

Syracuse University

SURFACE

Theses - ALL

January 2017

Exploring Scale and Boundaries in Food System Assessments

Jane Christine Mulcahy
Syracuse University

Follow this and additional works at: <https://surface.syr.edu/thesis>

 Part of the [Social and Behavioral Sciences Commons](#)

Recommended Citation

Mulcahy, Jane Christine, "Exploring Scale and Boundaries in Food System Assessments" (2017). *Theses - ALL*. 142.

<https://surface.syr.edu/thesis/142>

This is brought to you for free and open access by SURFACE. It has been accepted for inclusion in Theses - ALL by an authorized administrator of SURFACE. For more information, please contact surface@syr.edu.

Abstract

The local food movement in the U.S. has permeated popular culture and academia; it has even infiltrated non-profit work, urban and regional planning, and government entities. By its very name, the local food movement binds food activity to a scale – the local – that is nebulous and context dependent. Scale is a crucial part of the discourse and implementation of both local food movement efforts and food studies research – scale is used to conceptualize local food system (LFS) efforts as well as implement them. This thesis explores how scale is operationalized in LFS activities through food system assessments (FSAs), a first step many practitioners take in food system planning efforts. It examines how FSAs employ, construct, and complicate scale in LFS activity and discourse. Through an analysis of eight FSA case studies, including interviews with FSA contributors, three themes emerge: (1) FSAs are a collaborative process that are context dependent and can lead to material and scalar dependent consequences, (2) by using a food system perspective, FSA contributors complicate and call out arbitrary political boundaries and normative definitions of ‘local’ and ‘regional’ that are commonly used to define a food system, and (3) FSA practitioners employ a binary mode of thinking in which the local and global scale are perceived as separate, unrelated entities, and practitioners thus exclude large-scale food system perspectives from their FSAs. This thesis argues for a more nuanced and critical approach to scale in food studies research and food systems practice.

EXPLORING SCALE AND BOUNDARIES IN FOOD SYSTEM ASSESSMENTS

by

Jane Mulcahy

B.A., Syracuse University, 2010

Thesis

Submitted in partial fulfillment of the requirements for the degree of Master of Arts in
Geography.

Syracuse University

May 2017

Copyright © Jane Mulcahy 2017
All Rights Reserved

Acknowledgements

This thesis is absolutely a collaborative project and could not have been completed without the generous help of the SU Geography faculty and staff, my classmates, or my family and friends. A big thank you to the interviewees for generously taking time out of their busy days to share their experiences and thoughts with me. This project would not have been possible without you.

A special thank you to Jonnell Robinson for dedicating so much time to reading my drafts, talking through my ideas, and making sense of my words even when I could not make sense of them. Your support and encouragement made a huge difference. Thank you for your commitment to pushing every project to be better, no matter what it is – it has made me a better thinker, writer, and geographer.

Thank you to my wonderful committee. Tom Perreault, thank you for introducing me to geography and food studies back in 2008 and for approaching each class, lecture, and conversation since then with enthusiasm and gravitas. Your generosity of spirit and helpfulness over the years have been instrumental in allowing me to pursue these geographic endeavors. Evan Weissman, thank you for helping to guide me through this process and providing valuable and helpful feedback. Thank you to Rick Welsh for making school so much fun, focusing on what really matters, and making the material so accessible and easy to grasp.

To my classmates – thank you, thank you, thank you! For your mental and emotional support, for making me laugh, for your encouragement, and for instilling confidence in me when I needed it most. Your support and friendship have been paramount to my success. You're a quirky and awesome group of people, and I am so lucky to have spent the past two years getting to know you.

Finally, infinite thanks to my family and friends for your unwavering support and encouragement, and a special thanks to Trevor for bearing the brunt of my thesis-related frustrations and supporting me regardless, and for always having faith in me.

Table of Contents

Chapter 1: Introduction.....	Page 1
Chapter 2: The Production of Scale and Scalar Language in Food Systems Discourse.....	Page 18
Chapter 3: The Who, What, Why, and How: Components of a Food System Assessment..	Page 43
Chapter 4: Food System Assessment Boundaries and the Global-Local Binary.....	Page 72
Chapter 5: Conclusion.....	Page 91
Appendices:.....	Page 99
Bibliography:.....	Page 102
Curriculum Vitae:.....	Page 108

List of Illustrative Materials

Figure 1: Community and regional food system diagram.....	Page 3
Figure 2: Summary of attributes associated with global and local agriculture.....	Page 30
Figure 3: Kansas FSA partners.....	Page 55
Figure 4: Forsyth County Community FSA study area.....	Page 74
Figure 5: Capital Roots FSA boundary: the Greater Capital Region Foodshed.....	Page 75
Figure 6: Lakes to Land Regional Initiative FSA boundary.....	Page 77
Figure 7: FaHN SCNY regional FSA boundary.....	Page 78
Figure 8: Northwest Arkansas four-county region.....	Page 80
Figure 9: Northwest Arkansas four-county region within the Ozark region.....	Page 80
Figure 10: Greenville Area FSA “Upstate Region”.....	Page 81
Table 1: Organizations involved in each FSA.....	Page 45
Table 2: FSA goals and motivations.....	Page 51
Table 3: FSA outcomes.....	Page 69

List of Acronyms

AES: Alliance for Economic Success

CDC: Centers for Disease Control and Prevention

CFA: Community Food Assessment

CSA: Community Supported Agriculture

EFSNE: Enhancing Food Security in the Northeast

FPC: Food Policy Council

FSA: Food System Assessment

FaHN: Food and Health Network

JH: Johns Hopkins

KRC: Kansas Rural Center

LFS: Local Food Systems

LtLR: Lakes to Land Region

NESAWG: Northeast Sustainable Agriculture Working Group

NWA: Northwest Arkansas

NWARFC: Northwest Arkansas Regional Food Policy Council

SCNY: South Central New York

SNAP: Supplemental Nutrition Assistance Program

USDA: United States Department of Agriculture

Chapter 1: Introduction

I first learned of a food system assessment (FSA) while speaking with a small-scale organic farmer from Homer, New York. I had called Allan of Main Street Farms to conduct a preliminary research informational interview. One option Alan mentioned for a possible topic of exploration was a food system assessment he had participated in a few years earlier. It was conducted by the Food and Health Network (FaHN) of South Central New York, a coalition of diverse stakeholders that works to develop a thriving, healthy, and food-secure regional food system. I was intrigued by the idea of an assessment of “south-central New York,” and I was immediately curious about how one would go about assessing an entire food system. From what I know about a food system, it is a complex network linking agricultural products to dinner tables and vending machines alike, and includes actors participating in local, domestic, and international supply chains. Given that definition, how would FaHN define and bound the *South-Central New York* food system?

I quickly learned that FaHN was not the only organization using FSAs to foster and support a strong local food system. Organizations across the country have been utilizing FSAs for decades and some planning scholars claim their prevalence has grown since the early 2000s (Freedgood et al. 2011). A FSA is a tool utilized by any type of organization – a non-profit, a consultant, a county or city government, a food policy council – to gather agricultural data, stories from farmers and food processors, food security data, numbers and locations of farmers’ markets – anything that speaks to the food system of a particular area. It is often used as a first step in food system planning – an emerging area of interest, research, and activity according to the American Planning Association (Born et al. 2007).

The ability of an assessment to frame and define a food system underlies the assessment's importance in food system planning and practice. It is the foundation on top of which many food and agricultural programs, policies, and organizations are built. A FSA can be utilized as a lens through which to understand current food system practices in the U.S. It can also be used as a lens through which to examine how theoretical (or perhaps aspirational) concepts of a food system – be it a local, regional, or community food system – are defined in practice. Before delving into the specifics of my research questions, I will touch on some broader topics around FSAs that will create a clear framing for my project.

First and foremost, what is a food system? I answer this question by reviewing past and current definitions of food system, along with the term's use in connection with scale and food production practices (i.e. organic or conventional). Second, what is a local food movement, and where do FSAs fit into that movement? After a brief overview of the food movement and the work of folks I call food system practitioners, I summarize the research that has already been carried out on FSAs to expose a lack of critical research on the topic. Finally, I outline my research questions and the methods of my study of FSAs. I conclude by outlining each chapter of my thesis.

Setting the scene: Food system, agri-food movement(s), and food system assessments

The use of the term “food system” in recent academic literature can be traced back to Dahlberg's 1993 essay that introduced and supported the concept of regenerative food systems as a sustainable form of agriculture¹. Many food studies² scholars reference and draw upon

¹ Dahlberg (1993, 81) defined sustainable agriculture as “(1) Sustainability as long-term food sufficiency, i.e., food systems that are more *ecologically based* and that do not destroy their natural resource base. (2) Sustainability as stewardship, i.e., food systems that are based on a conscious *ethic* regarding humankind's relationship to other species and to future generations. (3) Sustainability as community, i.e. food systems that are *equitable* or socially just.”

² To learn more about the history of food studies as an academic discipline, see Weissman et al. 2012.

Dahlberg's (1993) essay as a cornerstone piece in the beginning of food systems and food studies research and practice (Carolan 2016; Delind 2011; Noll 2014). Dahlberg (1993, 81) defined food systems as including:

(1) production processes and inputs, (2) food distribution, (3) food preparation and preservation, (4) food use and consumption, (5) the recycling and disposal of food wastes, and (6) the various support systems – which will vary by level – that are required for the viable operation of the food system. Examples include marketing systems, transportation and distribution systems, storage systems, and a range of government services, such as research and extension.

“Food system” prevails as a popular way to conceptualize, study, and talk about food and agriculture in the U.S. Today, a food system is commonly defined as the many steps food takes to get from farm to plate, and all the people and networks connecting those stages. Another common layer of the food system definition is the social, environmental, economic, and political ramifications and impacts of food and agriculture. An example of this additional layer can be seen in Figure 1. The circle on the right lists the stages food goes through from production to consumption. The circle on the left includes “sustainable ecosystems, healthy people, strong local economies,” etc. (Day-Farnsworth and Pratsch 2017).

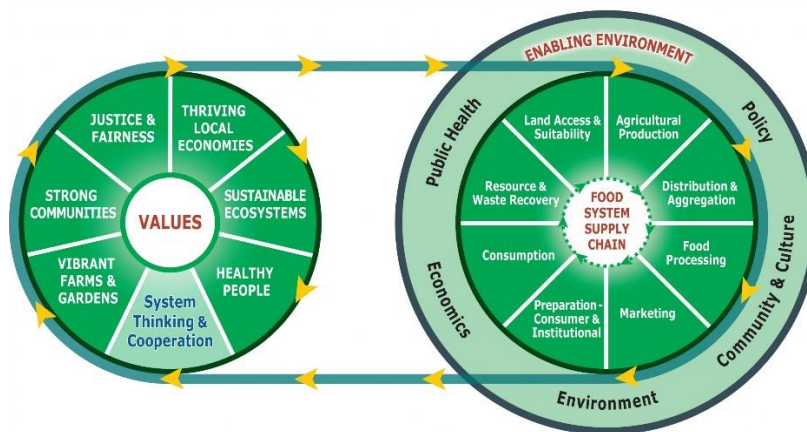


Figure 1. Community and regional food system diagram (Day-Farnsworth and Pratsch 2017)

Within the U.S., a food system is often discussed in conjunction with scale, as in local, community, global, regional, New York City, or Chesapeake Bay, for example.³ As Feagan (2007, 33) notes, “local food systems are orientated around some form of geographic delimitations of space variously labeled the local, place and the community.” A food system is also often connected to the nature of production practices – as in conventional, sustainable, organic, or industrial. Even more often, scale is conflated with a particular production practice. For example, definitions of a local, community, or regional food system often include the notion of environmentally sustainable and socially just practices in the production and consumption of food. One example comes from a watershed article entitled “Coming in to the Foodshed” (Kloppenburg et al. 1996), which influenced many food studies scholars of the 1990s and early 2000s. Kloppenburg et al (1996, 34) envisioned and supported “locally or regionally based food systems comprised of diversified farms using sustainable practices to supply fresher, more nutritious foodstuffs to small-scale processors and consumers to whom producers are linked by the bonds of community as well as economy.” A few years later Garrett and Feenstra (1999, 1) defined a community food system as a system in which “sustainable food production, processing, distribution and consumption are integrated to enhance the environmental, economic, social and nutritional health of a particular geographic location.” In these definitions scale and production practice are combined and the food system is portrayed as a sustainable tool or strategy used to improve all aspects of life – the economy, the environment, the people’s health, and the social capital – of a particular place.

³ Scale in food studies literature is also defined as the size of an agricultural producer (i.e. a farmer) measured in total sales. For example, a “small family farm” according to the USDA Census of Agriculture is a farm with a gross cash farm income less than \$350,000 (agcensus.usda.gov 2017).

Within food studies discourse, food systems of a particular scale and production practice are also discussed alongside the notion of a collaborative effort to build and support the food system. Feenstra's (2002, 100) later and oft-cited definition of a sustainable community food system is:

a collaborative effort to build more locally based, self-reliant food economies – one in which sustainable food production, processing, distribution and consumption are integrated to enhance the economic, environmental and social health of a particular place.

Feenstra marries the concepts of food system, sustainability, and community with the notion of an organized, collaborative effort. Feenstra, Garrett, and Kloppenburg et al.'s discussions of food system networks, efforts, and activities were inspired by real life trends in small-scale, largely organic, and directly marketed food production in the U.S. These trends included an explosion in the number of farmers' markets, community supported agriculture (CSA), and farm-to-school networks throughout the 1990s. Thomas Lyson (2004, 2) coined the term "civic agriculture" to describe these trends, which he perceived as "the emergence and growth of community-based agriculture and food production activities that not only meet consumer demands for fresh, safe, and locally produced foods but create jobs, encourage entrepreneurship, and strengthen community identity." Again, agriculture and food system activity was perceived as a strategy to reach the end goals of an improved community.

Many terms and concepts were coined to capture the collaborative efforts and activities to build, maintain, or foster food systems: "alternative food initiatives, alternative agro-food networks and systems, community food security, civic and democratic agriculture, post-productivism, alternative or shortened food chains, the "quality turn," and a variety of other permutations" (Feagan, 2007: 24). Feagan refers to these concepts collectively as local food systems (LFS). They are also referred to as part of the local food movement or a collection of

agri-food movements (Hinrichs and Eshleman 2014). Though these concepts should not be conflated, their definitions share a few commonalities: they refer to food system activities *and* their scale or production methods (or both).

Treating food as part of a system lends itself well to understanding the local food movement in the U.S. as activities, efforts, or organizations that critically examine one or multiple parts or areas of the food system and build alternative structures that are usually smaller in scope than conventional food networks and minimize the geographic and knowledge gaps among a food's production, processing and consumption. Food movement activities are largely framed as reactions or alternatives to the industrialization of agriculture, global food systems, or "big food." And a majority of food movement activity focuses on localizing food systems.⁴

In an overview of modern "agrifood movements," Hinrichs and Eshleman (2014) draw on social movement theory from sociology to divide agrifood movements, actions, and behaviors into direct, indirect, collective, and individual challenges to conventional, large-scale agri-food systems and structures. An example of a direct collective challenge is an organized protest of an industrial agriculture corporation. An indirect collective action is promoting or organizing alternative systems of food provision such as a farmers' market, a farm-to-school program, or CSA. Individual and indirect actions also take the form of purchasing from alternative food system networks.

Hinrichs and Eshleman (2014) find that the majority of food movement activity in the U.S. encompasses indirect collective and individual actions – building and supporting alternative networks and systems of food provision that make it possible or easier for food to be produced, processed, transported, sold, and recycled at a smaller scale, i.e. a local food movement. Local

⁴ I will explore the local food movement as a reaction to the global, industrialized food system in more depth in Chapter 2.

food system practitioners – whom I define as folks who build, support, research, or enhance alternative networks of food provision – are thus a major part of agri-food movements in the U.S.

One step many food system practitioners and organizations take before enacting measures to strengthen LFS is to conduct food system assessments (Freedgood et al. 2011). FSAs gather and report qualitative and quantitative data about the production, processing, distribution, consumption, and waste sectors of a particular area's food system. The goal of a FSA is to gather baseline information about the food system from which to make data-driven decisions to strengthen the economic, environmental, and social success of the food system. To achieve their goal, they often report tallies of farms, processors, distributors, and grocery stores as well as highlights from interviews with food system stakeholders about what challenges or opportunities exist in the LFS. For example, they might expose what is preventing a farmer from selling to a local market, and propose a policy or incentive to fill that gap in the local supply chain. The design, scope, and use of FSAs can vary, and they have been conducted in some form all over the U.S. at varying scales since the 1990s (Pothukuchi 2004). Many food-related assessments in the 1990s focused largely on food access and food security for towns and cities, but the assessment tool can now be found in several forms, including food security assessments, foodshed assessments, and comprehensive food system assessments. The latter is what I will focus on in this study, as it is the only form of a food assessment that attempts to measure an entire food system as opposed to one aspect of the system.

FSAs are typically conducted by non-profits, government planning or health departments, economic development councils, or food policy councils; more often than not FSAs are a collaborative process among these various groups and individuals. FSAs can be resource

intensive, with some organizations spending years and a significant amount of money conducting the assessment.

FSAs, while not an official practice that any food and agriculture organization is mandated to use, are informal tools used across the country that can be linked to tangible outcomes such as the creation of a food policy council, a successful farmland preservation grant, or an official city government food system plan (Freedgood et al. 2011). They thus offer one example of how food system practitioners and local food movement activists are attempting to improve food systems and ameliorate the problems associated with their current food system. More specifically, they can be used to study how “food system” is being defined in practice, and how food system practitioners are thinking about (or ignoring) and operationalizing the complicated question of scale in LFS work.

Food system assessment literature overview

Scholarly work on food assessments almost exclusively comes from the disciplines of planning and food studies. Food assessments are a relatively new, unexamined tool, so there is little critical literature – or any literature at all for that matter – on food system assessments. However, there are a few researchers who explore FSAs. One scholar, Kameshwari Pothukuchi, studies community food assessments from the 1990s and early 2000s, Marisol Pierce-Quinonez wrote a masters thesis about FSAs in 2010, and Freedgood et al. wrote a particularly comprehensive overview of food assessments in 2011. Their research is described below.

Kameshwari Pothukuchi, a planning scholar, researches and writes about community food assessments (CFA). Her main arguments are that a planning approach strengthens CFAs and CFAs are important tools to combat community food insecurity (Pothukuchi 2004).

Pothukuchi uses the term community food assessment, but the assessments she examines range

in spatial scale from a neighborhood, to sections of cities, to certain zip codes of a city, to a group of counties. Her larger project encourages planners to incorporate food systems into the planning discipline through scholarly research and in professional practice. While she does assess the effectiveness of CFAs as a planning tool, she does not take a critical eye to the question of scale or preconceived notions of “local food” in CFAs.

Marisol Pierce-Quinonez researched food system assessments in 2010 as a masters student at the Tufts Department of Environmental Policy and Urban Planning. She examined fifteen comprehensive food system assessments, which she classified as assessments that surveyed each part of the food system – production, processing, distribution, consumption, and disposal. She wanted to determine “how each [FSA] addresses the social, environmental, and economic sustainability of their regional food system” (Pierce-Quinonez, 2012: 171). One of Pierce-Quinonez’s (2012, 179) conclusions is that “FSAs are strongest in promoting an economically sustainable food system, but are lacking in their advocacy for an environmentally and socially sustainable system.” She also notes that “based on the reports alone, there seems to be a disconnect between the authors’ desire to promote change and the extent to which their works can enable it” (Pierce-Quinonez 2012, 179). She therefore suggests further research into the outcomes of these FSAs by interviewing the FSA authors. Like Pothukuchi, Pierce-Quinonez assesses the effectiveness of the FSAs (except she assesses sustainability rather than usefulness as a planning tool), and the extent to which FSAs address questions beyond economic vitality. She does not critically assess the boundaries or scale of actors included in the FSAs.

Freedgood et al.’s (2011) overview of food assessment tools frames FSAs as a tool for both food system and planning professionals. The first planning scholars to create a typology of assessments, the authors classified food assessments into eight different categories. The authors

noted that the variety of tools “vary in methodology and scope, and as such define the problems with contemporary food systems differently” (Freedgood et al. 2011, 85). They also said “how researchers define the boundaries of a given system and investigate its relationship to other systems can markedly affect results” (Freedgood et al. 2011, 91). The overview does not go into depth, but does conclude with many questions about FSAs and advocates further research into their methodology, implementation, and outcomes.

Research questions and methods

The lack of literature on FSAs, their widespread use in the U.S., and their potential for enacting change in food systems across the country fueled my curiosity and led me to explore FSAs for my thesis. A “food system” is an inherently nebulous and complex concept without a true boundary, but practitioners need to bound and define it to move forward with programming and policy changes. Given this conundrum, I became curious how food system practitioners define food systems in practice. Furthermore, a food system includes actors that are connected to supply chains at varying scales. But given the tendency of LFS work to favor small-scale food production, I also wondered if food actors of all scales figured into assessments, or if FSAs are limited to “local” or small-scale food production and networks. With that, I decided to focus on questions of scale and boundaries in FSAs. My research questions include:

- 1) **What is a food system assessment?**
- 2) **Who is involved in conducting food system assessments?**
- 3) **How is a food system defined and bound in a food system assessment, and what justifications are used for that definition and boundary?**
- 4) **What type (defined by scale and production method) of food system actors are included in a FSA?**

5) What programming, policy, activity, or other outcome results from a food system assessment?

Selecting FSA case studies

Based on Freedgood et al.'s (2011) typology of food assessment tools, it appeared that the comprehensive food system assessment – one that took into account each step of a food system from production to waste and recycling – was the latest version in the evolution of food assessments. It was also the one that interested me the most because it takes a systems perspective to food, which is advocated throughout food studies literature. In the spring of 2016 I began searching for comprehensive food system assessments to include in my study.

Given the large number of FSAs that have been conducted in the U.S., a limited time to conduct research, and a desire to focus my project, I narrowed my search down by creating criteria to select FSAs to study. I based my criteria on Freedgood et al.'s (2011) definition of a comprehensive food system assessment. In order for an assessment to meet my criteria, it had to include data on production, processing, distribution, and consumption/retail. Unlike Freedgood et al., I did not include waste or recycling in my criteria because I found that many assessments I came across were comprehensive in all other respects but did not include a waste or recycling category. However, some of the assessments I chose did include waste and recycling in their report.

I also limited my search to those assessments published after 2010. I created a time limit to narrow my search. I also wanted to focus on the most recent type of assessments so that my study and results would be relevant to current food system practitioners. According to Freedgood et al. and my own internet searches, comprehensive assessments became popular in the last five to ten years. In fact, Freedgood et al. (2011, 85) note their “increasing use and appeal to local and

regional food system planners.” This may be a result of the push within food studies to approach food with a systems perspective (Freedgood et al. 2011).

I searched for and found assessments in three ways: an assessment database from the Johns Hopkins (JH) Center for a Livable Future website, Google searches, and word of mouth. There was often overlap among the three methods – many people I spoke to in my interviews mentioned assessments that I had already found on the JH website or had found on my own. After getting a sense of the spatial scale used in FSAs, their focus locations within the U.S., and the type of people conducting them, I employed additional filters to get a variety in the type of organization behind each assessment, the geographic scope of the assessment, and the assessment’s location in the U.S.

The Johns Hopkins Center for a Livable Future Food Policy Network website has a database of 910 food policy related resources. I filtered the resources by publishing date and type of tool. I used pre-defined key words including “community food assessment” and “food system planning.” I pulled out the assessments that, at first glance, met my criteria. By the end of August, I had a list of fifteen assessments to include in my study and added one more during the fall that I learned about at the 2017 Northeast Sustainable Agriculture Working Group Conference.

From creating criteria to choosing assessments that I included in my research, I had to make several judgment calls based on my personal knowledge (from both searching the internet for assessments and the scholarly literature about assessments). While these judgment calls were not completely objective or unbiased, I strove to choose assessments that best fit my criteria and represented the widest array of existing assessments possible (based on conducting organization, spatial scale, and geographic location in the U.S.).

My method of collecting assessments contains a number of limitations. While the JH database housed a significant amount of food system assessment resources, it was certainly not exhaustive. Furthermore, I can only assume that countless food system assessments have been conducted since 2010 that did not make it into the database and did not show up in my internet searches. Therefore, I do not claim to speak for all FSAs; my findings are not representative of all food system assessments. However, themes I found in my research may be suggestive of larger trends in food system practices in the U.S.

Limiting my criteria to FSAs that were published after 2010 prevents me from exploring how FSAs were designed and implemented in the past. However, my research questions did not include an inquiry into change over time in FSAs, and I am more interested in what food system practitioners are currently using in their work.

By not including waste and recycling in my criteria for FSA case studies, I am compromising the definition of the term “comprehensive food system.” The lack of FSAs that include this category suggest a difficulty for many food system practitioners to measure and study food waste (and highlight a sector of the food system that is, in my opinion, largely missing in food studies). I felt comfortable omitting food waste and recycling from my criteria because my project is not to study whether assessments are including every single part of the food system definition in their assessment, rather my project is to examine the spatial scale of each food system and what size and type of food system actors are included in the assessment.

Finally, one case study that I came across at the Northeast Sustainable Agriculture Working Group (NESAWG) Conference – a FSA from Capital Roots in Albany, New York – is an aberration in that the FSA has not yet been completed. Capital Roots is in the process of conducting the FSA right now. I interviewed the FSA coordinator at Capital Roots and received

a three-page document describing the project. I will not be able to assess the outcomes or final content of this FSA. However, I included this case study because I felt it still provided a comparable example of a FSA and I am able to analyze why and how the FSA came to be, along with who is responsible for the FSA.

Contacting participants

After selecting case study assessments, I began contacting people associated with the assessments for interviews. Each assessment listed credits differently, if at all, so for each assessment, I looked for a name that seemed to stand out more than others – either as author, writer, director, editor, or even just the name first or most prominently displayed. On two occasions in which the person I was looking for was not listed or no longer worked for the relevant organization, I found that person on LinkedIn and sent them a message via LinkedIn messaging. In my message I introduced myself, explained what I was interested in, and asked for their professional email address to further explain my project.

Out of the twenty-two emails I sent regarding fifteen assessments, I heard back from thirteen.⁵ Of those thirteen, one person declined to participate given the time that had passed since she'd conducted the assessment, and one initially agreed to participate but eventually stopped responding to me. That left eleven interviewees regarding eight assessments (for five of the assessments I only interviewed one person, for three of the assessments I interviewed two). The email template I used to recruit interviewees can be seen in the appendix.

I conducted interviews over the phone using an app called TapeACall. The app allowed me to record each phone call, save the recording to my phone, and upload it to my Google Drive

⁵ For some assessments, I sent emails to two different people (if two or more people were listed in the credits) to increase my chances of getting a response.

account. One respondent asked me to refrain from using any identifiable information, to which I agreed.

Interviews

The eleven phone interviews lasted between thirty minutes and one hour each. The interview question guide I used is included in the Appendix. Since each assessment was so different, some questions that were relevant to one were not relevant to another. While I had a list of questions, the interviews were semi-structured and informal. I encouraged the respondents to add information they felt was relevant, even if it was not covered in my initial questions.

Analyzing data

My analysis consisted of examining the interview transcripts and the assessments. I decided to analyze the interview transcripts first, as I assumed they would be more fruitful and contain information that was included in the report as well as additional opinions and tidbits that were not in the report. Before tackling the interview transcripts, I thought about my initial reactions and thoughts from conducting and transcribing the interviews – what themes or patterns emerged? What sentiments did I hear from my interviewees? To structure my analysis, I used my research questions as an outline. I used a different highlighter color for the following (abbreviated) questions: who was involved? What spatial scale was used? Were large-scale actors included? And what were the outcomes? I organized the data in a master table (versions of which you will see in Chapter 3). I examined the reports with the same questions in mind and supplemented and verified the data in the master table. My findings and themes are presented in chapters 2 and 3.

Conclusion

The local food movement in the U.S. has permeated popular culture and academia; it has even made its way onto the White House grounds. By its very name, the local food movement in the U.S. binds food activity to a scale that is nebulous and context dependent. Scale is a crucial part of the discourse and implementation of both food movement efforts and food studies research. Spatial scale and the scalar level food system actors operate within are a main part of LFS – they are used to conceptualize LFS efforts as well as implement them.

Working within the local food movement, food practitioners talk about the “local food system” or the food system of a place or region such as the New York food system, the Syracuse food system, or the Chesapeake Bay food system. Various local food systems are thus being created – discursively, at the very least – and constructed through language and the work done by food system practitioners. FSAs play a key role in this construction as they force practitioners to define and bound a particular food system. This begs the question: how do practitioners define something that is as nebulous and context dependent as a local food system? A lack of critical literature on FSAs led me to examine eight different FSAs during the summer of 2016. Throughout this thesis, I explore the process of defining and constructing a food system through a FSA. I question whether it complicates or confirms the simplified notion of scalar terms that are used pervasively within the local food movement.

My next chapter explores the role scale plays in framing the local food movement. I draw on the production of scale literature to outline how scale is defined and used as a research tool in geography. I reference the negative characteristics associated with a global food system and the positive characteristics associated with a local food system. I review arguments that a global-local binary in food systems discourse is too simplistic. From there I pick some common scalar

terms used in food systems discourse that provide an alternative to global scale food – local, community, region, and foodshed – and highlight their connotations, uses, and shortcomings.

Chapter 3 lays out who was involved in my case studies, why each FSA was conducted, what types of data were used to assess the food system, and to what outcomes, if any, the FSA case studies led. I attempt to outline some of the many factors that contribute to constructing a food system, as defined by the FSA report. I point out examples where socially constructed notions of scalar food system terms may have informed the FSA construction, and point out the various processes and relations that influenced the production of scale in LFS work.

Chapter 4 answers my scale-inspired questions, including: how is each food system bound, and why? And does each FSA include small-scale, mid-size, large-scale, and/or industrial agricultural actors? I draw on interviews to discuss the process the respondents went through to decide on boundaries and what they ultimately settled on.

I conclude my thesis with a reflection on my findings and what research on FSAs contribute to food studies, geography, and future food system activity in the U.S. I then propose questions and potential avenues for further FSA-related research.

Chapter 2: The Production of Scale and Scalar Language in Food Systems Discourse

Discussions of scale are featured prominently in food studies literature, and scalar terms are littered throughout food system discourse: local food, small-scale agriculture, large-scale agriculture, global supply chain, etc. One would be hard pressed to find a conversation about food systems that does not have a scalar component, as seen in the University of Wisconsin-Madison report “Scaling Up: Meeting the Demand for Local Food,” and an Op-Ed in the *New York Times* entitled “Think Globally, Eat Locally” (Wilkins 2004). These articles, representative of LFS work, bring up questions and matters of scale. And participants in LFS, as Huber and Emel (2009, 371) say, “deploy scalar commitments, and scale becomes institutionally materialized in ways that facilitate and pose barriers to the production of” food system networks.⁶ In other words, the perceptions, discourse, and manifestations of LFS activity all have strong scalar components. A foundational concept in geography, scale has been the subject of debate for a few decades. The following interrogation of these debates demonstrates the concept’s significance in geographic and food studies research, and exposes an opportunity to apply a scale-inspired analysis to local food systems discourse and food system assessments.

I begin with a brief summary of the argument that scale is socially produced. I review scholarly work that argues that scale is a relational concept that is produced by particular social processes and relations, and scale, in turn, also structures further social processes and relations. I use this to frame my argument that “local food” and the “local food movement” are socially constructed concepts, and the way we have constructed and produced these scalar concepts inform and structure local food systems work.

⁶ Huber and Emel’s (2009) quote was originally about raw materials, but I find it applies just as well to agriculture and food.

I support my argument by focusing on two main aspects of scale in food systems work that are relevant to and are illustrated in my research: First, I show that the local food system movement is a reaction to the negative characteristics of the global food system, and thus how local and global are subsequently perceived of and studied as two separate entities. Second, I discuss specific scalar terms used in local food systems work, including in my FSAs: local, community, region, and foodshed. I unpack their nebulous meanings and nuances and illustrate how their discursive meanings are often oversimplified, erroneously assigned value, and stripped of relational elements.

Reviewing the politics of scale literature and exploring literature on scalar terms in food system discourse serve three purposes. It demonstrates that (1) scale is a key concept in food studies and thus a useful tool for food studies research, (2) “local” and “global” food systems are socially constructed concepts and factor into a binary mode of thinking, and (3) food studies scholars would benefit from exploring how scale is constructed and (re)produced in local food system practices. I suggest that a food system assessment is an ideal empirical object for studying how scale is constructed in local food systems work. Examining a food system assessment is one way to explore how local food system practitioners negotiate the socially constructed notion of local when assessing a food system. The discursive meanings and uses attached to local, regional, and community inform local food systems work, including FSAs – but FSAs, as we will see in chapters 3 and 4, complicate the simplified and value-laden concept of local food that I lay out in this chapter while simultaneously reaffirming certain scalar assumptions and practices.

Scale in geography

Although it is considered a foundational concept in geography along with space, place, environment, and nature, scale has been the center of debates among human geographers since the early 1990s. The debates revolve around what scale is, what it means, and how it should be applied in geographic research. Sayre (2009) and Howitt (1998) explain what scale is by defining it in three ways: size, level, and relation. Additionally, human geographers have settled on a few agreed-upon principles of scale: scale is relational, scale is produced (socially, politically, economically), and scalar analyses should focus on the processes that produce scale rather than scale per se (because it is the processes that ultimately materialize scale in ways experienced by society) (Sayre 2009; MacKinnon 2010).

Scale as size means that scale is a measurement or moniker of a particular territory or space. In this thesis, I use the term spatial scale to mean the size or extent of a defined area. For example – and I will talk more about this in the next two chapters – the spatial scale of the Kansas food system (as defined by the Kansas FSA) is the state of Kansas: 82,278 square miles.

Scale as level refers to when societal organization is classified into various levels based on the scales (spatial scale) at which they can be observed or bounded. The terms scale and level are often used interchangeably to mean this particular definition of scale (Sayre 2009). In this sense of the word, neighborhood, municipality, city, county, state, nation, and globe are all scales. Furthermore, scale as level incorporates a hierarchy of scales, or scales as nested entities. The neighborhood is nested within the city which is nested within the state. This sense of scale is also used in food system discourse. A local food system is often understood as networks of food provision happening at a smaller scale than, or within, the global food system. The New York

City food system is within the Northeastern food system, which is within the national and global food system.

Finally, scale is a relational concept. Sayre (2009, 101) explains “scale as relation” as “an order removed from scale as level, defined by the spatial and temporal relations among (processes at different) levels.” In this definition, scale is not level, and scale should not be seen as a hierarchy of levels. What makes something local is more than just its individual characteristics – what makes something local is also other scalar arrangements and the local’s position and relationship within that arrangement. This sense of scale is explained well by Howitt (1998), who uses the example of the national scale to demonstrate that national means more than just geographic size and level. National, to Howitt (1998, 52), also incorporates “a number of relations between geopolitics, territory, structure, culture, history, economy, environment, society, and so on.” Furthermore, if something changes within an organization operating at the global level, it will impact processes at the local level. Swyngedouw (1997) uses the concept of “glocalisation” to demonstrate this idea. “Glocalization” is also used in food studies literature with the example of McDonalds. While it is a transnational corporation that is known for uniformity and serving the same product in every restaurant around the globe, McDonalds also has local specificities such as not selling beef in India (Carolan 2016). In this sense of the concept, a local food system and a global food system are not separate levels, but interrelated sets of socio-spatial relations. A local food system is defined in relation to, is impacted by, and is connected to a global food system.

Early 1990s discussions of scale encouraged geographers not to take scalar terms such as city, state, local, and global – terms that are discursively and materially embedded in society – as given, pre-conceived notions. These scales are produced through social processes and activities,

and in turn produce and structure further societal processes, activities, and relations. As Marston (2000, 220) says, scale is “a contingent outcome of the tensions that exist between structural forces and the practices of human agents.” A local food system is not a preordained food system that we as humans participate in – we, as humans, have constructed the networks and concept of a local food system.

If scales are produced, it follows that they are not eternally fixed entities but constantly being reproduced as the wider social and political context evolves. As Sayre (2009, 104) says, “terms such as ‘scaling’, ‘rescaling’, ‘scale effects’, and ‘jumping scales’ all draw attention not only to the ongoing production of scale (and therefore its historical contingency and malleability) but also to the non-linear, complex outcomes that are hallmarks of scale-as-relation.” The “politics of scale” that came out of the political economy literature in geography discussed how different social actors “sought to harness, manipulate and transform scalar relations” (MacKinnon 2010, 24). Scale, in this sense, is used as a strategy to help certain social actors benefit from a particular scalar arrangement. For example, Neil Smith (1992, 2004) introduced the concepts of “scale jumping” and “scale bending” to demonstrate how more powerful actors may “seek to command ‘higher’ scales such as the global and national and strive to disempower” less powerful actors “by confining them to ‘lower’ scales like the neighborhood or locality (Mackinnon 2010, 24). On the other hand, less powerful actors may use scale as a strategy to regain power. “Scale jumping refers to the ability of certain social groups and organizations to move to higher levels of activity – for example, the urban to the national – in pursuit of their interests” (MacKinnon 2010, 24). Born and Purcell (2006) conceptualize LFS work as a strategy that concerned consumers use to rebuild food systems at the local and regional level to bring benefits to their health, community, and environment.

Smith's idea that scale is both fluid and fixed can also be interpreted as what Sayre (2009) and Perreault (2015) call scale's temporal quality. Scale is temporal because scalar relations evolve, are shaped by, and shape future social processes. As Perreault (2015, 121) says, "once established, spatial scales have lasting effects that help shape (but do not determine) future spatial configurations and possibilities for social action. As such, scale is always temporal as well as spatial."

Critiques of the political economy approach to scale surfaced in the early 2000s. Marston (2000) argued that political economy approaches to scale focused too much attention on the power of capital production and capital restructuring to shape and reproduce scale, leaving out the equally important role of social reproduction and consumption. Marston was also one of many post-structural geographers who argued that earlier approaches conceptualized scale as a real, material entity when in fact it is a relational sense of space. Poststructuralists argued that political economy approaches reified scale. They demonstrated its materiality with the example of Smith's "scale jumping" and "scale bending," as if scale existed in a material way that one could jump from one to another. Marston et al. (2005) even went so far as to say that scale should be abandoned altogether in geographic research. While a number of geographers rejected Marston et al.'s (2005) call to dismiss scale, several successive articles take these debates into consideration and continue to emphasize the merit of scale as a foundational concept in geography and a useful tool in research (MacKinnon 2010; Kaiser and Nikiforova 2008; Huber and Emel 2009).

MacKinnon (2010) introduces "scalar politics" as an option to replace "the politics of scale" in an effort to refocus attention from scale per se to the politics surrounding scalar organization, discourse, and relations. MacKinnon attempts to bring the political economy and

post-structural perspectives closer together using their similarities and overlap to support his idea of “scalar politics.” He says that both perspectives share an “underlying concern with the social construction of scale” and “each approach views scale as non-fixed and fluid, regarding scale as a dimension of wider socio-spatial processes” (MacKinnon 2010, 27). Not only do they share a few foundational components, MacKinnon (2010, 27) argues that they also can be seen as complementary:

In some respects, the political-economic approach and poststructural perspectives can be seen to offer complementary insights into the construction of scale, focusing attention on processes of material production and capitalist restructuring, on the one hand, and social practice and discourse, on the other.

By highlighting the overlap of each perspective, MacKinnon contends that most geographers agree on the main components of scale, and discussion should move toward the social and economic processes that construct scale and scalar relations. After all, while scale may be a set of socio-spatial relations, we still use scalar terms and organizations in everyday life, and their material manifestations cannot be ignored. For example, though “local food” is a socially constructed scale of food production and consumption, it has led to new and alternative networks of food production and provision by consumers, activists and policy makers, alike.

One outcome of the scale debates in geography, therefore, along the lines of MacKinnon’s “scalar politics,” is an effort to inquire *how* scale is produced. What are the social, economic, historic, political, and environmental processes and activities that inform and construct scale? As Marston (2000, 221) says, “as geographers, then, our goal with respect to scale should be to understand how particular scales become constituted and transformed in response to social-spatial dynamics.” Two examples of inquiries into the production of scale are Kaiser and Nikiforova (2008) and Huber and Emel (2009).

Kaiser and Nikiforova (2008) utilize “scale talk” and scale politics in Narva, Estonia, to show how scales are constructed, naturalized, and solidified through discursive practices. They advocate the benefits of studying the “performativity” of scale, and conclude that “using performativity to assess scalar discourses helps to uncover not only the practices that naturalize and sediment singular scales, but also more nuanced understandings of the multiscale articulations of power” (Kaiser and Nikiforova 2008, 559). Huber and Emel (2009) position the social production of scale as an object of inquiry, and perceive scale as an unfolding process of social struggle over the territorial delimitations of governance, resource control, and discursive imaginaries – a process that must be explained in its historical-geographical specificity. Following these scholars, I begin my inquiry into the construction of scale in LFS with a reflection on scalar-related discourse in LFS and food studies. The remainder of this chapter discusses how global, local, community, and regional food is constructed discursively and, at times, in practice through activism and LFS activities.

Global food versus local food

A global food system, by its very name, conjures images of food supply chains stretching around the world. A global food system enables a New Yorker to eat Florida oranges, French cheese, or a lamb that was raised in New Zealand and seasoned with Indian black pepper. Ian Cook (2004) employed an approach called “follow the thing” to illustrate the globalization of food; Cook’s article follows a papaya from farm to fork and highlights a “supply chain stretching from UK supermarket shelves to a Jamaican farm, and concluding in a North London flat” (Cook 2004, abstract). While the global food system is a bit of a misnomer – it refers to millions of food actors connected at varying levels from a small cherry grower in Michigan to a thousand-acre soy farm in Brazil to grocery shoppers in Japan – it is used early and often in food studies

writing, and is often associated with what Maye et al. (2007) call the conventional, industrial agro-food complex – and it is often painted in a negative light. A 2014 edited volume entitled *The Global Food System: Issues and Solutions* calls our current global food system “unsustainable, unhealthy, unjust, and uncompassionate” (Schanbacher 2014, xii). Critics in food studies and LFS activists blame the global food system for a multitude of negative impacts on the environment, the economy, and human health.

The ecological costs of industrial agriculture were brought to the American public’s attention during the environmental movement of the 1970s, in part due to Rachel Carson’s (1962) well known book *Silent Spring*, which exposed how industrial farming practices relied on toxic pesticides that polluted soil and water resources. This type of farming is often criticized for causing biodiversity loss and soil erosion, overusing water and water pollution, and deforestation (Ericksen 2008). Kloppenburg et al. (1996, 5) argue that “ubiquitous and over-intensive use of these inputs and technologies has resulted in the widespread degradation of soil and water resources and in erosion of the health and vitality of our own and fellow species.” Furthermore, crop and livestock production, transportation of agricultural goods, and agriculture-induced land-use change and land degradation is linked to one-third of global greenhouse gas emissions (Wollenberg et al. 2012).

The global agro-food complex is also criticized for being particularly bad for small, rural agricultural towns and counties in America. As small and mid-size farms in the U.S. failed to compete in the globalizing, “intensive regime of productionism” (Marsden and Morley 2014, 6) throughout the latter half of the 1900s, rural towns exhibited higher rates of poverty, unemployment, and less social cohesion and capital (Kloppenburg 1996; Carolan 2016). During the 1970s many rural sociologists supported the so-called “Goldschmidt thesis” that claimed that

rural towns with a high number of “large, absentee-owned, non-family operated farms” exhibited more negative characteristics than rural towns with more “locally-owned, family-operated farms” (Carolan 2016, 94). The negative impacts included “a smaller middle class, a higher proportion of hired workers, lower mean family incomes, higher rates of poverty, poorer quality schools, and fewer churches, civic organizations, and retail establishments” (Carolan 2016, 94). Rural poverty and weak local small-town economies prevail as a major concern in America, largely seen as a result of the globalization of the food industry (Carolan 2016).

Finally, global and industrial agriculture combined with U.S. agricultural policy is blamed for negatively impacting the quality, healthfulness, and accessibility of the world’s food supply. Throughout the mid-1900s, small and mid-size agricultural enterprises in rural America were replaced by large industrial farms, the majority of which grow one of three crops: wheat, corn, or soy. These commodity crops are highly subsidized and thus very cheap to grow. They are also the main ingredients in cheap, highly processed foods that are considered unhealthy such as soda, baked goods, chips, cereal, and candy. Maye et al. (2007) connect the conventional agro-food complex with consumer anxieties around the impacts of ingesting the artificial additives and chemicals in food, the connection to rising rates of obesity, heart disease, and diabetes, as well as malnutrition and hunger. As the global food system made unhealthy foods cheaper and healthy foods more expensive, concentration and power in the food retail industry has also caused full service grocery stores to relocate to wealthy neighborhoods, creating areas of low-access to whole foods in low-income neighborhoods.

A local food system, on the other hand, by its very name, conjures an image of a self-contained system in which consumers buy their food directly from the farmer who produced it. A local food system consists of direct market connections that allow consumers to know where

their food comes from, and potentially even know who produced it. LFS are perceived as more socially just and environmentally sustainable, and credited with building a sense of community and revitalizing economies.

“Local” is perceived as less energy intensive than industrial largely because local food, ostensibly, does not have to travel far to get from farm to market. Local, in effect, is a strategy to reduce one’s “food miles,” a concept that has infiltrated food system discourse and refers to the distance a particular food has to travel between production and consumption (Schnell 2013).

In addition to reducing greenhouse gas emissions by reducing transportation distance, local food systems are linked to agro-ecological practices such as crop diversification and organic pest management. Local farmers are considered by some to be stewards of the environment. Feagan (2007, 25) points out the assumption that a shortened supply chain that reconnects the producer with the consumer is “touted as impelling some manner of changed agricultural practices – a ‘shortening’ of relations between food production and locality, potentially configuring a *reembedding* of farming towards more environmentally sustainable modes of production.”

Local food, often conflated with organic and small-scale agriculture, is thought to produce high quality, nutrient rich, and healthy foods. Hinrichs (2000) and Murdoch et al. (2000) point to “quality” as a characteristic of local food systems. Murdoch et al. (2000, 108) note that “quality is coming to be seen as inherent in more ‘local’ and more ‘natural’ foods.” Local food activists promote local food as fresh, healthy, and better tasting. An article on *The Alternative Daily* titled “Studies Confirm: Local Food Tastes Better” opens up with the following:

When was the last time you sliced into a homegrown heirloom tomato or chopped a fresh, locally-grown cucumber up for a salad? That vibrant taste, the scent that just smells like summer — there’s nothing quite like local food, and now science is backing up such

claims. It turns out that our attitude about local, ethically-grown food affects our experience while eating it, for the better. (Winkler 2017)

Finally, local food systems, as we heard from Kloppenburg et al. (1996) and Lyson (2004) in Chapter 1, strengthen the sense of community and social capital in a particular area. Hinrichs (2000, 295) claims that local food movement activists and scholars “often assume that trust and social connection characterize direct agricultural markets, distinguishing local food systems from the ‘global food system’.”

The global – local binary

Underlying the global and local food system discourse is a message that the global food system distances or separates food-eating individuals from where their food comes from. A local food system, therefore, *reconnects* eaters to where their food is coming from, including who produced it, how it was produced, and all the social and environmental implications of what they are eating (Maye et al. 2007; Winter 2003; DeLind and Bingen 2008). DeLind and Bingen’s (2008, 128) quote about Lyson’s ‘civic agriculture’ offers one example:

These activities...figure in a globalized movement to resist the isolation, disaffection, and inequity promoted by globalization, industrialization, and neoliberalism. They represent creative efforts by individuals across the nation to reconnect with the local (in this case local food) and to re-embed themselves in community-based values and institutions.

Associating words like “distanciation” and “isolation” with global food systems and ‘reconnection’ and ‘community’ and ‘embeddedness’ with local food systems underlies the significance of distance and proximity in food system discourse. Using words with opposite meanings for local and global encourages a perception of the two as opposite entities.

Presenting local food as an opposition, response, or alternative to global food encourages a perception of the two as opposing entities separated by production practices, social relationships among food chain actors, and the quality of food produced. See Figure 2 for an

example of a table used by Hinrichs (2003) to demonstrate the opposing qualities associated with local and global food systems. Two things of importance are happening here: local and global are used in the scale-as-level sense, organized hierarchically with local at a lower level than global, ignoring scale's relational qualities; and local and global are prescribed certain characteristics – the global is isolating, unsustainable, and unjust while the local is sustainable, socially just, and socially embedded.

GLOBAL	LOCAL
Market economy	Moral economy
An economics of price	An economic sociology of quality
TNCs dominating	Independent artisan producers prevailing
Corporate profits	Community well-being
Intensification	Extensification
Large-scale production	Small-scale production
Industrial models	"Natural" models
Monoculture	Bio-diversity
Resource consumption and degradation	Resource protection and regeneration
Relations across distance	Relations of proximity
Commodities across space	Communities in place
Big structures	Voluntary actors
Technocratic rules	Democratic participation
Homogenization of foods	Regional palates

Fig. 1. Attributes associated with "Global" and "Local". Sources: Hinrichs et al., 1998; Lang, 1999.

Figure 2. Summary of attributes associated with global and local agriculture (Hinrichs 2003)

Hinrichs (2003), among other scholars, has pointed out the problematic mode of binary thinking among food studies scholars and LFS activists. Though many academics have ostensibly moved beyond this mode, Hinrichs (2003, 35) notes, "globalization and localization still tend to serve as conceptual shorthand for movement towards two opposed poles." Hinrichs (2003) and Brown and Purcell (2005) take it upon themselves to dispel this binary by pointing out the interrelatedness of global and local food networks. The "global" and the "local," Brown and Purcell (2005, 612) say, are not separate entities:

Local scales are always embedded in and part of the global scale, and the global scale is constituted by the various local scales. Local and global cannot be thought of as separate or independent entities; they are inextricably tied together as different aspects of the same set of social ecological processes.

Hinrichs (2003, 35) also argues that “what is ‘global’ and what is ‘local,’ as well as the processes of globalizing and localizing, are fundamentally related within an overall system.”

Aside from stripping scale of its relational qualities, Hinrichs (2003) argues that the mode of binary thinking leads to linking the global with bad and the local with good, which overstates the value of geographic proximity (the distance between where a food is grown and where it is consumed) – a value that is ultimately unknown. This also ignores that scale is produced, so a scale like global or local cannot have inherent qualities like environmentally sustainable. Furthermore, to assume local is good and global is bad runs the risk of obscuring food system examples that break that mold. As Hinrichs (2003) points out, there exist food supply chains that are global in scale that practice environmentally friendly production practices, support a small producer, and produce a healthy, high-quality food item.

An additional argument against the binary mode of thinking in food studies is that it promotes the development of a self-sustaining food system that operates in isolation from a national or global food system. An isolated, small-scale alternative food system, the argument goes, will not be sustainable (in the long-lasting, self-supporting senses of the word) and will not produce its assumed benefits unless it partakes in or interacts somehow with food system actors at varying levels and geographic areas. Feagan (2007, 35) notes that a spatially focused version of LFS believes focusing on local actors undermines the “long-term processes necessary for real transformation.” Bellows and Hamm (2001, 275) argue that “the realities of “local food systems” necessitate an integration of “local and non-local” and “conventional and sustainable” in local food systems,” using the example of farming in New Jersey. Seasonal constraints (fruit in the winter) and cultural food demands (tropical crops) require local food systems to integrate global supply chains to maintain nutritional and cultural demands.

Finally, many researchers (Guptill and Welsh 2014 and Lyson et al. 2008) point to the continued decline of the “agriculture of the middle,” which refers to a decline in the number of “farms, ranches, and related enterprises engaged in commodity-scale production largely outside of the corporate complexes that dominate the agrifood system” but not considered small-scale (Guptill and Welsh 2014, 36). Guptill and Welsh (2014, 36) specifically point to the “large/small or local/global dualisms that have tended to dominate food systems thinking in recent years,” and claim that the agriculture of the middle movement plays the crucial role of bridging the gap the dualism creates. Not only that – supporting agriculture of the middle entities, they argue, is a viable option to build “sustainable food systems that provide sustainable livelihoods” (Guptill and Welsh 2014, 47).

LFS, as I pointed out in the introduction, has many versions and names – all encompassed in “agri-food movements.” In the next section, I discuss four scalar terms common in LFS discourse – local, community, region, and foodshed. I take a more detailed look at their uses in LFS language and practice.

Scalar terms in LFS discourse

Theoretical debates on scale permeated food studies literature in the late 1990s and early 2000s, largely in response to the emergence of “localized” food systems in the U.S. Food studies literature critiqued the assumption that a local food system was inherently better than a global food system, and dove into the language that was being used within LFS work, ultimately exposing the complicated and nebulous characteristics of scalar terms. Though the FSAs in my research are linked to specific places, each report and respondent used the terms local, community, regional, and foodshed in discussing the FSA. These terms, similar to “food system”, do not have clear boundaries or spatial extents, but are nebulous and context dependent.

Their definitions and uses, however, do inform and have implications in LFS work, including in FSAs. While many of these terms are used interchangeably in LFS discourse, a closer look reveals subtle nuances and critiques that are unique to each of them.

Local

Countless scholarly articles demonstrate the varied meanings and uses of the term local within food systems literature and practice (Trivette 2015). There are ‘official’ definitions of local from federal entities like the United States Department of Agriculture and food corporations such as Walmart, as well as the multiple, varied, and even contested definitions from consumers and citizens. The local can mean regional, within a state, within 100 miles, or even made in the USA. In an attempt to measure how local is defined in practice, Trivette (2015) surveyed food producers and retailers in New England. He notes that “there is no clear definition of local,” but attempts to clarify the concept by dividing common conceptualizations of local into “local by proximity” (i.e., within 100 miles) and “local by relationship” (i.e., knowing the farmer who sells you apples) (Trivette 2015, 475). What sets local apart, then, from other scalar food terms, is its focus on geographic proximity and how it mixes geographic proximity with the relationship between the consumer and producer – the “social embeddedness” pointed to by Hinrichs (2000) and Murdoch et al. (2000).

To further complicate this term, numerous authors have also pointed out the shortcomings and dangers of the local concept, to which I referred earlier. Born and Purcell (2006) linked the “local trap” – a version of John Agnew’s (1994) “territorial trap” – to agri-food studies to warn food system planners and practitioners from falling into the trap of assuming that local food – measured by proximity or relationship – is inherently better than non-local food. They argue that

Local-scale food systems are equally likely to be just or unjust, sustainable or unsustainable, secure or insecure. No matter what its scale, the outcomes produced by a food system are contextual, they depend on the actors and agents that are empowered by the particular social relations in a given food system. (Born and Purcell 2006, 195)

Born and Purcell's emphasis on the "actors and agents" of a given food system underlies the importance of focusing LFS efforts on what is actually happening on the ground rather than building LFS efforts on a normative or imaginary sense of 'local food'. If local is assumed to be better – environmentally friendly, good for local economies, socially just – LFS that display poor environmental practices, working conditions, or unhealthy food may be obscured or overlooked.

Other critiques of the local food movement center on inaccessibility – financially, physically, and culturally. Carolan (2016) points out that local food can be expensive, physically inaccessible (if it is only sold at a farmers' market in a particular neighborhood), culturally inaccessible (if culturally appropriate foods aren't available locally), and time and energy intensive (for purchasing and cooking).

Finally, Julie Guthman (2011, 264) points to the "whiteness" of local food, and argues that LFS discourses "hail a white subject and thereby code the practices and spaces of alternative food as white." Guthman (2011, 264) further argues that it "colors the character of food politics more broadly and may thus work against a more transformative politics." In a similar vein, DuPuis and Goodman (2005, 360) question a localism that is "based on a fixed set of norms or imaginaries." They argue that an "unreflexive localism" can deny the politics of the local and subjects alternative food movements to corporate cooptation. Guthman and Dupuis and Goodman expose exclusionary qualities of the normative and imaginary ideal of a LFS. They expose weaknesses in LFS but also argue that LFS still have potential to transform struggling communities and correct some of the problems created by modern agricultural systems.

Community

'Community' is another commonly used term in food studies research and food movement efforts. It is most commonly used in the terms community food security, community food system, and community food assessment. The Community Food Security Coalition, officially formed in 1996, promoted the idea of community food systems and community food security as early as 1994 (Allen 1999). It defines community food security on its website as "a condition in which all community residents obtain a safe, culturally acceptable, nutritionally adequate diet through a sustainable food system that maximizes community self-reliance and social justice" (communityfoodsecurity.org 2017). What sets community apart from the other scalar terms discussed is its connotation of a group of people (rather than a space or place), their relationships, and how they work together for a common purpose. It also connotes ideas of justice, ownership, and control by the people within a community. However, just as local has no clear definition, neither does community. Anderson and Cook (1999, 146) note that the "most fundamental problem impeding clear definitions of community food security is the vagueness of the concept of 'community'."

Allen (1999) critiques the "community" in community food security by pointing out that it is based on a normative and imagined sense of community, not on the real people who create it. She notes that "community has no practical meaning independent of the real people who construct it and act in it" (Allen 1999, 120). Community may promote a false sense of homogeneity or a dubious "expectation of a fluid cooperation among groups with quite different interests" (Allen 1999, 121). Allen (1999, 120) argues that community can include some people while excluding others, and the meaning of community is less inclusive of all types of people than it is mediated by "income, wealth, property ownership, occupation, gender, ethnicity, age,

and many other personal characteristics.” Finally, she crucially points out that ideas of community can be even more distancing – mentally, socially, economically, and culturally – than geographic proximity.

Community is also assigned positive qualities. In an in-depth discussion about the origins, uses, and connotations of community, Watts (2004, 197) notes the tendency “to read community as an unalloyed “good”: to highlight, to the exclusion of all else, the purportedly ethical, moral, and social virtues of the community.” When community is combined with food systems – Allen (1999, 119) notes that community food security “works to build a community-based food system grounded in regional agriculture and local decision-making” – it assumes positive agricultural practices such as environmental sustainability and social cohesion.

Allen (1999) explains that community food security was a movement to fight hunger and malnutrition, and promote food security. Its early supporters lauded it as a more comprehensive, community-based (as opposed to federally-based) solution that included prevention and both short term and long term goals. Community food security was – and still is to an extent – used as a strategy in LFS work, and many community food assessments have been conducted since the 1990s that focus on assessing and improving food security in a particular area (Pothukuchi 2004). However, the spatial delimitations – along with the social, cultural, and economic notions – of a “community food system” may have major implications on what sort of work is done on that food system, and who will benefit.

Region

Region is another oft-used descriptor in food system discourse. The term region in food systems work is vague, however, and can mean different things to different people (similar to local and community). Kneafsey (2010, 179) notes that “there is little consistency in the ways in

which the concept of the region is used in relation to food,” using the example of how the terms regional and local are used to describe similar or the same places or spaces. She goes on to say that “the concept of the region, therefore, is used differently according to context, and this can be conceptualized largely as an outcome of the social, political, and bio-physical construction of scale.” The region, however, brings bio-physical features – such as watersheds, mountain ranges, valleys, and climate – into the discussion in a way that ‘local’ and ‘community’ do not.

Kneafsey (2010) notes how ‘region’ can encapsulate a consideration of how the bio-physical plays a role in food systems. In other words, once the discussion is opened up to the region as opposed to the local or even the county or state, political and social boundaries are seen as less important, and more ‘natural’ (non-political) boundaries are considered. Ruhf (2015, 651) demonstrated the variability of a regional definition and its bio-physical considerations by claiming that a region can be defined “by political or administrative boundaries such as a county, state, or an EPA Region; bio-geographic boundaries, such as a watershed, river valley, or mountain area; or cultural descriptors such as Cape Cod, Down East (Maine), or the Big Apple.”

That being said, Kneafsey (2010, 180) also importantly notes that “even taking into account the bio-physical assets or weaknesses embedded into particular territories, regionalized food networks could not, and never have been, fixed, bounded or stable geographical entities because, as Neumann notes, the exploitation of bio-physical resources is mediated through politico-economic relationships.” Therefore, bio-physical considerations are a factor, but are also vulnerable to social, economic, and political processes. Kneafsey argues that the ‘region’ should be subject to the same sort of scrutiny as the ‘local’ because its meaning varies and it can be seen as a scale with inherent qualities that it does not necessarily possess (i.e., a ‘region trap’).

Throughout many food system texts since the 1990s, the region is portrayed as a more realistic, viable option for a sustainable, transformative direction for food systems development. Dahlberg (1993) and Kloppenburg et al. (1996) promoted the region as an ideal scale to build alternative food systems. A group of researchers in the Northeast are working on a project called Enhancing Food Security in the Northeast (EFSNE). The researchers argue that the region is a happy medium between local and national-global that can mostly preserve the positive attributes of local food and still adequately sustain a non-global or national food system (Ruhf 2015). A major argument of Ruhf, one of the researchers involved, is that a regional food system is more self-reliant because it is more responsive to vulnerabilities and potential threats such as weather interruptions, volatile food prices, and food access. Scale plays a large role in Clancy and Ruhf's (2010) argument that regional food systems offer a larger, more comprehensive scale that is an "optimal model to meet the goals of a sustainable, secure, and resilient food system." However, they see the region as an ideal scale for food systems in addition to smaller and larger scale food systems:

A resilient food system requires components of various scales, much like various sized stones produce a firm roadbed. Connectivity is another necessary facet, requiring that various scales interact and "talk to each other." (Clancy and Ruhf 2010)

Clancy and Ruhf move slightly beyond a global-local binary through the regional approach with their emphasis on interaction and connectivity of multiple scales. A special issue called "Re-regionalizing the food system?" suggests this is a new direction in food studies, based on the explosion of the topic in academic and policy circles since 2005 (Donald et al. 2010).

Foodshed

"Foodshed" is not used as often as local, community, or region in food system discourse. Modern usages of foodshed usually reference one of two texts from the early-mid 1990s –

Kloppenburger et al. (1996) or Arthur Getz (1991). Kloppenburger et al. borrowed the term ‘foodshed’ from Getz who used it to describe the “source of food flowing into urban areas” or, to put it another way, the area within which the structure of food supply for a certain population resides (Horst and Gaoloch 2015, 399). Kloppenburger et al. (1996, 33) expand upon Getz’s definition and propose using foodshed as a “conceptual and methodological unit of analysis that provides a frame for action as well as thought.” They claim that there can be no clean and hard boundaries for foodsheds, as they are defined by the “function of the shapes of multiple and overlapping features such as plant communities, soil types, ethnicities, cultural traditions, and culinary patterns” (Kloppenburger et al. 1996, 9). They use the word proximity in lieu of local or regional to avoid terms that connote potentially fixed boundaries. What sets foodshed apart from other scalar food terms is its notion of a set of urban consumers and rural producers, and the linkages between them.

Modern uses of the term foodshed tend to reduce Kloppenburger et al.’s concept to the area or geographic space needed to grow enough food to support a particular city or place’s population. In their food assessment typology, Freedgood et al. (2011, 85) interpreted Kloppenburger’s definition of foodshed as “a way to identify the geography of prevailing or future sources of food for a given region, or to trace the movement of food from agricultural regions to a specified population.” Although Kloppenburger et al. recommended its use as a conceptual tool, its predominant application has been to analyze production and consumption of a population to determine if a particular area could be food self-sufficient.

Horst and Gaoloch (2015, 403) reviewed twenty-two foodshed analyses conducted between 2000 and 2013 and reflected on the feasibility and limitations of the foodshed analysis as a measurement of an area’s production capacity. Their main critiques were that the authors

used insufficient data and a narrow vision of food production. They note that foodshed analyses suffer from a lack of scale-relevant data on consumption, production, and pathways, and do not take into account differences in eating patterns of subpopulations (Horst and Gaoloch 2015).

They also point out that modern foodshed assessments are missing many elements of a food system:

While foodsheds are often depicted as geographic areas on a map, for example a 100-mile radius around a population center, those boundaries may be in practice somewhat arbitrary. They might miss the importance of other influences on foodshed such as transportation infrastructure and political boundaries. (Horst and Gaoloch 2015, 400)

Foodshed, as it is used in these types of analyses, limits a food system to a fixed geographic area and ignores the complexities of a food system. If foodshed implies the location of producers and consumers, it avoids a normative or imagined sense of space or group of people, but it still restricts itself to spatial delimitations, simplifies a food system to production capacity and consumer (market) power and assumes consumers live in a city and producers live in the country.

Discussion and Conclusion

In “The Place of Food” Feagan (2007) notes the pervasive and contested character of place-specific and scalar terms within food studies discourse. He takes on the task of bringing a deeper engagement to them and sifts through the “multiple and conflicting” meanings of terms like ‘place’ and ‘local’ and ‘community,’. One of Feagan’s (2007, 34) main concerns is the consequences of more fixed boundaries as a result of “bioregional place appeals” made from ‘local food’ promotion. As the boundaries become more concrete, he notes, “we encounter fundamental concerns regarding what is in and what is out in these constructed terrains” (Feagan 2007, 34). Further, notions of local, community, region, and the like, must be seen as

“interdependent and dynamic in their constitution” rather than isolated levels or boundaries.

Feagan (2007, 34) continues:

LFS work must bear in mind with respect to spatially bound concepts like foodsheds, that the types of food grown, how it is grown, where it is grown, by whom and according to what sorts of cultural, social, and economic needs are tied, in complex and somewhat indiscernible ways, to sociocultural factors at the macro economic and political levels.

Scalar and spatial terms used within local food systems works can eventually create physical or mental boundaries that might ultimately keep people and food in or out of them and determine at what scale LFS work is done. At the same time, food and food systems within those boundaries are still very much connected to systems and processes outside of their ostensible scale or boundary, and scalar discourse in LFS should not deny that relational character of scale.

Through my discussion of scale, I argue that scale is a relational concept, it is socially produced, and it in turn produces social processes, systems, and relations. I also argue that scalar inquiries should examine the processes, relations, and systems that produce scale – such as FSAs in LFS work. My scalar discussion is pertinent to LFS discourse as much of the local food movement is built around notions of scale. Scale forms the basis of the local food movement, which places itself in opposition to the global food system, thus creating a false and problematic local-global binary. Within LFS work are multiple scalar terms that have varying definitions. Local, community, region, and foodshed each bring their own nuanced spatial delimitations and a normative sense of people and place. Food studies scholars and food system practitioners construct scale in part by using the language that they do. Language and discourse form the basis of understanding and perspective from which structures are built, people are organized, and policies are made. Thus, how concepts and ideas are described and implemented matters greatly to food system work.

As MacKinnon (2010), Kaiser and Nikiforova (2008), and Huber and Emel (2009) demonstrate, scalar analysis should examine the social struggles, practices, and languages that produce the scales that we then socially reproduce within and that successively (or simultaneously) impact further social processes and practices. To that end, I argue that FSAs are one way LFS work produces scales within which to enact food policy and programming. How are these FSAs producing scales (a food system) – what or how are boundaries drawn and why, and what socially constructed notions are informing those definitions? The next two chapters begin to answer these questions.

Chapter 3: The Who, What, Why, and How: Components of a Food System Assessment

The familiar terms associated with local food movements described in Chapter 2 – local, community, region and foodshed – are readily observable in my FSA case studies. In fact, these terms appear prominently in most FSA titles – the Southcentral New York *Regional Food System Assessment*, the Forsyth County *Community Food System Assessment*, and the Greater Capital Region *Foodshed*. Scalar language – and its connotations – are embedded within and inform FSAs, and ultimately one aspect of LFS activity.

Creators of FSAs are compelled to pin down discursive food systems terms and their spatial delimitations onto a map in order to bound and construct a material assessment. A closer look at FSAs exposes how these scalar concepts are applied, how they potentially impact FSAs, and how they themselves are (re)constructed through FSAs. If FSAs are one example of food system scale construction, a closer look at the motivations, people, and methodologies of each case study begins to reveal the social, economic, and political processes and structures that inform food system scale construction. In this chapter, I explore how each of my eight FSA case studies came to be, what they consist of, and what actions they have led to.

My study consists of eight FSAs. I draw on the physical FSA reports themselves, along with the eleven interviews I conducted with stakeholders associated with each assessment.⁷ Each assessment falls into my category of “a comprehensive FSA,” as I explained in the introduction. Comprehensive FSAs include data on production, processors, distributors, consumers, and retail.⁸ Case study FSAs vary in terms of who is behind their creation, where they are located in the U.S., why they were conducted, and their outcomes.

⁷ For three of the case study FSAs I conducted two interviews.

⁸ To read more about what a comprehensive FSA is relative to other types of assessments such as a community food security assessment or a foodshed assessment, see Freedgood et al. 2011.

Though I found variety in my case studies, I was able to find patterns, themes, and similarities for each category and grouped them accordingly. I begin with *who*. A quick summary of what type of entity called for, conducted, and funded each assessment demonstrates the centrality of networks and collaboration in FSAs. Then I move into *why* and *how*. I explore the objectives and goals – both short term and long term – of each FSA. I discuss motivating factors alongside the methods and types of data each assessment collected. I highlight key findings to provide a sense of what is inside each assessment. After outlining the motivations and methods of each assessment, I move into the outcomes – both tangible and intangible – of the FSAs.

What I am left with in the end are some similarities throughout the case studies, but also an obvious sense of how context dependent each report has to be – from the design all the way to the outcomes. My conclusion will highlight threads, themes, and main takeaways from my findings.

A group effort: Collaboration in FSAs

Each assessment I examined is a collaboration among two or more groups. Table 1 lays out who is involved in each case study, dividing contributors into four groups: (1) who called for the assessment, (2) who conducted the assessment, (3) who funded the assessment, and (4) additional collaborators, which refers to individuals who supported the FSA – such as a local volunteer or steering committee – but not necessarily the lead organization. Table 1 demonstrates the extensive networks and the diverse set of actors involved in putting a FSA together.

FSA	Called for FSA	Conducted FSA	Funded FSA	Conducting Collaborators
Capital Roots	Capital Roots (Non-Profit)	Capital Roots (Non-Profit)	Grants	Steering Committee
Forsyth County	Grassroots Local Food group	Forsyth Futures (Non-Profit)	Winston Salem Foundation and Forsyth County	Two Advisory Committees
Greenville Area	County of Greenville Planning Commission (Government Dept.)	Greenville County Community Planning and Development Dept, (Government Dept.)	Greenville County	N/A
Kansas	Kansas Rural Health Center (Non-Profit)	Kansas Rural Health Center (Non-Profit)	Kansas Health Foundation (Grant)	N/A
Lakes to Land	Alliance for Economic Success (Economic Development Council)	Becket and Raeder (Consultant)	Dept of Treasury Competitive Grant Assistance (Grant)	“Local champion” volunteer
Mississippi	Mississippi Food Policy Council (FPC)	Ken Meter (Consultant)	Winrock International (Foundation)	Mississippi Food Policy Council
NWA	NWA Regional Council and NWA Food Council (Economic Development and FPC)	Karp Resources (Consultant)	Walton Family Foundation and the Endeavor Foundation (Grants)	N/A
SCNY	Food and Health Network of SCNY (Non-Profit)	Food and Health Network of SCNY (Non-Profit)	Food and Health Network of SCNY (Non-Profit)	Task Force & Local volunteer

Table 1. Organizations involved in each FSA

Of the eight assessments I examined, half were conducted by non-profit organizations, three were conducted by consultant groups that were hired (two were hired by economic

development councils, and one by a food policy council and foundation), and one was conducted by a county government planning office. The organizations that called for the assessments include an informal food council group, a formal food policy council, non-profits, a county government, and an economic development council. Funds for the FSAs were provided by non-profits or economic development councils (or grants they acquired), local foundations, and a county government. Examples of how these collaborations functioned is described below.

The *Lakes to Land Regional Initiative Farm and Food System Assessment* was spearheaded by the Alliance for Economic Success (AES), an economic development organization that services Manistee County, Michigan, and surrounding areas.⁹ AES won a grant from the Department of Treasury Competitive Grant Assistance Program and used the grant to hire Beckett and Raeder, a landscape architecture, planning, engineering and environmental services firm out of Ann Arbor, Michigan, to conduct a FSA. Cassi Meitl, a Beckett and Raeder employee, designed and conducted the FSA in consultation with representatives from AES and a “local contact” from the Lakes to Land Region¹⁰ (C. Meitl, pers. comm.). In this case, the consultant hired to perform the assessment is an outsider, so she had to work closely with her client (AES) *and* a representative of the community she assessed. While Cassi pulled from planning literature and researched and gleaned ideas from various FSAs from around the country, she knew that she had to piecemeal together the design and components that worked best for the Lakes to Land Region (LtLR), and because she was an outsider, the only way to make that happen was to consult with a local resident. This demonstrates the need for local knowledge, and the context-dependent nature of a FSA. The major challenge Cassi faced in

⁹ AES defines economic development as “improving the economic well-being and quality of life of businesses and employees in the community” (allianceforeconomicsuccess.com 2017).

¹⁰ More on the Lakes to Land Region definition in Chapter 4.

conducting the assessment (aside from the limited time and quick turn-around) was being labeled and perceived as an outsider, which prevented some individuals from speaking with her for the assessment.

Cassi's experience is similar to several other FSA case studies, including the Food and Health Network (FaHN) of Southcentral New York's (SCNY) *2012 Regional Food System Assessment*, a coalition of organizations and individuals that aim to create food-secure communities and improve the quality of life in SCNY by supporting practices, projects, and policies leading to increased use of nutritious, locally produced foods (foodandhealthnetwork.org 2017). FaHN called for, funded, and conducted the assessment, but according to Erin Summerlee, the coordinator of the FSA, the assessment would not have happened without the hard work of a local volunteer. Even though FaHN was not a consultant from outside the area of assessment, it still depended on a local champion for its assessment. FaHN also worked with a task force that consisted of local food system practitioners, stakeholders, and actors from all sectors of the food system. This is not surprising, considering FaHN is already a coalition of organizations and individuals.

FaHN's task force consisted of thirteen stakeholders from the eight-county region that FaHN defined as its food system assessment scope.¹¹ The stakeholders represented a variety of organizations including a regional sustainability coalition, a regional food bank, a local university professor, and the New York State Food Policy Council, to name a few. Erin Summerlee noted that the task force FaHN designed included representatives from "all of the various entities that are key to the four different areas of the food system," which FaHN defines as (1) healthy environments, (2) economic vitality, (3) farm to consumer connections, and (4)

¹¹ More on the justification of this boundary in Chapter 4.

healthy people (E. Summerlee, pers. comm., FaHN 2011). In this example, FaHN used a food system perspective to define who should be involved in its FSA.

Capital Roots also used a steering committee. Capital Roots is a community service organization servicing Albany, Rensselaer, and Schenectady counties in upstate New York with a mission “to nourish healthy communities by providing access to fresh food and green spaces for all” (capitalroots.org 2017). Capital Roots pieced together FSA funding from its internal budget and various outside grants (M. Peck, pers. comm.). While Marissa Peck (the food assessment coordinator), a program manager, and the Capital Roots executive director are conducting their assessment, they are also using a twenty-member steering committee composed of “representatives from all of the different food system sectors in the region” (M. Peck, pers. comm.). Some examples of the organizations represented on the steering committee are the New York Farm Bureau, a nearby community college, the Capital District Regional Planning Commission, the American Farmland Trust, the Food Pantries for the Capital District, and a local food author. The variety of individuals and perspectives represented are similar to that of FaHN’s steering committee and, again, influenced by a food system perspective.

The third task force I came across in my case studies advised the *Forsyth County Community Food System Assessment: A Foundation to Grow*. The Forsyth County FSA was initially conceived of by a grassroots, informal local food group that met monthly and wanted to get conversations around local food system activity going and “stoke momentum” around different LFS aspects (M. Hill, pers. comm.). Forsyth Futures, a community data research organization serving Forsyth County, North Carolina, was a member of the informal food group, and ended up taking on the responsibility of conducting the FSA. Forsyth Futures aims to “provide unbiased information that can be used by community leaders and decision makers to

make informed, positive changes in our community that hit at the underlying root causes of the problem” (forsythfutures.org 2017). They work on a range of issues including understanding the local school system, the quality and equity of healthcare, and economic indicators like quality affordable housing and transportation (forsythfutures.org 2017). Seeing a clear connection between its own work and a FSA, Forsyth Futures volunteered to conduct the assessment and the grassroots group obtained funding from the Forsyth County government and the Winston-Salem Foundation, a community foundation committed to improving life in Forsyth County and the surrounding areas (wsfoundation.org 2017).

The Forsyth County FSA had two advisory committees – a stakeholder advisory committee and a food access advisory committee. The two steering committees, each with its own focus, emerged out of the interests of the two funders (the county government and the Winston-Salem Foundation). Marcus Hill, a Forsyth Futures employee and contributor to the assessment, noted that the Forsyth County government was “interested in economic development, getting farmers’ markets started, and small scale food things going on...and the Winston Salem Foundation had a core interest in matters of community development, somewhat social justice, social capital, things like that” (M. Hill, pers. comm.). In this example, The Forsyth FSA follows a food system definition that also includes the economic and community implications and well-being – a definition that goes beyond just the steps food takes from farm to plate – as I discussed in the introduction.

The partners involved in each case study reflect the need for local knowledge, the desire to represent the interests of the various parts of a food system, the collaborative nature of FSAs, and the variety of groups involved. It is not surprising that a FSA incites collaboration among several groups and individuals, considering how time and energy intensive conducting a FSA can

be.¹² The variety of key players and collaborations I see in my case studies illustrates how context dependent and variable LFS work is – it depends on the types of organizations and individuals in each area, what they care about, and what type of funders are available to support their work.

By laying out the various actors involved in each assessment, I have begun to demonstrate that the individuals and organizations behind each assessment influenced the focus, scope, and outcome of the assessment – such as the case of Forsyth County’s two funding sources. In the next section I explore the motivations and goals of each assessment in more detail. While I discuss the impetus for each assessment, I also explain how and what data was collected and displayed. The data each FSA collected speaks to the construction of the scope and scale of each FSA.

Baseline data, economic development, and food security through FSAs

The immediate, tangible goal of each assessment was to present a collection of quantitative and qualitative data about each food system. Each report paints a picture of the food system in question to give practitioners a better understanding of “the state of the food system,” a phrase I heard throughout my research. Informants hoped a FSA would measure the food system and collect data that identified ‘gaps,’ ‘challenges,’ and ‘opportunities’ – that is, gaps and challenges preventing a food system from operating successfully and opportunities to help the food system get to that desired level of operation. Informants also hoped the data would help inform future programming and decision making, all under the guide of “strengthening” the area’s food system. The specific goals of each assessment are spelled out in Table 2.

¹² Many of the assessments were conducted over the course of several years, and two that were conducted over only six months – Mississippi and Lakes to Land – noted in their reports that the short time frame was detrimental to the amount and quality of information gathered.

Within the abstract goal of ‘strengthening the food system,’ I identify two main areas of focus: economic development and food access – two parts of the second layer of the food system definition I discuss in Chapter 1. As I discuss in Chapter 2, the globalized and industrial food complex has created economic instability in rural communities as well as differential access to healthy foods. Economic development (vis a vis strengthening local production and processing opportunities) is necessary – mostly in rural areas – to combat the negative impacts industrial agriculture has had on small American towns. A focus on food access combats the financial and physical inaccessibility of food, particularly for low-income Americans, which has greatly increased as a result of global food consumerism.

Table 2. FSA goals and motivations

FSA	Goals
Capital Roots	<ul style="list-style-type: none"> • Collect data to inform for future projects – data-driven projects • Roadmap for regional food policy council • How to get our regional farmers to supply our regional markets
Forsyth County	<ul style="list-style-type: none"> • Gain greater understanding of the role of local foods, challenges and successes and opportunities to expand the positive impact of local foods • Increase economic development and social justice via a local food system • Figure out if a food policy council should be formed
Greenville Area	<ul style="list-style-type: none"> • Economic development – Growing the system
Kansas	<ul style="list-style-type: none"> • Examine barriers and opportunities in the farm-to-fork system • Provide more healthy food by Kansans for Kansans, make the healthy choice the easy choice – “Healthy Kansans”
Lakes to Land	<ul style="list-style-type: none"> • Figure out how to implement a “food innovation district”
Mississippi	<ul style="list-style-type: none"> • Collect data to inform future policy – data-driven policies
NWA	<ul style="list-style-type: none"> • Enhance the livability of the region via a strong local food economy • Understand assets, supply chain bottlenecks, and challenges to realizing potential of farmers contributing to the regional economy
SCNY	<ul style="list-style-type: none"> • Baseline of information to track success and progress: a tool for evidence based programmatic, municipal, and regional food system planning

A stronger food system through an economic development lens, according to my informants and the FSA reports, means a local agriculture economy in which there are abundant (usually small) farmers who can make a living selling to ample markets with sufficient local consumers. In this scenario, an example of a ‘gap’ is a lack of enough meat processors for the number of meat suppliers in a particular area. The opportunity, therefore, is creating an incentive for additional meat processors that could serve the local meat suppliers to locate in the area, thus increasing business and profits for the local meat supplier (and processor). A strong food system through a food access lens, according to my informants, is a system in which everyone has access to locally grown, affordable, healthy, and culturally appropriate food. An example of a food access ‘challenge’ is a barrier preventing individuals from purchasing locally grown food such as price, market locations, or awareness of the availability of locally grown food. Opportunities, it follows, are to create incentives for farmers’ markets to locate in new or additional locations or grocery stores to carry local produce. One important thing to note is that food access, defined in these FSAs, mean access to *locally* grown food – not just food in general. While I did not ask my informants why food access meant local food access, I suggest one reason is that encouraging *local* food access also benefits food producers, thus checking both economic development and food access goals off the list through one strategy.

One important motivation for creating FSAs that my research revealed is the desire for LFS interventions and programming that are rooted in data, not political motives, guesses, or anecdotes. Just as Scott Park from the Greenville Area FSA noted a desire for a “baseline study,” Erin Summerlee from FaHN pointed to a need for baseline information to track progress and success, and Marissa Peck from Capital Roots identified a desire for “more data-driven projects and funding decisions...and policies” (S. Park, E. Summerlee, and M. Peck, pers. comm.).

The methodology of each FSA varied slightly, but each one gathered secondary quantitative data from sources such as the United States Department of Agriculture (USDA) Census of Agriculture, USDA Food Environment Atlas, and the Centers for Disease Control and Prevention (CDC). Secondary data was supplemented and matched with primary (mostly qualitative) data that practitioners gleaned from interviews, surveys, and focus groups with local food system actors, such as farmers, processors, and consumers.

Three of the eight case studies (Forsyth County, Capital Roots, and FaHN) explicitly state both economic development and food access as long-term goals of their FSA. Four case studies (Greenville Area, Lakes to Land, Mississippi, and NWA) state economic development as their main long-term goal, and one case study (Kansas) states better food access as the main motivation for the FSA. Upon further investigation, I noticed that the main goal of each assessment did not necessarily line up with the data collected. For example, NWA's main goal was economic development and "livability" in the NWA region, but the assessment included data on food security in NWA. Likewise, the Kansas assessment wanted to increase access to healthy food for Kansans, but because they wanted that healthy food to be Kansas grown, most of their data reflected the economic viability of 'local' Kansas agriculture. In fact, every case study included data reflecting economic development and food security, demonstrating the application of a system perspective, the integral role food security plays in FSAs, and the symbiotic relationship in which local suppliers need local buyers.

Forsyth County's assessment had both food security and economic development as motivating factors because of two major funders of the assessment. The county government was interested in improving economic development through a local food system, and the Winston Salem Foundation was interested in building social capital through a local food system. Its FSA

report organized the collected data thematically by production, processing, distribution, consumption, and waste. It used agriculture statistics from the USDA Census of Agriculture from 1997 and 2007 to demonstrate a downward trend in farmland within the food system, demographic information of farmers and farm labor, and the type and acres of crops grown and livestock raised within the Forsyth County food system. Other data collected on the food system economy were the amount, location, and type of processors and distributors, with a focus on meat processing plants. Data collected under the distribution category also included emergency food networks such as food banks, food pantries, and community gardens. Consumption data was driven by an aim to explore “individual habits for obtaining and using local food products,” and included interview and consumer survey results such as one finding that “when given a selection of 11 changes that would increase purchasing of local foods, the most common response was, ‘More local food selection in the grocery store’” (Forsyth Futures 2013, 28). Based on the data collected, food access for the Forsyth County FSA was closely linked to access to locally grown food. The food council and WSF believe one way to improve food security and social justice is building a strong community food system.

The Kansas FSA’s stated goal was to help Kansas farmers feed Kansas citizens and give Kansas citizens easier access to healthy, Kansas-grown food. The primary focus was helping Kansas residents easily access healthy food, but the Kansas Rural Center believes the best way to reach that goal is to help Kansas farmers sell fruits and vegetables to Kansas residents. “Healthy Kansans” was the primary focus because the Kansas Rural Center (KRC) pitched the FSA idea to the Kansas Health Foundation as part of a larger statewide partnership with the stated goal of increasing access to healthy food and beverages in Kansas. The KRC promotes the “long-term

health of the land and its people” through research, education, and advocacy (kansasruralcenter.org 2017).

The KRC believe its work – supporting rural communities and agricultural workers – played into the “healthy Kansans” goal well because it can “help farms be the solution to scaling up and creating greater access to healthy foods in Kansas” (N. Fullerton, pers. comm.). In this example, supporting farmers and agricultural production is a strategy to reach the end goal of better food access for consumers. To assess the best way to help Kansas farmers feed Kansas residents, the Kansas FSA gathered data on both food access and the state agriculture economy. Its methodology, similar to Forsyth County, collected USDA Census of Agriculture statistics and performed interviews and focus groups with various food system stakeholders that were considered either grassroots, regional, or state-level. Each type of stakeholder and their location in the state is illustrated in Figure 3. Examples of state level stakeholders are the Kansas Department of Education, the Kansas Farmers Union, the High Plains Food Cooperative, and Bon Appetit Management Co.

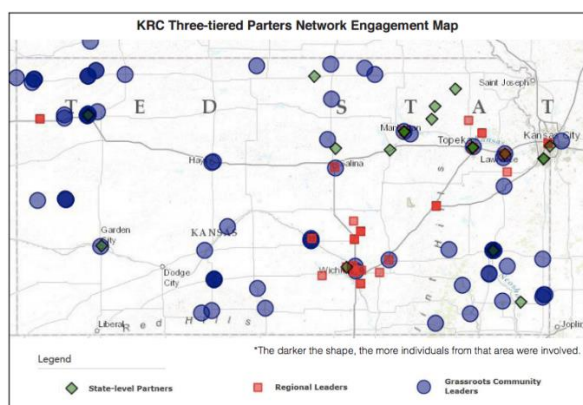


Figure 3. Kansas FSA partners (KRC 2014, 9)

The first part of the assessment draws on USDA data on food access and agricultural sales in Kansas. The USDA Food Access Research Atlas Map resource is used to demonstrate the high number of areas with low access to healthful food. The report states that “ninety-two

percent of Kansas counties face limited physical availability of healthful food – requiring travel of ten miles or more in rural areas, and one mile or more in urban areas – and in twenty-five percent of those counties, a significant number of households lack access to transportation” (KRC 2014, 11). After comparing low-access areas to low-income areas, the report provides the number of Kansas residents receiving support from the federal government through programs such as the Supplemental Nutrition Assistance Program, and summarizes the various programs in Kansas that work toward providing low-income residents with easier access to healthy food.

USDA Census of Agriculture data are then used to demonstrate that Kansas grows an astonishing amount of food (measured in agricultural exports) that is exported out of the state, while Kansas residents spend 90 percent of their food budget on products grown outside the state. This section also contains illustrative charts and maps painting a now-well-known picture of what the U.S. agricultural industry looks like. As the report notes, “97% of Kansas’s 2012 agricultural sales, almost all of which went out of state, were derived from grains, meat and animal products” (KRC 2014, 18). Further, in 2012, “90% of Kansas’s harvested crop acres were devoted to growing the following four foods: wheat, corn, soybeans, and sorghum” (KRC 2014, 18). The report notes that Kansas farmers are among the low-income members of the state, but when farmer profit is broken down by type of crop grown, it is revealed that growing vegetables (other than corn) yields a higher net income than growing corn, soybean, or wheat. These findings are presented in the FSA report to support the recommendation that programming and policy should incentivize Kansas farmers to grow more fruits and vegetables for local and regional markets (which would benefit *both* farmers and consumers).

Finally, the third section of the Kansas FSA report draws on the quantitative data and the “experience and knowledge of 275 stakeholders from across food system sectors” that was

gathered at six public events held around the state in 2013 and 2014 (KRC 2014, 8). These state- and regional-level meetings and focus groups help explain some of the reasons why Kansas farmers have trouble diversifying production and selling to local and regional markets. Two of the identified barriers are “inadequate local- and state-level coordination, planning, and resource allocation to support and sustain Kansas’s farm-to-fork food system” and “lack of regulatory clarity around state-level policies that impact the farm-to-fork food system” (KRC 2014, 23). The report used their USDA and interview data to inform and support the recommendations.

The Northwest Arkansas (NWA) assessment was a collaboration between an ad-hoc food council (later to be named the NWA Regional Food Council (NWARFC)) and the NWA Council, a regional development agency. The NWARFC’s mission is to “promote the development of a strong regional food system through activities that increase production, consumption, and access to local food in NWA” (Karp Resources 2014, 1). The NWARFC partnered with the NWA Council – a business group composed of representatives from the larger industries in the area including Walmart, Tyson, and JB Hunt – to fund and conduct the assessment.¹³ One informant told me that the NWA Council wants to increase the “livability” of the area and make it a “nice place” to live by supporting local food:

These companies want to attract talent to NWA, and local food is part of their strategy, part of what makes this area a place where people want to come and work at their companies (Informant, pers. comm.).

The report states that the goal of the FSA was “to measure and understand the region’s food and agriculture assets and challenges to fully realizing the potential of farmers and food businesses to contribute to the region’s economy, community health, and well-being” (Karp Resources 2014, 2).

¹³ Walmart, Tyson Foods, and JB Hunt all have headquarters in NWA.

The report draws on 2012 USDA Census of Agriculture data to tell a story about agriculture in NWA through facts and figures. Similar to Kansas (and the rest of the country): more than half of the four-county region is farmland, the average farmer is fifty-nine years old, poultry and livestock production dominates the agricultural landscape (accounting for ninety-nine percent of the total market value of agriculture in the region), the majority of fruits and vegetables produced come from small farms, and over eighty percent of all cropland in the region is used to produce feed for cattle and other livestock. Through a consumer survey and stakeholder interviews, the assessment found that there is an insufficient supply of local produce, commercial buyers need better infrastructure for ordering and delivering local produce, and commercial buyers believe that “local produce is superior in flavor” to non-local produce (NWA Report). USDA Food Environment Atlas data is also used to tell a story about food security in the region: 15.5 percent of NWA residents experience food insecurity. Stakeholder interviews and consumer surveys also revealed that eleven of twenty farmers’ markets in NWA accept SNAP benefits, and “price is the only obstacle keeping NWA grocery shoppers from purchasing all of the healthy foods they’d like to buy for their households” (Karp Resources 2014, 41).

The fourth and final area of assessment in the NWA FSA report is called “food industry cluster.” Information about food manufacturing, retail, and hospitality are listed, such as “Food and hospitality occupations in the Fayetteville-Springdale-Rogers metropolitan statistical area increased by 17 percent from 24,600 jobs in 2005 to 28,800 jobs in 2012. These occupations are expected to grow by 10 percent over the next decade, an increase of approximately 2,800 jobs” (Karp Resources 2014, 46). Food Industry Cluster findings fall neatly into the goal of economic development through a local food system strategy.

The Lakes to Land FSA also involved a regional economic development organization called the Alliance for Economic Success (AES). AES worked with a consulting company to create a regional master plan called the Lakes to Land Regional Initiative. The plan exposed a targeted need of “strengthening the agricultural sector and vitalizing the agriculture industry” in the area (C. Meitl, pers. comm.), so the AES applied for a grant to do an assessment to find ways to implement or develop a food innovation district.¹⁴ AES believed an assessment was necessary to “enhance coordination within the region and identify the needs and assets to understand the components and interrelationships of the existing food system” (Beckett and Raeder 2014, 7). Lakes to Land used 2012 USDA Census of Agriculture data and personal interviews with local food producers, processors, aggregators, distributors, and retailers. Similar to the other reports, Lakes to Land attempted to tell a story about agriculture in their area – how many farms there are, how big they are, what they grow, and what types of local food market channels exist. The report also describes the “emergency market” of their region by listing the percentage of the population who use SNAP benefits, how many food assistance programs are available, and from where the emergency food programs procured their food offerings.

Lakes to Land interview and survey questions were designed to ask individuals representing local food producers “to identify business opportunities, the barriers prohibiting these opportunities, what could help overcome these barriers, and present needs” (Beckett and Raeder 2014, 8). The report divided findings into five categories: (1) small family farms (low sales), (2) small family farms (medium sales), (3) large family farms, (4) processors, and (5) retail, restaurants, and institutions. Each section includes barriers and opportunities specific to

¹⁴ A Food Innovation District, as the AES defines it, is a “geographic concentration of food-oriented businesses, services, and community activities and economic development initiatives in order to promote a positive business environment, spur regional food system development, and increase access to local food” (Beckett and Raeder 2014, 11).

each category. For example, small family farms with low sales experience challenges in getting produce to markets, a lack of available storage and inspected processing facilities, and a lack of local demand for quality fresh produce. One opportunity listed in this category is a public education awareness campaign to “help brand local healthy food” and “educate the public on farming, instill the value of healthy food, and teach people how to purchase and prepare fresh produce” (Beckett and Raeder 2014, 27).

The Greenville Area FSA was the only government funded and conducted assessment in my study. Scott Park, a planner for Greenville County and one of the FSA directors, explained that the county planning commission created goals attached to the county’s comprehensive plan, and the FSA “fit under the auspice of economic development” within the county’s comprehensive plan (S. Park, pers. comm.). Scott also explained that his staff in the County Community Planning and Development Department decided to focus on food and agriculture because they found that “food systems needed a little bit of organization and a baseline study of where we’re at and where people want to go in developing a food system” (S. Park, pers. comm.). Scott explains:

My staff saw extreme potential in developing food systems – local food systems – within the ten-county area that would really provide a whole lot of benefit for our residents, farmers, people that would be buying local food – which is, everyone is interested in buying food obviously, but maybe from a local source would be a little bit more beneficial for keeping a dollar local.” (S. Park, pers. comm.)

Keeping the “dollar local,” in effect, will boost the local economy. And, as the Greenville FSA report states, a “healthy, robust food system will lead to a wide range of benefits” including increased entrepreneurial opportunities, job opportunities, pay increases, food security, access to healthy food, and potential to export locally grown food” (Greenville County 2012, 5), which links the Greenville Area food system to all these positive impacts.

Scott Park and his team relied on “a brainstorming discussion, online surveys, field visits, and one-on-one discussions” to gather data on the Greenville Area food system (Greenville County 2012, 10). Feedback from representatives of all sectors of the food system was gathered from various meetings including an initial planning meeting, two forums on industry challenges for producers and retailers, and a local food producers meeting complete with farm visits.

The only quantitative data displayed in the Greenville FSA report, taken from the CDC and USDA Food Environment Atlas, highlight obesity and diabetes rates in the Upstate Region (by county) to demonstrate health concerns and location of “food deserts.” The majority of the FSA reports its findings in narrative form and focuses on the specific challenges in the areas of marketing, processing, land and water cost, certifications/regulation, and labor. For example, two challenges point out that “local processing locations are being consolidated leaving those with raw goods a longer travel time from production facilities (i.e., farms)” and “meat processing is also seeing a consolidation with only a few remaining processing facilities in the Carolinas” (Greenville County 2012, 14).

Each FSA in my study was conducted to gather data that will inform future work and eventually improve economic development and food access through a stronger food system. FSA motivations and data collection were largely dictated by the individuals, organizations, and funders involved in each assessment. Similar methodologies are found in each report: secondary data collection from federal data sources and primary qualitative data collection from local actors. Methodology and the types of data used also begins to dictate the scope of each assessment, as well as what types of agricultural actors are included. Each report displays federal government data on agriculture in its area, and then supplements with its own primary data – mostly qualitative – but also numbers and locations of processors, distributors, farms, markets,

grocery stores, and the like. Practitioners are able to take the data that is useful to them and their goal or project and use it to inform the recommendations and outcomes of the report.

Next steps: life after FSAs

To the best of my ability, I gathered data on FSA results and outcomes from the reports and interviews. I define results or outcomes as what each FSA directly impacted or caused to happen – a successive study, a new program, a policy change, information sharing – as well as the culmination of the report findings, i.e., the recommendations (many recommendations or “opportunities” for action are also listed in previous sections). I do not claim to have heard about or recorded every possible outcome or result, as each FSA involves a large network of people and can likely be linked to several lesser known outcomes. I group the outcomes into recommendations (which are included in each report); food policy councils, which play varying roles in several FSAs; information sharing; and data used for grants or further programming.

Recommendations

Each assessment included a set of recommendations with its report. The recommendations are also called opportunities, challenges to be addressed, next steps, or strategies and solutions. Though given varying names, these recommendations call for action. They identify aspects of the food system that need attention and can be improved to reach an initial general goal of “strengthening” the food system in question. The specificity of the action in each assessment varies. For example, FaHN’s assessment of South Central New York mostly identifies opportunities or areas in need of improvement, such as “increase in availability of open space suitable for urban agriculture” (FaHN 2012, 37), but does not suggest specific policies or programs that would improve the identified need. Other FSA recommendations are much more specific. What follows are a selection of recommendations from my case studies.

The NWA assessment categorize its recommendations into four target areas: cultivate a regional food identity, coordinate and grow regional supply, leverage public resources to improve local food access for all Northwest Arkansans through diverse outlets, and develop and coordinate local food cluster technical assistance and resources. The NWA assessment also identifies an opportunity to “fill in the gaps to establish a consistent and boutique local meat supply chain” (Informant, pers. comm.). The gaps refer to a lack of meat processors that are set up to work with local, small-scale meat suppliers (all but one of the meat processors in the region are set up to process meat that is linked to “national and global supply chains” and is sold outside of the region).

Forsyth County links its findings or “needs” to “opportunities for community action,” and divides the needs and opportunities into five categories: system infrastructure, production, processing, distribution, and consumption. For an example, its ninth need in the distribution category is “access to distribution networks,” which explains that the current food system does not “readily provide [distribution] options for small and mid-size producers” (Forsyth Futures 2013, 39). This need links to an opportunity to “strengthen and expand food hubs serving Forsyth County.” The Kansas assessment spells out specific policy suggestions for its identified needs, such as calling upon state politicians to set aside funds to create local-level food policy councils.

Food Policy Councils

Food policy councils played varying roles in the assessments I examined. In Mississippi and NWA, a food policy council played a role in conducting the assessment. Mississippi used the data in its report to inform policy recommendations. But for others – Capital Region, Forsyth County, and Kansas – it was an outcome (or hoped for outcome, in the case of Capital Roots) of

the assessment, likely because there was no food policy council present during the assessment, and because a main finding in the Kansas and Forsyth County FSAs is a lack of coordination among food system stakeholders and a lack of a central resource of information regarding food and agriculture.¹⁵

Forsyth County’s assessment recommends that a regional food policy council (or “community food system consortium”) be created to carry out the other recommendations of the report. After the report was published, a steering committee worked for six months to “figure out how to pull a food policy council together” (M. Hill, pers. comm.), and then a council was created. Though the Albany food assessment is still in the works, one of the identified goals of the assessment is to “collect data that will serve as a resource for future projects and a roadmap for a regional food policy council” (M. Peck, pers. comm.). And finally, the number one recommendation from the Kansas assessment is “State and local government agencies should pass resolutions, provide technical assistance and funding, and/or take any further steps needed to support the formation and longevity of local Food Policy Councils and Food & Farm Task Forces across Kansas” (KRC 2014, 23).

Further Programming

Several interviewees noted that data from their reports were used for grant proposals and applications, follow-up reports, presentations, or other programs. Each organization in my case studies works toward various goals related to food, so the breadth and large volume of data they collected in the FSAs proved useful for other food-related projects.

The KRC used data from its report to apply for and receive funding for further programming (including a regional FSA) in the southwestern section of Kansas. Throughout the

¹⁵ Research on FPCs is a burgeoning area of investigation. Johns Hopkins Center for a Livable Future created a Food Policy Network project to serve as a central resource and research base. It currently has over 280 FPCs in its directory.

initial FSA process, KRC noticed fewer local food activities happening in southwestern Kansas than the other corners of the state. In explaining what was different about the southwest, Natalie said that KRC found high rates of food insecurity, minority populations with communication challenges that might impact food access, and “people who are interested in growing fruits and vegetables or other small scale types of agriculture but don’t really know how to branch out into the market” (N. Fullerton, pers. comm.). In other words, the interest in participating in local food networks is unmatched by the means or ability to participate in southwest Kansas, and there are more food access issues in southwest Kansas than other regions of the state.

After the Forsyth County FSA was published, the Forsyth County government used data from the FSA to apply for and receive a grant to do a farmland preservation study. In the case of Forsyth County, the FSA did not create the data that showed how farmland in the region was decreasing over time, it only gathered and presented it in a report about the community food system.

Greenville Area’s FSA highlights that “storage and distribution have most likely haunted the agriculture industry from the very beginning. Often relying on a separate entity to store and ship products, farmers and retailers have been experiencing increased shipping prices due to higher transportation costs” (Greenville County 2012, 20). Because of this “challenge” in storage and transportation, Scott Park noted that “it certainly spurred on the next study which was looking more at the food hub that would be that intermediate intervener” (S. Park, pers. comm.). The Greenville County Planning Department published a feasibility study called “A Case for an SC Upstate Food Hub” in 2014 to determine whether the Upstate region would support the needs of a foodhub.

The NWA assessment identified an opportunity to train the next generation of chefs in NWA. Karp Resources, the consulting firm that conducted the NWA assessment, is continuing to work on an expansion of a community college culinary arts program in the region as a result of the assessment. As Karin Endy explains:

I think people in the region see that training the next generation of chefs is key to economic development in the region, and also teaching them more about the food system and how food is grown, transported, and processed, is an important part of the education for anyone who wants to work for food, and the curriculum in that school is being updated to reflect those learning objectives. (K. Endy, pers. comm.)

This outcome may be linked to the findings under the “food industry cluster” section of the report that found that food and hospitality jobs were projected to increase over the next decade.

A sentiment I heard from many respondents regarding these outcomes was that the FSAs provided more ‘legitimate’ evidence of things that they anecdotally knew to be true. Scott Park noted in his interview that the Greenville Area FSA “confirmed things people in the area were feeling” (S. Park, pers. comm.). Erin from FaHN utilizes her FSA report during lobbying activities in Washington, D.C., and she noted how the issues she presents to lawmakers are taken more seriously with a report rather than with stories or anecdotes. In other words, the official written report lends legitimacy and credibility to what had been anecdotal findings beforehand. This links back to a motivation by many FSAs to have legitimate, baseline information to inform data-driven decisions and policies.

Information Sharing

Cassi Meitl, with the Lakes to Land FSA, created an “asset inventory” for agricultural producers in the LtLR region, an abbreviated version of which is included in the FSA report. It lists what support is available for farmers in the area including infrastructure (storage facilities and meeting spaces); grants, loans, and fiscal incentives for farmers; and programs and resources

such as local university agriculture programs, farm bureaus, and non-profits servicing small farmers. An example of a program in the inventory is Goodwill Farm to Freezer, a “community based job training program that flash freezes produce from local farms in Northern Michigan” (Beckett and Raeder 2014, 64). Michigan Food and Farming Systems, also listed in the inventory, is a statewide, membership-based non-profit organization connecting farmers to resources and opportunities through farming centers, programs for multicultural farmers in English and Spanish, facilitation services for incubator kitchens, and agriculture support organizations, and programs for women, veterans, and beginning farmers. The asset inventory partially replaced the role that a Michigan State University extension agent used to play before being removed. The Lakes to Land FSA also led to an extension of a program called Taste the Local Difference. Cassi explained that the program was “intended for tourists or people who want to purchase produce and products directly from farms and retail businesses, and eat at restaurants that do farm to table, and go to farmers’ markets” (C. Meitl, pers. comm.). The program is being expanded and a Taste the Local Difference website and guide will be made specifically for farmers. It will include information on grants, loans, fiscal incentives, local programs and resources for farmers, etc. – similar to the asset inventory – but larger and accessible online.

Responding to a need to keep area farmers informed, the Greenville County Planning and Code Compliance created a food system email forum that notified farmers about “upcoming training and showcase events, news of potential crop issues, job postings, informational needs and important dates” (Greenville County 2012, 19).

Several interviewees brought up an unintended, but welcome outcome of getting people from different areas of the food system to “gather at the table” to talk about the assessment.

These folks would not normally have talked or collaborated – or had never even met before – and the assessment brought them together. Gathering people together enabled information sharing and created new networks and relationships that were not there previously.

FSA reports also acted as information sharing resources themselves. Several of the reports listed current programs, initiatives, and organizations working on farm and food related issues in their area. Information about the programs were sprinkled throughout most reports, inserted in related sections. The reports may have included this information to expose what type of local food work is already happening to foster collaboration among groups and capitalize on the work already being done.

The outcomes I have listed above – recommendations, food policy councils, further programming and studies, and information sharing/collaboration – all represent the variety of ways that FSAs lead to tangible impacts that further LFS work. This also underscores the impact or material consequences FSAs can have on food system activity in a particular area. The outcomes are influenced by who is behind the FSA and the data collected, displayed, and analyzed. Each outcome is listed in Table 3.

FSA	Outcomes
Capital Roots	<ul style="list-style-type: none"> • N/A
Forsyth County	<ul style="list-style-type: none"> • Food Policy Council • County farmland preservation plan • Caused group to start thinking about food regionally
Greenville Area	<ul style="list-style-type: none"> • Local procurement for schools and universities • Successive foodhub feasibility study • Email listserv for food actors – information sharing • Confirmed things that people were feeling
Kansas	<ul style="list-style-type: none"> • Funding for continued programming in Southwest Kansas (area of need) • Provided the Statewide Local Food and Farm taskforce with report • Connected people – got them “at the same table” and showed people how to source locally (at the events)
Lakes to Land	<ul style="list-style-type: none"> • Asset Inventory – information sharing • ‘Taste the Local Difference’ for farmers – online food resource guide • Began to create a regional identity
Mississippi	<ul style="list-style-type: none"> • Policy brief and recommendations • Confirmed what the FPC thought to be true
NWA	<ul style="list-style-type: none"> • Expansion of a community college culinary arts program • Exposed a need for infrastructure for a local meat supply chain
SCNY	<ul style="list-style-type: none"> • Data for grant writing • Utilized in a local university classroom • Guides further internal programming • Sent to policy makers and used in lobbying

Table 3. FSA outcomes

Discussion and Conclusion

My FSA case studies represent the work of non-profits (whose missions include food security, supporting farmers, and data-driven community development), economic development councils, food policy councils, food system consultants, and county governments. Time, energy, and financial requirements of a FSA breed collaboration among these various groups to conduct FSAs of a particular area. The interests, needs, and resources available in each unique FSA situation shape the possibilities and direction of each FSA. The individuals and perspectives

represented in each case study reflect one aspect of the social relations and processes that lead to the construction of the scale – as in the socio-spatial relations and scope – of each food system.

Despite the variety of people who participate in conducting FSAs, there are similar motivations and methodologies throughout each case study. Strengthening the food system to engender a stronger local economy and improved access to fresh, local food for all residents was a notion found in each FSA. However, the emphasis on each goal – whether it was economic development or food security – varied depending on the motivations of each group behind each FSA. Within LFS discourse, economic development and food access are hampered by a globalizing food system and industrial agricultural practices. The increasing attention surrounding food systems in the U.S., along with the socially constructed notion of local food and all its benefits, could also be an underlying cause of the interest and motivation to strengthen each food system and conduct a FSA.

Opportunities or recommendations in each report linked directly back to the data gathered during the FSA process. They incite action, connect people with relevant information, lead to more collaboration and coordination through food policy councils, and lay the groundwork or are the impetus for further grant applications and programming. Outcomes are an example of the material impacts of FSAs. They will also play a role in both materializing and reproducing the scale of the FSA's food system. The scope of the food system in the FSA will undoubtedly inform who and what the action-inciting recommendations impact. Food policy councils, if an outcome of a FSA, might eventually influence food and agriculture policies of a particular scale. A FSA may also inform who is on a food policy council, and thus what perspectives and parts of the food system the council represents. In the next chapter I take a

closer look at how each FSA chose their food system boundary and what type of food actors they included in their studies.

Chapter 4: Food System Assessment Boundaries and the Global-Local Binary

Unpacking a FSA and exposing who is involved, what the motivations and goals are, and what data is displayed, begins to outline the many components that construct a food system assessment, and thus the many components that construct the scale of the food system being assessed. Two additional components that play a part in constructing the scale of a FSA's food system are the spatial delimitation of the food system as it is presented in each FSA and the type of food system actors and networks that are included in the FSA data collection. The two research questions I answer in this chapter are "How do FSAs bound their food system and why?" and "What type of food system actors – defined by both size and production practices – are included in each FSA? Although answers to these questions were touched on through looking at the FSA reports themselves in Chapter 3, this chapter focuses on interviews with my informants. Through asking FSA contributors about the boundaries and type of actors assessed, I was able to tease out the thought process and justification behind these two components.

The first part of this chapter discusses the boundaries of the food system in each case study. I draw on interviews with each FSA informant to highlight the various factors that go into deciding what the spatial delimitation of each food system will be, including the geography of production and consumption, political boundaries, the location of constituents of each organization involved, the landscape, and cultural identities. The findings suggest that a food system approach calls out the limitations of preconceived notions of what local or regional mean, as well as the limitations of political boundaries in accurately representing a food system. That being said, each food system, when mapped, aligns with political boundaries.

The second part of the chapter explores whether or not – or to what extent – each FSA assessed and included food system actors that they considered to be large-scale, commodity

agriculture, industrial, or conventional. The nature of the data collected in each report and conversations with my informants speak to the local-global binary I discuss in Chapter 2.

“We recognize food systems don’t stop at county lines”: Choosing a food system boundary

With the exception of the state-wide FSAs (Kansas and Mississippi), FSA contributors struggled with how to define and bound their food system. The boundaries evolved throughout the assessment process, expanding and contracting as the practitioners interviewed key stakeholders, researched other FSAs, and thought more about how best to measure their food system. The one exception to this is found in the two statewide FSAs I examined, Kansas and Mississippi. Both assessments were called for and conducted by state-level organizations (the Kansas Health Foundation/Kansas Rural Center and the Mississippi Food Policy Council, respectively). Both assessments had little trouble with picking and sticking to the state boundary. However, using a politically constructed boundary such as a state for a food system assessment raises just as many questions as a multi-county or regional approach.

One common factor that expanded initial boundaries was the locations of producers and consumers. Several practitioners found that their initial boundary encapsulated consumers (food demand), but did not encapsulate producers, processors, or distributors. The Forsyth County Community Food Assessment study area is shown in Figure 4. While the practitioners began with just Forsyth County as the food system boundary, it expanded to a group of eight counties consisting of Forsyth County and the seven surrounding counties. Marcus Hill said that in discussing the assessment study area, they had to acknowledge that Forsyth County was a “fairly urban county surrounded by rural counties” and most of the food production in the local area was not happening within Forsyth County (M. Hill, pers. comm.). Therefore, the community food system of Forsyth County could not logically be limited to Forsyth County alone. However,

Mari, another lead investigator at Forsyth Futures, noted a point of tension in deciding to expand the boundary:

It was a little tricky for us because Forsyth Futures primarily only does research in Forsyth County. But we recognize that food systems don't just stop at county lines. So...the report was Forsyth County focused. But for what went into it, we knew we needed to look a little outside of the county (M. Krane, pers. comm.).

Mari points out that Forsyth Futures, the entity in charge of conducting the assessment, wanted their work to benefit the people of Forsyth County, a tension that went into and helped inform and construct the Forsyth County Community Food System definition, and possibly who they interviewed for their FSA data collection.



Figure 4. Forsyth County Community FSA study area (Forsyth Futures 2014, 1)

Scott Park of the Greenville County Planning Department also pointed out that early on in the assessment process, his team figured out that the boundary had to be bigger than just Greenville County. He noted that “a lot of the sources of local food would be coming from outside Greenville County,” while Greenville County was home to the large population center of the area – the city of Greenville (S. Park, pers. comm.).

Figure 5 shows how Capital Roots defined the “Greater Capital Region Foodshed” – eleven counties surrounding the capital city of Albany. The four counties that are darker in color

– Saratoga, Schenectady, Albany, and Rensselaer – are considered the “four counties of consumption,” while the surrounding seven counties are the “counties of production” (M. Peck, pers. comm.). Marissa Peck explained that the large urban centers of Albany and Schenectady encapsulate consumer demand, and most agricultural land falls within the surrounding eleven counties. Capital Roots chose their western border based on how far away they, in their role as a food pantry, bought food from, and where several farmers participating in their Albany farmers’ markets are from (M. Peck, pers. comm.). However, the production/consumption logic seems to have been overridden by the state political boundary, as the surrounding counties extend further west than east, since the eastern counties border Vermont and Massachusetts. Capital Roots decided to keep the food system boundary within New York State, though they will interview producers that are located in Vermont and Massachusetts (M. Peck, pers. comm.). In this example, Capital Roots is taking the geography of consumer demand and production into consideration, along with political boundaries of county and state. They did not limit themselves to a state-sanctioned regional definition; they relied mostly on where food system actors are located, albeit within New York State.

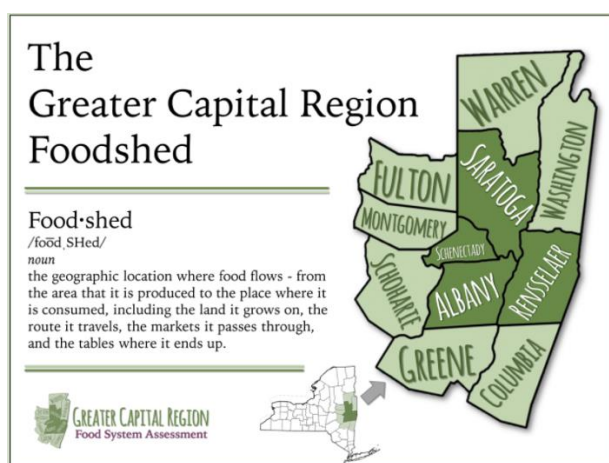


Figure 5. Capital Roots FSA boundary: The Greater Capital Region Foodshed

(capitalroots.org 2017)

The Lakes to Land assessment faced the opposite problem to Capital Roots, Forsyth County, and Greenville Area: its initial region encompassed producers, but not enough consumers. Cassi Meitl said that the food system boundary kept changing throughout the assessment process as she kept bumping up against new information and questions. For example, through interviews with producers, she learned that many of the farmers in her region sold to the closest large urban center – Traverse City – but Traverse City was not within the Lakes to Land Regional Initiative boundary (shown in Figure 6). At the same time, she was aware that the grant funding for the assessment was specifically for the Lakes to Land Region. So, while they settled on a boundary that was larger than the Lakes to Land Region (it was the two counties that the LtLR fell within), as seen in Figure 6, Cassi spoke to food system actors outside of that boundary. The asset inventory she created from the assessment, however, was created for food system actors within the LtLR. The Lakes to Land Region is defined by municipality and town boundaries; Cassi felt restricted by these boundaries because, while the AES wanted its work to benefit residents within their jurisdictional boundaries, it defied the definition of a food system that Cassi was following.

Furthermore, the Lakes to Land report notes that “when information is not available for the specific geographic regions of the participating communities, the study area is defined as the areas within the Benzie and Manistee Counties boundaries recognized by the U.S. Census” (Beckett and Raeder 2014, 14). Mari from Forsyth Futures also said that it was easier to gather the appropriate data on a county level, and that encouraged Forsyth Futures to stick to county boundaries as their FSA boundary. FSA practitioners were encouraged to hold onto political boundaries – particularly county and state boundaries – partly because agricultural data from the USDA Census of Agriculture is organized by county and state. That being said, Cassi and Mari’s

comments also reflect their motivation to improve the economy and livelihoods of their political locales.



Figure 6. Lakes to Land Regional Initiative FSA boundary (Beckett and Raeder 2014, 25)

The geography of production and consumer demand played a role in the construction of the NWA Food System as well. In Northwest Arkansas, one informant noted that “Northwest Arkansas,” defined as the four counties in the northwestern corner of Arkansas, was a pre-defined region (defined by the NWA Regional Council and the Regional Food Council). But, when it came to collecting data on the NWA food system, the practitioners went outside that pre-defined boundary – but not without a conflict. A tension arose when the NWA Food Council wanted to focus both demand and production within the four county boundaries, but the practitioners decided to collect data from locales beyond that boundary because the practitioners learned that there was a limited supply of certain food products within the four-county region (Informant, pers. comm.). Ultimately, the practitioners decided to focus their research and data gathering on *demand* within the four-county region, but production research and data gathering

included the four-county region *and* extended into southern Missouri and Oklahoma, as well. The consultants, therefore, used their own perceptions of what a food system is to decide where to gather information from and construct their NWA food system scale. But the organizations operating at political scales cared more about focusing within political boundaries because that is where their constituents lived, and they want to capture revenue and economic development for their territory, not the surrounding region.

Figure 7 shows the boundaries of FaHN's South-Central New York regional food system. The boundary is what FaHN covers in their programming, as Erin told me (E. Summerlee, pers. comm.). But the boundary of what FaHN covers is influenced by several different regions and political uses including economic development councils and New York State regions. Erin explains:

It's just this contiguous region of counties that fall within Southern Tier or South Central NY, depending on who is using what term. And we fall into a couple of different areas I guess, like we cover two different regional economic development council regions and then with some other funding sources we are either divided between the Southern Tier and Central New York but that is pretty much how those areas were identified and that's the official - those eight counties are what FAHN covers in their programming. (E. Summerlee, pers. comm.)

All that being said, the FaHN FSA did collect primary qualitative data from food system actors that operated outside of this boundary.

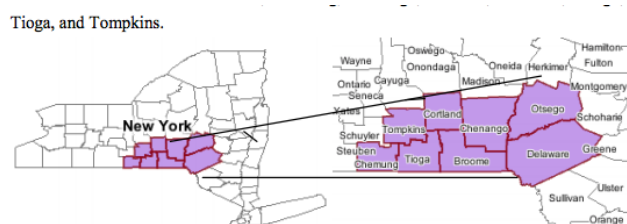


Figure 7. FaHN SCNY regional FSA boundary (FaHN 2012, 1)

Cultural identities and bio-physical features were also considered as practitioners defined and collected data for each FSA. The NWA report includes a description of the NWA region as

part of the Ozark Region, which includes Missouri, Oklahoma, and Kansas. The report claims that NWA is considered by locals to be part of the Ozarks because of its geography and climate. I questioned one NWA informant about this note in the report. The informant confirmed this and noted that it was a cultural identity as well:

Northwest Arkansas is in the Ozarks, whereas the lower part of Arkansas is part of the Delta. And so I think that there was more of a connection to the kind of broader Ozarks. And also, the topography and the culture is more similar [to the Ozarks] (Informant, pers. comm.)

The NWA four-county region is pictured in Figure 8. Figure 9 shows another map featured in the NWA assessment of slaughterhouses and livestock processors used by “local” farmers. Figure 9 is a map of NWA and Missouri, Kansas, and Oklahoma – what the assessment and informant were referring to as the Ozarks region. In this example, the NWA Regional Food Council understood the NWA regional food system strictly as the four counties in the northwestern corner of the state. The NWARFC did not necessarily take geographic or cultural factors into consideration – as mentioned earlier, they were mostly concerned with the constituents that lived within the original four-county region. The consultants from Karp Resources who conducted the FSA, on the other hand, did take geographic and cultural factors into consideration. They used a food system approach and considered the cultural and geographical identity of the Ozarks, even if that meant going outside the four-county region. However, when the food system is mapped in the report, it sticks to the four-county region boundaries.

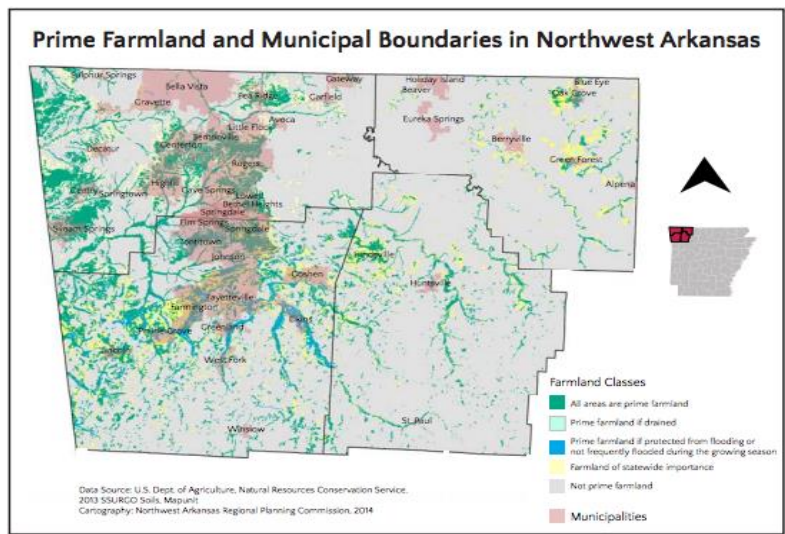


Figure 8. Northwest Arkansas four-county region (Karp Resources 2014, 55)

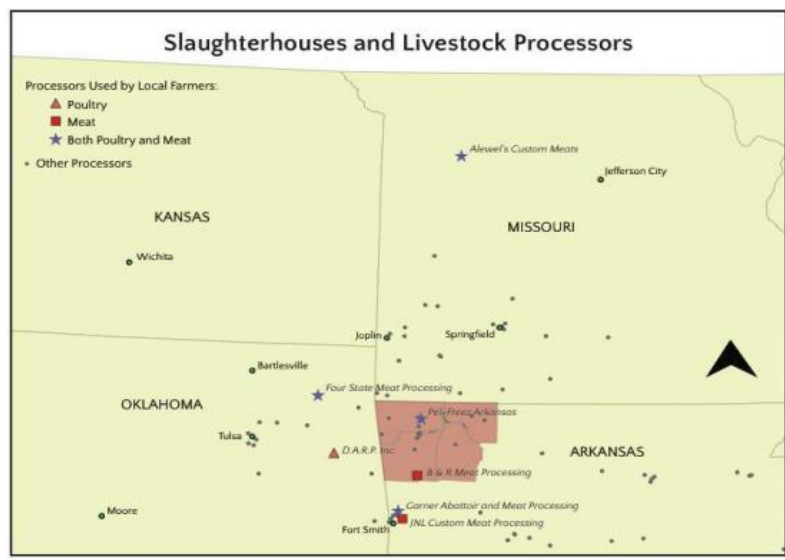


Figure 9. Northwest Arkansas four-county region within the Ozark region (Karp Resources 2014, 54)

The Greenville Area assessment was conducted by a Greenville County government office, but they expanded their assessment from the county to the “Greenville Area,” or, the “Upstate Region.” South Carolina’s Upstate region is a group of ten counties in the northern part of South Carolina, seen in Figure 10. When I asked Scott Park about the nomenclature of South Carolina Regions, he said that the ten-county Upstate region was referenced a lot in his work

with the county government. According to Scott, the state of South Carolina government divides the state into four geographies – Upstate, Midlands, Pee Dee, and Lowcountry Area (S. Park, pers. comm.). That regional division helped shape Scott and his team’s purview for their assessment:

So when you’re talking about what our farms look like compared to what a Midlands or Lowcountry farm would look like, we have a higher number of farms, but they are lower in acreage, just because of how the geography is different. So that works its way up through the whole system with just how things operated. (S. Park, pers. comm.)



Figure 10. Greenville Area FSA “Upstate Region” (Greenville County 2012, 8)

Scott highlights features of the physical landscape of South Carolina as one factor that distinguishes agriculture in his region from other regions of the state. The decision to use the “Upstate Region” as the food assessment boundary was informed by (1) producer and consumer locations, (2) physical landscape features, and (3) political regions of the state. But, as Scott notes, they even went into North Carolina to conduct interviews with food system stakeholders and actors. The rationale behind this was that even though the farmers were not within the official (political) food system boundary, they still participated in the food system by either

selling at a farmers' market or grocery store or using a processor inside the food system boundary (or had the potential to sell inside the boundary).

Initial notions and ideas of what comprises local or regional are somewhat complicated by FSAs because of the FSAs' strategy of using a food system perspective. While political boundaries prevail as to how each food system in my study is mapped, the tensions that arose for the FSA practitioners highlight the discord between political boundaries and what a food system is actually composed of (and where those actors are located). The physical locations of producers, consumers, and processes often supersede political boundaries when practitioners are scouting interviewees for the FSA. Bio-physical attributes and cultural identities also influence how practitioners define their food system, since they can have a real impact on the agricultural make-up and characteristics of an area (as seen in Greenville and NWA). A food system perspective and paying attention to other factors forced practitioners to look beyond what was initially thought of as their regional food system. But again, even if data are collected from areas outside the official food system boundary, political boundaries remain the point of reference for mapping and talking about a food system.

Political boundaries influence FSA boundaries in several ways. Initial boundaries often include the constituents (who the funder or lead organization represents). As the FSA process unfolds, those political boundaries may be called into question, but the funding and leading organization still keeps in mind that they are representing people of a certain political scale. Political boundaries also act as a suggestive boundary, as FSA practitioners extend beyond them to collect qualitative data. Most quantitative data are only available at the county or state level, which also increases the importance of and dependence on political boundaries. Supplementing with qualitative data allowed for practitioners to extend beyond statistical and political

boundaries (census data use statistical boundaries); but qualitative data is not limited to those boundaries. Finally, political boundaries play an influential role because, ultimately, most actions and outcomes will be more easily carried out on a particular political scale. Food policy councils, grants, and government programs will most likely (as we saw in Chapter 4), be limited by county or state lines.

Exploring the ins and outs of how FSA practitioners settled on a boundary or scope of their food system illuminates the various considerations that go into constructing scale in a FSA. A food system perspective ultimately complicates “local” and “regional.” In addition, a food system perspective is often in tension with political boundaries. This exploration is a good example of Perreault’s (2015) argument that existing notions of scale inform and produce – but do not necessarily determine – the future possibilities of the scale of social action (i.e., FSA action or outcome), thus demonstrating the fluidity and temporal quality of scale in food systems.

“Two-different units of analysis”: The global-local binary in FSAs

The way most practitioners went about deciding who and where to interview and collect data was not a straightforward process but a meandering, thoughtful one in which the multiple relationships among consumers, “large urban centers,” producers, farmers, processors, and distributors were considered. These relationships – geographically, economically, socially – vary greatly depending on the context, which means there is no easy model to follow. That being said, it is not objective, either, as the people and networks that are included are decided upon by the person or group of people conducting the assessment. The question of objectivity and inclusivity (or exclusivity) was beyond the scope of my project, save for one particular question I asked each informant: Did you include mid-size, large-scale, or commodity agricultural entities in your assessment? Or only small-scale?

As I discussed in Chapter 3, each assessment displayed USDA Census of Agriculture data in their reports. These data reflect all types and sizes of agricultural producers. So, through these data, large-scale and commodity agriculture is represented. The primary data collected by the FSA practitioners, however, are not as inclusive. Almost every FSA I examined focused on local, small-scale producers, processors, and distributors. Large-scale and commodity agriculture was often left out of the conversation and the assessment. Interviews with informants also expose a perception of “big” and “small” agriculture as separate entities.

“A separate issue”

Several respondents felt that large scale, industrial, and commodity agricultural actors were a “separate issue” and not a part of the FSA project. This ignores the relational element of scale discussed in Chapter 2 and highlighted by many critical food scholars (Hinrichs 2003 and Born and Purcell 2006). It also ignores the multi-scalar characteristic of a food system, as noted by Kloppenburg et al. (1996) and Dahlberg (1993). Asked if large-scale producers were incorporated into the assessment, Mari said:

Not as much...I don't think it was as much as the smaller, mid-sized farm, and other individuals connected to farmers and food...I think it was really thought of as more a separate issue, that part of this was boosting the impact of the small and mid-size farmers so it (large scale agriculture) wasn't incorporated as much. (M. Krane, pers. comm.)

When questioned about to what extent the local food council wanted to work with larger producers, processors, and distributors, one NWA informant pointed out that they worked together to do the assessment itself – meaning the large companies that made up the NWA Council (Tyson, Walmart, and JB Hunt) – orchestrated and funded the assessment. However, there was no collaboration when it came to implementation of the assessment:

I think that, because the companies that are in Northwest Arkansas are so massive – I mean they're global food companies – the local folks weren't imagining that they were going to partner necessarily in implementation. They weren't thinking like, “oh we're

gunna really change...these companies are going to be buying more from our local producers. They weren't necessarily thinking about integrating local and global supply chains. ... they wanted to get started on getting more of our local farmers supplying local restaurants, and more local food in our coop, and that kind of stuff. (Informant, pers. comm.)

While taking a food system perspective allowed the practitioners to break the rigid spatial boundaries of 'local' or 'regional,' it did not have the same effect on vertical boundaries/type of production practices of a "local/regional food system." Local producers supplying local markets also reflect an ideal of a self-contained food system. Local, in this example, does not just mean the nearby area. If it did, the large-scale producers connected to global supply chains would be considered in the FSA. The NWA food system, along with the Forsyth County community food system, it follows, fall within a bounded area, *and* are limited to certain types of food system actors who only sell and purchase food within that bounded area.

In a similar vein, Jody Holland, who worked on the Mississippi FSA, expressed his thought that a local food system is different from a commodity industrialized food system because of the production practices used in each, but his objective is not to integrate the local with the global:

These two systems have to co-exist. Where a lot of people will argue that and say no, the local food system movements have to emerge and supersede the industrialized food system as the movement grows and societies change and our society changes. (J. Holland, pers. comm.)

But Jody does not believe that the two different systems are impacting each other. He continues:

I mean I don't think they're impacting each other at all. Maybe you could argue, get into some deep economic theoretical dynamic product supply and demand that if I have a tomato here at the local market, am I going to choose that over a canned tomato in the supermarket? Well that may be some difference there if you go to that level. But I mean, a tomato farmer in the hill country of Mississippi is not affected at all by a corn producer in the Mississippi Delta region. A tomato farmer can't farm in the Delta because it's all monocrops, the only effect it's going to have is they're going to fly over and spray roundup on your damn tomatoes accidentally. So, it's a great question and I think they're

two different analyses. Two different units of analysis that you're studying. (J. Holland, pers. comm.)

In Jody's view, a local food system and a global or industrial food system do not fit together in one food system assessment (even if that food system is the entire state of Mississippi). They are "two different units of analysis." This reflection exemplifies binary thinking in food systems practice. It begs the question, how can you begin to strengthen a local food system if you do not consider other networks of food provision in the same geographic area as the 'local' food system?

Furthering the divide

In addition to conceptualizing local and global food systems as separate entities, something else I noticed was that practitioners may have left larger agricultural actors out of their assessments because the larger agricultural actors – though within their geographic boundary – may be outside the practitioner's community, or outside of the 'local' food network or 'community food system' that the practitioners are either a part of or drawing from. When I asked Natalie from KRC if they included large-scale producers in their assessment, she said:

We did have some of that input... the people involved in those conversations with that kind of background or expertise were also people who were involved in more of the alternative agriculture side of things as well. So for example, we definitely had wheat and other commodity crop growers in the room, but those people were probably also involved in some way, shape, or form in perhaps specialty crop production or had a tie to it in some way shape or form, mostly because those are the folks that we either already had a relationship with or were recommended to us by other people (N. Fullerton, pers. comm.).

In this example, Natalie points out that while commodity crop growers were in the regional meetings, they were only there because they also grew specialty (food for human consumption) crops. Further, they were there because they were recommended or already had a relationship with the Kansas Rural Center, demonstrating the subjectivity of the sample and the power of

‘community’ in constructing and deciding who and what is included in a food system assessment.

FaHN’s FSA also included USDA Census of Agriculture data on all types of agriculture in its area. However, in its interviews, it only spoke with a certain type of farmer – one that was smaller in scale and sold to local markets.

Erin: We included the total agricultural sales and all of that, and then we also included the data on direct farm to consumer sales, but the focus of the different interviews were definitely on those ones that were doing the direct consumer sales.

Jane: Was that a conversation you had in the beginning, or was it just assumed that that wouldn’t be included in what you guys were looking at? Because you said someone brought it up recently. Was it not a part of the design a few years ago?

Erin: I think that it wasn’t really...it was intentional in that the farms that were interviewed, we were speaking to the ones that either were running CSAs or certified organic or doing some sort of innovative conservation practices and those also tended, they just by default are the ones that are also selling to local markets and things like that, so I guess in a way it was intentional that those were the ones we were interviewing but I don’t know if there was the intentional design not to talk to the others, if that makes sense. (E. Summerlee, pers. comm.)

Again, in this example, producers that sell their product outside of the region are not seen as a part of the regional or local food economy. FaHN’s conception of what it means to be regional or local (i.e., organic, uses innovation conservation practices, sells directly to consumers) bleeds into how they decide who is a part of the Southcentral New York’s food system.

Finally, Erin from FaHN explicitly said that she did not consider large-scale farms as part of what they “would define as our regional food system or community food system” (E. Summerlee, pers. comm.). However, Erin did acknowledge that she and her team at FaHN notice the irony in their own FSA:

We have all this information from the census of agriculture and other sources about sales and farm size, but we’re almost feeling like we need to have two different sides of the FSA. Because we’re including all these numbers and information on farms that are, they’re in our region and its agriculture but they’re not actually a part of you know, what

we would define as our regional food system or community food system, does that make sense? I don't think that was something that was really talked about very much or identified during the process of writing the first two, and I can't remember who brought it up this time, but, there are plenty of farms probably in this area, mostly dairy. We have all of these dairy farms but none of that milk is necessarily staying in this region, for example. (E. Summerlee, pers. comm).

Erin acknowledges that the commodity farmers (conventional dairy in this case) are not considered part of the 'regional' food system. Regional means more than just spatial boundaries to FaHN. Erin also suggests having a different set of analyses and FSA for the commodity agriculture producers, reinforcing the binary, but basing it on production methods and where the products are sold.

The four-county region of Northwest Arkansas is home to headquarters for Walmart, JB Hunt, and Tyson. The consultants of the NWA FSA spoke with the Walmart Foundation and someone from Walmart procurement (in-house catering), but they did not speak to JB Hunt or Tyson. They did speak to another large chicken producer for the region, as one informant noted:

We did talk to another larger chicken producer in the region, but more of a regional group that was transitioning from mainstream chicken production to producing a free-range bird and they were interested in talking with us. (Informant, pers. comm.)

Again in this case, it is not size that determines whether a producer is part of the regional food system, but production methods. A large chicken producer producing a free-range bird is included in the FSA, but Tyson, an industrial, conventional chicken producer often chastised for its practices, is not.

The Lakes to Land assessment defined its assessment as one of food for human consumption, specifically. Cassi and her team chose to leave out agricultural land growing food for animal feed (or other non-human consumption purposes) because it would have been too difficult to assess or measure where that product was going. Cassi followed the trend she saw in

other assessments of only examining food produced for human consumption. Focusing on food for human consumption ignores other types of agricultural land use in the area. It also does not make sense from a food system perspective given that land used to grow animal feed is essentially for human consumption, since the food feeds the animals that humans eat. This also separates and ignores actors that use more conventional agricultural practices.

My conversations with food system contributors illuminated what kinds of food system actors were included in primary data collection and perceptions that the contributors themselves had about the divide between local-alternative and global-conventional agriculture. Many informants uncovered the notion that large-scale commodity agriculture was a separate issue from what they were examining. Other conversations also displayed the idea that agricultural actors considered large-scale, conventional, commodity, or industrial were not part of the ‘local food community’ or what the practitioner would consider the ‘local or regional food system.’ This distinction was usually made based on what the producer was growing (i.e., food for human consumption or non-human consumption), how it was being produced (i.e., organic or non-organic), and where it was being sold (i.e., if it was being sold locally or via global supply chains). The views that practitioners expressed demonstrate a treatment of scale as un-relational as well as the local-global binary in LFS work discussed in earlier chapters.

Conclusion

The spatial delimitations – or boundaries – of the food system in each case study, along with the scale of the food system actors included in each FSA, are two important parts of the construction of scale within FSAs. FSAs force practitioners to draw a food system on a map and provide an excellent opportunity to explore why certain scales are constructed as they are. Through interviews with FSA contributors and an examination of each report, I found that, not

surprisingly, political boundaries play a major role in bounding a food system. However, the system approach taken by practitioners pointed out the limitations of a socially constructed political boundary, as well as the constructed notion of local or regional, in defining a food system. Practitioners were also influenced by regional cultural identities, aspects of the physical landscape, and the geography of agricultural land and large urban (consumer) populations. A food system approach encouraged practitioners to collect data from outside the official food system boundaries, even if some organizations involved were invested in outcomes that benefit its constituents.

Further conversation with FSA contributors revealed that many folks involved in FSAs exhibit a local-global binary mode of thinking that bleeds into their work with FSAs. This mode of thinking impacted which food system actors were interviewed in each assessment. The findings from this chapter suggest that how FSA practitioners perceive and understand scale can ultimately have an impact on the data collection, recommendations, and outcomes of a FSA. My next and final chapter will reflect on my findings as whole, and discuss what my research contributes to food studies and food systems practice.

Chapter 5: Conclusion

While attending the Northeast Sustainable Agriculture Working Group “It takes a region” conference in Hartford, Connecticut recently, one session in particular catches my eye. It features a dairy farmer from upstate New York, and the topic is collaboration within the food movement. I am lucky enough to get one of the last chairs – the session is packed. Our panel leader lays out a problem for everyone to ponder: how can we bridge the gap of collaboration among “small food” and “big food” or organic/sustainable/local and conventional/industrial/global agriculture? And ultimately, can the food movement *really* make a difference without collaborating with the very entities it is opposing?

The featured panelist is Lorraine, a fourth generation dairy farmer from upstate New York. Although this is a conference on agriculture, Lorraine seems out of place. She might be the only attendee that comes from the “conventional agriculture” camp. But I sense that she is the reason why the room is so crowded – her presence attracted me to this session, after all. It is almost as if she is a novelty here. The conference is mostly populated by folks that support or work within small-scale, organic, and sustainable agricultural operations – the hippie-crunchy-foodie types, as I call them.

Lorraine tells us her story about growing up and living in a conventional dairy farming community in Herkimer County. She notes that she could not convince any of her comrades to come to the conference with her – they felt they would be out of place and looked down upon. The conversation that ensues in the session is earnest and productive in representing varying, sometimes contradictory viewpoints. Though the topic at hand moves from the food movement to the current political conundrum in our country, I realize that the thematic questions remain the

same: How do we bridge the gap between these two groups? Can we *really* make a difference in this country without collaborating?

The well-attended session demonstrates the significance of the question of how “big” and “small” food can coexist in the U.S. The facts that Lorraine was a novelty at an agricultural conference and that her fellow dairy farmers felt unwelcome at the conference illustrate how the divide among the food movement manifests itself; Lorraine’s comrades were left out of the conversations at NESAWG. Dairy farming is regional by necessity (because of the easily spoiled nature of the products), but Lorraine felt left out of “local food system” movement activities because she was not perceived of as part of the regional or local food system, mostly because dairy farmers are assumed to use conventional agricultural practices. Likewise, Erin Summerlee from FaHN admitted that she did not think of conventional dairy in South-central New York as part of the regional food system, and did not interview dairy farmers for the FSA. My research into FSAs highlights many similar examples of how the local-global binary plays out in LFS work. It also demonstrates how the binary is reified through discourse and assessments of a food system that ultimately lead to action that leaves out the perspective of “big ag,” a major source of food in our country and the world. Underlying the local-global binary in FSAs are issues and questions of scale.

Scale continues to be a hotly debated topic of discussion among geographers and food studies scholars. Historical debates in geography shine a critical light on the concept and encourage a careful utilization of the concept in geographic research. What is agreed upon among geographers is that scale is a relational concept (and a set of socio-spatial relations); scale is produced by social, political, economic, and environmental context, processes, and relations; scale, in turn works to (re)produce social, political, economic, and environmental relations and

processes; and geographic inquiries should focus on the processes and relations that produce scale. I have argued that a FSA is one example of a process that (re)produces scale (in part) within LFS discourse and practice. My examination into FSAs demonstrates the relations and processes that produce scale and highlight LFS practitioners' treatment and perception of scale. Scalar language also underlies FSAs; socially constructed connotations of words such as local, community, and regional inform FSA design and implementation, making FSAs an ideal lens through which to examine how scale is operationalized in LFS work.

What does a FSA consist of? Who conducts them, and why? How are data collected and displayed, and what do FSAs enact or lead to? By answering these questions I begin to unpack the various components that go into producing and reproducing scalar arrangements and relations in food system discourse and work. Each FSA case study is a result of collaboration of various combinations of entities – non-profits, food system consultants, economic development councils, county governments, food policy councils, local volunteers, steering committees – each of whom play a role in conducting, funding, or calling for the assessment. The 'who' of each assessment is context dependent in that the specificities of the organizations involved is a result of what organizations exist in each area and what they care about. Likewise, the organizations involved shape the design, focus, and outcome of the assessment.

A FSA attempts to strengthen a local food system to achieve economic development and increased food security – two major issues often perceived of as consequences of a globalized food system. FSAs are also conducted to gather baseline information from which to make program and policy decisions – the material outcomes that reify scalar relations. FSAs lead to material outcomes including recommendations, food policy councils, further programming, farmland preservation grants, and networks that allow information sharing and collaboration.

Assuming there are connections among the spatial delimitations of a FSA's food system and the spatial delimitations of a FSA's outcomes, my closer look at how and why those food system delimitations are drawn continues to expose the processes that produce scalar relations in LFS activity.

Food systems are bounded and pinned down to spatial coordinates through a FSA, and more specifically through FSA practitioners. While each FSA ultimately adopted existing political boundaries, my interviews with FSA informants exposed a slightly more complicated story. In the case of Forsyth County, Greenville County, and the Lakes to Land Region, the initial FSA boundaries were expanded to encapsulate both producers and consumers. The physical landscape influenced Scott Park from Greenville to settle on the Upstate Region of South Carolina – a group of ten counties in the northwestern corner of the state. Northwest Arkansas's location among the Ozark Region, which it identified with culturally, lead the FSA practitioners to gather data from food system actors outside the official four-county region of NWA and into the Ozark Region that covered Missouri, Kansas, and Oklahoma. In fact, every assessment gathered data from outside their official food system boundaries, demonstrating that political boundaries act more as suggestive boundaries for data collection delimitations.

The tensions between political boundaries and where food system actors are actually located point out the limitations of the political scale and political boundaries in mapping a food system. The tensions also complicate the imagined notions of what local or regional mean to some FSA practitioners. A food system approach begins to call out the limited definitions of discursive food system scales and identifies the actual food system actors that create and act in a particular area's food system.

The food system approach, however, did not transcend the global-local binary found throughout food system discourse and practice, as FSA practitioners also demonstrate an unrelational treatment of scale. Even when the food system in question is spatially bounded, FSAs often did not consider the viewpoints of all types of agricultural actors within that spatially bounded area. Secondary data gathered from the USDA Census of Agriculture that was displayed in each FSA did not discriminate on farm size or type, but primary data gathered through interviews, focus groups, and surveys were mostly limited to small-scale food actors that were considered a part of the “local” or “regional” food system.

Many FSA contributors felt that large-scale agriculture was a separate issue – two informants even suggested that it is a separate unit of analysis, as far as an FSA is concerned. FSAs are an informal but practical tool that examines what is happening on-the-ground. By taking a food system approach, contributors are moving beyond (in part) the normative and imagined communities and local food systems they are working toward. At the same time, they still somewhat fall prey to the scalar traps and assumptions of the characteristics linked to LFS and who is inherently a part of LFS.

Limitations and Future research/questions

My findings are not representative of all FSAs conducted in the U.S., and the views of my informants are not representative of every food system practitioner in the U.S. FSAs are a small portion of the hub of activity surrounding LFS in the U.S. today. The actions taken and perspectives employed by the FSA practitioners in my case studies, however, may be suggestive of practices happening elsewhere in the country.

Throughout my research and the process of writing this thesis, several questions arose that merit further investigation. For example, many of my case studies framed food access as an

issue in large population centers – usually urban areas. How does the continued focus on urban food access exacerbate or impact food access in rural areas, a largely ignored topic in food studies research? Does an urban-rural divide exist in and limit food systems practice?

Furthermore, questions and issues surrounding labor were mostly left out of my FSA case studies, save for two assessments in which a diminished supply of farm labor was an issue that emerged through interviews with farmers. None of the assessments included farm or food service labor as part of the FSA design. Labor is another largely ignored topic in food studies, and my research lead me to wonder why it is often left out – even in FSAs.

Finally, another future avenue of exploration within FSAs is examining how the scale of the FSA influences the outcomes of the FSA. The Kansas assessment – a state scale – ended up including many recommendations to be carried out at the local scale. Further exploration may reveal barriers to successful food system activity at certain scales or levels of governance.

Concluding Thoughts

FSAs are a lens through which I examined how real life, on-(and in)-the-ground food system practitioners approach their work. FSAs are an informal but practical tool that inform successive action on LFS work by looking at the people and networks working within and creating a food system. FSAs that leave out large-scale or conventional agriculture operations reinforce binary thinking in food systems work, and there may then be a trickle-down effect in which FSAs lead to policies and activities that are created without considering the impact of today's dominant agricultural system. This reflects the difficulty of collaboration among alternative-LFS and conventional food systems, but is also an example of how binary thinking reinforces the divide and difficult nature of collaboration. Furthermore, as I reflected in Chapter 2, binary thinking and activities that reinforce the divide in food system activity may limit the

transformative power of LFS. They may also ignore the limits of LFS to provide food security for a particular population, especially when seasonal constraints and cultural demands are taken into consideration (as one of my food studies professor once said, “I’m still going to want to drink coffee every morning”). In light of these concerns, Bellows and Hamm (2001) call for a “more localized food system” and highlight the power and importance of local autonomy in local contexts. Feagan (2007) supports the idea of local autonomy and more localized food systems, arguing that it is important to emphasize the importance and impact that more localized food systems can have – i.e. they can supplement and complement larger-scale food systems in urgently needed ways. Local and alternative food systems have an important role to play in the U.S., but how they are framed, discussed, and operationalized has an impact on their transformative power.

FSAs are one way that scale – as a socio-spatial relation, discursively, and materially – is produced in food system practices in the U.S. My exploration into how scale plays out, manifests itself, and is operationalized in one piece of LFS work has confirmed and illustrated many things that have already been noted in food studies literature. While FSAs are not representative of all food system work in the U.S. – activity is happening from the grassroots level to the federal government level, and includes potentially transformative innovations in food system thinking – they are an example of what is happening in one small space of – and might be happening in countless other spaces – in the LFS realm. My exploration and findings also demonstrate one particular practice in LFS work – FSAs – that might benefit from a more critical, thoughtful approach to scale. The thoughtful, thorough, and sometimes contentious ruminations and debates about scale from geographers offer a valuable perspective for someone working in the LFS field.

LFS activity and FSAs would stand to benefit from a more nuanced, critical, and geographical approach to scale.

Appendix I: Subject Recruitment Email Template

5/23/2016

Dear (*insert individual's name here*),

My name is Jane Mulcahy and I am a graduate student in the Geography Department at Syracuse University. My research interests are food systems and agriculture, with a geographic focus on the United States. As part of my Master's requirements, I am conducting a research project this summer and writing a thesis over the course of the next year. My thesis project topics are food assessments and scale in food systems.

I am writing to ask if you would be interested in contributing to my research by participating in an informal interview either over the phone, via Skype/video chat, or in person. During the interview, I would ask you questions about the (*insert specific assessment here*) food assessment. Questions will include how it was designed, who was involved in the design and the implementation, what the goals were, and how the results of the assessment have been utilized and disseminated. I am also particularly interested in how the food system in question was defined and bounded (or not defined or bounded), and who was involved in creating that distinction.

The interview will be limited to one hour, and can be longer if you are interested and willing to continue the conversation. I will be recording the interview with an iPhone recorder solely for the ability to transcribe the interview later on. After I transcribe the interview, the recording will be erased. I am more than happy to share the transcript, as well as any final product or publication that comes from this research, with you. In fact, I hope that any outcome of this research might be helpful or interesting to you and your work as a food systems practitioner.

Please let me know at your earliest convenience if you are willing and able to participate in my study. You may contact me via email or phone.

Thank you in advance for your consideration, and I hope to hear from you soon.

Best,

Jane Mulcahy

Appendix II: Sample Interview Questions

Sample Questions for Interviews

1. How did the idea to conduct the _____ food assessment first come about?
2. Who were the main partners (organizations, individuals, departments) involved in creating and conducting the _____ food assessment?
3. How and why was the particular scale (city/region/state) picked for this assessment?
4. How were the results of the assessment used or disseminated?
5. What direct impacts of the assessment have you witnessed?

Appendix III: List and Date of Interviews

Interviewee Name	Corresponding Assessment	Organization and Title	Interview Date
Anonymous	<i>Northwest Arkansas Regional Food Assessment.</i>	Karen Karp and Partners, <i>Senior Consultant</i>	August 31, 2016
Karin Endy	<i>Northwest Arkansas Regional Food Assessment.</i>	Karen Karp and Partners, <i>Senior Consultant</i>	July 18, 2016
Natalie Fullerton	<i>Feeding Kansas</i>	Kansas Rural Center, <i>Program Manager</i>	July 25, 2016
Marcus Hill	<i>Forsyth County's Community Food System: A Foundation to Grow</i>	Forsyth Futures, <i>Researcher</i>	August 12, 2016
Jody Holland	<i>An Overview of the Mississippi Farm and Food Economy.</i>	Mississippi Food Policy Council, <i>Member</i>	July 25, 2016
Mari Krane	<i>Forsyth County's Community Food System: A Foundation to Grow</i>	Forsyth Futures, <i>Data and Research Director</i>	August 15, 2016
Cassi Meitl	<i>Lakes to Land Regional Initiative: Farm and Food System Assessment.</i>	Beckett and Raeder, Inc., <i>Project Planner-Intern</i>	Wednesday, July 6, 2016
Ken Meter	<i>An Overview of the Mississippi Farm and Food Economy.</i>	Crossroads Resource Center, <i>President</i>	June 17, 2016
Scott Park	<i>Greenville Area Food System Assessment</i>		August 10, 2016
Marissa Peck	Greater Capital Region Food System Assessment (In Progress)	Capital Roots, <i>Food System Assessment Coordinator</i>	December 2, 2016
Erin Summerlee	<i>2012 Regional Food System Assessment for South Central New York</i>	Food and Health Network of South Central New York, <i>Director</i>	November 9, 2016

Bibliography

Agnew, John. 1994. The territorial trap: The geographical assumptions of international relations theory. *Review of International Political Economy* 1 (1): 53-80.

Allen, Patricia. 1999. Reweaving the food security safety net: Mediating entitlement and entrepreneurship. *Agriculture and Human Values* 16 (2): 117-29.

Alliance for Economic Success website. Accessed April 13, 2017.
<http://www.allianceforeconomicsuccess.com/>

Anderson, Molly D., and John T. Cook. 1999. Community food security: Practice in need of theory? *Agriculture and Human Values* 16 (2): 141-50.

Beckett and Raeder. August 2014. *Lakes to Land Regional Initiative: Farm and Food System Assessment*.

Bellows, Anne C., and Michael W. Hamm. 2001. Local autonomy and sustainable development: Testing import substitution in localizing food systems. *Agriculture and Human Values* 18 (3): 271-84.

Brown, J. Christopher, and Mark Purcell. 2005. There's nothing inherent about scale: Political ecology, the local trap, and the politics of development in the Brazilian Amazon. *Geoforum* 36 (5): 607.

Born, Brandon, and Mark Purcell. 2006. Avoiding the local trap: Scale and food systems in planning research. *Journal of Planning Education and Research* 26 (2): 195-207.

Born, Brandon, Andy Fisher, Deanna Glosser, Jerome Kaufman, Wendy Mendes, Hubert Morgan, Mark A. Olinger et al. 2007. *Food System Planning White Paper*. American Planning Association. Accessed April 13, 2017. https://planning-org-uploaded-media.s3.amazonaws.com/legacy_resources/resources/ontheradar/food/pdf/apafoodwhitepaper.pdf.

Carolan, Michael. 2016. *The Sociology of Food and Agriculture* (2nd Edition). London: Routledge.

Carson, Rachel. 1962. *Silent Spring*. Boston, MA: Houghton Mifflin Company.

Clancy, Kate, and Kathryn Z. Ruhf. 2010. Is local enough? Some arguments for regional food systems. *Choices*, 25 (1).

Cook, Ian. 2004. Follow the thing: Papaya. *Antipode* 36 (4): 642-64.

County of Greenville Community Planning and Development Department Planning and Code Compliance Division (Greenville County). 2012. *Greenville Area Food System Assessment*.

Dahlberg, Kenneth. A. 1993. "Regenerative food systems: Broadening the scope and agenda of sustainability." In *Food for the Future*, edited by Patricia Allen, 75-102. New York: John Wiley & Sons, Inc.

Day-Farnsworth, Lindsey, and Samuel Pratsch. "Community Food Systems Toolkit." University of Wisconsin Extension. Accessed April 13, 2017. <http://fyi.uwex.edu/foodsystemstoolkit/>.

Day-Farnsworth, Lindsey, McCown, Brent; Miller, Michelle; and Pfeiffer, Anne. December 2009. "Scaling Up: Meeting the Demand for Local Food." Center for Integrated Agricultural Systems, University of Wisconsin-Madison. http://www.cias.wisc.edu/wp-content/uploads/2010/01/baldwin_web_final.pdf

DeLind, Laura B. 2011. Are local food and the local food movement taking us where we want to go? or are we hitching our wagons to the wrong stars? *Agriculture and Human Values* 28 (2): 273-83.

Delind, Laura B., and Jim Bingen. 2008. Place and civic culture: Re-thinking the context for local agriculture. *Journal of Agricultural and Environmental Ethics* 21 (2): 127-51.

Donald, Betsy, Meric Gertler, Mia Gray, and Linda Lobao. 2010. Re-regionalizing the food system? *Cambridge Journal of Regions, Economy and Society* 3 (2): 171-5.

DuPuis, E. Melanie, and David Goodman. 2005. Should we go "home" to eat?: Toward a reflexive politics of localism. *Journal of Rural Studies* 21 (3): 359-71.

Ericksen, Polly J. 2008. Conceptualizing food systems for global environmental change research. *Global Environmental Change* 18 (1): 234-45.

Feagan, Robert. 2007. The place of food: Mapping out the 'local' in local food systems. *Progress in Human Geography* 31 (1): 23-42.

Feenstra, Gail. 2002. Creating space for sustainable food systems: Lessons from the field. *Agriculture and Human Values* 19 (2): 99-106.

Food and Health Network (FaHN). 2012. *2012 Regional Food System Assessment for South Central New York*.

Food and Health Network of South Central New York website. "About." Accessed April 13, 2017. <https://foodandhealthnetwork.org/about/>

Forsyth Futures. 2013. *Forsyth County's Community Food System: A Foundation to Grow*.

Forsyth Futures website. "About." Accessed April 13, 2017. <https://www.forsythfutures.org/stories/s/j4sf-6ap9/>

- Freedgood, Julia, Marisol Pierce-Quiñonez, and Ken Meter. 2011. Emerging assessment tools to inform food system planning. *Journal of Agriculture, Food Systems, and Community Development* 2 (1): 83-104.
- Garrett, Steven, and Gail Feenstra. 1999. Growing a community food system. *Community Ventures: Partnerships in Education and Research Series. Western Regional Extension Publication*. Accessed April 13, 2017.
http://wrdc.usu.edu/files/publications/publication/pub__3019634.pdf
- Getz, Arthur. 1991. Urban foodsheds. *The Permaculture Activist* 24: 26-27.
- Guptill, Amy. and Rick Welsh. 2014 “The Declining Middle of American Agriculture: A Spatial Phenomenon.” In *Rural America in a Globalizing World: Problems and Prospects for the 2010s*, edited by Connor Baily, Leif Jensen, and Elizabeth Ransom, 36-50. Morgantown: West Virginia University Press.
- Guthman, Julie. 2008. "if they only knew": Color blindness and universalism in california alternative food institutions. *The Professional Geographer* 60 (3): 387-97.
- Hinrichs, C. Clare. 2000. Embeddedness and local food systems: Notes on two types of direct agricultural market. *Journal of Rural Studies* 16 (3): 295-303.
- Hinrichs, C. Clare. 2003. The practice and politics of food system localization. *Journal of Rural Studies* 19 (1): 33-45.
- Hinrichs, Clare C., and J. Eshleman. 2014. “Agrifood movements: Diversity, aims, and limits.” In *Rural America in a Globalizing World*, edited by C. Bailey, L. Jensen, and E. Ransom, 138-155. West Virginia University Press.
- Horst, M., and B. Gaolach. 2015. The potential of local food systems in north america: A review of foodshed analyses. *Renewable Agriculture and Food Systems* 30 (5): 399-407.
- Howitt, Richard. 1998. Scale as relation: Musical metaphors of geographical scale. *Area* 30 (1): 49-58.
- Huber, Matthew T., and Jody Emel. 2009. Fixed minerals, scalar politics: The weight of scale in conflicts over the ‘1872 mining law’ in the united states. *Environment and Planning A* 41 (2): 371-88.
- Karp, Karen, and Emily Sandusky (Karp Resources). July 2014. *Northwest Arkansas Regional Food Assessment*. Karp Resources.
- Kaiser, Robert, and Elena Nikiforova. 2008. The performativity of scale: The social construction of scale effects in narva, estonia. *Environment and Planning D: Society and Space* 26 (3): 537-62.

Kansas Rural Center (KRC). 2014. *Feeding Kansas*. Accessed June 10, 2016.

Kansas Rural Center website. Accessed April 13, 2017. <https://kansasruralcenter.org/about-us/>

Kloppenburg, Jack Jr., John Hendrickson, and G.W. Stevenson. 1996. Coming in to the foodshed. *Agriculture and Human Values* 13 (3): 33-42.

Kneafsey, Moya. 2010. The region in food--important or irrelevant? *Cambridge Journal of Regions, Economy and Society* 3 (2): 177-90.

Lyson, Thomas A. 2004. *Civic agriculture: Reconnecting farm, food, and community*. Medford, Mass: Tufts University Press.

Lyson, Thomas A., S. Stevenson and Rick Welsh, eds. 2008. *Food and the Mid-Level Farm: Renewing Agriculture of the Middle*. MIT Press.

MacKinnon, Danny. 2011. Reconstructing scale: Towards a new scalar politics. *Progress in Human Geography* 35 (1): 21-36.

Marsden, Terry, and Adrian Morley. 2014. "Current food questions and their scholarly challenges." In *Sustainable Food Systems: Building a New Paradigm*, edited by Terry Marsden and Adrian Morley, 1-29. London: Routledge.

Marston, Sallie A. 2000. The social construction of scale. *Progress in Human Geography* 24 (2): 219-42.

Marston, Sallie A., John Paul Jones, and Keith Woodward. 2005. Human geography without scale. *Transactions of the Institute of British Geographers* 30 (4): 416-32.

Maye, Damian, Lewis Holloway, and Moya Kneafsey. 2007. *Alternative food geographies: Representation and practice*. 1st ed. North America; Bingley, U.K.: Emerald.

Meter, Ken, and Megan Phillips Goldenberg. May 2014. *An Overview of the Mississippi Farm and Food Economy*. Crossroads Resource Center.

Murdoch, Jonathan, Terry Marsden, and Jo Banks. 2000. Quality, nature, and embeddedness: Some theoretical considerations in the context of the food sector. *Economic Geography* 76 (2): 107-25.

Noll, Samantha. 2014. Liberalism and the two directions of the local food movement. *Journal of Agricultural and Environmental Ethics* 27 (2): 211-24.

Perreault, Tom. 2015. "Introduction to Part II." In *Negotiating Water Governance: Why the Politics of Scale Matter*, edited by Emma S. Norman, Christina Cook, and Alice Cohen, 117-124. Surrey: Ashgate Publishing Limited.

Pierce-Quinonez, Marisol. 2012. Are we planning for sustainable food systems? an evaluation of the goals and vision of food system assessments and their usefulness to planning. ProQuest Dissertations Publishing.

Pothukuchi, Kameshwari. 2004. Community food assessment: A first step in planning for community food security. *Journal of Planning Education and Research* 23 (4): 356-77.

Ruhf, Kathryn Z. 2015. Regionalism: A new england recipe for a resilient food system. *Journal of Environmental Studies and Sciences* 5 (4): 650-60.

Sayre, Nathan F. 2009. "Scale." In *A Companion to Environmental Geography*, edited by Noel Castree, David Demeritt, Diana Liverman, and Bruce Rhoads, 95-108. West Sussex: Blackwell Publishing.

Schanbacher, William D., ed. 2014. *The Global Food System: Issues and Solutions*. Santa Barbara: Praeger.

Schnell, Steven M. 2013. Food miles, local eating, and community supported agriculture: Putting local food in its place. *Agriculture and Human Values* 30 (4): 615-28.

Smith, Neil. 1992. Contours of a Spatialized Politics: Homeless vehicles and the production of geographical scale. *Social Text* 33: 54-81.

Smith, Neil. 2004. "Scale bending and the fate of the national." In *Scale and Geographic Inquiry: Nature, Society, and Method*, edited by E. Sheppard and R.B. McMaster, 192-212. Oxford: Blackwell.

Swyngedouw, Erik. 1997. "Neither global nor local: 'glocalization' and the politics of scale." In *Spaces of Globalization*, edited by Kevin Cox, 137-66. New York: Guilford.

Trivette, Shawn A. 2015. How local is local? determining the boundaries of local food in practice. *Agriculture and Human Values* 32 (3): 475-90.

Watts, Michael J. 2004. Antinomies of community: Some thoughts on geography, resources and empire. *Transactions of the Institute of British Geographers* 29 (2): 195-216.

Weissman, Evan, Leigh Gantner, and Lutchmie Narine. 2012. Building a food studies program: On the ground reflections from syracuse university. *Journal of Agriculture, Food Systems, and Community Development* 2 (3): 79-89.

Wilkins, Jennifer. Dec 18, 2004. "Think Globally, Eat Locally." *The New York Times*. <http://www.nytimes.com/2004/12/18/opinion/think-globally-eat-locally.html>

Winkler, Megan. "Studies Confirm: Local Food Tastes Better." *The Alternative Daily*. Accessed April 13, 2017. <http://www.thealternativedaily.com/local-food-tastes-better/>

Winston Salem Foundation website. Accessed April 13, 2017 <https://www.wsfoundation.org/page.aspx?pid=264>

Winter, Michael. 2003. Geographies of food: Agrofood geographies – making connections. *Progress in Human Geography* 27: 505–13.

Wollenberg, E., M. Tapio-Bostrom, and M. Grieg-Gran. 2012. “Climate change mitigation and agriculture: Designing projects and policies for smallholder farms.” In *Climate change mitigation and agriculture*, edited by E. Wollenberg, A. Nihart, M. Tapio-Bistrom, and M. Grieg-Gran, 3-27. New York: Routledge.

Jane Mulcahy

2356 Titus Lake Road, Jefferson, NY 12093 • 914-325-2688 • jane.c.mulcahy@gmail.com

Education

- Maxwell School of Citizenship and Public Affairs, Syracuse University – Syracuse, NY**
Master of Arts, Geography 2017
Thesis Research: “Exploring Scale and Boundaries in Food System Assessments”
- David B. Falk College of Sport and Human Dynamics, Syracuse University – Syracuse, NY**
Certificate of Advanced Studies, Food Studies 2017
- College of Arts and Sciences, Syracuse University – Syracuse, NY**
Bachelor of Arts, Geography 2010
Summa Cum Laude

Experience

- Syracuse Community Geography, Graduate Assistant – Syracuse, NY** 2015-2017
- Assist the Community Geographer in collaborating with local organizations to map and spatially analyze various topics of concern to Central New York
 - Utilize GIS software to assist community partners in spatially visualizing, understanding, and analyzing a variety of issues from Land Trust membership locations to food pantry service areas
- FoodCorps, Service Member – Cambridge, MA** 2013-2014
- Working alongside the local school garden education non-profit CitySprouts, collaborated with teachers to create and lead customized curriculum-connecting food, nutrition, and garden-education activities and lessons in the school garden and classroom
 - Maintained four school gardens, including coordinated the growing schedule, maintained upkeep, and landscape design
 - Created and executed food and nutrition awareness activities in school cafeterias, classrooms, after-school clubs, and a summer youth internship program
- Liquid Adventures and Exit Glacier Guides, Administrative Manager – Seward, AK** 2012 – 2015
- Managed reservations, client relations, trip logistics, and day-to-day office activity
- REAL School Gardens, Research Assistant to the Executive Director – Washington, D.C.** 2011-2013
- Researched, summarized, and presented literature on mainstream and alternative educational theories of the influence of the outdoors on student engagement
 - Assisted with the expansion of a regional non-profit into a national non-profit by researching and collecting data regarding the American school gardening landscape in public schools
- National Geographic Society, Geography Intern – Washington, D.C.** Fall 2010
- Promoted geography education and Geography Awareness Week through

- social media, external partnerships, and traditional promotional methods; developed educational materials, activities, and lesson plans as part of a larger team
- Conceptualized and created original content for a National Geographic blog dedicated to geography education

Awards

- National Council for Geographic Education Outstanding Student Award 2010

Publications and Presentations

- “Exploring Scale and Boundaries in Food System Assessments.” April 2017. Annual Meeting of the Association of American Geographers, Poster Session. Boston, Massachusetts.
- Jane Mulcahy and Jonnell A. Robinson. 2016. Esri Story Map Brings New York’s Brewing History to Life. *ArcNews*. <http://www.esri.com/esri-news/arcnews/winter16articles/esri-story-map-brings-new-yorks-brewing-history-to-life>

Skills

- Formal training and experience with ESRI ArcGIS
- Proficient in Microsoft Word, Excel, and Powerpoint
- Member of the Association of American Geographers (AAG)