current system, and this generally falls to the consumers and producers. Once this is done, it is the government's as well as other, power holding body's, responsibility to create policies and programs which support and fill these needs. When feasible, the people should hold the power in how change is made to support their food system.

*iii. Implications for Local Food System Development*

The future of local food systems looks bright but requires stepping out of our comfort zone and away from the way we traditionally see local food and food systems in general. We must begin to think critically, compassionately, and equitably about what the goals of our food systems should be, and how best we can achieve those goals with the participation of as many relevant actors as possible.

There is no perfect system or diagram for designing our food systems because each community faces differing challenges which guide the types of interventions it needs. We no longer can say to ourselves that simply adding a few farmers markets which do not take SNAP or encouraging folks to buy from an environmentally sustainable, yet highly expensive CSA will do the job and fix our system. We must evaluate the current food system of our community as well as the systems with which it interacts and take time to consider which values we want fulfilled by food in our community. For some communities where populations are more affluent, the goal may be environmentally sustainable local food which also begins to intervene with big agriculture, empowering the community to become more self-sufficient. In other places where there are an abundance of food deserts and low-income neighborhoods, the system may need to place higher value on food security and community resilience against vulnerability in order to combat intersectional challenges resulting from healthcare or economic disparities. These processes can begin with the value-based definition

of local food which this paper promotes, but ultimately it must end with strategic, inclusive, local programs, policies, and initiatives designed by the community's food actors and supported by greater power structures, whichever have the power to make sustainable and equitable change.

### ***10. Conclusion***

It is exciting that we are in a time and place where we no longer must force ourselves to be satisfied with defining local food as food that that comes from no more than 400 miles away. Not only can we embrace the complex nature of what it means to build a local food system, but we must if we are to ensure that food is produced and consumed equitably. That being said, the usefulness of food also should not be contained to physical sustenance. There is potential to utilize food systems to fulfill the greater needs of a community as long as we are prepared to take the time to find out what those needs are. The value-based system of reflecting on food systems I have presented here is by no means an exhaustive solution to the world's food problems. Rather, it offers a starting point and tool to guide the necessary process of thinking critically and reflecting on our current community food systems in order to build new, better ones that equitable, sustainable, and ultimately just.



## *Appendixes*

### *Appendix A*

#### Interview questions for folks in Hardwick, VT case study

1. Ben Hewitt wrote a book before the recession of 2008-2012 about the local food system in Hardwick, and one of his concerns was whether the food system would be able to withstand that recession. How did having a local-centric food system affect Hardwick's ability to withstand this market crash economically for each the producer and the consumer?
2. Following this event, how has local food evolved, and what has guided Hardwick's progress in the past 10 years?
3. One of the biggest questions at the end of Ben Hewitt's book, was how do we balance the aim of local food systems between providing economic stability for producers and ensuring that the local people are consuming this food? In 2008, it seemed that the former was prioritized, and locals were not a huge part of the consumer base. How has Hardwick shifted its priorities in this regard?
4. Do you know if locals are eating more local food/participating in the food system in Hardwick?
5. What kinds of policies, programs, and structures do you think should have been done differently over the past 10 years to make Hardwick's system more successful today in terms of striking this balance and feeding people? Who is responsible for these changes?
6. What aspects of Hardwick's food system are working, and why do you consider them to be successful?
7. Which ones need improvement, and why?
8. What can other communities like Hardwick that want to utilize local food systems to revitalize their communities take away from Hardwick's hard work?
9. What are Hardwick's goals for the future, and how do you see Hardwick evolving from here?

## ***Bibliography***

- Blake, Megan K., Jody Mellor, Lucy Crane, “Buying Local Food: Shopping Practices, Place, and Consumption Networks in Defining Food as ‘Local’,” *Annals of the Association of American Geographers*, 100, no. 2, (April 2010).  
<https://doi.org/10.1080/00045601003595545>
- Burros, Marian, “Uniting Around Food to Save an Ailing Town,” *The New York Times*, 7 October 2008, <https://www.nytimes.com/2008/10/08/dining/08verm.html.f>
- C. Bazzini, M. Canavari, “Is Local a Matter of Food Miles or Food Traditions?” *Italian Journal of Food Science*, 29, (2017). <https://doi.org/10.14674/IJFS-733>
- Dubuisson-Quellier, Sophie, Claire Lamine, “Consumer involvement in fair trade and local food systems: delegation and empowerment regimes,” *GeoJournal*, 73, no. 1, (2008).  
<https://doi.org/10.1007/s10708-008-9178-0>
- Edward Jones, Gareth, et al., “Testing the Assertion that ‘Local Food is Best’: The Challenge of an Evidence-Based Approach,” *Trends in Food Science & Technology*, 19 (2008), 265. <https://doi.org/10.1016/j.tifs.2008.01.008>
- Enderton, Arlene E., Shepherding community engagement to strengthen the local food system in Northeast Iowa, *Journal of Agriculture, Food Systems, and Community Development*, 7, no. 2, (March 2017). <https://doi.org/10.5304/jafscd.2017.072.011>
- Franklin, Alex, Julie Newton, Jesse C. McEntee, “Moving Beyond the Alternative: sustainable communities, rural resilience and the mainstreaming of local food,” *Local Environment*, 16, no. 8, (September 2011).  
<https://doi.org/10.1080/13549839.2011.574685>
- Hewitt, Ben, *The Town that Food Saved: how one community found vitality in local food*, New York: Rodale, 2009.
- Hinrichs, C. Clare, “Embeddedness and local food systems: notes on two types of direct agricultural market,” *Journal of Rural Studies*, 16, (2000). [https://doi.org/10.1016/S0743-0167\(99\)00063-7](https://doi.org/10.1016/S0743-0167(99)00063-7)
- “How Fort Worth, TX, is Using Urban Farming to Improve Healthy Food Access & Economic Development” *Healthy Food Policy Project: Case Studies: Fort Worth, TX.*”  
<https://healthyfoodpolicyproject.org/case-studies/fort-worth-tx>
- Kaplin, Lauren, “Energy (In)Efficiency of the Local Food Movement: Food for Thought,” *Fordham Environmental Law Review*, 23, no. 1, (2011).

- “List of United States cities by population,” *Wikipedia*, Last Updated 11 April 2020, [https://en.wikipedia.org/wiki/List\\_of\\_United\\_States\\_cities\\_by\\_population](https://en.wikipedia.org/wiki/List_of_United_States_cities_by_population).
- Low, Sarah A., et al., “Trends in the U.S. Local and Regional Food Systems: A Report to Congress,” *United States Department of Agriculture: Economic Research Service*, no. 68 (January 2015). [https://www.ers.usda.gov/webdocs/publications/42805/51173\\_ap068.pdf](https://www.ers.usda.gov/webdocs/publications/42805/51173_ap068.pdf)
- Martinez, Steve, et al., “Local Food Systems: Concepts, Impacts, and Issues,” *United States Department of Agriculture: Economic Research Service*, no. 97 (May 2010). [https://www.ers.usda.gov/webdocs/publications/46393/7054\\_err97\\_1\\_.pdf?v=42265](https://www.ers.usda.gov/webdocs/publications/46393/7054_err97_1_.pdf?v=42265)
- Philpott, Stacy M., “How to Make ‘Local’ Food Good Conservation, Too,” *Cool Green Science*, 29 March 2014. <https://blog.nature.org/science/2014/03/29/snap-magazine-local-food-locavore-conservation-environment/>
- Pimbert, Michel, “Food Sovereignty and Autonomous Local Systems,” *RCC Perspectives*, No. 1, *Think Global, Eat Local: Exploring Foodways*, (2015), 37.
- “Prince George’s County Food Equity Council: Taking on Food Swamps through Policy Change,” *Healthy Food Policy Project: Case Studies: Prince George’s County, MD*. <https://healthyfoodpolicyproject.org/case-studies/prince-georges-county-md>
- “QuickFacts: Prince George’s County, Maryland; Fort Worth city, Texas; Caledonia County, Vermont; United States,” *United States Census Bureau*. <https://www.census.gov/quickfacts/fact/table/princegeorgescountymaryland,fortworthcitytexas,caledoniacountyvermont,US/PST045219>
- Sage, Jeremy L., Vicki A. McCracken, Rayna A. Sage, “Bridging the Gap: Do Farmer’s Markets Alleviate Impacts of Food Deserts?” *American Journal of Agricultural Economics*, 95, no. 5, (October 2013).
- Salyer-Caldwell, Ann, Jing Chen, Michele S. Markham, “Tarrant County Food Desert Project: Nutrition Environment Assessment Report,” *Texas Department of State Health Services*, 30 September 2013. [http://www.tarrantcounty.com/content/dam/main/public-health/12-19-2013FOOD\\_DESERT\\_final\\_report.pdf](http://www.tarrantcounty.com/content/dam/main/public-health/12-19-2013FOOD_DESERT_final_report.pdf)
- Shields, Keith, “Hardwick, Vermont: The Poster Child for Local Food Movement,” *New Hampshire Public Radio*, 18 May 2010, <https://www.nhpr.org/post/hardwick-vermont-poster-child-local-food-movement#stream/0>.
- Striebig, Bradley, Eric Smitts, Samuel Morton, “Impact of Transportation on Carbon Dioxide Emissions from Locally vs. Non-locally Sourced Food,” *Emerging Science Journal*, 3, no. 4, (August 2019). <https://doi.org/10.28991/esj-2019-01184>

Taillie, Lindsey Smith, Lindsay M. Jaacks, “Toward a Just, Nutritious, and Sustainable Food System: The False Dichotomy of Localism versus Supercentrism,” *The Journal of Nutrition* 45, no. 7 (April 2015). <https://doi.org/10.3945/jn.115.212449>

United States Census, *Annual Estimates of the Resident Population for Incorporated Places: April 1, 2010 to July 1, 2018, Vermont*, “sub-est2018\_50,” <https://www.census.gov/data/tables/time-series/demo/popest/2010s-total-cities-and-towns.html#tables>