Bridging the Gap: Exploratory Case Study on Local Food and Local Food Insecurity in Tulsa Oklahoma, USA

Justin Makii
Bridging the Gap: 
Exploratory Case Study on Local Food and Local Food Insecurity in 
Tulsa Oklahoma, USA

Justin Makii

Thesis Advisor: Madeleine Granvik 
Evaluator: Cecilia Mark-Herbert
There are numerous individuals through their help and support enabled this project to seed, grow, and blossom. I would like to give special mention to the following:

Sofia Albért  
Michael Appel  
Lisa Brandborg  
Eileen Bradshaw  
John Cunningham  
Lindsay Doerr  
Madeleine Granvik  
Hallie Green  
Sofie Joosse  
John McCarthy  
Demalda Newsome  
Emily Oakley  
Katie Plohocky  
Bud Scott  
Rita Scott  
Mason Weaver  
Corey Williams  
and my family

Thank you all for the encouragement, understanding, and patience.
Contents:

1.0 Introduction: .............................................................................................................. 1

2.0 Aim: ............................................................................................................................ 2

3.0 Methodology and its scientific origins: ..................................................................... 3

3.1 Theory and Main Concepts: ....................................................................................... 3

3.1.1 Discourse and the Usage of PAR: ......................................................................... 4

4.0 Methods: .................................................................................................................... 5

4.1 Design: ....................................................................................................................... 5

4.2 Interview: .................................................................................................................. 6

4.3 Questionnaire: .......................................................................................................... 6

4.4 Ethics: ......................................................................................................................... 7

5.0 Background on Food Insecurity: .............................................................................. 7

5.1 Food Banks: ............................................................................................................... 11

5.1.1 Mobile Pantry: ...................................................................................................... 14

5.1.2 Food for Kids: ...................................................................................................... 14

5.1.3 Senior Servings: .................................................................................................. 15

5.1.4 Plant A Row: ...................................................................................................... 15

5.2 The Jewish Federation of Tulsa’s (JFT) Community Garden project: ....................... 16

5.3 Buy Fresh Buy Local: ............................................................................................. 16

5.4 Farmers’ markets: .................................................................................................... 16

5.4.1 Government Assisted Nutrition Programs at Farmers Markets: ......................... 18

5.4.2 Double Up Food Bucks: ..................................................................................... 20

6.0 Theory and Concepts: ............................................................................................ 21

6.1 Sustainable Development: ...................................................................................... 21

6.1.1 History of Sustainable Development: ................................................................ 21

6.1.2 Weak Sustainability: .......................................................................................... 22

6.1.3 Strong Sustainability: ........................................................................................ 23

6.2 Food Sovereignty: .................................................................................................... 23

6.3 The Local Trap: ....................................................................................................... 24

7.0 Results and Analysis: ............................................................................................ 25

7.1 Local Food: ............................................................................................................... 25

7.1.1 Geographically: .................................................................................................. 25

7.1.2 Economics: .......................................................................................................... 26

7.1.3 Political: ............................................................................................................... 30

8.0 Reflection points: .................................................................................................. 33

8.1 The Food Bank: ....................................................................................................... 33

8.2 Agencies: .................................................................................................................. 34

8.3 Farmers: .................................................................................................................... 35

8.4 Food Insecure: ........................................................................................................ 35

8.5 Research Observations: .......................................................................................... 36

8.5.1 Food Policy Council: ........................................................................................ 37

8.5.2 Farmers’ Markets: .............................................................................................. 37

8.5.3 Methods: ............................................................................................................. 38

8.5.4 Future Research: ................................................................................................ 39

8.5.4.1 Gender Studies: .............................................................................................. 39

8.5.4.2 Food Miles and Food Relief: .......................................................................... 40

8.5.4.3 Demographic Characteristics: ...................................................................... 40

8.5.4.4 Culture: .......................................................................................................... 40

9.0 Conclusion: .............................................................................................................. 40

Works Cited: .................................................................................................................. 42

Appendix A ...................................................................................................................... 47
Bridging the Gap: Exploratory Case Study on Local Food and Local Food Insecurity in Tulsa Oklahoma, USA

JUSTIN MAKII

Makii, J., 2013: Bridging the Gap: Exploratory Case Study on Local Food and Local Food Insecurity in Tulsa Oklahoma, USA. Master thesis in Sustainable Development at Uppsala University, No. 118, 49 pp., 30 ECTS/hp

Abstract: Food security as defined by the Food and Agriculture Organization of the United Nations (FAO) “exists when all people, at all times, have physical and economic access to sufficient, safe, and nutritious food to meet their dietary needs and food preferences for an active and healthy life.” This master’s thesis project is to be understood as the preliminary research for a future project focusing on implementing a participatory action research based approach with multi-stakeholder groups in the Tulsa community. The hope is to create a renewed common ground of action to facilitate efforts at reducing food insecurity, strengthening food security, and help create stronger sustainable local food systems and community. The local discourse on food security is examined in light of food sovereignty, sustainable development, and principles of participatory action research (PAR). A literature review along with multi-stakeholder interviews were used to acquire the data. The findings indicate the local food and food insecurity discourses in Tulsa are contested within and between stakeholders. To progress the discourse further and to explore the points of contention between stakeholders a PAR engagement is proposed.

Keywords: Discourse, Food Bank, Food Insecurity, Food Sovereignty, Local Food, Participatory Action Research, Sustainable Development

Justin Makii, Department of Earth Sciences, Uppsala University, Villavägen 16, SE- 752 36 Uppsala, Sweden
Summary: Food security as defined by the Food and Agriculture Organization of the United Nations exists when all people, at all times, have physical and economic access to sufficient, safe, and nutritious food to meet their dietary needs and food preferences for an active and healthy life. As an exploratory research project, the aim is to explore the local discourses on local food and food security and see if there are any conflicts or commonalities between discourses, which would present an opportunity for a participatory action research (PAR) engagement. Once in a PAR engagement the differences and commonalities within the local discourses will interact with discourses on sustainable development, food sovereignty, and principles of participatory action research.

Keywords: Discourse, Food Bank, Food Insecurity, Food Sovereignty, Local Food, Participatory Action Research, Sustainable Development
1.0 Introduction

If one were to think of food insecurity at all, perhaps the first ideas to come to mind are hunger and starvation. Perhaps also, when one thinks of hunger or starvation the first images that arise are of children from Africa, emaciated, save for the distinctive enlarged belly, a condition called kwashiorkor. Furthermore, the emaciated kwashiorkor stricken imagery connects hunger and starvation to poverty, being poor, or living in a “developing country.” The other side of the coin depicts places in the “Western World/Developed World,” like the EU or the U.S.A. as food secure places, and that people there have sufficient, neigh, abundant access to food. While there may be some semblance of truth to some of these assumptions, the following case study will challenge these assumptions about food insecurity through the process of trying to connect local food production to the food insecure in Tulsa Oklahoma.

In light of the recent food crisis of 2011, leading into 2012, and rampant hunger plaguing the Horn of Africa, where roughly 12 million people are affected, thousands have died, and thousands more are on the verge of death because of insufficient food and political turmoil (FAO, 2011a), speaking about the United States’ food insecurity woes seems to underscore the severity of such an internationally alarming situation. Though a far cry from the severe malnutrition and chronic starvation affecting the Horn of Africa and North Korea (Quinn, 2011), food insecurity in the U.S. rivals in size all but the top 24 countries in terms of population. With 16.6% of the U.S. population (over 50.1 million) experiencing food insecurity, 23.2% of that population are children (under 18 yrs. of age, approx. 17.1 million) (Feeding America, 2011), questions arise, how can a country, whose agriculture industry boasted earnings constituting 1.1% GDP in 2006 (1.1% of approx. 11 trillion) (FAO, 2010), have a food insecurity problem? Furthermore, how can a country with an average daily per capita caloric intake in excess of 3770 kcal (USDA ERS, 2011a; USDA ERS 2011b) a statistic some argue makes the U.S. the most food secure country in the world (EIU, 2012), and where 1220 kcal are typically wasted due to spoilage (USDA ERS, 2011a; USDA ERS 2011b) have a food insecurity issue? The numbers in these questions are buttressed by additional statistics from the Center for Disease Control and Prevention (CDC) showing a national obesity level of 35.9% (of the adult population, 17% under 19 yrs. of age) (CDC, 2011) and a national overweight level of 33.3%. These statistics further challenge the idea that the U.S. has food insecurity issues especially in light of an overall assessment from the CDC saying “diet and inactivity are cross-cutting risk factors, contributing significantly to 4 out of 6 leading causes of death in the U.S… and in 2008, medical costs associated with obesity were estimated at $147 billion.”

So what exactly does it mean to be food insecure in the United States? How is food insecurity being addressed? What role does local food play in addressing food insecurity? This body of research is a case study of food insecurity within Tulsa Oklahoma and the food security approaches therein. Compared to the national food insecurity average of 16.6%, Oklahoma has a food insecurity average of about 17.7% (664,890 people). 26.6% (244,050 children) of Oklahoma’s food insecure population are children under the age of 18.

This master’s thesis project is the preliminary research for a future project focusing on implementing a PAR based approach with the researches’ stakeholders in the Tulsa community. The hope is to create a renewed common ground of action to facilitate efforts at reducing food insecurity, strengthening food security, and help create stronger sustainable local food systems. While this research draws on the theoretical and practical history of Participatory Action Research (PAR), due to the constraints of time and other resources, a true PAR engagement with the stakeholders: the food insecure, agencies dealing with the food insecure, the food bank, and local food producers will be reserved for future research. Participatory action research is an active research approach that looks to not just create knowledge but to “improve the participants’ situation” (Greenwood and Levin, 2007, p.3). The initial goal is to understand the system(s) of local food, food insecurity, and food relief through the engagement of each stakeholder as motivated below.

---

1 Exists when people lack access to sufficient amounts of safe and nutritious food, and therefore are not consuming enough for an active and healthy lifestyle. This may be due to the unavailability of food, inadequate purchasing power, or inappropriate utilization at household level (FAO, 2011b).
2.0 Aim

This project sets out to examine the discourses on local food and food insecurity by examining the commonalities and differences within and between the discourses from stakeholders involved in local food production and the food insecurity. I will articulate the factors that contribute to the development of the discourse from the perspective(s) of each of the stakeholders, and how these factors shape the answer to a central question of whether local food can help mitigate local food insecurity in Tulsa Oklahoma. Additionally, this research tries to discuss the possibilities and constraints for partnership between food relief institutions and local food producers to both provide for the short-term food relief needs but also situate Tulsa with long-term sustainable food initiatives.

To begin to address the central thesis questions regarding food insecurity within America a focus on food insecurity within one state from the perspectives of one food bank, agencies involved with food relief, the food insecure, and local food producers will be the launching point. The exploration into these discourses will take place around a central global research question: What potential is there for local food initiatives to assist in mitigating food insecurity in Tulsa Oklahoma? The primary motivation for this question is the want to reduce food insecurity in the area in as holistic a manner as possible.

Food insecurity and food relief touch the lives of many individuals, families, and organizations. My investigation in understanding the system(s) of food relief begins by examining the food insecure, the food relief distributors, namely the food bank, and everyone in between, in this case the agencies. Furthermore, if local food were to be part of a solution for food security a dialogue starting with the local food producers to understand their perspective, context, and capacity to engage the food relief/food security system(s) will be a valuable undertaking in a PAR engagement.

What food insecurity is and how it is being tackled can largely be determined by those who are at the fore in mitigating food insecurity, in this case the Community Food Bank of Eastern Oklahoma (CFBEO). Understanding how key individuals at the food bank perceive food insecurity and how they see their efforts to mitigate food insecurity will be vital in better articulating the state of food insecurity and food relief currently operating in Tulsa Oklahoma. By probing the Food Banks current efforts, where they plan on steering their food relief, and with what resources, one can begin to see potential benefits from the established framework employed by the food bank, but also see potential areas for additional considerations, both inside and outside the established framework. Food Bank: How does or how can the food bank promote food security and food resilience through local food production?

At the other end of the food insecurity question are the food insecure. The importance in speaking with the food insecure is to understand better their viewpoint on food insecurity and food relief. To know from their experience how it is to be food insecure and how the food relief system(s) addresses their needs or does not. Perhaps new insights can be garnered that might better assist food relief efforts, or strengthen engagements between stakeholders. Integral to PAR is community involvement and participation where those who are food insecure have a voice and a capacity to transform their situation of disempowerment to one of empowerment regarding food (Kindon, Pain and Kesby, 2009). The question in this respect is how to help facilitate bottom up action to empower the food insecure. Food Insecure: How can local food or participation in local food production help reduce your food insecurity?

The Agency is another target group whose perspectives are worthwhile to understand. Effectively the middle person between the food relief from the food bank to the recipients of food relief the food insecure, agencies insights into the food insecurity/food relief system(s) can provide invaluable information on how food relief is conducted, how said relief is received, and how to change the system(s) to address, better, the needs of the food insecure. In conjunction with the aforementioned target groups, the agency perspective will round out an understanding of the food relief/food insecurity system(s) within Tulsa Oklahoma. Agency: What might be done to assist in promoting local food at this agency that would help reduce food insecurity?

Lastly, local farmers will be a focus for interviews to understand what role, if any, farmers can have in alleviating food insecurity in Tulsa Oklahoma. Local farmers in and around Tulsa will be contacted to see if they would be interested in assisting in the fight against food insecurity, if they have the capacity to do so, and how, from their perspective, such an undertaking might manifest. The primary goal is to see what space is available for local farmers
to provide food for the food insecure, what barriers or paths are open, and whether local farmers have the capacity and motivation to occupy this space. A key factor for this research is to see what space is available for local food producers to interact with the food insecure, the food bank, and the agencies in alleviating food insecurity within Tulsa Oklahoma. **Farmers:** How could you or a local food movement help mitigate local food insecurity? (Volunteering time to teach people how to farm, donation of produce, organizing community supported agriculture (CSA) initiatives in your neighborhood, getting established with a local farm to school program)

### 3.0 Methodology and its Scientific Origins

The principled methodology behind this research is that of participatory action research (PAR). For the most part today, PAR aims to, as Greenwood and Levin state in Introduction to Action Research, “generate knowledge claims for the express purpose of taking action to promote social analysis and democratic social change” (Greenwood and Levin, 2007, p.5). Though perhaps the definition put forward by Stephen Kemmis and Robin McTaggart, in Participatory Action Research (2005, p.580), is more compelling.

“The most morally, practically, and politically compelling view of participatory action research is one that sees participatory action research as a practice through which people can create networks of communication, that is, sites for the practice of communicative action...Based on such a view participatory action research aims to engender practical critiques of existing states of affairs, the development of critical perspectives, and the shared formation of emancipatory commitments, that is, commitments to overcome distorted ways of understanding the world, distorted practices, and distorted social arrangements and situations.”

Furthermore, accompanying this theory/praxis unification is the want to “perform these tasks with the same seriousness of purpose and cultivated discipline to which traditional university research has aspired” (Fals Borda, 2008, p.28). PAR is, and continues to emerge as a viable methodological practice.

PAR’s earliest manifestation stems from the work of social psychologist Kurt Lewin in 1946, in his work on intergroup relations titled *Action Research and Minority Problems*. Lewin advocated for a planning, action, research cycle. Lewin observes two basic facts regarding intergroup relations: 1) “there exists a great amount of good will, of readiness to face the problem squarely” 2) and want of “really to do something about it” (Lewin, 1946, p.34). Lewin further observes these wanting do-gooders “feel in the fog on three counts: 1) What is the present situation? 2) What are the dangers? 3) And most important of all, what shall we do?” (ibid, p.34).

From these observations, Lewin creates the planning, action, research cycle illustrated in figure (1) hitherto known as action research (AR). As with many ideas, for better or worse, humans evolve ideas and adapt them to the changing times and nuances of their situations.

Lewin’s research cycle starts with a plan or strategy for an outcome, the implementation of said plan or strategy, observations on whether the plan or strategy achieved the desired outcome, reflections on changing the plan or strategy, and then repeating the process with the new plan or strategy.

### 3.1 Theory and Main Concepts

A central focus for this research was to look into the different elements and similarities of what various people and stakeholders are saying about local food and food insecurity. This exploratory research is looking into the communication between people, their discourses on “local food’ and food insecurity. In essence, I wanted to find out what different actors know about local food and food insecurity. I wanted to have a discussion to see their interpretation of the local food discourse(s), to somehow...
assess the “communicative space, which is embodied in networks of actual persons,” as Stephen Kemmis put it (Kemmis, 2008, p.103).

### 3.1.1 Discourse and the Usage of PAR

Communicative spaces are discourse based; they take place in and between individuals and their engagement with discourses, but what is a discourse?

“Discourse is most simply understood today as a sort of unit of language organized around a particular subject matter and meaning. This can be contrasted to other ways in which language has been broken down into much smaller units of analysis, such as into individual words or sentences in studies of semantics and syntax” (Carling, 2012, p.1).

In this light and pertaining to this research, discourses on local food and food insecurity will be explored. More explicitly, I wanted to explore the differences and similarities in the content, meaning, and usage between the individual discourses (micro-discourse) to the broader discourse (macro-discourse) on food insecurity and local food from those interviewed. A farmer may understand local food in an entirely different way than a person buying produce from them. Thus, within the broad discourse on local food there are micro-discourses, discourses styled by the subjectivities of those participating in the discourse.

“These styles all never fully self-styled, for styles have a history, and those histories condition and limit the possibilities.” (Butler, 1999, p.139)

I wanted to see the limits a particular discourse had by a particular individual; to see how a persons’ thoughts were portrayed in language, but also how those thoughts shaped the world around them. As Wittgenstein in the *Tractatus* claimed,

**Proposition 5.6 “The limits of my language mean the limits of my world”** (Wittgenstein, 1974, p.74).

Discourses for the purposes of this experiment are thus used as a way to peer into the interviewees/stakeholders mind, as if glaring through a window of the mind. They allow us to see how the individual sees the world, for better or worse, and reveal a potential for new communicative spaces between different/differing micro-discourses.

As exploratory research for a larger project invoking PAR the focus at this stage is to listen to the discourse(s) on local food and food insecurity and see where it would be fruitful to form focus groups to mix different/differing discourses (micro-discourses) in hopes to create new found participation, knowledge, or discourses and action in reducing food insecurity in the Tulsa area. The importance of the next step, though not involved in this research will be elucidated to show why this first step is needed as well as show the methodological groundings for PAR, which underlies the whole of this research.

After phase I is established, phase II will consist of gathering groups of stakeholders together, initially homogenously to solidify a discourse(s) from one particular stakeholder group, trying to encapsulate the breadth and depth of a given groups perspective and experience. The homogenous groups will then intermingle forming several heterogeneous groups consisting of members of each stakeholder group. It is in these stakeholder groups (homogenous and heterogeneous) where discourse becomes critical. With an idea of what a discourse is and what discourses will be explored we can move to how we are going to be using discourse in these groups.


1) to reach *intersubjective agreement* as basis for
2) *mutual understanding* so as to
3) reach an *unforced consensus* about what to do that
It is through this four-step process that legitimacy arises between individuals, groups, and even society. Legitimacy arises when people are “free to choose – authentically and for themselves, individually and in context of mutual participation – to decide for themselves the following” (Kemmis and McTaggart, 2005, p.577):

a) What is comprehensible to *them* (whether in fact they understand what others are saying)
b) What is true in light of *their own* knowledge (both their individual knowledge and the shared knowledge represented in the discourse used by members)
c) What participants *themselves* regard as sincerely and truthfully stated (individually and in terms of their joint commitment to understanding)
d) What participants *themselves* regard as morally right and appropriate in terms of their individual and mutual judgment about what is right, proper, and prudent to do under the circumstances in which they find themselves

As the research will convey there exists a spectrum of meaning, understanding, and a multitude of micro-discourses surrounding the macro-discourse of local food. The next step that is beyond this research is to bring these similar and different perspectives together in a common space, a communicative space (physical structure) to engage in and transform the present micro and macro discourses, which is to say, to open communicative spaces with legitimate participation in local food but also in local food security.

Given the limitations of this research, a complete epistemological account of PAR is not feasible, but the aforementioned serve as a starting points for differentiating/comparing PAR from other forms of research. It is reasonable to see PAR as an appropriate methodological approach to the type of research conducted as well as an appropriate methodology for future, more involved research as eluded to earlier.

### 4.0 Methods

In this section, I will discuss the choices surrounding the design and methods of the research project. This research was designed from my personal experiences and knowledge, and utilizes interviews and a questionnaire. Ethical standards and procedures were followed to ensure the dignity, safety and anonymity of all participants. The details are as follows.

#### 4.1 Design

The motivations in section 2.0 focus on four stakeholder groups within Tulsa Oklahoma. The reason for choosing the location, Tulsa Oklahoma, and the stakeholders for the purpose of this study do not stem from any externally motivating circumstances but rather from a familiarity, convenience, and personal knowledge of the area and the system(s) of food relief and food insecurity therein. Having previously worked at the Community Food Bank of Eastern Oklahoma as a culinary assistant and participated in the local farmers’ markets in Tulsa Oklahoma, the choosing of the four stakeholders groups derives from my experience in working with food insecurity in Tulsa Oklahoma through my experiences at the CFBEO. Similarly, my experiences with Tulsa’s farmers’ markets facilitated easier information gathering given the time and resource constraints this project was subject to.

The research looks at examining discourses surrounding local food and food insecurity within and between multiple stakeholders in Tulsa Oklahoma during the spring and summer of 2012 (March –August). This project utilizes interviews (see Appendix A) for each stakeholder touching on local food and food insecurity. The design of the research aim, methods, and analysis is suggestive of research of a qualitative nature, that of “field observations that are analyzed without the use of statistics” (Dooley, 2001, p. 248). Furthermore, the gathering of information from the stakeholders during the summer of 2012 suggests the study is cross-sectional in nature, where “research examines characteristics of samples from different populations during the same time period” (Sproull, 1988, p. 365). Through comparing the cross-sectional responses from each stakeholder group between each other, triangulation, “which compares different interviews and perceptions of the same subject or behavior,” is achieved (Dooley, 2001, p. 249).
PAR has a rich history of using both qualitative and quantitative methods for achieving its research goals (Kemmis and McTaggart, 2005; Greenwood and Levin, 2007; Reason and Bradbury, 2008). The primary means of data collection for this research was through the engagement in face-to-face interviews. A questionnaire was created to garner information, and this will be elaborated on in section 4.3.

4.2 Interview

Interviews as a research method can range from rigidly structured, utilizing pre-established questions, to non-directive, where the interview can evolve according to the responses given by the interviewee (Lang and Heiss 1984). The interviews conducted for this project varied on the structured-non-directive spectrum depending on the interview. Some interviews followed the pre-established questions systematically, while other interviews took on a more conversational flow, where response oriented questions in addition to the pre-established questions were used to create a dialogue or a conversation between the interviewee and the interviewer regarding the topics of food insecurity and local food production. A conversational interview approach evolved as a means of establishing and maintaining rapport with the interviewee by providing a space for the interviewee to speak freely, frankly, and as open or closed as they deemed fit. Furthermore, interviews were beneficial in that they alleviated the guesswork in interpreting questionnaire data as to whether the question asked is interpreted similarly or differently than its intended meaning, as the context provides additional material for understanding meanings and interpretations (Sproull, 1988).

Interview questions were established for the food insecure, agencies, food producers, and the food bank along with questionnaires for the food insecure and food producers. Interviews were administered and recorded after informing all participants what the purpose, boundaries of the interview were, and once a participatory consent form was signed. Interviews ranged from 2 minutes to 2 and 1/2 hours and varied in content depending on the willingness and degree of engagement of the participant.

Interviewees from the food bank, agencies, and farmers were chosen based on the projects they were involved in, word of mouth (from some of the interviewees), their position in an institution, or their experience with the topic of food insecurity or food relief. For the food insecure, a different approach was used. After acquiring permission from a food relief agency to interview any willing “guest,” I would ask the food insecure individuals over breakfast whether they would like to participate in a questionnaire and interview. In some cases, “guest’s” approached me wondering what I was doing. Explaining what I was up to “guest’s” interested in the project would ask to be able to participate.

The other location for interviews with the food insecure took place at the Cherry Street Farmers’ markets’ market manager station. After acquiring permission from the market manager to conduct my research, I would ask SNAP participants if they would like to take a moment of time to be interviewed. Consenting participants were given the waivers and informed on the nature of the research and its outcomes. The recorded interview was conducted just behind the market manager station away from the immediate bustle of the market.

4.3 Questionnaire

Questionnaires can be used to “restrict the respondent to specific questions with specific answers in a specific order” and the initial implementation had this in mind (Sproull, 2008, p 195). Additionally, the questionnaire was used to acquire demographic information quickly, with minimal interference to the busy, often complicated, and pressed-for-time lives of the interviewee. The idea behind the questionnaire was to acquire demographic information about the food producers and the food insecure and see if this information would reveal. While this was the initial plan, I was not acquiring clarity or understanding of meaning regarding the central thesis question through the questionnaire. Additionally, the sample size was not large enough to make any statistical assessments so I switched approaches and conducted interviews exclusively. Furthermore, the complexities surrounding some of the individual’s lives would be lost in the response and in order to acknowledge these complexities further probing was necessary.

Interviews provided the most honest, holistic response that not only allowed the interviewee to engage the interviewer but vice-versa. Depending on the group, however, it was more difficult at times to be engaged on the
part of the interviewee. I am sure a number of factors contributed to this, but again this is why perhaps a group
meeting facilitated by a researcher will provide a more open engagement as would be seen in phase II.

Additionally, insight and information, touching on a number of areas of food security/insecurity, was garnered
through participation in two food policy councils (Oklahoma Food Policy Council (OFPC) and the Tulsa Food
Policy Council (TFPC)) and their monthly meetings; a webinar entitled “Healthy food, Healthy Economies;” two of
Sustainable Tulsa’s “First Thursday” meetings; and one of the Cherry Street Farmers’ Market board meetings. The
participation in these aforementioned groups provided overlapping stakeholder engagement and information. For
example, at the food policy council meetings city officials from the Tulsa Health Department (THD), nutritionists
from the Oklahoma State University extension and Tulsa Public Schools (TPS), farmers, agencies, and even
members of the public were participating in the discourses on local food and food insecurity. The same held true for
the cherry street farmers’ market board meeting and Sustainable Tulsa’s meetings.

In total 4 food producers were interviewed, 3 food bank representatives (1 from the Regional Food Bank of
Oklahoma (RFBO), 2 from the CFBEO), 11 food insecure, 5 agencies, and 5 food producers. While I have done a
fair number of interviews only about half of the interviews have been dictated due to the considerable time it takes
to process each interview. While much of the content of these interviews is not going toward this introductory
research, the author believes it to be invaluable for the overall future research project.

4.4 Ethics

Ethical principles for research set forth by the Swedish Research Council’s (SRC) expert group on ethics (Swedish
Research Council, 2011) were followed to ensure the protection of all participants from mental or physical harm,
humiliation, discrimination, or abuse for their involvement in this research.

SRC sets guidelines on which projects need ethical review, and while this project did not need review, ethical
standards were followed to provide participant protection. All participants were informed in writing and verbally
about the nature of the research, their voluntary participation, their confidentiality, and anonymity of all information
disclosed and generated by their engagement in the research, along with an explanation of how the information will
be used.

For scheduled interviews, a call was placed to setup the interview and inform them of the nature of the research and
of the ethical considerations in advance. Upon conducting the interview, the participant was informed once again of
the ethical considerations and presented two copies of a participant consent form, one for the participant and one for
me. If the form was signed yes then the interview was conducted, if no then the participant was thanked for their
time and no information was collected.

For interviews conducted on the spot, the participant was made aware of the nature of the research and was
presented with two copies of the participant consent form. If they agreed to the interview and signed the
participatory consent forms then the interview was conducted. If no, the person was thanked and left alone. To
ensure anonymity throughout the course of the writing process, some names have been changed to protect the
identity of the participant. In some cases, the position of a person at an institution could give away their identity so
for all participants keeping their position vague further increases their anonymity.

5.0 Background on Food Insecurity

Throughout the following section, I share global, national, and state statistics to situate this research and make an
attempt to answer questions of why it is relevant to examine the U.S. instead of any other chronically hungry,
famine suffering, or at risk of famine nation or group of people. In a world with enough food to go around where
everyone can have sufficient food for an active and healthy lifestyle plus a surplus there is no moral reason why over

---

2 These difficulties will be elaborated in section 8.4.
3 Speakers included Patricia Smith of the Reinvestment Fund, Dr. Oran Hesterman of the Fair Food Network, Jim
Weill of Food and Research Action Center (FRAC), Helen Dombalis of National Sustainable Agriculture Coalition.
1 in 6 on this planet are undernourished and many more food insecure. The causes are many, complex, and often times interwoven, interdependent, and intersectional⁴.

Food security has meant many things to many different people in many different places. In the wake of the food crises of 1974, food security was viewed by the World Food Conference of 1974 as the “availability at all times of adequate world food supplies of basic foodstuffs to sustain a steady expansion of food consumption and to offset fluctuations in production and prices” (FAO, 2006, p.5). Following this understanding of food security, efforts were made to address price fluctuations and ensure stable food supplies and reserves.

Assurances toward availability and price stability, while important, at the national and international levels are not sufficient in addressing food security at the household level (FAO, 1996; FAO, 2008). Realizing the exclusion of the household, the FAO in 1983 defines food security as “ensuring that all people at all times have both physical and economic access to the basic food that they need” (FAO, 2006, p.6). Examination of the definition of food security since the 1970’s culminates with the present and widely used definition put forward by the World Food Summit of 1996 held in Rome, which says: “food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life” (FAO, 1996, p.4).

Looking at the historical adaption of the definition of food security one can see the present definition addresses four key aspects or dimensions of food security: Availability, Access, Utilization, and Stability. Food availability addresses how much food there is. Food availability “addresses the “supply side” of food security and is determined by the level of food production, stock levels, and net trade” (FAO, 2008, p.1).

Food access explores the demand side of food security. “An adequate supply of food at the national or international level does not in itself guarantee household level food security” (ibid, p.1). Countries experiencing drought, civil unrest, crop failure, and disease are all susceptible to food insecurity. Countries like the U.S. are not exempt either, even though enough food is produced in the U.S. to feed everyone and then some, distances to stores or not having the means to traverse these distances, as found in food deserts makes it difficult for some to access food despite its abundant availability. Furthermore, climate variances, such as drought, like the one in 2012 that seared over 2/3 of the U.S. in extreme drought conditions the likes unseen in over half a century, can also contribute to reduced availability and accessibility. Additionally, food prices, especially corn as a result of this drought are expected to rise thus illustrating the interdependent nature of availability and accessibility in food security.

Food utilization is often described as how or the way the body makes use of various nutrients (ibid). General hygiene, sanitation, water quality, health care practices, and food safety and quality are determinants of good food utilization by the body. Consuming sufficient amounts of protein and calories has long been the metric for food utilization, but the importance of micronutrients (such as iron, iodine, and vitamin A) for a balanced and nutritious diet are growing in realization (Broca, 2002; FAO, 2008).

Food stability looks at how secure and resilient the aforementioned three areas are over time. Stability in access throughout the year can be interrupted by any number of factors including disease, weather, civil unrest, financial collapse, and innumerable other barriers. Stability in availability also shares similar impediments. Stability in food security means “a population, household or individual must have access to adequate food at all times” (FAO, 2006, p.8).

How stable access, availability, and utilization are, largely determines how these three criteria interconnect. Furthermore, lapses in any one or combination of these criteria can create a situation of food insecurity with variable duration. Chronic, transitory, and seasonal food insecurity are divisions of food insecurity based on the duration one or many are food insecure. Chronic food insecurity is looked at as long-term or persistent food insecurity where “people are unable to meet their minimum food requirements over a sustained period of time” (FAO, 2008, p.1). The Food and Agriculture Organization of the United Nations (FAO) collects data on this form of food insecurity and the resulting undernourishment (explained below) associated with a continued lack of access, availability, utilization, and stability of a food supply.

---

⁴ Intersectionality is a “theory to analyze how social and cultural categories intertwine” (Knudsen, 2005)
Factors that can cause or contribute to chronic food insecurity are numerous, though crop failure, civil unrest, persistent poverty, and increases in food prices are just a few interconnecting examples. Transitory food insecurity on the other hand is short-term or temporary, and is a result of “a sudden drop in the ability to produce or access enough food to maintain a good nutritional status” (ibid, p.1). Shocks to food prices, food production, and many other facets can all contribute to creating the conditions for transitory food insecurity. For example, if you are on supplemental nutrition assistance program (SNAP) or women infant children (WIC) you would be considered food insecure by default in the U.S.. Since 2008, there has been a swell in participation of federal welfare programs like SNAP and WIC. While the global economic downturn may play a role in the growth in participation of these programs, other factors like the 2008 farm bill, which opened access for more people to participate in these programs, also contributed to the upward trend.

A third type of food insecurity sharing elements of each of the previous two types is known as seasonal food insecurity. This type of food insecurity arises when there is a “cyclical pattern of inadequate availability and access to food” (ibid, p.1). Examples could be during winter months when there is little to no food production available in some parts of the world or where children during the school year receive and rely on subsidized lunches, but when school is not in session may have a meal gap previously filled by the school.

Hunger according to the Oxford English Dictionary (2012) can be “the uneasy or painful sensation caused by want of food; craving appetite. Also the exhausted condition caused by want of food.” The FAO and United States Department of Agriculture (USDA) recognize this definition but address hunger in very different ways. The FAO measures hunger by measuring undernourishment, which is consuming less than a predetermined level of dietary energy. Thus, if an average human requires 2000 calories a day at a minimum and an average person consumes less than this requirement, they are considered undernourished, also known as being food deprived (FAO, 2008). Albeit a simplified explanation of the calculation the FAO does, it gives the general idea of what the FAO measures and it is used for the term hunger, understood as chronically hungry or undernourished.

The FAO’s 2009 The State of Food Insecurity in the World (2009) report estimates that during this time in the global economic crises around 1.02 billion people were undernourished. The reports estimates seem to be the pinnacle of a trend diametrically opposite to the World Food Summit’s Millennium Development goals, which aim to reduce the number of food insecure by half (from 1990 levels, approx. 840 million food insecure) (UN, 2010).

Another approach to assessing hunger derives from the USDA’s method of looking at food insecurity at the household level. Prior to 2006 households at or below a certain economic threshold were considered food insecure with hunger. In 2006 the USDA with the help of a panel of experts from the Committee on National Statistics (CNSTAT) implemented adjustments to the language to better reflect what is being assessed, who is being assessed, and why. The testing method, that of a food security survey/questionnaire remains the same but what we say about these results changes a bit. A reason for this change stems from the survey operating at the household level and if hunger were to be what was measured, additional information would need to be garnered that the survey is not geared at accumulating (USDA FNS, 2012a). In sum, to a degree the previous language of hunger was a misnomer. Figure (2) below illustrates the evolution of the USDA’s language.

---

5 More on these programs in 5.4.1.
As the chart shows, the old labels of food insecurity used to describe households contained the descriptor hunger. Because hunger is subjective, the survey is unable to capture information on whether a household or its members are hungry. Thus, hunger was removed from the labeling system and replaced with low food insecurity and very low food insecurity. Additionally, food security in a home is not as simple as being food secure or not. The old labeling of food security does not differentiate households at risk of becoming food insecure. Modifying the labels to better reflect this reality resulted in a new label of marginal food security.

Additionally, one of the other distinctions in language between the FAO and the USDA exists in the usage between undernourished (FAO) and malnourished (USDA). Undernourished denotes a lack or being below in certain nutrients (FAO, 2008; World Hunger Education Service, 2012). Malnourished on the other hand can entail both a deficiency but also an overabundance (World Hunger Education Service, 2012).

Malnutrition: results from deficiencies, excesses or imbalances in the consumption of macro and/or micronutrients. Malnutrition may be an outcome of food insecurity (USDA ERS, 2008), or it may relate to non-food factors, undernourishment (FAO, 2008), the result of prolonged low levels of food intake, and/or low absorption of food consumed. Generally applied to energy (or protein and energy) deficiency, but it may also relate to vitamin and mineral deficiencies.

Perhaps the most interesting distinction between hunger manifesting in the United States and hunger manifesting elsewhere is the growing research into the correlation between being food insecure and being overweight or obese. The Food Research and Action Center (FRAC) sees the verdict as still out between this aforementioned correlation citing such authors as the Institute of Medicine (2011); Larson and Story (2011); Dinour, Bergen, and Yeh (2007), as saying there is a connection and authors such as Gundersen, Garasky and Lohman (2009); Jones and Frongillo (2007); Rose and Bodor (2006) contesting or qualifying previous research into this complex field (FRAC, 2012a). The contributors to food insecurity in the U.S. are difficult to conceptualize in a nation with 2/3rds of the population as either overweight or obese individuals (CDC, 2011) and a food utilization track record showing over 1250kcal of food wasted and an average caloric intake per person around the 2500kcal mark (USDA ERS, 2011a; USDA ERS 2011b).

![Fig. 2. USDA language changes.](attachment:image.png)
5.1 Food Banks

Oklahoma ranks 5th or 6th for the most food insecure state tied with Ohio. Furthermore, according to the USDA, Oklahoma is tied with Arizona for having the most “very low food secure” individuals in the nation and is the state with the lowest fruit consumption and one of the lowest vegetable consumptions in the nation. Poor dietary practices coupled with food insecurity create multiple intersections for the diminishment in quality of life in health, education, and overall wellbeing.

Food insecurity in the state of Oklahoma is addressed predominantly through two non-profit institutions — The Regional Food Bank of Oklahoma (RFBO) and The Community Food Bank of Eastern Oklahoma (CFBEO). Figure (3) below shows the location of the two food banks within the state of Oklahoma along with the surrounding states food insecurity rates (Feeding America, 2011).

This research focuses on the efforts of the CFBEO exclusively, which is the top right most dot in Oklahoma in Fig (3). Comparing Oklahoma’s 17.7% food insecure population to its neighboring states puts Oklahoma square in the middle for this localized region.

The CFBEO (see figure (4) below) is a non-profit, food relief institution that distributes roughly 16.9 million lbs. of food to a food insecure population of around 257,190 (approx. 37% (95,150) being children under 18 yrs. of age) within a 24 county region with the help of approximately 450 partner programs and agencies (CFBEO, 2012; Feeding America, 2012).

---

6 According to Feeding America (2011) data Oklahoma is tied for 5th but according to the USDA ERS (2011) it is tied for 6th.
Figure 4. shows the portion of Oklahoma the CFBEO is responsible for providing food relief to. The darker counties within this region and for the whole of the figure are counties that are very low food insecure. In these counties 30% or more of the county experiences food insecurity.

Food insecurity within the jurisdiction of the CFBEO has been around 10-12% from 1996-2007, with an increase to above 16% and 17% during the 2008 global recession and ensuing 2009 recovery respectively (CFBEO, 2012; Feeding America, 2012). Data collected from the CFBEO and Feeding America were used to create Figure (5) below, which shows the food banks distribution over the past seven years:

The CFBO has been increasing its distribution since the recession as can be seen from figure 5, where the CFBOE highest distribution to date occurred in its 2011 fiscal year with 16.9 million pounds distributed. Not all food at the food bank is acquired through the same sources.

The breakdown of the 16.9 million lbs. of food is as follows (CFBEO representative):

1.) USDA commodities: Food provided by the government given to agencies. The FB operates as a middle-person for distribution between the purchaser (government) and the receiver (agencies and food insecure), that is the FB does not recoup any of the costs of distribution (fuel, labor, etc) typically attributed to a shared maintenance.

2.) TANF: Government purchased foodstuff, similar to USDA but much less frequent.

3.) Value Added Processing (VAP): Is food produced in the food banks kitchen combining both donated and purchased ingredients. The Food Bank charges a nominal shared maintenance fee to cover, subsidized costs (which are due to overhead, purchased components)
4.) Purchased: Purchased food as the name implies is food purchased by the FB, which the FB sometimes puts a shared maintenance fee, sometimes not. Purchased food is subsidized food for agencies so they do not have to incur the full cost of the product. Purchased food is food acquired at retail or wholesale price and consists of conventionally created and available products found in most U.S. stores.

5.) Donated: Donated product incurs just a shared maintenance fee. Donated products comes from local stores, food & can drives, and is comprised of products stemming from the conventional, capitalistic model of food acquisition.

Figure (6) below illustrates this breakdown of pounds distributed by the food bank from data provided by the food bank (CFBEO, 2012).

![Total Annual Distribution Breakdown](image.png)

As can be seen in figure 6, the majority of food distributed by the food bank stems from donated products indicated by the bottom most segment. Second to donated products are USDA commodities. The band above donated products is staple products, which is the third largest source of food for distribution. TANF donations are sporadic and in this case were federal funds distributed to the state for stimulus purposes (interview with CFBEO representative). The CFBEO distributes food across its 24 county jurisdiction with Tulsa County receiving the majority of food relief accounting for nearly half of all pounds distributed. With Oklahoma’s largest food insecure population converging in and around urban areas it is understandable why Tulsa County, containing the largest metropolitan in the CFBEO’s region, receives a larger portion of food relief more so than any other county, but what about the surrounding areas? An answer to this question comes from one of the interviews with a food bank representative where their response articulates two different sets of needs:

---

7 Tulsa County accounts for nearly 40% of all food insecure in the CFBEO’s jurisdiction.
“Here food insecurity in the Tulsa area I think there is more, I think there is access to food. I think it may not be the greatest food, it may not be a reliable stream, but I think the chances of folks not having a brush encounter with food in a day is much less likely than those remote parts of the state. So I think here we can really shape the discussion about what kind of food choices people have and what kind of food choices do people make, if they have SNAP benefits how are they utilizing them?”

The food bank has several programs to address some of the challenges between the urban and rural populations, between the children, adults, and the elderly. Each of these populations have their own unique set of challenges and factors that are implicated in their food insecurity. Because of a diverse population of food insecure, the food bank has to create unique programs to facilitate food access to each group.

As such, the food bank has several approaches to addressing these, at times, very different food insecure populations. For rural populations mobile pantries as well as the building and opening of a satellite distribution hub in McAlester, which serves the southern portion of the CFBEO’s service area, are strategies to service the more remote areas in the CFBEO’s jurisdiction. Children under 18 years of age may participate in the backpack for kid’s program and kid’s café. The elderly are starting to be addressed through a senior mobile pantry approach. Much of the food the Food Bank can acquire through donation or purchasing wholesale is a product of the “conventional capitalist food system” that permeates the majority of food for consumption in the CFBEO’s jurisdiction.

5.1.1 Mobile Pantry

Very few individuals in the U.S. travel more than 10 miles to acquire their food. Having to commute 10 or more miles to a supermarket constitutes a food desert. 32 counties of Oklahoma’s 77 are classified as food deserts, where 25% of the county’s population lives 10 or more miles from a supermarket (Kerr Center for Sustainable Agriculture, 2006). The CFBEO’s mobile pantry is one strategy to provide food resources to these higher risk areas.

The mobile pantry is a two-year-old program that involves one driver of a Semi truck loaded with food from the Food Bank that drives around underserved areas of the CFBEO’s jurisdiction. These underserved communities though, due to resource constraints, may only see the mobile pantry once a month. Mobile pantry, due to resource constraints, has not grown, rather unlike other programs has reached a maximum output given the resources invested. This is illustrated by the cumulative pounds distribution figure (7) below (CFBEO, 2012).

5.1.2 Food for Kids

Provides backpacks full of food for selected, at risk, children for them to take home over the weekend and during certain breaks from school. The Packs are handed to the children and are exclusively for the children so they may have a snack instead of going hungry. At risk students are identified by their teachers.

Figure (8) below, illustrates the relative growth in students by indicating the number of sacks distributed by month (CFBEO, 2012). There were large expansions of the program during 2009, mostly as a result of the immediacy of the global economic collapse. Furthermore, during 2009 efforts were made to do double sacks, which account for the observable difference between 2009 and all other years.
The variance in 2009 in figure (8) is the result of multiple distributions of backpacks to children. Thus, while the program has been steadily growing, there has not been a drastic leap in backpack for kids enrollment, but rather during the 2009 season multiple backpacks were given to the same number of children during that school year.

5.1.3 Senior Servings

As a potential at risk group due to the many constraints aging bodies bring, seniors have been specifically targeted to receive assistance from the food bank. “200 seniors twice a week over three counties every other week will receive a big of shelf-stable food items and then be able to choose from a variety of fresh produce and bakery items” as noted in the CFBEO’s Pilot. At this juncture in time the program is currently serving 53 seniors and will be expanding services to reach the pilots projected number of seniors served.

5.1.4 Plant A Row

Plant-A-Row is a project where gardeners and backyard farmers are encouraged to grow an extra row a year for donation to the food bank. Below is figure (9) indicating annual total production going to Plant-A-Row (CFBEO, 2012). While a welcomed contribution, the total annual pounds accumulated accounts for a very small portion of the food banks 16.9 million pounds of distributed food.

In addition to these programs, there are discussions on future SNAP outreach initiatives.

The Food Bank’s role is to distribute food relief to the food insecure, while food relief is necessary in abating the consequences of food insecurity it is not sufficient in addressing food insecurity, and needs coupling with long-term, cause-oriented, food security strategies (FAO, 2011b).

Demand, as far as food insecure population is concerned, is growing (Interview with CFBEO representative). Though perhaps another way of phrasing this would be that there is a food insecure population in Tulsa Oklahoma that the food bank has to continually grow to access and provide relief to. The growths in many of these graphs illustrate just such a perspective. Furthermore, the CFBEO has not fully bridged a service gap between the rural communities and the providing of food relief in its jurisdiction.
Coupled with a sense of reaching a maximum in food resources for distribution, there is less certainty on what the food insecure population will be receiving for food relief in both quantity and quality. That is to say, distribution is potentially reaching a limit. If the food bank were to grow and acquire more food than local donors are able to provide, which is already happening to a degree, closing this gap by purchasing food does not mean agencies will be able to purchase the food from the food bank. Agencies simply lack the resources to participate in food relief without the free or subsidized assistance from the food bank. If the food bank had to put more burden on the agencies they would not be able to survive. Several agencies have gone under as a result of the extensive burden the economic recession has had on the food relief system (interviews with agency and food bank representatives).

Unless the food bank garners more funds through donations, which they are doing, the food bank will not have the resources necessary to grow programs easily or to expand access to food relief to the food insecure. The FB may have to start looking into growing food, alternative strategies for acquiring their resources, or changing the form in which food relief is conducted. In an interview with a food bank representative the following came to light regarding the potential consequences of the food bank not having enough food for distribution. Furthermore, it touches on the tension between the quality and quantity of food on offer through the food relief system.

“Our food stocks were very low here. They were making it up in Halloween candy, and I said “Oh” and she said you know, “you can say oh, but if they don’t have anything to eat, its calories, it will keep them and get them out of bed the next morning.”

5.2 The Jewish Federation of Tulsa’s (JFT) Community Garden Project

JFT is building a community garden and orchard. The produce from this garden and orchard will go directly to the food bank. The estimated number of pounds that will be able to go to the food bank once the 6400 ft\(^2\) garden and orchard is in full production (which may take several years) is around 10,840 lbs. annually.

5.3 Buy Fresh Buy Local

Buy Fresh Buy Local (BFBL) is a national campaign initiated by FoodRoutes Network (FRN) that strives to “reintroduce Americans to their food – the seeds it grows from, the farmers who produce it, and the routes that carry it from the fields to their tables” (FRN, 2012). The Oklahoma chapter affiliate for the BFBL campaign from 2006-2012 was the Kerr Center but as of 2012 the Oklahoma Farm and Food Alliance has taken over the chapter services (The Kerr Center, 2012).

BFBL promotes the strengthening of the local foods industry and enhancing access to healthy, locally grown foods throughout Oklahoma (Oklahoma Farm and Food Alliance, 2012). BFBL was present at every farmers’ market I have been to in the course of this study, and plays a large part in shaping and promoting the discourse on local food.

5.4 Farmers’ Markets

Interest in locally grown foods has been on the rise and as such farmers’ markets, which provide communities locally produced foods and goods, have also been increasing to meet consumer demand as noted in figure (10) (Hemmeberry, Whitacre and Austini, 2009; USDA, 2012b). The USDA’s Agricultural Marketing Service (USDA, 2009) defines a farmers’ market as, “a retail outlet in which two or more vendors sell agricultural products directly to customers through a common marketing channel” (USDA, 2009, p.3). The figure below shows farmers’ market growth in the U.S. from 1994-2012:

The area of study covered five farmers’ markets: the Cherry Street Farmers’ market (CSFM ~ 90 vendors), The Pearl Farmers’ market (PFM ~6), Brookside Farmers’ market (BFM~20), Downtown Farmers’ market (DFM~6), and the Broken Arrow Farmers’ market (BAFM ~ 20). The first four of these markets are within 5 miles of where I was living and are bike accessible while the Broken Arrow farmers market was 15 miles away. Presently the Cherry Street Farmers’ market is the largest farmers’ market in the state and the most active farmers’ market in the region, though the exact volume of sales is unknown.
There used to be an Oklahoma farmers’ market alliance 2000-2006, which aimed to inform and educate farmers’ market vendors and market managers on marketing and selling Oklahoma produce and products. The alliance was a conglomeration of different farmers, but due to their busy schedule, especially during growing season, the all volunteer alliance dissolved.

The composition of the farmers’ markets varies in that the downtown farmers’ market is managed by a hot dog vendor and does not have a board. The Cherry Street Farmers’ market has a board and a market manager, with an assistant. The manager is a farmer too, but does not participate in the market, as their responsibilities prevent them from doing so. The Brookside farmers’ market is an extension of the Cherry Street Farmers’ market and as such has the same board, and the same market manager. The pearl does not have a board and had a market manager who was not a farmer but “believed in local food” and was offering her time to manage that market. She has since been replaced.

Another farmers market located in Broken Arrow, and aptly named the Broken Arrow farmers market, is a 20+ vendor strong market and has a city official who oversees the market when his other duties permit. The market takes place on Saturday around the same time as the Cherry Street market and has local vendors as well as a few vendors who are concurrently selling at the Cherry Street market.

These markets are frequented by many different people. Henneberry (Whitacre and Austini, 2009) conducted a survey in 2002 on the demographics of Oklahoma farmers’ market customers and found the following figure (11):

<table>
<thead>
<tr>
<th>Characteristics of Oklahoma Farmers Market Consumers (N = 312).</th>
<th>Demographic Characteristics Respondents (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>21</td>
</tr>
<tr>
<td>Female</td>
<td>79</td>
</tr>
<tr>
<td>Age</td>
<td></td>
</tr>
<tr>
<td>&lt;20</td>
<td>6</td>
</tr>
<tr>
<td>21–35</td>
<td>29</td>
</tr>
<tr>
<td>36–50</td>
<td>41</td>
</tr>
<tr>
<td>51–65</td>
<td>14</td>
</tr>
<tr>
<td>66–75</td>
<td>10</td>
</tr>
<tr>
<td>75+</td>
<td></td>
</tr>
<tr>
<td>Annual Household Income</td>
<td></td>
</tr>
<tr>
<td>&lt; $20,000</td>
<td>13</td>
</tr>
<tr>
<td>$20,000–$39,999</td>
<td>22</td>
</tr>
<tr>
<td>$40,000–$59,999</td>
<td>25</td>
</tr>
<tr>
<td>$60,000–$79,999</td>
<td>18</td>
</tr>
<tr>
<td>$80,000–$99,999</td>
<td>10</td>
</tr>
<tr>
<td>$100,000+</td>
<td>12</td>
</tr>
</tbody>
</table>

Fig. 10. Farmers’ Market growth taken from (USDA, 2012b)
Education

<table>
<thead>
<tr>
<th>Education</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>High School or Less</td>
<td>18</td>
</tr>
<tr>
<td>Some College</td>
<td>30</td>
</tr>
<tr>
<td>Undergraduate</td>
<td>20</td>
</tr>
<tr>
<td>Some Grad School</td>
<td>11</td>
</tr>
<tr>
<td>Masters</td>
<td>16</td>
</tr>
<tr>
<td>Doctoral</td>
<td>5</td>
</tr>
</tbody>
</table>

Use of Farmers Markets

<table>
<thead>
<tr>
<th>Years that consumer has shopped at FM</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1 year</td>
<td>20</td>
</tr>
<tr>
<td>2–5 years</td>
<td>56</td>
</tr>
<tr>
<td>6–10 years</td>
<td>15</td>
</tr>
<tr>
<td>More than 10 years</td>
<td>9</td>
</tr>
</tbody>
</table>

Percentage purchasing the following items*

<table>
<thead>
<tr>
<th>Item</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fruits</td>
<td>41</td>
</tr>
<tr>
<td>Vegetables</td>
<td>70</td>
</tr>
</tbody>
</table>

Reason for shopping at FM*

<table>
<thead>
<tr>
<th>Reason</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality</td>
<td>84</td>
</tr>
<tr>
<td>Availability of in-season products</td>
<td>58</td>
</tr>
<tr>
<td>Grown in Oklahoma</td>
<td>47</td>
</tr>
</tbody>
</table>

* Denotes a multiple item checklist where respondents could check all that apply resulting in totals higher than 100%

Fig. 11. Farmers’ Market customer characteristics adapted from (Henneberry, Whitacre and Austini, 2009).

The results of the survey indicate the majority of farmers’ market participants are female, between 36-50 years of age, a household income of $40,000-$59,000, some college, and shop for quality above all else.

5.4.1 Government Assisted Nutrition Programs at Farmers Markets

According to the USDA national farmers’ market directory (2012a), Oklahoma has 71 farmers’ markets out of some 7857 located throughout the U.S. and is ranked 38th in the number of farmers’ markets (California is 1st with 822). While farmers’ markets provide access to fresh fruits and vegetables that are locally grown not everyone has the means of accessing these markets. This is true for those individuals and families who utilize federal food assistance programs like the Women, Infants and Children, (WIC), and the Supplemental Nutrition Assistance Program (SNAP)9. As such efforts have been made to increase access for low-income groups to farmers’ markets by accepting WIC vouchers, SNAP EBT cards, creating farmers’ market specific redemption options like WIC Farmers’ market Nutrition Program (WFMNP), and the Senior Farmers’ market Nutrition Program (SFMNP).

In the USDA’s 2006 national farmers’ market manager survey (2009), WIC FMNP topped the federal nutrition assistance program as generating the largest monthly revenues for farmers’ market vendors totaling $1,744 per month. Second to WIC was the SFNMP generating revenues around $1,004 per month. In a distant third came SNAP with revenues totaling $279 per month.

The total 2011 redemptions at farmers’ markets for WIC FMNP came in at $16.4 million (USDA, 2012d). Details on a state by state basis are not available to make comparisons nor is the state by state redemption breakdown available for SFMNP at the time of writing.

---

8 Data accounts for only the U.S. 50 states plus the District of Columbia (D.C.), and omits Guam, Puerto Rico, and the Virgin Islands, which are included in fig. 11’s data set.

9 Formerly known as the Food Stamp Program, which had been operating in some form from 1939-2008 (USDA FNS, 2012a).
In 2011, SNAP utilization at farmers’ markets in the U.S. generated $11.7 million in sales for vendors out of $71.8 billion in overall SNAP redemptions. This .016% of the market is up 55% from the previous year (Farmers Market Coalition, 2012). In Oklahoma, the portion of this income totaled $12,693, which is up from 2009’s $1,460 in sales (Farmers Market Coalition, 2012).

Of the 71 farmers markets in Oklahoma: 6 accepted WCVV where the number of farmers markets throughout the nation accepting WCVV is 954, with a by-state-median of 8. 6 accepted WFMNP where the number of farmers markets throughout the nation accepting WFMNP is 2004, with a by-state-median of 19. 10 accepted SFMNP where the number of farmers’ markets throughout the nation accepting SFMNP is 2100, with a by-state-median of 25. 10 accepted SNAP benefits where the number of farmers markets throughout the nation accepting SNAP is 1651 with a by-state-median of 21 (USDA, 2012a).

Nationally WFMNP is utilized more at farmers’ markets than any other federally funded nutrition assistance program followed by SFMNP and then SNAP as aforementioned. When we look at the two most popular markets within the boundaries of this research (Cherry Street, Brookside), a different pattern emerges compared to the national level.

The Cherry Street and Brookside markets dispense SNAP and SFMNP tokens. These are wooden tokens given to either USDA assisted nutrition program participants for the allotted amount when they swipe their electronic benefit transfer card (EBT cards) for SNAP or a similar card for SFMNP.

For 2011, SFMNP redemptions outpaced SNAP redemptions nearly two-to-one at the Cherry Street farmers’ market, while for the Brookside farmers’ market it was over four-to-one as is depicted in figure (11).

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cherry Street FM SNAP</td>
<td>3137</td>
<td>8244</td>
</tr>
<tr>
<td>Brookside FM SNAP</td>
<td>914</td>
<td>1768</td>
</tr>
<tr>
<td>Cherry Street FM SFMNP</td>
<td>7366</td>
<td>7302</td>
</tr>
<tr>
<td>Brookside FM SFMNP</td>
<td>3801</td>
<td>4485</td>
</tr>
</tbody>
</table>

**Fig.11.** 2011 and 2012 USDA assisted nutrition program redemptions at Cherry Street Farmers’ Market and Brookside Farmers’ Market (Data provided by the Cherry Street and Brookside Farmers’ Markets).

10 According to the USDA’s *WIC Farmers’ Market Nutrition Program* (2012d) fact sheet, in 2011 18, 487 farmers in 4,079 farmers’ markets across the nation participated in WFMNP. The reason for the discrepancy is unknown.

11 According to the USDA’s *Senior Farmers’ Market Nutrition Program* (2012c) fact sheet, in 2011 19,069 farmers in 4,598 farmers’ markets across the nation participated in SFMNP. The reason for the discrepancy is unknown.
Figure (11) compares the CSFM and the BFM for the years of 2011 and 2012. The comparison focuses on SNAP redemptions and SFMNP redemptions and the growth differences between the two by the implementation of the Double Up Food Bucks program. As figure (11) shows, through the implementation of the Double Up program considerable gains to SNAP participation have been achieved. As for WIC FMNP, there is no available data because at these two markets WIC FMNP is dealt with at the vendor level with only 4-6 vendors max accepting this type of nutrition assistance program. There is one farmers’ market in all of the State that accepts all USDA nutrition assistance programs, that is the North Tulsa Farmers’ market.

5.4.2 Double Up Food Bucks

As can be seen from the figure (12), in 2011 SNAP redemptions at the CSFM were just over 3,100$ for the entire late April to late October farmers’ market season. By introducing the Double Up program, whereby a SNAP participant will be matched their SNAP redemption dollar for dollar up to 20$12 an increase can be seen in the amount spent by SNAP participants at the farmers’ market. As figure (12) shows, with a monetary incentive in place, SNAP redemptions in the first month of operation of the DUFB were 1/3 of SNAP redemptions for the entire 2011 seasons and by the next month alone amounted to more than the entire 2011 farmers’ market season. Furthermore, these redemptions translate into sales for vendors, without incurring any monetary loss. One organic farmer and advocate for the implementation of SNAP at the farmers’ market had this to say in an interview.

“People don’t just want access to produce they want high quality stuff they want quality things it is not just like because people are poor we will take this ratty bunch of something they want something that is going to taste good just like everybody else and I think that gets overlooked in kind of the food bank world.”

The DUFB program with its inception in late June of 2012, has increased participation in the farmers’ markets by SNAP recipients. Similarly, the BFM has shown gains in SNAP redemption since the implementation of the DUFB program. While not quite doubling in overall SNAP sales from the previous year, the DUFB program has increased sales by low-income food insecure individuals by nearly threefold as can be seen in the figure (13) below.

---

12 Started with a 2500$ grant from the George Kaiser Family Foundation, the DUFB program now has opened donations to the public and is currently sitting on 12,000$ for the DUFB program exclusively.
With the appropriate incentives, farmers’ markets seem like a way to increase access of fresh fruits and vegetables to low income-food insecure people in urban areas. Coupled with the fact that roughly 50% of CFBEO’s pounds distributed are accessed within Tulsa County, increasing SNAP participation may be a way to reduce the demand on the food banks services for those who utilize government assisted nutritional programs and simultaneously direct or indirect assistance from the food bank.

6.0 Theory and Concepts

In this section I will present relevant theory and concepts brought up in and sometimes embedded in the local food discourse. The following will be a brief presentation behind the global discourses in sustainable development, food sovereignty, and the local trap. Furthermore, it is important to contrast the aforementioned sections on food security, the food bank, and the farmers’ market with the following sections to elucidate the potential interplay between the discourses on local food in Tulsa.

6.1 Sustainable Development

6.1.1 History of Sustainable Development

What is sustainable development? The 1987 report entitled, Our Common Future (aka The Brundtland Report), by the World Commission on Environment and Development (WCED), which was initiated by the General Assembly of the United Nations (GAUN) in 1982, is, is, perhaps, the most widely known reference to SD:

“Development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (UN, 1987, p.37).

It is this definition of SD that, despite criticism during the late 70’s early 80’s of SD’s dwindling usefulness and eminent departure, catapulted SD into a “global view” (Mebratu, 1998, p.494), a global discourse forming the cornerstone “of policy documents of governments, international agencies, and business organizations” (ibid, p.494). Prior to 1987 there was the International Union for Conservation of Nature (IUCN), which in 1980 launched, with the help of The World Wildlife Fund for Nature and The United Nations Environment Program, the World Conservation Strategy. While “sustainable development” as a word was absent, it did bring closer together environment and development concerns, which were picked up by the WCED two years later (Mebratu, 1998).

Still we can trace the evolution of the sustainable development discourse further back to the joint United Nations Conference on Trade and Development Seminar and the United Nations Environment Program of 1974, to the United Nations conference on human environment in 1972 (Harlow, Golub and Allenby, 2011), to the Malthusian ideas of “environmental limits” from the late 18th to early 19th century (Mebratu, 1998, p.498). Perhaps the fundamental principle operating in SD is the idea of “living in harmony with nature and society,” which can be traced back to the religions, beliefs, and traditions of old (ibid, p.498).

There is a history of ideas evolving to coalesce into the landmark case of SD put forth by the Brundtland commission. The evolution of ideas continues post Brundtland report. Without direction or clarity, SD has evolved
to mean many different things to many different people. Fowke and Prasad (1996) can attest to the 80+ different, competing, and sometimes contradictory definitions attributed to SD.

Further focus came in 2002 when the World Summit on Sustainable Development (WSSD) created the Johannesburg Declaration, so named for the location of the WSSD. The Johannesburg Declaration honed efforts at answering the question what should be sustained around three pillars: Environment, Social, and Economic, which is also sometimes known as Planet, People, and Profit respectively. Though the Johannesburg Declaration helped to answer what should be sustained, it offered little assistance in answering how these pillars should be sustained. As such, there are two widely used typological paradigms involving the three-pillar system: weak sustainability and strong sustainability.

6.1.2 Weak Sustainability

Under the weak sustainability paradigm as Williams and Millington (2004) note, “there is no need to transform either the predominant narrative on nature or the existing dominant discourse on what constitutes economic progress and development.” As such, this paradigm is anthropocentric where humans have dominion over the environment and economic “progress” (growth) is a solid indicator for “progress” (human and extra-human flourishing).

Weak sustainability is rather reductionistic where environmental, social, and economic realms are conceptualized as independent systems (Mebratu, 1998). Figure (14) below illustrates the reductionistic-weak-sustainability typology.

It is in the center, where all three pillars meet, that sustainable development takes place. How this balance between the three pillars might manifest is context specific. Even if we know the context however, as is the case in Tulsa, how will we know and who determines when sustainable development is reached? A PAR engagement can help in this case where the stakeholders will determine what constitutes sustainable development and how to go about achieving sustainable development.

![Fig. 14. Weak sustainability typology.](image-url)
6.1.3 Strong Sustainability

On the other end of the spectrum is the strong sustainability paradigm, which articulates a reshaping of our demands on the environment, what we take progress (human and extra human flourishing) to mean, and the dismantling of the idea that humanity is somehow outside of the environment (Williams and Millington, 2004). The focus is not on wealth but on wellbeing. The figure (15) below illustrates the nested hierarchy where economic systems are extensions of social systems and are subervient to the foundational system requirements of the nested tier it is subsumed in. Similarly, the social realm is nested within the environmental realm; as we are dependent upon the life support/sustaining systems of the tier we are subsumed in. SD arises in the harmony and co-evolution of these systems (Mebratu, 1998).

These two typologies form the poles to a spectrum for answering the question: what is sustainable development sustaining? Extensive variations exist between these two poles forming perhaps a third group known as **moderate sustainability** based on combining aspects of each pole. The question of “how,” universally, one is to sustain the “what” is still open.

Without any universal solution to address “how” to sustain the “what,” alternative frameworks, based on context, are sometimes used. On offer are various frameworks that transform the general macro-level three-pillar model of SD into multi-faceted frameworks for operationalization. These micro-frameworks can address as few dimensions as Atkisson consulting groups *Compass*, which focuses on *Nature, Economy, Society, and Wellbeing* making up the directions on a compass, to Per Berg’s PEBOSCA framework in his book *Timeless Cityland*, which focuses on *Physical, Economic, Biological, Organizational, Social, Cultural, and Aesthetic resources* for consideration in sustainable urban development (SUD) (Berg, 2010).

Sustainability is not defined by me in this research but by those who are participating in the systems of local food and food insecurity in Tulsa. With that said there is no clear understanding of what sustainability is or entails in the local food discourse on the whole and there is no mention of sustainability in the food security/insecurity/relief discourse. Therefore, for a definition and understanding of what sustainability is or ought to be a PAR discussion group will take place for the stakeholders to define and understand for themselves what sustainability is or means to them.

6.2 Food Sovereignty

The food sovereignty movement took shape with the emergence of its namesake around 1996 by members of Via Campesina. The movement, consisting of farmers, peasants, pastoralists, fisher folk, indigenous peoples, women, rural youth, and environmental organizations define food sovereignty as:

“The right of peoples, communities, and countries to define their own agricultural, labor, fishing, food and land policies which are ecologically, socially, economically and culturally appropriate to their unique circumstances” (FAO, 2002, p.1)

La Via Campesina has seven principles that form the foundation for the concept of food sovereignty (Bobichand, 2012):

1.) Food is a basic human right—Everyone must have access to safe, nutritious, and culturally appropriate food in sufficient quantity and quality to sustain a healthy life with full human dignity.
2.) Agrarian Reform- A genuine agrarian reform is necessary which gives landless and farming people – especially women – ownership and control of the land they work and returns territories to indigenous peoples. The right to land must be free of discrimination the basis of gender, religion, race, social class, or ideology; the land belongs to those who work it.

3.) Protecting Natural Resources- Food Sovereignty entails the sustainable care and use of natural resources, especially land, water, and seeds and livestock breeds. The people who work the land must have the right to practice sustainable management of natural resources and to conserve biodiversity free of restrictive intellectual property rights.

4.) Reorganizing Food Trade- Food is first and foremost a source of nutrition and only secondarily an item of trade. National agricultural policies must prioritize production for domestic consumption and food self-sufficiency. Food imports must not displace local production nor depress prices.

5.) Ending the Globalization of Hunger Food Sovereignty is undermined by multilateral institutions and by speculative capital. The growing control of multinational corporations over agricultural policies has been facilitated by the economic policies of multilateral organizations.

6.) Social Peace- Everyone has the right to be free from violence. Food must not be used as a weapon. Increasing levels of poverty and marginalization along with the growing oppression of ethnic minorities and indigenous populations and increasing incidence of racism of smallholder farmers cannot be tolerated.

7.) Democratic Control- Smallholder farmers must have direct input into formulating agricultural policies at all levels.

While the focus neither of this research nor, present much in the national discourse (USDA does not articulate any position on food sovereignty), food sovereignty is an emerging movement bringing another perspective to the overall food discourse.

Food security as understood by its pillars of access, availability, utilization, and stability do not entail, explicitly, food sovereignty, ideas of food justice, or self-sufficiency. I had only one interviewee mention and comment on food sovereignty or food justice, which will be explored in the political subheading section. The absence of these two aforementioned ideas, on the whole, indicate that the discourse within Tulsa Oklahoma is missing alternate perspectives that may assist in transforming how we discuss food in the Tulsa area as well as how we address agriculture, food relief, and local food production.

6.3 The Local Trap

We will soon hear from many different perspectives within the local food discourse on what local food is or is not. From sustainable agriculture practices noted in the political section to geographically near in production and consumption. Yet we will hear also that some vendors are spatially local farmers but conventional agriculturalists in that they implement non-organic pesticides and fertilizers. Similarly, local food represents an opportunity to support the “local economy,” but again we will also see vendors at the farmers market travel over half the state (200+ miles) to sell their products or we have local institutions selling non-local products.

So what are we doing when we are promoting “local” as an alternative? According to Born and Purcell (2006) we are falling into the local trap! In Avoiding the Local Trap, Born and Purcell argue (2006, p.196) “that it is not open to question whether we can equate localism with ecologically sound outcomes. We never can equate a scalar strategy with a particular set of outcomes.” For these authors the local trap “refers to the tendency of food activists and researchers to assume something inherent about the local scale” (Born and Purcell, 2006, p.195). In much of the discourse and even in my own initial understanding of local food systems assumptions abounded on what we mean by local food. Born and Purcell elucidates three flaws inherent in the present discourse on local food:

1.) The assumption that the local is desirable does not always hold.
2.) The local trap conflates the scale of a food system with desired outcome.
3.) The local trap obscures other scalar options that might be more effective in achieving a desired outcome (2006, p.196).

“To be clear, the concept of the local trap is not an argument against the local scale per se. We are not suggesting that the local scale is inherently undesirable. Rather, the local trap is the assumption that local is
Inherently good. Far from claiming that the local is inherently bad, the article argues that there is nothing inherent about any scale. Local-scale food systems are equally likely to be just or unjust, sustainable or unsustainable, secure or insecure” (Born and Purcell, 2006, p.195).

In true PAR fashion, the local trap provides a foundation for the critical reflexivity needed for transforming the local food discourse and in turn can create the action necessary for a positive transformation in the local food movement. The local trap would be an instructive and self-critical exercise to perform in-group discussions with stakeholders. For the present purpose however, it serves as a reference, something to keep in mind throughout the presentation of the data.

7.0 Results and Analysis

7.1 Local Food

Throughout this paper, local food will be explored as a possible component in a solution toward mitigating food insecurity in the Tulsa area. What is local food? What constitutes local food and how we use it will be explored in the following segment. “Local” means many things to many different people and when one talks about food, while narrowing the idea around “local,” such a narrowing does little in helping bound what local food is or means. Geographic, economic, political and many other ways of situating “local” in regards to food will be explored through examples from literature and interviews conducted with this research papers stakeholders. Out of the 30+ interviews, I will be focusing only on the 13 dictated interviews along with elements from a literature review.

7.1.1 Geographically

In this section, I will present data from the interviews showing a geographical understanding or perspective on local food. To begin, we will delve into local food by first asking what local food means to the interviewee. The answers, provided by the respondents all started with a geographical understanding of local food.

Local food can mean food produced within 100 miles of where it is consumed (Thompson, Harper and Kraus, 2008), within 400 miles of where it is consumed (USDA, 2010), the state in which it is produced and consumed (Kerr Center for Sustainable Agriculture, 2006), the region (Clancy and Ruhf, 2010), the methodology behind and the methods used in the production of the food and a whole host of other boundaries for better or worse (Born and Purcell, 2006; Peters, Bills, Willkins and Fick, 2009; USDA, 2010).

When asked what local food means to them, respondents provided a similar array of answers touching on different understandings of “local.” A food producer at a farmers’ market in an interview responded:

“That means food that is grown in your area, in your state, in your, you know, region, depending on how close you are to a state line. Probably within 150-200 miles can be considered local”

Echoing a similar sentiment an employee of the Community Food Bank of Eastern Oklahoma in an interview responded:

“When you say local food to me, it comes up as something produced within, local, not necessarily in Tulsa but our quadrant. Beef, pork, chickens, fruits, or vegetables something that is grown and consumed locally”

These two responses by a food producer and an employee of the second largest food relief institution in the state touch on a regionalism in the understanding of local food. While not challenging regionalism altogether, another food producer responded in an interview with the following:

“Is within a reasonable driving distance that is what local food means to the consumer. A reasonable way to define it, but I don’t think it has to be determined by state lines, I live 20min from the Arkansas boarder and so it might be easier for me to go there to a peach farm than to go to Porter [a county noted for their peaches]. So I don’t think geographic boundaries are important as much as not travelling too too far”
Here the food producer acknowledges a region, but adds the vantage point of the consumer by saying “a reasonable driving distance.” In each of these examples, food is produced within a specific distance of where it is consumed without being bounded by state lines.

In all of these explanations, local food is ultimately challenging the global conventional capitalist agriculture model strictly in terms of the vast distances between where food is grown to where food is consumed. With the vast majority of the food in the U.S. travelling throughout its lifecycle anywhere between 1019 to 4200 miles (Weber and Matthews, 2008), a geographic perspective on local food can set boundaries to the number of food miles travelled. Some research indicates food miles are an important indicator for how sustainable a given piece of produce is by calculating the carbon footprint derived from the number of food miles (Kerr Center for Sustainable Agriculture, 2006; Pirog and Benjamin, 2003), while others see food miles alone as an insufficient indicator that “masks the very real differences between contrasting production and distribution systems” (Coley, Howard and Winter, 2009).

In light of the latter research and coupled with the main ideas from Born and Purcell’s *The Local Trap*, food miles and generally just focusing on geography to define local food is too simplistic. If we begin to talk about food miles and carbon footprints, we invariably have other features, like sustainability in mind. The data, however, indicates there is no such discussion. When asked what local food meant to them every respondent seems, at first blush, to understand local food spatially. There is nothing wrong with a spatial understanding, after all local vs. global is a spatial comparison or scalar to use the language of Born and Purcell, and if we wanted to differentiate strictly in terms of the scalar than there is a unanimous consensus between the stakeholders. If, however we are trying to transform the local food discourse as well as connect food insecurity to local food production than a critical examination of the assumptions in and around local food will be the launching point.

As we will soon see, for some (two out of the thirteen) local food does have more to its meaning than simply geographic characteristics. First, let us explore a train of thought, and some of the tensions that connect local food geographically to alternative understandings of local food generally.

### 7.1.2 Economics

In this section, I will look into local food through an economic lens to further flesh out meanings and assumptions. The following instance shows a connection to region but in an economic context:

“I consider Reasor’s locally grown, I buy food from them, they donate to us too, and then the farmers’ market donates food, anything that, where the majority of it is either a locally owned company and the money stays here or its locally grown” (Representative of a food agency).

For this person “local” is about being locally owned, something where the money generated from sales stays in the area the business is conducted. Reasor’s is a Tahlequah (approx. 68 miles from Tulsa) based business with 16 locations in and around the Tulsa area. There is little separating Reasor’s from supermarket stores like Kroger, Food Pyramid, Wal-Mart, and Target superstores in the types of products they purchase and sell, and how they go about acquiring their items for retail.

While Reasor’s is a local business that deals with food, it is not producing or typically selling local products. Again, Reasor’s is not too differentiated from similarly sized national/international retailers. Reasor’s sells produce shipped in from other countries and their isles are stocked with items typically found across the U.S. that are the products of the conventional capitalist agriculture systems.

We can contrast this understanding of local food by switching perspectives from focusing on local retailers to focusing on local producers. When we couple a geographic understanding of local food as being produced near the point of consumption with an economic understanding of local food as benefiting local economy one will see new viewpoints and challenges on local food emerge.
One of the largest draws for food producers to participate in farmers’ markets, CSA’s or any other direct sales to consumer relations\textsuperscript{13} is to bypass middlemen (Eastwood, Brooker, Hall and Rhea, 2004). Thus, in reducing overhead costs and capitalizing on the low out of gate costs, small-scale producers are able to gain an additional 40-80 percent on their return using direct sale consumer markets (Lencucha, 1998).

How do these aforementioned advantages for local producers translate into affordability when compared to the conventional capitalistic agriculture system(s)? Some claim local foods procured at your local farmers’ market are more expensive than those you may find in the grocery store or supermarket. Emily Oakley, a farmer at Three Springs Farm and vendor at the Cherry Street Farmers’ Market, in the 2005 issue of the journal \textit{Growing for Market} comments on these claims:

“The overwhelming majority of our customers are extremely loyal, supportive, and excited about the opportunity to purchase farm-fresh produce... Yet each season there are a handful of customers who feel our prices are too expensive when compared with the supermarket” (Oakley and Appel, 2005, p.5).

In an attempt to dispel the myth that farmers’ market prices are higher than your average retail grocery store, Emily Oakley and Mike Appel of Three Springs Farm gathered data from three local food retailers: Wild Oats, Albertson’s, and Wal-Mart Neighborhood Market and compared the listed price to the price per pound. The results showed for the 22 spring crops, the farmers’ market price was cheapest for 11 of the 22 items, Albertsons 4 of the 22, Wal-Mart 3 of the 22, and Wild Oats 3 of the 22. For the 20 summer crops compared, the farmers’ market had 8 of the 20 at a lower price than the competitors, Albertsons 4 of the 20, Wal-Mart 7 of the 20, and Wild Oats 1 of the 20.

Further supporting Emily’s local assessment, a study by the Leopold Center for Sustainable Agriculture similarly compared local farmer’s market produce to that of non-local supermarket produce and found the following:

“Specific findings of the research show that the mean price per pound for the local farmers’ market vegetable basket\textsuperscript{14} is $1.25, while the mean price per pound for the non-local supermarket vegetable basket is $1.39” (Pirog and McCann, 2009, p.4).

Though the Three Springs Farm study may lack some of the rigor of “scientific” research, it is important to include it here as it addresses the practical, “real world” scenarios of knowledge production and reproduction, or more aptly, the ways of dispelling myths from truths. To contrast these two studies I had the opportunity to interview a farmers’ market SNAP participant and their assessment of price is as follows:

“Well the grocery store is definitely cheaper and I think it is also due to the mass production processing and things like that. They can get away with some more things so, we do know that it is a little more costly here but we don’t mind the extra costs because we know where the food is coming from, it tastes better, we feel better from eating it.”

The perception still exists even among avid farmers’ market participants that the price is higher than the average retailers in the area are as noted in this interview with the following farmers’ market partaker:

“I’ll be honest with you. I go to the cheery street farmers’ market. Do you go to the cheery street farmers’ market? Cheery street you are there with your Latté, you are tripping over peoples corgi’s and you know you can get produce that is lovely for about 3x what you would pay at the grocery store.

Regardless of price, many people attend the farmers’ markets. Actual or perceived higher prices have not deterred people from coming to the farmers’ market indicating, for many, other factors beyond the economic operating in

\textsuperscript{13} Direct sales to consumers is “the value of agricultural products sold directly to individuals for human consumption” (USDA, 2010, p.5). This definition excludes: catalog and internet sales, non-edibles, and sales from products involved in “vertically integrated operations through their own processing and marketing operations” (ibid, p.5).

\textsuperscript{14}“The vegetable basket consists of zucchini, summer squash, cucumbers, string beans, sweet onions, tomatoes, and sweet corn” (Pirog and McCann, 2009, p.i ).
their decision to participate. In an interview with a local food producer, the following is a summary on participation in the farmers’ market,

“You are not going to make the trouble to go down there on a Saturday morning when you could just go to the grocery store unless there is some philosophical momentum propelling you down there. And that is really the key issue that needs to be transmitted.”

In the above comment, the farmer is honing in on a point that there is usually something more bringing people to the farmers’ market than price, that there is more to local food than price. Whether farmers’ market participants do their entire shopping, supplement food purchases from elsewhere with food purchased at the farmers market, or simply to enjoy the ambiance of the farmers market without purchasing anything, and regardless of whether these prices are high or low local, food markets such as the CSFM have a positive effect on the local economy.

Regardless of the pricing, farmers’ markets presently are generating economic benefits for the communities they are in. In the only study of its kind in the Oklahoma area, Henneberry (Whitacre and Austini, 2009) show that for every dollar spent at the farmers’ market a 1.78$ is suggested to be generated in the surrounding economy. The 1.78 economic multiplier is derived from an Impact Analysis for Planning (IMPLAN) approach and aims to illustrate the “total change throughout the economy resulting from a one-unit change in the activity of a given sector” (Henneberry, Whitacre and Austini, 2009, p.72).

The Henneberry (Whitacre and Austini, 2009) study indicates local food, via the farmers’ markets may bring about economic benefits for local businesses and the areas these markets reside in as a whole, but there are some who economically benefit from local food in another way. For some, local food is a financial way out or a buffer during financial hard times. Local food is food that the consumer grows and it offers, to a degree, an alternative to the conventional capitalist agricultural pricing scheme. In the excerpt from an interview below a food insecure woman illustrates how local food can empower her economically:

“The food I grow it helps me in the summer time, it helps to afford the other staples I might not be able to get later on. I could afford oranges, apples, and cantaloupes when they are on sale.”

A similar potential for empowerment was shown in a study done by the Kerr Center for Sustainable Agriculture, namely by the president of the Oklahoma Food Cooperative (OFC) Robert Waldrop. Mr. Waldrop challenged his family to live off SNAP assistance spending the 2 person per week allowance of 61.87$15 predominately on locally grown/sourced foods with additional items coming from their garden and minimally the super market. With a 1.44$ left over in SNAP, Waldrop elucidates six areas that can help low to moderate-income families stay within their SNAP budgets, all while participating in the local food system(s) (Kerr Center for Sustainable Agriculture, 2006). These six areas are the key to the Waldrop’s success at this challenge and are as follows:

1. frugal supermarket shopping
2. use of many local foods
3. preparing meals from basic ingredients
4. food storage
5. gardening
6. home preservation of foods

Local food may be affordable judging from the Kerr Center study and Emily’s Three Springs study, but at the same time some of the food secure and food insecure alike perceive the farmers’ market prices as much higher than conventional grocery store prices. Similar to the geographic lens the economic lens is too simplistic a metric and there are implicit assumptions that can certainly reshape the local food discourse if exposed.

There are many aspects to analyze in this section. The economic lens has many facets that draw people to local food but there are also facets that may detract people from participating in the local food system(s). Taking the points brought up in this section one by one the analysis is as follows.

---

15 This was done in 2004
Beginning with the Three Springs analysis the key here is that on a price per pound basis the farmers’ market is, overall, less expensive than comparable retail stores. The perceived higher prices at the farmers’ market to the standard retailer are just that, perceptions that are not indicative of the “real” price offered at the farmers’ market per pound of food to that of standard retailer’s price per pound of food in all cases.

The heart of the Three Springs assessment is to show that while not always the least expensive, food for procurement at the farmers’ market is found more often to be priced lower than food sold at other retailers, and the idea that farmers’ market prices are higher, when assessed as price per pound of food is anything but the case. There are more food items priced below the retail prices at the farmers’ market than in any single retail outlet.

Price per pound is an interesting way to look at things but at the farmers market that value is not conveyed to the customer who simply is charged X amount of dollars for two eggplants of a rather large size or three smaller eggplants. Given the hectic nature of the farmers’ market it makes logistical sense to not use a scale and to distribute items for sale by a pre-established standard (relative size or relative weight), but in doing so a vagueness arises regarding value.

Furthermore, the Three Springs study covered only two non-connected months of data out of the entire growing season using their food stalls prices. A study using weekly data collections throughout the course of the entire growing season over a few years (3-5) for every vendor would give a far more accurate assessment of pricing trends of the farmers’ market. Furthermore, the Three Springs study is not able to account for market fluctuation, be they local or conventional, due to climate as will be shown in the following comments on this year’s tomato prices to those of the Three Spring study.

Due to drought ravaging most of the U.S., many crops were wilting in the fields. Market prices for tomatoes at the beginning of the farmers’ market season were on the low end 1.50$ for a bunch, probably a result of a mild and early spring, and toward mid-season (July) most vendors did not have tomatoes and those that did the prices jumped, in some cases, as high as 5.00$ a bunch. Meanwhile prices at the grocery store did not fluctuate as readily and an abundant supply of tomatoes were always available for purchase.

The point of this is not to criticize the Three Springs assessment but to show the complexity in trying to compare a local system(s) to a global one(s). Moreover, the point is to elucidate a shift in values between the Three Springs sustainably produced food and the conventionally produced food that is not conveyed in the price per pound metric or the overall discourse on food.

Perceptions in price, while subjective, are critical. If prices are viewed as too expensive regardless if they are or not, people will not think to make an investment, or spend the money if they have limited resources. Perceptions for some of the market participants shape their reality; perceptions shape their choices. Studies have shown the price of food for market participants is not the top priority; in fact the driving force behind most direct to consumer sales is freshness (USDA, 2010). Furthermore, many shoppers both direct to consumers and conventional grocery store shoppers were willing to pay more for freshness, quality, nutrition, sustainability, and helping local farmers (ibid). It is these aforementioned facets that are not clear when we speak about local food; they are as the local trap indicates assumed and in many cases do not hold true across the board.

The economic vantage point touches upon subtle tensions. These tensions are between the local and the global, which assumes that all things are equal locally and globally, who can participate, and knowledge production and reproduction. Taking cues from intersectional research on gender, it becomes clear that assumptions of equality should not remain unchallenged. It is the tension seen through the economic lens that if resolved through a PAR group could drastically transform the local food movement in Tula.

Tension arises through the economic lens when we ask who is able to participate in local food. If prices are higher at the farmers’ market how will those with minimal resources or strained resources access the market? The double up and SNAP comes back to mind, but is this enough? Price and knowledge in this case go hand in hand without both access is still limited. Take Mr. Waldrop’s study for instance. The Waldrop’s were able to live off just the SNAP benefit when the reality for most food insecure is that as the name implies the SNAP benefit is to help supplement other finances for food rather than be the sole source of funding for food. Another assumption is that the vast majority of people utilizing SNAP know any of the six points of knowledge that enabled the Waldrop’s to be
successful. Furthermore, access to the market is one thing knowing what to do with the resources therein is another with or without SNAP or double up assistance.

Of the three categories presented in this research, the economic seems the most contested. Some respondents say local food is less expensive than food derived from the conventional globalized agriculture regime, while others say just the opposite. Complicating matters some respondents acknowledge the higher prices and advocate local food is more sustainable and therefore worth the difference in price. Not all local food is sustainably grown though. Furthermore, accessibility for the food insecure is a gamble unless incentives like the double up and SNAP redemptions are available. Such incentives though only bring people to the market; the ultimate question is what are the food insecure taking with them from the market. Are they empowered or are they simply nourished or neither? Without educational outreach, the full potential for positive engagement has yet to be reached.

The economic lens creates two distinct tensions the first is over the details in comparing local vs. global food, especially in terms of price as aforementioned. The second is conveying the unspoken assumptions and qualities over local food like whether it is sustainable or not, fresher or not. This tension revolves around a shift in value between the local and the global, or more aptly between the differences in methodology behind the production of food between all food systems. How these tensions will be resolved in the Tulsa context will largely depend on how knowledge is created, disseminated, and valued and how all stakeholders engage with each other regarding the knowledge co-produced.

Can we compare price between local and conventional? Not simply, if all things are equal than yes, but that is not the case and is often part of the rebuttal from farmers’ market vendors. Many of those who do attend the farmers market see that there is something more to price, but there certainly is room for educating on some of the implicit assumptions proponents of and opponents of local food have. Such a discussion could take place between this research’s stakeholders in a PAR group.

7.1.3 Political

In this section I explore two interviews and a post by The Three Springs Farm that provides alternate meanings to local food that may help to resolve the tension as noted earlier but also springboard the local discourse to transform itself. Building off aspects from the economic discourse around local food, we now turn to the political that is the Habermasean ideal of transforming the public sphere from representational to participatory in and around food.

The “philosophical momentum” the one farmer referred to previously may manifest as freshness, quality, sustainability, social justice, local economy, or simply the view that the tomatoes at the farmers’ market are not equal to the tomatoes at the grocery store. There is something more to the farmers’ market tomato that is the draw. The farmers’ “philosophical momentum” points to another foci for defining “local” revolving not so much on distance, or economy, but on how the food is produced and cultivated. Elements of sustainability and social justice form the backdrops for many of these views. Emily Oakley writes,

“We have even had the same gentleman return two years in a row around the start of tomato season to try to pick a fight about the price of our just-off-the-vine, juicy, ripe tomatoes. “I can go to Wal-Mart and get these for a lot less,” he tells us. Does he know the tomatoes in the grocery store were picked green? Listening to criticism about local food prices bothers us on more than just a personal level. We have chosen farming as our profession in order to give our community an alternative to the food available in grocery stores. When someone grumbles about prices, it hurts more than our feelings. It hits right at the soul of why we do what we do” Oakley and Appel, 2005, p.5)

What is difficult to discern at the farmers’ market is how the farmers grow their crops. Some are certified USDA organic, others grow in a very similar way but cannot afford to acquire the USDA certification or find the process far too cumbersome. As a result, many are using “organic” but uncertified products (like cover crop seed) for cost reasons, but would have to switch suppliers and/or make financially difficult choices if they did become certified. Still, other vendors implement conventional agriculture practices and will tell you if you ask them. But that is just it, you have to talk to your farmer, you have to know how they grow their food. As a consumer, you have to understand why a farmer is growing food in the manner that they are growing it.
When asked what role farmers saw local food playing in regards to local food insecurity one respondent in an interview explained the following:

“I think it is the most obvious approach to addressing food insecurity. I think any attempt to address food insecurity by buying large scale or accepting large quantities of wholesale fruits and vegetables is a real catch 22. I think people need to eat fresh healthy food especially when the vast majority of fruits and vegetables are picked by human hands. And within the U.S. and absolutely in the developing world those items are picked by people earning substandard wages and are asked to work in not very safe or good working conditions. So we are basically encouraging poverty in farm workers so that poor people elsewhere can have access to that food and to me that issue absolutely has to be addressed because we are dealing with a form of food injustice to try to right a food insecurity issue, and to me that does not answer the question, so local food is the most obvious answer to that in my mind.”

For this farmer local food is an alternative to our conventional agriculture system, an alternative that brings up additional components like, social justice, livable wages, good working conditions, and many others in addition to food securities four pillars (availability, access, utilization, stability). This alternative takes more than just sustainably produced food. It takes an engagement between purchaser and producer. As the same farmer describes:

I think just educating customers what is available at the farmers market and to encourage them to come spend their money because we the farmers have done our part in growing the food and then we just need to have people do their part and buy it.

Farmers, as this vendor points out, are growing food for purchase at the farmers’ markets, but they are also tasked with educating customers about the food they sell and to a degree about the food system(s). To what degree the farmers or the farmers’ markets overall are successful in this task is unknown but as the following excerpts from interviews allude to there might be room for improvement.

“So getting people to come to the farmers’ market not just to come to look or carry around a cup of coffee or buy a breakfast burrito but to truly do their weekly grocery shopping at the farmers’ market and to realize that it is not just about fruits and vegetables that there are all sorts of related farmers products”

“I think sometimes I have been frustrated that there is this expectation that farmers are charging too much or should be subsidizing food for low income customers my answers is that farmers are already subsidizing the food by the low income that they make for what they do. Farming is not something you go into because you are going to make money. Farming is something you do because you believe in it, especially the type of farming you see at the farmers’ market.”

These two excerpts allude to trying to engage both food secure and food insecure in the farmers’ market. Furthermore, there is an educational component for each group. For both groups it is how to utilize the farmers’ market to the fullest. The article by Emily Oakley and Mike Appel highlights their experience with what others, namely customers, perceive the farmers’ market to be, which at times is expensive. Moreover, the quotes touch on a dynamic between seller and customer or put another way between a local food culture and a conventional one. Participants at the farmers’ market are there to a degree for the same thing, food, but as noted earlier by a farmer, each may have a different “philosophical momentum” driving their participation in the farmers’ market. There are some who buy from the farmers’ market because it supports the local economy; there are others who buy because the food is organic. Nevertheless, what is being done at the market level to educate and inform the passer-by’s on what local food is and has to offer from the vendor perspective? What is being done to transform the culture from which sprang the local food movement(s)?

“…its more than food security we have to be concerned about because just having a grocery store and having the ability to go buy fresh food at your grocery store is just not enough you need to be able to have the right to grow the food. We deal with now a lot of food justice in the sense of what is just, what equitable, what is fair. Well the fact that when you get food stamps through the SNAP program they give you this contract with your do’s and do not’s, but they don’t give the recipient of the SNAP program a whole list to tell them or either to select out or not even emphasize by the worker that they can use that SNAP benefit to buy food bearing plants,
and food bearing seeds. That is a justice issue. If you are not giving the people all the information you are withholding something that will help them help themselves. That is not right. That is not fair that is equitable that is not just you know?"

The farmer and advocate in the above interview was the only person to bring up an alternate discourse, that of food sovereignty. Additionally, this interview touches again on a tension brought up in the economic section about price and knowledge. Do the food insecure who do participate in the farmers market know they can use their SNAP benefits on food bearing plants? Do they see a value in this? Do they know how to (knowledge limitation) or if they are able to (physical limitation) grow food? The same farmer continues in the interview about what they think needs to take place.

“People wanted to build their own backyard food systems that and it needs to be organizations that doesn’t just put a garden in a space for people but that they actually take them through a process of learning how to build it. How to do a backyard chicken coup, how to do a vermin compost, how to, like in Mississippi, they do a three bin aquaponic system, they are not just doing tilapia but they are doing cat fish too, but it is like really training the people to own their own system. I think that is the most relevant perspective of food security is teaching the people how to do it.”

For the two respondents in this section growing food is a political action. It is as Emily Oakley and Mike Appel mentioned earlier, an alternative. The alternative in this case is food that is grown locally, organically, in an environmentally, socially, and economically just way. For this respondent local food is a loaded term that manifests as an alternative to our conventional agriculture system.

What do these alternative understandings of local food bring to the present discourses on food and food insecurity in Tulsa? The following analysis will attempt to shed light on a potential answer to this question. To begin, the two interviewees bring up a contrasting perspective to what the food bank is doing in and around food security, which ultimately looks at food security by looking at food insecurity and this in turn ultimately translates into food relief (Interview with CFBEO representative). Ownership in and empowerment through a food system are two ideas differentiating these respondents vision of food security to that of the food banks, which gravitates strongly to the pillar of access.

These differences are part of the same coin, and not to be looked at as competing. As previously mentioned the FAO advocates a dual track approach consisting of both food relief and sustainable agriculture. The differences between these respondents and the food bank are essential components in the discourse on local food and food insecurity and any discourse that aims to connect the two. In Tulsa the discourse revolves around food (in)security with a large focus on access. Adding layers of complexity by introducing micro-discourses such as utilization, stability, and availability, but also additional macro-discourses such as food sovereignty, sustainability, and many more, can transform the local discourse on food and food security to a point of critical mass precipitating action within and between stakeholders. What this action will look like however, will have to be decided upon by the stakeholders.

It takes an aware and engaged population of consumers and producers for changes to arise. At the CSFM both consumer and producer are engaged on many different levels and degrees. There are farmers who sell conventionally grown, but locally grown (within the state) products and are accessing local (regional) markets to earn a living. Some customers enjoy the fresh produce and products for sale at the farmers’ market, others enjoy picking up a cup of coffee from a nearby café and leisurely stroll from vendor to vendor enjoying the music and bustling atmosphere that is the CSFM. Whatever the case may be to what draws people to the market it is going to take an engagement between the vendors and the customers to keep the market alive and thriving. How each stakeholder opens access to or engages in the discourse on food and food security overall will largely determine what types of transformation are possible and how those transformation will manifest.

The reality is that freshness, quality, nutrition, sustainably produced, and helping the local economy are all implicit assumptions within the discourse on local food, as well as the value, both in price (quantitative) of the food for sale and in quality (qualitative) i.e. whether it is sustainable or conventional. These shifts in meaning and value arise both in and between stakeholder groups. Bringing these shifts to the fore of the food discourse within Tulsa may be the start of a transformation in how we understand local food and food insecurity but also in how we behave and act in a relationship to food and food relief.
At the Cherry Street farmers’ market what constitutes as sustainable is not clearly defined. There are vendors with signs that say pesticide free, no antibiotics, no hormones, and a very few vendors have the USDA certified organic label. Is organic sustainable? This and many other questions would be part of the second phase of the research, but for now it is worth noting that sustainability in the context of this research. While the discourse on local food does bring up elements of sustainability, there is little in the way of clarity as to what and how local food is sustainable. While food procured at the farmers’ market might be pesticide free or grown with organic fertilizers, are there any consequences like eutrophication of nearby water sources due to increases in nutrients as a result of fertilizing be it with organic or in-organic fertilizers? Sustainability

8.0 Reflection Points for a PAR Engagement

The essence of this paper is about a discussion with the ultimate goal of precipitating action toward reducing food insecurity through a collaborative engagement by the stakeholders. The central thesis question aims to see if local food can help mitigate local food insecurity. Much of this paper thus far has been to describe the systems of food relief and local food production and their respective discourses without directly answering the central question. I will explore the aim of this research in this reflection section in a more direct way.

The central thesis question encapsulates a diversity of people without explicitly identifying who is involved in local food production and food insecurity. There are a myriad of different actors and institutions involved with food production and food insecurity in just as many different ways. For the purposes of this research, I chose to explore four stakeholder groups and the interconnecting and often times interdependent systems surrounding each. The stakeholders were each asked a global question to keep in mind as noted from the aims section. Here I will attempt to connect the stakeholder’s global question to the larger aim in order to build an answer to the question or at least an assessment of the state of affairs. I will first examine the Community Food Bank of Eastern Oklahoma.

8.1 The Food Bank

Food Bank: How does or how can the food bank promote food security and food resilience through local food production?

The food bank has been growing every facet of its operations to continue to provide food relief to over a third of the state’s food insecure population. Year after year, the food bank is making inroads to reach portions of the food insecure population not served or underserved in the area of food relief. The reality is that not everyone in the CFBEO’s jurisdiction is able to benefit from the food banks services, but at the same time, this could never be the case. Furthermore, it is unclear what the efficiency of food relief utilization and coverage are amongst the food insecure population. As such, it is difficult to tailor resource allocation and distribution. The needs of the food insecure simply outpace the capacity of the food bank to meet those needs and there is no metric to help understand this complex gap.

In spite of the daunting task in overcoming the coverage gap with whatever resources the food bank has available to it, the food bank has been evolving through new programs. There is a growing sense, from the interviews with food bank staff that food relief will not be sufficient in the long term. While the food bank has grown, there is a sense in the interviews that something more needs to take place, but what is difficult to discern, especially given the accountability non-profit institutions like the food bank have to their financial stakeholders is how sustainable their outreach and growth will be, and what that outreach and growth will look like.

The CFBEO’s primary focus is to relieve food insecurity by providing food relief in the most tried and true approach available rather than try radical, untested methods, though the space for trying new things is definitely expanding especially in and around community initiatives. Presently the food bank has two programs that connect food security and local food production. The plant a row encourages local food production for the sake of assisting the food insecure and is, to the best of my knowledge, the largest engagement between food security and local food production the food bank has participated in to date. Despite the latter claim, however, plant a row accounts for roughly ½ of 1% of the food distributed by the food bank.
The other project currently underway, though at the time of writing there has not been any groundbreaking, involves the planting of fruit bearing trees and plants on the food bank property for the express purpose to grow food for the food insecure. This project marks the first time in the food banks 31-year history that it is growing food for the food insecure directly.

The food bank will also be planning to incorporate more SNAP outreach which serves as an indirect way of providing food relief. Moreover, if the food insecure are informed about how to utilize SNAP most efficiently there might be a direct way to connect food relief with local food. By encouraging SNAP recipients who have access to farmers’ markets, especially those with the double up food bucks program the food bank can indirectly connect the food insecure with local food production.

What I hope to convey here is that while the food banks’ efforts in addressing this question coupled with the constraints the food bank operates under functionally make answering this question substantively impossible. Furthermore, while other food banks across the country have made connections between local food and food insecurity that could answer this question, the unique culture or context particular to Tulsa and to some extent Oklahoma has largely shaped the discourse in and around local food and food insecurity. This discourse in turn has set boundaries around how we view and act in and around food and food insecurity.

Lastly, the amount of food production in the Tulsa area if it were to be accessed by the food bank is simply insufficient in quantity, availability, and accessibility. That is to say, there is not enough food being grown locally, throughout the entire year, at a reasonable price to make local food a viable option to mitigate food insecurity for the food bank or food relief agencies. In light of the limited discourse around food security, if the food bank engaged in a PAR group and the discourse on food security were to open up and mingle with elements of food sovereignty, perhaps the food bank will change course in how it goes about its mission.

8.2 Agencies

Agency: What might be done to assist in promoting local food at this agency that would help reduce food insecurity?

Similar to the food bank, agencies are heavily constrained by their limited resources, which are substantially smaller than the food banks. From the interviews with agency representatives, the global question I was asking was not the right question to be asking at this juncture in time. Given the resource constraints and size of agencies local food just is not a viable option.

Many agencies depend on the food bank for their food resources and if not they are stretching their financial resources as far as they can by typically buying food items within the parameters of their limited resources. Many agencies are not set up nor have the infrastructure to utilize fresh fruits and vegetables. Shelf stable products are preferred to perishable items that may require processing, refrigeration, and/or freezing to prevent spoilage before they can reach the food insecure. This is not however, to indicate that local food cannot be an indirect resource for agencies.

More engagement by all agencies in whatever capacity they have available with local food in addition to interagency networking can be part of the PAR discussion. Some interviewees responded by saying in essence that the wheel of food relief has been invented several times over so global limited resources are not necessarily being utilized as efficiently as possible. Collaboration be they sharing limited resources for a common project between agencies or simply alternating services such that instead of having overlap in soup kitchen coverage a schedule can be set up ensuring that every day of the week the food insecure have access to a meal or two a day.

How or what shape agency participation in local food may take is unknown, but efforts might be made to interconnect the different missions around food (in)security. Such collaborative efforts can start with a PAR group.
8.3 Farmers

Farmers: How could you or a local food movement help mitigate local food insecurity?

Farmers, much the same with the food bank and agencies in food relief have specific constraints inhibiting a bridging between local food production and food insecurity. As the interviews mentioned local farmers are growing the food; it is up to the community to invest in their labor. Production, while important is only part of what a farmer might choose to do. The interviews also indicate that the farmers could further engage the community, at least in educating the community about the food they grow and to a degree the food system.

This task is difficult since time and resources are in short supply for many farmers. The largest engagement between customers and food producers takes place in the bustling environment of the farmers’ market. The types and engagements in food related discourse(s) are limited at these venues though, and the only clear engagement with food insecure and local food producers stems from the connection of farmers’ markets with government assisted nutritional programs. Such assistance is not at every farmers’ market nor is every farmers’ market capable of being equipped with the necessary infrastructure (tokens, EBT machines, personal) to facilitate these programs.

If there were a way to assist farmers’ markets in organizing, running, and growing, especially in the government-assisted nutrition programs area, the greater the potential for the food insecure to connect with local food production initiatives. A rekindling of the statewide Oklahoma Farmers’ Market Alliance could potentially alleviate some of the setup, enforcement, and resource barriers for farmers’ markets. Additionally, the buy fresh buy local campaign is the primary source for information on local food at many of the farmers’ markets. Expanding the information to include SNAP and WICSFM sites and double up program participants can empower those who can access these markets with the information they might use to plan their participation with local food.

Accessibility, while not covered in this research, is important. How many qualify for SNAP vs. how many are registered vs. how many are registered and still unable to access food? These question will be situated in the future research section, but for the moment we can discuss government nutrition programs and accessibility.

If farmers’ markets, a source of local food, are to address food insecurity, access is going to have to be discussed further. Furthermore, nationally WIC farmers’ market derives the largest amount of money in terms of disbursement yet there are 6-10 vendors in the state and one market that is able to accept WIC, compared to the expansion efforts of the SNAP and Double Up programs (USDA, 2012a; USDA FNS 2012b;c). This is the opposite of what is happening at the national level where more WICFMNP is redeemed at farmers’ markets than SNAP. Though the trend for SNAP seems to be outpacing WIC FMNP, which is to be expected from a program that has nearly 45 million participants it is almost 5x the size of WIC, and 27x the size of WIC FMNP (USDA FNS 2012b;c). Engagements between vendors, farmers’ markets, city officials, and food policy council representatives in a PAR on streamlining government assisted nutrition programs might yield fewer barriers and better access and utilization between all parties involved.

SNAP is also not at all markets. The primary driving force behind the utilization of SNAP at farmers’ markets stems either from market managers or farmers’ market boards. The cherry street farmers’ market for example has a farmers’ market board as well as a market manager. The market manager with the help of an assistant distributes SNAP tokens, which are given to the SNAP participant after swiping their EBT card for an allotted amount.

Through the efforts of the farmers’ market board and the work of the farmers’ market manager SNAP is turning out to be a successful endeavor, especially coupled with the double food bucks program. There are, however, comparably sized farmers’ markets in the area that do not accept some or any of the government assistant nutrition programs.

There are many possible reasons why government assisted nutrition programs are not more widespread. From discussions with market managers, WIC is not accepted due to the demands it places on the farmer or market manager (each individual farmer must fill out an application). Whereas WICSFM on the other hand, through the Osage nation, and SNAP are at the market level, WIC may only be done at the vendor level or at least consolidated as is the case with the North Tulsa farmers’ market. The market manager at this farmers’ market works with the
vendors to streamline the process. This helps facilitate WIC acceptance at this particular farmers’ market but ultimately the question is scale. The northern Tulsa farmers’ market has less than 10 vendors; will similar efforts be practical on a larger venue such as the cherry street farmers’ market?

The CSFM manager already has their hands full working with SNAP/DEBIT/ transactions, banker, vendor rent collector, information booth, startup and tear down, not to mention they are a full time farmer as well. If this is the case perhaps policy efforts to streamline this process or enable a market level access point would be most beneficial, but such a discussion would have to take place between several stakeholders. This would be a case for the farmers’ market boards to have a discussion with the food policy councils and even the food bank (who can lend support in pushing an agenda) on making WIC more accessible at farmers markets, perhaps in a PAR engagement.

For some farmers’ markets in this study SNAP, WICFM, and the double up program continue to enable access to an alternative source of fresh fruit and vegetables. To what extent socio-economic factors keep the food insecure from fully engaging the farmers’ market or the food resources therein is unknown, but educational outreach at the farmers market could be a powerful approach in bridging this divide. Teaching consumers how to utilize the resources at the farmers’ market, be it the locally sourced food or the fruit bearing plants, will have a drastic effect on the food discourse but also consumer behaviors.

The discourses on food and food security shape, to a degree, how we participate in local food and food security. By opening up these discourses to viewpoints and experiences from a diverse number of stakeholders, the PAR group can transform not only the discourse but also transform the food movement in Tulsa along with how we address food insecurity.

### 8.4 Food Insecure

**Food Insecure:** How can local food or participation in local food production help reduce your food insecurity?

This question has no response to it. As noted in the methods as well as in the section 8.5.3 in research observations on methods, participation with the local food insecure was riddled with challenges that I as a researcher did not have the time to overcome. The population of food insecure I predominately had access to speak with were homeless individuals, many chronically homeless.

For some of the homeless individuals there were mental and physical problems, chemical dependencies, lack of education, lack of a home, finances, transportation, and a myriad of other social categories, situations, and experiences or a combination thereof all making it difficult for a group of people (food insecure or homeless) to acquire the food they need and engage in a food system for an active and healthy lifestyle. There are too many different, often times overlapping, causes of food insecurity that go beyond the question of food.

Without addressing or at least situating many of these aforementioned categories, situations, and experiences food relief will have a minimal effect on mitigating food insecurity for the longue durée. Further notes are in section 8.5.4.1.

### 8.5 Research Observations

In this section, I will discuss a few observations that will be left for further scrutiny ideally in a PAR engagement session between stakeholders.

Additional groups and institutions emerged as the research progressed that may also benefit the discourse and be benefited by an evolving discourse on food and food insecurity. When I first arrived in Tulsa and began speaking with agencies and seeing what was being done in and around food and in the name of food security, I came to a realization that there are hundreds of actors, a spectrum ranging from one person to diverse institutions, working diligently on food insecurity and local food production.

Many of these individuals and organizations were doing very similar things like feeding food insecure families or setting up raised beds in neighborhoods. There were also other individuals and institutions doing very unique things
like retrofitting a school’s greenhouse with solar cells. In both cases there seemed to be very little interdisciplinary networking between organizations and in some cases it appeared that, because of being disconnected from each other, organizations were re-inventing the wheel at times. Part of this is due to many agencies not knowing about other agencies and their missions or capacities for mutual engagement. Another part is agencies spreading themselves thin trying to single handedly address the multiple facets of food insecurity. Furthermore, what overall changes have these projects had on reducing food insecurity in the Tulsa area?

8.5.1 The Food Policy Councils

Behind the front line actors like the food bank, agencies, and to a degree local food producers, are two food policy councils in the area and both are very young and still trying to get on their feet and find a direction/mission. The Oklahoma City Food Policy Council has been making inroads on the policy side while the Tulsa Food Policy Council has been working on acquiring the means to purchase a multi-bay truck for the purposes of food distribution in food deserts.

Additionally as part of their initial grant, the TFPC is currently creating an inventory that details agencies in the area and the services they provide. Prior to the truck acquisition initiative, the TFPC received a grant that was used to install raised beds throughout Tulsa County, predominately at schools.

The Tulsa food policy council is trying to initiate a mobile pantry, similar to what the food bank is doing. While this is a notable pursuit one may want to question is this what the FPC is needing to do. A voice on food policy for the local food producer is needed to help cultivate this sector. I am not trying to criticize the TFPC, it is alluring to want to engage in food relief, but there are institutions out there that specialize in relief who are not set up to advocate policy adjustments.

The Food Policy Council is actively trying to make WICFMP more accessible, both for the food insecure but also for vendors at the farmers’ markets who are belabored by the book keeping demands of the program. Like SNAP, WIC can be a farmers’ market level program rather than a vendor level one.

8.5.2 Farmers’ Market

Farmers’ markets are a somewhat amorphous entity to refer to, that is they are comprised of vendors and consumers in the least, but some also have market managers, civil servants, farmers’ market boards or volunteers organizing the markets. Farmers’ markets form the boundary where local food meets the community. As was noted in the interviews education is something that could take place in the market between the vendors and the consumers. Education is a little difficult however, if you are a vendor trying to sell your products to passersby, stepping aside from ones stall and having a discussion is not an option.

In some ways, the buy fresh buy local campaign has stepped in to help spread an understanding and educate passersby’s on local food. The campaign does this in a manner that washes over some of the nuances between vendors and in some cases does exactly what the local trap informs us we should not do, which is to confuse the scalar with a desired outcome. How can the farmers’ markets provide the necessary information to educate or challenge consumers to see the differences in value between vendors, the conventional agriculture system, and to enable the consumer to engage in the discourse on food or food insecurity? This is not just for the consumers who have money, but also for the food insecure who attend the markets as well.

SNAP expansion and double up expansion while enabling access is important it is only part of a larger question on how is the farmers’ market empowering the food insecure to better utilize the farmers market and the resources therein? Is the farmers’ market, namely the vendors, able to help (actively, rather than passively, that is when asked) is there something actively challenging customers to open up their minds to the different foods?

Further research into the farmers market, especially in terms of pricing, could be beneficial for determining whether local food is more, less, or equal to conventionally grown products sourced from around the world. The following recounts my experience with the farmers’ market, which challenges both the information in some of the interviews as well as literature on pricing. For much of the summer the U.S. continued to experience drought conditions starting
back in 2010. 2012 however, was one of the most widespread droughts affecting around 80% of the contiguous United States. The drought coupled with pests this year did have an effect on price and availability of certain types of produce.

Emily Oakley had mentioned that the farmers’ market prices were more often lower than more conventional food outlets as noted by the study done by the Three Springs Farmers. A personal observation complicates this assessment in that throughout the growing season the price of tomatoes greatly fluctuated from anywhere between 2.00$ per pound to more than 5.00$ per pound depending on the vendor. Prices were observed to rise as the growing season wore on and as the effects of the drought drastically diminished the availability of tomatoes from most vendors. Availability and pricing behaviors at the farmers market mimic to a degree those in conventional outlets when the food supply is diminished. To what extent local food systems are similar or different from conventional systems in these regards would be the focus of future studies.

There are dozens of crops that can grow in Oklahoma both during its ideal growing conditions but also during its harshest. Furthermore, there are dozens of edible plants that grow in Oklahoma that are found exclusively at the farmers’ market. The tragedy, however, is the difficulty in encouraging people to step outside of the cultural norms surrounding food. Many plants that fall into this category like amaranth, Turkish cucumbers, and buckwheat are not staples in the diets of Tulsans or many in the U.S.. Bridging the gap between edible foods and what is considered culturally appropriate is a very large challenge for the farmers’ market.

The farmers’ markets face many challenges in providing a space for local food producers to come together to sell their products to a consumer base that has historically been detached from their food system. To assist in overcoming some of these challenges there used to be a farmers’ market alliance. The alliance that was geared at helping markets establish themselves, something like this would be invaluable as there are some markets that are not monitored well, do not accept SNAP, WIC, SFM WIC and would need assistance if they did. Re-establishing some statewide organization may help facilitate in overcoming many of the barriers vendors, consumers, and the food insecure face when participating in farmers’ markets.

8.5.3 Methods

There were some issues with having a conversation with some of the food insecure. They were willing to speak with me, but then they would provide one-word answers, so I was not able to engage them on their terms very well.

In one interview at a soup kitchen, some “guests” as they are called were sharing some bar-b-q one of the individuals procured from a dumpster. There was camaraderie, which seems promising that they can work together and share their experiences in a group atmosphere. Many know each other, greet each other, share food, cigarettes, and look out for each other. Perhaps the problem was trying to sit down as an outsider one on one.

There were some problems with the questioning approach and/or the response. For example, the first question on the questionnaire (see Appendix A) though I presented the question and the person I am speaking with provides an answer, it seemed obvious that this was not the full story. The method of interview questions was not sufficient at getting the information I wanted that would paint a picture of reality in the complexity that seemed so blatantly obvious but so very difficult to articulate in question form. When asking people what some of the characteristics were that contributed to food insecurity and stressing that multiple answers could apply, more often than not I was given a single answer, again when it is obvious that there are overlapping causes, intersections if you will, contributing to a person’s state of affairs.

Furthermore, I do not discount either the persons perspective on the matter, perhaps their response indicated what was most pressing that day or perhaps they do not see the intersections. Indeed I agree and think truthful the response given, but it seemed clear there was more there to discuss, but the method chosen seemed insufficient at fleshing out a more complete understanding of what the individual was saying. I think a PAR group would be the first step before continuing with step two of this future research but to also begin step one, which is getting to know the stakeholder(s), at least for certain stakeholder groups in the study.
As mentioned earlier this research focused on predominately urban homeless persons. While information gleaned from the urban community is important and potentially valuable in finding solutions for food insecurity in an urban context, it is insufficient at describing the reality and the intersections that form the basis for rural food insecurity. The differences between urban and rural as they relate to food insecurity complicate matters especially food relief. With minimal resources in rural areas (stores, quick-marts, etc.) and low population densities, food relief in rural communities is simply more resource intensive than its urban counterpart.

Lastly, the groups or stakeholders presented in this research are by no means exhaustive. There are countless individuals and agencies of varying size, scope, and capacity involved in food relief and food security efforts throughout Tulsa. It is from my experience in this area, both in topic and in Tulsa that I arrived at seeing the four main stakeholders as nodes, interconnected and branching, within the web of relations that encompasses food relief, food production, and food security. Future research broadening the scope of participants in the aforementioned web of relations may enrich the discourse of food relief, food security, and food production.

### 8.5.4 Future Research

The following touches on additional research that could benefit the content of a PAR engagement, food relief, and the overall understanding of food security. Furthermore, this section serves to underscore any simple solution or approach to this thesis central question.

#### 8.5.4.1 Gender Studies

What I find interesting regarding food insecurity is that on the whole it can transcend, gender, class, ethnicity, disability, age, and a whole host of social categories, but at the same time it is at the intersections of many of these social categories that a barrier forms preventing food security for the individual or family. Examining statistics for two ethnic groups and one spatial category of food insecure from the FRAC (2012b) website:

**Hispanic Americans**
1. More than one in four (26.2 percent) Hispanic households experienced food insecurity in 2011, a significantly higher rate than the national average (14.5 percent). Among Hispanic households, 17.8 percent faced low food security and 8.4 percent faced very low food security, the most severe incidence of food insecurity.
2. Almost one-third (32.3 percent) of Hispanic households with children faced food insecurity, a much higher rate than the national average of 20.6 percent.
3. 25.3 percent of Hispanic households lived below the poverty line in 2011. Hispanics were the only ones to see a statistically significant decline in their poverty rate, dropping from 26.5 percent in 2010 to 25.3 percent in 2011.

**Black Households**
1. One in four (25.1 percent) Black non-Hispanic households experienced food insecurity in 2011, a significantly higher rate than the national average (14.5 percent).
2. Among Black households, 14.6 percent faced low food security and 10.5 percent faced very low food security, the most severe incidence of food insecurity. 29.9 percent of Black households with children faced food insecurity.
3. 27.6 percent of Black households lived below the poverty line in 2011.

**Rural Households**
1. In 2011, 15.4 percent of nonmetropolitan households experienced food insecurity, slightly below the rate of metropolitan areas (17.7 percent). The rates for households with children are even higher: twenty percent of rural households with children are food insecure.
2. The prevalence of food insecurity was higher in the South (16 percent) and West (15.8 percent) than the Midwest (13.5 percent) and Northeast (13.5 percent).

Additionally, studies by the USDA and FRAC have already shown that gender, ethnicity, age, and even location can impact the degree of food insecurity but knowing the causes behind these disparities or the intersections has not

---

16 The two ethnic groups can be interconnected with the spatial category effectively magnifying their hardship.
been explored in any of the research leading up to this paper. An intersectional study\textsuperscript{17} focusing on power relations and structures may shed a different light on the disparities between food insecure persons and families.

### 8.5.4.2 Food Miles and Food Relief

Food relief at this juncture is compounding some of the environmental degradation and social injustice already present in the systems we live in. Food relief is derived from purchasing or receiving donations of food coming from the present conventional capitalist agricultural system. While this is perhaps the least expensive food available, it is also food that has travelled even further than the 1019 to 4200 miles in its life cycle to reach a plate.

### 8.5.4.3 Demographic Characteristics

The further distinction between chronically homeless and food insecure vs. transient food insecurity needs to be better studied in Oklahoma. For example, we might want to know how many chronically homeless are receiving food relief, where they are receiving this relief, and how often? Knowing this may draw our attention to deficiencies not so much in food relief but in the equally important other-factors (socio-economic, mental and physical health, education, etc.) contributing to a homeless persons continued reliance on food relief.

### 8.5.4.4 Culture

Perhaps one of the most important but lacking assessments in this study, which would also fit in line with the PAR approach is some form of explication of critical theory as it pertains to food and food security. A historical critical assessment of our present food culture could provide additional support for alternative food systems, such as the farmers’ market, but it may also shed light on how narrow our understanding is of “culturally appropriate” food in the U.S.. An understanding of how we came to relate to the food systems we are in can help in transforming these food systems. Hopefully exploration into critical theory might provide a framework to challenge peoples perspectives without ostracizing or debasing them. This would also mold well with the communicative action aspect of the PAR engagement.

### 9.0 Conclusion

The paradigm operating in the food discourse in Tulsa Oklahoma is centered in and on food security, but this is just one paradigm amongst several, such as sustainability and food sovereignty. I think this could possibly be explained by the cultural paradigms operating in the overall U.S. food discourse as well as the discourse in Tulsa on food too. Operating within this paradigm without self-reflexivity prevents one from addressing the deficiencies of the very paradigm one is in, which can and seems to render efforts at reducing food insecurity ultimately deficient in reducing the very goal food relief institutions set out to do.

Food relief must be coupled with a longer-term strategy for reducing food insecurity in all its forms (FAO, 2011b). The fundamental question then is who along with the food banks and hundreds of agencies and partner programs will take up such a task? Many, including myself feel the food bank could take on this role, or is at least better equipped than most to start the discourse to seed future action in this vein. That said recognizing the burden this places on an already overburdened relief system(s) and what effect this might have is an important point to keep in mind when assessing the feasibility of such a pursuit. Furthermore, we have to realize that this is not necessarily the structure of the food bank or its agencies and partner programs, which means either a transitional approach might be needed, or new yet thought of ways to make this transition within the community could be proposed. This is the importance of the PAR approach and the democratic engagement between food insecure, food producers, the food bank, agencies, and the community. A new discourse could emerge within these stakeholders and a common ground on whom and how such a monumental task will manifest.

\textsuperscript{17}Exploring “hierarchies of power are cross-cutting; it is likely that a person will be simultaneously advantaged by particular identities and disadvantaged by others” (Steinbugler, Press and Dias, 2006).
So can local food help mitigate local food insecurity. Well local food engagement on the part of local food producers and the food insecure, as exemplified by the double program is helping to transform how people go about procuring items through SNAP, but it might be safe to say that these individuals would have purchased items from their usual food procurement locations as they represent a very small portion of. This indicates the allowance for subsidies to exist in order for the vast majority of food insecure willing and able to participate in the farmers’ markets to do so. Access and utilization are being modified or transformed, but on the whole has this led to a decrease in the number of food insecure or the demands placed on food relief agencies?

In the end, an interdisciplinary approach involving the food policy council to reform current food policy, farm policy, and any and all documents directly or indirectly related to food; the food bank for providing immediate food relief, local food producers to strive for sustainable agriculture practices and initiatives, the community to become aware, informed, and engaged in their local food systems, their community, and a project to build a better tomorrow. There are many people, organizations, institutions that will be part of this project, but to start we need to have a self-reflexive discourse on food.

Furthermore, there are micro-discourses missing from the overall macro-discourse, namely with things like sustainable development, food sovereignty, utilization and food justice. The reality is, however, that these latter discourses are so fundamentally unfamiliar to Tulsa, overall, and to a degree the U.S. culture as a whole, they would challenge the very fabric of the current cultural paradigms, and I just do not know how to see the necessary transition from the present paradigm to the alternatives (or a combined alternative). It is as if, in these PAR groups, which would be mediated, the participants would have to throw out everything they know in and around food and rebuild it critically. It would not just entail doing research as I have done, but to actually live by the Habermasean ideal of communicative action and legitimacy.

The discourse on local food is complex, filled with interconnected meanings and assumptions. To separate the discourse into three general areas as I have explored reduces this complexity but also washes over the nuances that make long-term sustainable solutions feasible. For example if we look through the filter of geography and ask whether our food is local we may focus on distances of production and consumption and how it is helping the local economy, and shy away from aspects of the globalized conventional agriculture system. In turn, customers may face higher prices, seasonal disparities in product availabilities, and directly or indirectly promote unsustainable agriculture practices.

If, on the other hand, we examine local food through the filter of sustainability then culturally we might have to accept the availability of foods based on region and season, potential increases in food prices, which can be detrimental to low-income households and persons, and an engagement with food that drastically differs from today’s food system(s). Furthermore, sustainable growing would have to be coupled with sustainable cultural practices that would reduce the waste of food, promote healthy lifestyles and eating habits.

Can local food help mitigate local food insecurity? The answer is complicated. While there is not enough local food produced for everyone nor is it available or accessible to everyone, there is a transformative potential within the local food and food security discourses. Where local food is at, at this juncture in time, can be greatly improved upon and promoted to evolve into a food system(s) that meets the needs of the community(ies) it serves. The boundaries of this evolution can be set between stakeholders in a PAR discussion and the evolution of the local food discourse taking heed of the local trap.

What is clear throughout the research is there are complex cultural relationships that are contributing to increases in food insecurity statistics like the rising overweight and obesity levels, the number of food insecure, and the disparities between the food insecure. It will take a collaborative effort from different parts of society to both understand more fully the dynamic between local food production and food insecurity, and an even greater effort to come up with a comprehensive solution that empowers the food insecure, the community, and establishes human and extra-human relationships that enable and empower us to co-exist through time sustainably.
Works Cited


Introduction to the basic concepts of food security. Rome: FAO.

The State of Food Insecurity in the World. ROME: FAO.


Food insecurity is not associated with childhood obesity as assessed using multiple measures of obesity. Journal of Nutrition, 139(6), pp.1173-1178.


A Review of Utopian Themes in Sustainable Development Discourse. Sustainable Development, Published online in Wiley Online Library. DOI: 10.1002/sd.522.


Appendix A: Interview Questions

Global Research Question: What potential is there for local food initiatives to assist in mitigating food insecurity in Tulsa Oklahoma?

How can more room be created for such ventures?

Farmers: How could you or a local food movement help mitigate local food insecurity? (Volunteering time to teach people how to farm, donation of produce, organizing CSA in your neighborhood, getting established with a local farm to school program)

1.) What does food security mean to you?
2.) How do you think food insecurity should be addressed?
3.) What does local food mean to you?
4.) What role do you see yourself playing in a local food (movement)?
5.) What role do you see local food in assisting with local food insecurity?
6.) What are some of the challenges in trying to market or sell your products/produce/goods locally?
7.) How might the local food movement work with the local food bank?
8.) Are you involved or could you see yourself working with the food insecure in any of the following?
   i. Home gardening (teaching how, seed exchange, etc)
   ii. Allotment gardening (help locate, teach, get started)
   iii. Garden Shares (establish, teach, oversee, get started)
   iv. Community gardens, orchids, CSA’s (establish, teach, get started)
   v. Farmers Markets
   vi. Food co ops (participate, educate)
   vii. School projects (organize, teach, help start gardens, farm to school programs, etc)
   viii. Local food events (organize local food producers, networking, seed exchanges)
9.) What other challenges or opportunities do you see for local food to assist in reducing local food insecurity? (More opportunities for local food to be sold at local stores for example?)
10.) Do you have any questions for me or would you want to rephrase questions that I have asked?

Food Insecure: How can local food or participation in local food production help reduce your food insecurity?

How did you hear about this food relief/food assistance center/Farmers Market?

   i. What went into you choosing to come here?
2.) Is it your first time at this center/market?
   i. Do you visit other food relief centers/markets?
3.) Do you know about the food bank?
4.) What does food relief/food assistance mean and consist of for you?
5.) What if any types of food assistance do you receive and how often? (WIC, SNAP, groceries through food pantries)
6.) Do you know of the farmers markets? Do you know they accept SNAP benefits? Would you be interested in shopping at the farmers markets if they provided double SNAP benefits or WIC benefits?
7.) What could be improved with food relief/food assistance from your perspective?
8.) What do you usually buy for food? What goes into your choices when you are at the store?
9.) Can you tell me about your food habits? Moreover, what influences these habits? (Whether you cook, know how to cook, go out to eat regularly, do you eat a balanced diet? How many meals do you eat a day, Are you able to cook and freeze foods or do you prefer eating freshly made food?, does the pressure of not having enough food prevent you from eating two meals a day or do you have to skip meals because your ran out of food and have nothing to buy)
10.) What do you take local food to be?
11.) What are your thoughts on gardening? Do you know how to do it? Would you be interested in learning? Would you be interested in participating in gardening as a requirement to get food? Or participating in gardening as a way to feed yourself?

12.) Do you have any questions for me or would you want to rephrase questions that I have asked?

Agency: What might be done to assist in promoting local food at this agency that would help reduce food insecurity?

1.) What services do you provide in relation to food?
2.) What is food insecurity to you?
3.) How might this facility be better situated to address food insecurity?
4.) What do you take food relief to mean?
5.) What are some of the most common reasons the food insecure come to this center?
6.) Is there any possibility of starting a small community garden here or near here, Allotting small free space for gardening purposes, incorporating functional landscape, or utilizing container gardens on site? Moreover, would this interest you in starting?
7.) What do you take local food to mean?
8.) Do you see any way to team up with local food producers in the area to acquire your food needs? Why or why not? What about your situation makes this feasible or not?
9.) What improvements could be done to the food relief system that would reduce food insecurity from your perspective?
10.) Do you have any questions for me or would you want to rephrase questions that I have asked?

*Look into the type and quality of food being distributed on hand and offered by the agency but also the food bank.

Food Bank: How does or how can the food bank promote food security and food resilience through local food production?

1.) What is the role of the food bank?
2.) What is food insecurity for you?
3.) What role does the food bank have with food security in your opinion?
4.) How do you envision food security taking shape within Tulsa Oklahoma?
5.) By your best assessments what is the state of food insecurity in the Tulsa region?
6.) What are some of the causes you think contribute to this food insecurity?
7.) Why has food insecurity been as persistent as it has in Tulsa?
8.) Do you see the food bank addressing these causes, if so, how? If not how come?
9.) What are some of the new initiatives the food bank taking to address food insecurity?
10.) What is the long-term strategy to combat food insecurity? If possible touch on Access, availability, utilization, stability
11.) What do you take local food to mean?
12.) How does the food bank work with local food movements, local food production?
13.) What role, if any, do you see local food playing in local food security?
14.) Do you see a local food movement within Tulsa, which the Food Bank can work with toward the larger goal of mitigating food insecurity, and perhaps creating food security/sovereignty? In what ways?
15.) To what extent is the food bank taking part in transforming Tulsa food policy through the TFP council to empower local food initiatives?
16.) What community supported agriculture initiatives in the area are important to the food bank? Moreover, how might efforts be made to expand these interests or develop them further?
17.) Could you touch on the nutritious quality of the food on offer by the food bank or being distributed?
18.) What do you understand food sovereignty to be? What relation does this have with food security? Do you think the lack of food sovereignty contributes to food insecurity?
19.) Do you have any questions for me or would you want to rephrase questions that I have asked?