

Who benefits?: The intersection of governance and agency in farmers' engagement
with the Oklahoma Farm to School Program

by

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Abstract

Farm-to-school (FTS) programs are promoted as direct-marketing opportunities for farmers. As such, they are regarded by advocates and state and federal agencies as a pathway to rural economic development. The implementation of FTS food procurement poses significant challenges, however. Farmers make decisions regarding whether or not to market products to schools after learning about the program and considering an array of signals from multiscalar policies and governance structures. Research to date has left a gap in understanding farmers' agency as it relates to governance structures and policy signals. This research on farmers' engagement with the Oklahoma FTS Program contributes evidence to bridge this gap by examining the experiences not only of producers who participated in a FTS program but also of those who ceased participation or who chose not to participate. Employing a phronetic approach to social science, this explanatory, sequential, mixed-methods case study obtained quantitative and textual data from a mail survey, as well as data from two stints of qualitative fieldwork, in fall 2011 and fall 2012, which involved semistructured interviews and participant observation. Archival research completed the study methods used to gain a deeper understanding of farmers' perspectives, practices, values, and experiences that informed their decisions to participate or not in a top-down-administered FTS program. Data collection was driven by the concept of farmers' engagement. As such, eight categories of farmers' engagement with the Oklahoma Farm to School Program emerged. This research answers these value-rational questions (Flyvbjerg, 2001): (1) Which farmers gain, and which farmers lose, by which mechanisms of power? (2) Is this desirable? (3) What should be done? Results provide evidence of geographically uneven development of a FTS program and incompatibilities between small- to midscale farming and the structure and governance of federal child-nutrition programs.

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Dedication

For Garm
and my whole family
in this world and the next

Chapter 1. Introduction

The industrialization of the American agriculture and food (*agrifood*) system has contributed to deleterious nutrition-related health outcomes in the U.S. population. Prevalences of hunger and obesity have risen for decades, and many authors fault, in part, the marketing and adoption of the industrialized diet, with its ubiquitous, cheap, low-nutrient food (see, e.g., Albritton, 2009; Gottlieb and Joshi, 2010; Mortazavi, 2011; Patel, 2007; Schlosser, 2001; Winson, 2013; Yeoman, 2003). Public health has declined markedly, with diet-related diseases contributing to expected shorter life spans in today's generation of children (Bittman, de Schutter, Pollan, and Salvador, 2016).

In response to the deleterious consequences of an industrialized agrifood system, across the United States “new food movements” (Gottlieb, 2001) have been remaking the social, economic, environmental, and political relations that would foster a sustainable, more healthful agrifood system. Most of these movements are market-oriented (Goodman, DuPuis, and Goodman, 2014) and should be examined for the ways in which social and economic power accrues to certain actors and the “new ways” in which they “enhance[e] corporate profit and control” (Bonanno and Constance, 2008, p. 41). The emerging sets of relations characterizing these movements have been variously called alternative agrifood networks (Izumi, Wright, and Hamm, 2010; Goodman, 2003), alternative food economies (Ilbery and Maye, 2005; Winter, 2003), alternative food networks (Goodman et al., 2014; Watts, Ilbery, and Maye, 2005; Whatmore, Stassart, and Renting, 2003), alternative food institutions (Allen, 2010), and alternative food initiatives (Levkoe, 2011). Material expressions of these movements' activities include organic and sustainable agricultural practices, community-supported agriculture (CSA), farmers' markets, farm stands, pick-your-own operations, farm-to-cafeteria, i.e., institutional procurement of locally or regionally grown foods (Allen, 2010; Bell, 2004), artisanal food production, and farm-to-table restaurants. Several alternative agrifood forms operate outside of the profit motive and processes of commodification. These include community and parkway gardens, barter arrangements, food-recovery activities, and backyard-fruit picking and sharing efforts (see, e.g., foodforward.org).

Not all efforts to make incremental changes or reforms to the industrial food system, however, rise to the level of social *movement* (for more on this argument, see Thornburg, 2009). Therefore, I prefer the more general term *alternative agrifood initiatives*. “Alternative” connotes an intent to create a form of food provisioning that counters or resists corporate control. “Agrifood” represents the production and consumption aspects of the supply chain and all of their attendant tributaries, such as upstream biotechnological, or conversely, agroecological innovations, midstream dimensions of the treatment of farm workers, and downstream expressions in the ways in which food is marketed, distributed, processed, packaged, sold, bartered, or donated, and presented and eaten. “Initiative” is at the same time a broader and more precise term than “movement” because while it accounts for human agency it allows that this agency might be exercised by a professional and/or government class or by other actors in the agrifood system. Alternative agrifood initiative is abbreviated AAFI.

Viewed collectively, the myriad AAFIs aim to reform the industrial agrifood system, resisting and counteracting its deleterious economic and social consequences, particularly for rural communities (Aronoff, 1997; Lobao and Meyer, 2001; Lobao and Stofferahn, 2008). In resisting the domination of corporate agribusiness interests, people and institutions strive to forge economically and socially viable, place-based food systems to improve the taste and

quality of food, nurture and support community ties, and contribute to the viability of small- to midsize farms (Vallianatos, Gottlieb, and Haase, 2004). In particular, new institutional practices involve the purchase of locally or regionally produced farm-fresh products either directly from farmers or indirectly from a broker or distributor. This arrangement is distinguished from the practice of purchasing processed, preserved, and packaged foods from corporate food-service purveyors. Institutions involved in these emerging farm-to-cafeteria relationships include colleges and universities, hospitals, prisons, elder-care facilities, and public and private K–12 schools (Brown and McNulty, 2006; Valen, 1992; Wallace, Galarneau, and Vail, 2006). Specifically, direct-marketing arrangements connecting farms with schools are called farm-to-school (FTS) programs.

Overview of FTS

Farm to school is an evocative term. The inherently geographic concept involves the movement of food from the farm to the school and evokes the *distance* between them. Farms and schools more often than not occupy disparate geographies, rural and urban, so that FTS is a way to forge rural-urban linkages. Because the definition of a *local* distance differs according to the entity coordinating FTS efforts, a farm supplying food to schools could be a few miles to hundreds of miles away from receiving schools.

FTS programs organize a diverse array of actors in networks that simultaneously intersect with alternative, i.e., shorter and direct-market oriented, and conventional, i.e., longer and commodity-market oriented, supply chains. Efforts to shorten food-supply chains (Ilbery and Maye, 2005) aim to more closely connect consumers with producers. FTS initiatives, which emerged in the late 1990s, link farms and schools through the institutional procurement of local and regionally produced foods, as well as through educational activities and instruction (Joshi, Azuma, and Feenstra, 2008; Kalb, Markley, and Tedeschi, 2004; National Farm to School Network, Community Food Security Coalition, and School Food Focus, 2009). Critiques of the quality of school food, arguments supporting the idea that the school-food environment has historically contributed to rising rates of childhood obesity (and therefore is a site where improvements could reverse the trend), and concerns over the survival of family farms (Kalb et al., 2004; Sanger and Zenz, 2004) have coalesced to form a rationale for the FTS model as an institutional solution. Advocates claim that FTS procurement arrangements will improve the composition of school meals and provide direct-marketing opportunities for small- to midscale farmers (Bellows, Dufour, and Bachmann, 2003; Kish, 2008a, 2008b; Sanger and Zenz, 2004). Improvement of childhood nutrition and development of new market opportunities for farmers are the two central tenets upon which the FTS food-provisioning approach has been built. Advocates argue that the development of these market opportunities will contribute to the formation of community-based food systems, also called local food economies, and stronger farming-based economies (McDermott, 2003; Nabhan, 2002; Sanger and Zenz, 2004; Vallianatos et al., 2006).

FTS programs also encompass educational activities, which include school gardens, classroom visits by farmers, field trips to farms, nutritional education, science lessons on ecology and agriculture, and field events. These activities aim to instill in children a preference for local, fresh foods, especially fruits and vegetables, prepared from scratch. As such, FTS is seen as a strategy to combat childhood obesity. Obstacles to developing healthy eating habits in schools arise from structural problems, such as short lunch times, long cafeteria lines, and

unappealing physical settings (Story, Kaphingst, and French, 2006). These features make school lunch unattractive, “send[ing] students to vending machines or school stores” (p. 114). Another structural impediment to developing healthy eating habits at school is the evolution over decades from scratch cooking in school kitchens to heat-and-serve preparation of packaged, frozen, canned, or refrigerated foods. This trend has led to the deskilling of school-kitchen personnel in most schools, although some school districts with central and satellite kitchens prepare meals from scratch to be sent to their campuses districtwide (Poppendieck, 2010). Nevertheless, for most school campuses across the country, kitchen staff would require additional training and costly equipment to learn how to prepare fresh meals using locally sourced products—a barrier, given the limited operating budgets of school food service. The lack of on-site, skilled school cooks has been observed as a constraint on procuring local foods, since the labor costs associated with training and hiring can be daunting (Bellows et al., 2003; Sanger and Zenz, 2004), as well as those associated with the extra time needed to prepare fresh food (Hanson et al., 2011).

From a systems perspective, the FTS logic of incremental reform views children, through their food preferences and choices, as drivers of food-system change. Educating children to modify their food preferences motivates them to request more locally grown food at school meal times, which inspires SFSDs to order more of such food, which in turn spurs local and regional farmers to grow more of it; these farmers, now capturing school-food dollars, will then invest enough of this money in their local communities to drive community development. This imagined trajectory

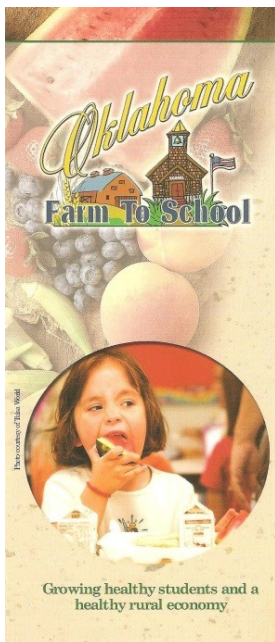


Figure 1.1. The cover of a brochure for Oklahoma’s FTS program echoes the nationwide FTS campaign’s goals of improving children’s health and boosting rural economies. *Source:* ODAFF.

undergirds FTS initiatives and discourse. The attractiveness of this narrative has led to the proposal of numerous bills in state legislatures to support FTS programs, as well as advancement of the FTS approach at the federal level, where the USDA claims that millions of school-food dollars are being invested in local communities. FTS programs, however, manifest a complex heterogeneity, with many moving components, and the link between a child’s lunch plate and a boon to rural economic development remains an unproven claim.

Advocates have advanced the notion that FTS contributes to the economic development of rural areas through the creation of an institutional food market for local and regional farmers (Bellows et al., 2003; Gottlieb, 2001; Joshi et al., 2008; Joshi and Beery, 2007; Morris and Zidenberg-Cherr, 2002; Story et al., 2006) in which direct connections between farmers and schools are forged. Such direct-market arrangements are thought to leave more of the food dollar in the farmer’s pocket instead of its being captured by middlemen along the supply chain. Procurement of locally sourced food, classroom instruction about food and agriculture, and school-based gardening projects have emerged as the three principal features of the FTS approach toward food-systems reform (Joshi, Henderson, Ratcliffe, and Feenstra, 2014). This dissertation project focuses on farmers’ contact and engagement with one state-administered FTS program as a market opportunity.

Little is known about the farmers benefiting from long-term FTS participation as well as the farmers who have considered FTS and chosen not to engage with it. Moreover, contextual analyses of these farmers' experiences are needed to understand how local governance, as well as social and geographic dimensions, figure into farmers' perceptions, motivations, practices, experiences, and decision-making. Without an understanding of the larger, structural reasons given for nonparticipation, FTS as an AAFI may fall short as a model for rural economic development. This dissertation contributes empirical findings, as well as analysis, to help fill this gap.

Academic Studies on FTS Programs

A body of literature variously describes, evaluates, or investigates, in U.S. or European contexts, FTS programs' goals, networks, effects, and individual components (Allen and Guthman, 2006; Bloom and Hinrichs, 2010; Conner, King, et al., 2011; Conner, Nowak, et al., 2011; Conner et al., 2012; Gottlieb, 2001; Gottlieb and Joshi, 2010; Holmes, Richardson, and Schofer, 2002; Izumi, Rostant, Moss, and Hamm, 2006; Izumi, Alaimo, and Hamm, 2010; Izumi et al., 2010a; Izumi, Wright, and Hamm, 2010b; Kloppenburg and Hassanein, 2006; Levine, 2008; Morgan and Sonnino, 2010; Poppendieck, 2010; Schafft, Hinrichs, and Bloom, 2010; Stevenson and Pirog, 2008; Story, Nannery, and Schwartz, 2009; Story et al., 2006; Vallianatos et al., 2004). Some studies point to the positive impact that FTS curriculum has had on children's knowledge of good eating habits, while others report on the *potential* economic benefits to local economies (Vogt and Kaiser, 2008). Several peer-reviewed journal articles contribute to empirical evidence of farmers' motivations, perspectives, and experiences vis-à-vis FTS programs (Izumi et al., 2010a; Bloom and Hinrichs, 2010; Conner et al., 2012; Janssen, 2014; Thornburg, 2013). These studies report on the challenges faced by farmers when engaging with various components of FTS programs, while offering insights into successful practices and aspects of FTS networks that would benefit from further funding and material support. An expanded discussion of this literature appears in the literature review.

Research Problem

In the history of the FTS campaign, advocacy publications have described the "barriers" and/or "opportunities" that producers face when considering program participation (Berkenkamp, 2006; Berkenkamp, 2011; Gregoire, Arendt, and Strohbehn, 2005; Rosenberg, Truong, Russell, et al., 2014; [Bellows et al. (2003) identified "benefits" and "constraints"]]). These terms, and the many projects launched to aid farmers in overcoming the challenges of program participation, reflect a linear or reductionist model of food-system change in which market mechanisms, i.e., the food choices of children (the consumers) and the market diversification of small- to midscale farmers (the producers) are seen as catalysts for change. In this logic, action at the microlevel, by consumers and producers, is thought to transform macrolevel systems, e.g., rural food economies and communities. The discursive frame is encapsulated by this statement from the NFSN website: "If school food can improve the health of kids, develop new marketing opportunities for farmers, and support the local economy, it's a win-win for everyone" (NFSN, n.d.). This linear, market-based conceptualization has resulted in simplified claims of a "win-win-win for children, farmers, and communities" (NFSN, n.d.). These claims, however, have seldom been examined critically, with the notable exception of Allen and Guthman (2006), who questioned the claims made by FTS advocates and characterized FTS as a neoliberal project that devolves state responsibilities onto local actors. Absent from empirical analysis of FTS

programs has been a perspective that merges micro- and macroscale approaches, one that “relat[es] macro political and economic forces with decisions ‘in the field’” (Winter, 2005, p. 613). In other words, analysis that merges micro- and macroscale approaches, or agency and structure, is needed.

The academic literature and the advocacy discourse, while acknowledging the heterogeneity of FTS activities, has not yet examined how outcomes might differ depending on whether the FTS program was implemented from the bottom up or top down. As the first state to fund the position of a statewide coordinator for the purpose of creating a statewide program, Oklahoma provides a case study of top-down FTS program implementation. Within this governance context, consideration of the different sizes and types of farms participating in the program will prove instructive to other state legislatures considering the creation of statewide-administered programs. Some farms may be better able to overcome barriers than others. While scholars have revealed farm characteristics in various empirical studies, they have not connected the size of farm operation with success or failure in FTS program participation. Although farmers’ motivations for FTS participation have been the subject of a few articles, little is known about the reasons farmers give for ceasing to participate, while in-person, follow-up qualitative research on survey findings concerning barriers are absent. For example, barriers to FTS participation enumerated in the literature have been empirically contextualized as a set of challenges faced when selling products to schools (Berkenkamp, 2011). Alternatively, researchers in Iowa surveyed producers concerning their perceptions of marketing to restaurants and institutions, such as schools, and found several reasons for not marketing products to institutional food-service operations (Gregoire et al., 2005). Research to date also has not explicitly shown an empirical connection between size of farm operation and scale of program participation. The barriers enumerated by advocates are more often than not structural features of the institutional school-food market and the conventional agrifood system that supplies it. Pilot programs launched in anticipation of support from a state government may create a path dependency that shapes the further development of FTS programs in a state.

Statement of Purpose

This dissertation examines farmers’ engagement with the Oklahoma FTS Program. Engagement comprises farmers’ actions, practices, experiences, and decisions, which shape and are shaped by motivations, values, and perceptions in an iterative process. Farmers’ engagement takes place at events in specific places over time and includes efforts to learn about FTS through attending meetings or workshops; communications with key FTS stakeholders, such as schools; and participation in FTS activities. Engagement is the concept undergirding data collection in this research.

An actor-oriented strategy of inquiry called *phronesis* “focuses on practical activity and practical knowledge in everyday situations” (Flyvbjerg, 2001, p. 134). This strategy of inquiry can be fruitfully employed to explore the ways in which farmers are embedded in their local and wider economies while also interrogating the ways in which farmers respond to and perceive structural processes, attributes, and policy signals. Using an analytical lens that combines the Polanyian concept of embeddedness, which helps explain the ways in which economic decision-making is inseparable from “the social and cultural fabric of our societies” (Izumi et al., 2010a, p. 377), with Marxian political economy, which helps explain structural forces, this investigation unites actor-oriented and

structuralist perspectives. It does so by exploring farmers' engagement not only within the structural context of the larger political economy of the contemporary agrifood system but also within the context of the FTS campaign itself. As such this perspective requires in-depth qualitative research in order to understand participants' agency and the embedded nature of their economic decisions.

The purpose of this study was to obtain quantitative results from a mail survey and then to complement that survey with qualitative fieldwork to explore in depth and expand upon the quantitative results. These methodological phases allowed the researcher to triangulate the quantitative and qualitative data to more effectively understand the research problem (Creswell, 2003, p. 100). The objectives of this study are as follows:

- (1) To reveal which types of farmers benefit from the Oklahoma FTS Program.
- (2) To reveal which types of farmers do not benefit from the Oklahoma FTS Program.
- (3) To expand analysis of FTS-participating farmers to include features of farm-labor structure.
- (4) To understand the relationship of scale of farming operation to FTS program participation.
- (5) To inform FTS policy.

Research Questions

Grounded in the stated objectives are the following research questions: (1) What experiences have Oklahoma farmers had in their contact with the Oklahoma FTS Program? (2) What reasons do some farmers give for not participating in or for quitting FTS? (3) What patterns emerge in the size, type, and location of farms that participate in an FTS program implemented from the top down? (4) Who benefits, and who loses, among the farm population from participation in a top-down FTS program, and by what mechanisms of power? (5) In what ways, and from the farmers' perspectives, have food-system structures at various levels, e.g., county, state, and federal, influenced their perspectives on FTS program participation?

Organization of the Dissertation

This dissertation is organized as follows: Chapter 2, Background and Setting, provides a research context by narrating brief histories of the NSLP and the FTS campaign in the U.S.; describing selected physical and demographic characteristics of Oklahoma; and providing an overview of Oklahoma agriculture, a history of the Oklahoma FTS Program, and an overview of AAFIs in Oklahoma. Chapter 3, Literature Review, uses an integrated literatures approach to review major themes, analytical frameworks, and empirical findings in the study of AAFIs and in the study of FTS activities. Chapter 4, Research Approach and Methods, details the research approach, case-study selection, methods, and analytical framework. Chapter 5, Results: Data Presentation and Analysis, presents and analyzes the empirical data and describes field observations. Chapter 6, Discussion and Conclusion, summarizes the dissertation, discusses research findings, and presents conclusions and implications for future research and policy. The dissertation concludes with references and appendices.

Significance of This Research

This study extends and complements existing research on farmers' perceptions, motivations, experiences, and practices regarding FTS participation by expanding analysis to include not only farmers who participate in FTS but also those who choose not to or who have done so and then quit. Its mixed methods and analytical focus place farmers in a larger structural context and describe the dynamics between structure and human agency in an emerging food system that strains to adapt to shifting complexities of existing food-system structures (Meter, 2010). In this sense, this research answers DeLind's call (2011) to engage in "the harder work of contextual analysis" of efforts to localize food systems.

Actors within the structural context of the Oklahoma FTS Program include farmers, SFSDs, food distributors, food-system activists, government officials, and retail-food buyers. Interviews of people from each of these categories broaden analysis to include structural features of the food system in which Oklahoma farmers are embedded. Since the structure and governance of FTS programs vary across geographies, the context of each program matters. This research discovers the farm-level challenges of a statewide program coordinated by one state employee without active, ongoing participation from institutional partners outside of the school system in other segments of society, such as the nonprofit sector. (Compare, for example, the Vermont Farm to School Network, which is composed of active municipal, state, regional, higher-education, and nonprofit agencies, as well as private actors.) As such this research could provide a departure point for future state-by-state comparative studies on how to approach FTS program implementation with a statewide coordinator at the helm.

Contributing to the literature on the production side of FTS food procurement, this research selects the farmer as the unit of analysis. This project differs from existing research because it provides insights into how farmers perceive and respond to FTS programming and governance as well as to government regulations. This study takes as its point of departure the question (as suggested by Flyvbjerg [2001]), who gains and who loses, and by which mechanisms of power? The qualitative and quantitative data generated will be useful to food-systems researchers and community food-security proponents.

Some salient concerns have been raised regarding FTS programming and its capacity to serve as a context for increasing social equity generally and economic equity specifically for small- to midsize farmers (Allen and Guthman, 2006). This study presupposes that farmers act with agency vis-à-vis the political, social, and economic structures in which they are embedded. These structures delineate the context in which opportunities and barriers arise for entrance into FTS programs, depending on geographic location, policy context, practical circumstances, and other factors.

This research provides empirical and policy analysis valuable to research and public-policy sectors. Case-study narratives in this dissertation will enrich the fields of human geography, rural sociology, and food-systems studies. Research results will be valuable to various organizations and agencies involved in FTS programs nationwide. FTS programming has the potential to reinvent regionalism along the boundaries of locally cultivated and consumed foods. The study of FTS could enhance a human-geography research focus on regional food systems in the U.S.

Chapter 2. Background and Setting

The dual context for this study is composed of the histories of school food and of Oklahoma. Therefore, the chapter leads with a brief history of the NSLP and recent efforts to make sweeping improvements to the program. Because FTS programs have arisen in response to perceived problems in the NSLP and must articulate with existing NSLP infrastructure, this history provides necessary context for the emergence of FTS as a concept. Following this section, a genealogy of the FTS campaign in the U.S. provides a political-economic background for the diffusion of FTS across the country. This genealogy precedes sections on selected characteristics of Oklahoma's physical geography, population, and agriculture sector. The last third of the chapter summarizes the many AAFIs that have emerged in Oklahoma in the 21st century and presents a detailed history of the Oklahoma FTS Program.

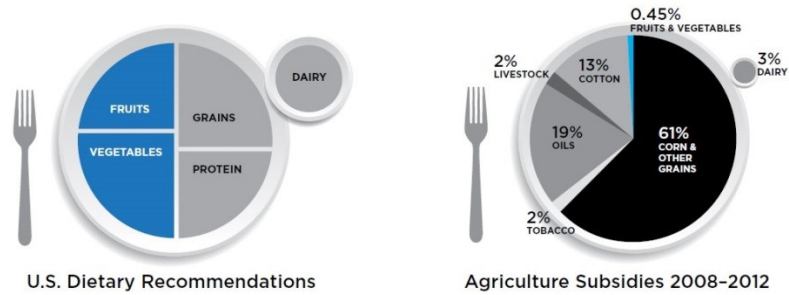
History of the National School Lunch Program

In the 1930s the U.S. government established the foundation for a new agriculture paradigm (Goodman and Redclift, 1991). The Agricultural Adjustment Acts of 1933 and 1938 launched a policy of state market intervention that primarily benefited large commercial growers of globally traded commodities, such as wheat, rice, corn, soybeans, and sugar (Goodman and Redclift, 1991). Small-scale farmers producing diverse mixes of fruits, vegetables, and animals were replaced by single-crop, large acreages. The resulting production of surpluses in the major commodity crops led to dietary changes for the American population.

Fruits and vegetables were categorized as specialty crops, not subject to subsidies, a practice that continues today (Mortazavi, 2011). Since 1949, every five years the U.S Congress passes the Farm Bill, which perpetuates these structures, including a prohibition against planting fruits, vegetables, and nuts on subsidized farmland (Mortazavi, 2011). The Farm Bill "shapes how Americans eat because it dictates which foods are cheap and plentiful" (Mortazavi, 2011, p. 1711). Legally defining fruits and vegetables as specialty crops "indicates a skewed understanding of the centrality of these foods in a healthy diet" (Mortazavi, 2011, p. 1712). Highly processed food replaced scratch cooking in most American homes, as agribusinesses invented and advertised low-nutrient foods, such as breakfast cereals (Goodman and Redclift, 1991; Pollan, 2006). Changes in America's eating habits followed the entrenchment of these political-economic structures and concomitant agribusiness practices. Although the USDA recommends that fruits and vegetables compose half of one's daily caloric intake, agricultural subsidies do not reflect this emphasis (see Figure 2.1). Subsidies instead primarily go toward the production of what the Union of Concerned Scientists calls "junk food ingredients," such as corn and other grains, oils, and dairy (O'Hara, 2014, p. 3). (Significant subsidies also are paid to cotton and tobacco growers.)

Widespread malnourishment in the United States during World War II came to the attention of military recruiters when they had to reject 40 percent of the men called up for induction because of "health and education problems" stemming from "Depression-era childhood dietary deficiencies" (Gottlieb, 2001, p. 260). Although women home economists and nutrition reformers had been agitating for decades for the establishment of a nationwide school-feeding program to combat childhood hunger and such negative health outcomes as observed

Figure 2.1. The USDA Encourages Fruit and Vegetable Consumption While Giving Most Food Subsidies to Grain Crops, Oils, Dairy, and Livestock



Source: O’Hara, 2014, p. 3, who adapted the left graphic from the USDA and the right one from the Office of Rep. Chellie Pingree.

by the military recruiters, the program was not launched until 1946, largely to reduce the dearth of military-suitable bodies (Gottlieb, 2001). Launched by the USDA, it was administered and designed not by female home economists, but rather by male agricultural economists, “who formed a key part of the large Department of Agriculture bureaucracy devoted to surplus commodity disposal and distribution” (Levine, 2008, p. 40). More than a new way of combatting childhood hunger, the NSLP “in its goals, structure, and administration” was “more a subsidy for agriculture,” with the political will for its creation arising from the USDA and not from allied reformers in the fields of nutrition and home economics (Levine, 2008, p. 38).

The NSLP and its sister program, the National School Breakfast Program (NSBP, established in 1966), are USDA entitlement programs that partially reimburse school cafeterias for the cost of meals made for federal child nutrition programs. Reimbursement rates are determined according to several criteria; the payment system is byzantine in its complexity. Lunches and breakfasts are provided to pupils according to three price, and therefore reimbursement, tiers: paid (full-price), reduced price, and free. Geography affects these reimbursement rates. Meals prepared in Alaska, Hawaii, and Puerto Rico receive higher reimbursements (USDA FNS, 2016a). Another criterion used to determine reimbursement rates is specific to the schools participating in the programs. Rates are also based on the percentage of children who meet income requirements and qualify for free or reduced-price meals. Participating schools with less than 60% low-income pupils will receive lower reimbursement rates than those with more than 60% (USDA, FNS, 2016). A related USDA nutrition program is the Summer Feeding Program, which “extends the availability of free breakfasts and lunches into the summer months in low-income areas” (Ralston, Newman, Clauson, Guthrie, and Buzby, 2008). Federal nutrition programs, in general, are geared toward serving low-income children, a significant proportion of whom are members of minority groups (One Tray, 2009).

So long as participating schools follow nutrition guidelines established by the USDA, they are guaranteed to receive reimbursements for the meals and snacks on the programs (Story et al., 2006; Poppendieck, 2010). State education agencies administer the NSLP in more than “101,000 public and nonprofit private schools and residential child care institutions” (Ralston et al., 2008, p. 1). School food service operations control menu creation and food choice, while adhering to federal nutrition standards that mandate a balance in the nutritional constituents of meals,

such as protein, fat, and carbohydrate (Ralston et al., 2008; Wootan et al., 2007). Given budget constraints and the reality that the cost of meals exceeds the reimbursement amounts, SFSDs operate within very limited budgets. At the same time, their cafeterias must be profitable; all expenses of running the cafeteria, including food, supplies, and labor, must be met by the monies received for feeding people on campus (Poppendieck, 2010).

When it comes to the ingredients of school meals, one of the original primary purposes of the NSLP has greatly influenced meal composition and quality. For 70 years, the NSLP has provided a robust institutional market for surplus agricultural commodities (Gottlieb, 2001) by purchasing them from U.S. food processors, farmers, and other vendors on a competitive-bid or contractual basis (Ralston et al., 2008, p. 16). About “17 percent of the total dollar value of the food served in the NSLP” comes from commodities donated to school districts and independent schools by the USDA (p. 16). The constrained budgets of school cafeterias lead them to rely on the purchase of USDA commodity foods, aka USDA Foods, to which they are entitled by law. In addition to a selection of fresh, canned, or frozen fruits and vegetables, the list of more than 50 commodity, or *entitlement*, foods includes “meats, fruit juices, vegetable shortening, peanut products, vegetable oil, and flour and other grain products” that have been purchased by the USDA from American farmers (Massachusetts Department of Elementary and Secondary Education, 2014). Other entitlement foods include sausage patties and links, pizza topping, beef crumbles, fruit pops, chicken nuggets, bologna, and pizza. SFSDs may also choose *bonus* foods from the USDA, which are surplus agricultural products and subject to availability. Example bonus foods include canned apricots, blueberries, dried cherries, reduced fat cheese, pork, and other items (USDA, 2009). Because school lunches cost more to make than the reimbursement amounts, many schools have sold junk foods in vending machines, snack shops, and à la carte lines for years to compensate for this shortfall (Story et al., 2006; Wootan et al., 2007). Criticism over the presence of junk food on school campuses, caused by the structural problems of school-food provisioning, is joined by criticism over the presence of surplus-commodity ingredients in school meals, which many have claimed lead to unsalutary food options (Mortazavi, 2011; Nestle, 2002, in Kloppenburg and Hassanein, 2006).

To improve the nutritional quality of school lunches and help combat rising rates of childhood obesity, Congress passed the HFFKA at the end of 2010. Under the HFFKA, a new six-cents-per-meal reimbursement rate for school lunches comes with a catch: The increase applies only to school lunches that meet new science-based dietary guidelines for meal composition and only to schools whose populations have 60% or more of its students qualifying for free or reduced-price lunches (Mortazavi, 2011). The new dietary standards include increases in quantity and varieties of fruit and vegetables offered, increases in offerings of whole-grain foods, mandatory replacement of whole-fat milk with fat-free or low-fat milk, reductions in the content of saturated fat, trans fats, and sodium, and portion sizes based on the age of children (Huehnergath, 2012). The new nutritional guidelines are aligned with the latest Dietary Guidelines for Americans (Mortazavi, 2001) and aim to reverse rising levels of childhood obesity, particularly among children from lower-income households. Obesity has been on the rise in more affluent societies for several decades. The prevalence of overweight and obesity for children and adolescents ages 2 through 19 years has remained high at 31.9% since 1999 (Ogden et al., 2008). Low-income Americans are disproportionately affected by obesity because food of poor nutritional quality is cheap and also because they tend to live in areas where stores that stock fresh produce and other healthful foods are few and far between (Azuma, 2007).

Increasing NSLP funding and encouraging the HHFKA reforms were two of several policy recommendations made by a group of retired military leaders alarmed about levels of childhood obesity in the U.S. (Mission: Readiness, 2010). In their 2010 report “Too Fat to Fight: Retired Military Leaders Want Junk Food Out of America’s Schools,” the authors noted that 75 percent of Americans aged 17 to 24 years were “unable to join the military because they failed to graduate from high school, have criminal records, or are physically unfit” (p. 1). The group, partially funded by the W. K. Kellogg Foundation and the Pew Charitable Trusts, advocates for the removal of junk food from vending machines and à la carte lines in schools and argues that the obesity “epidemic ... threatens national security” (p. 2). More potential military recruits are rejected for being overweight than for any other medical reason, while the “proportion of potential recruits who failed their physicals each year because they were overweight rose nearly 70 percent” between 1995 and 2008 (p. 2). The retired military leaders argued that schools provided an important environment for helping to reduce these numbers because they could curtail access to junk food, increase the provision of healthful school meals, and inculcate better eating habits in children.

The new meal patterns mandated under the HHFKA, however, proved unpopular with many schoolchildren. For the first time in the history of the NSLP, portion sizes must conform to both calorie minimums *and* maximums (before the HHFKA there were only calorie minimums), the latter of which have been controversial, as students around the country complained that their lunches were leaving them hungry (Fund, 2014). School food service professionals found the new guidelines and restrictions difficult to comply with (Government Accountability Office [GAO] online, 2014). And for the first time since 1990, the number of schoolchildren participating in the NSLP fell significantly, “by 1.2 million students (or 3.7 percent) from school year 2010–2011 through school year 2012–2013, after having increased steadily for many years” (GAO online, 2014). This decline was driven mainly by the fall in the percentage of students paying full price for school lunch: In 2010 there were 11.1 million full-price students, while in 2014 there were 8.7 million. In contrast, the number of students receiving a free lunch rose from 17.6 million in 2010 to 19.1 million in 2014 (GAO online, 2014). Another factor contributing to the decline in the participation in full-price meals may have been declining household income due to the Great Recession. While full-price-lunch rates fell, participation in reduced-price lunches remained relatively stable (Food Research and Action Center [FRAC], 2015).

Student participation in the NSLP is key to maintaining it, and school food service personnel encourage children to buy their lunches at school. Because the school-cafeteria budget relies on children eating the meals provided, there is a bottom-line motivation to make lunch attractive to kids. Although a higher participation rate translates into the need to purchase more food, “food does not account for the major per-meal expenditure—that honor goes to labor and administration” (Poppendieck, 2010, p. 135). Economic and other trends affect the participation rate. Total participation in the NSLP reached a high of 31.8 million children in the 2010–2011 school year and declined to 30.3 million in 2013–2014 (FRAC, 2015).

The Genealogy of the FTS Campaign in the U.S.

Examination of the governance of the national FTS campaign is important for situating farmers’ perspectives within the context of policy design and implementation. This section provides a history of the governance of the first

coordinated, managed efforts to link schools and farmers through procurement of food. Since its inception, the National Farm to School Network (NFSN) targeted the National School Lunch Program (NSLP) and other federal feeding programs with an agenda of incremental change. In focusing on a public program, FTS advocates originally advanced an agenda of agrifood-system localization and community food security, intertwined objectives that originally had links to goals of environmentally sustainable rural development and food justice but that became delinked over time as the FTS campaign matured. Sustainable development has also been linked with creating new direct-market opportunities for smallscale farmers, which in turn would add to farm viability and lead to farmland diversification—not only in terms of crops grown but also in terms of production methods (USDA National Commission on Small Farms, 1998).

In the 1980s and 1990s the quinquennial Farm Bill legislative process motivated activists from disparate environmental, small-family-farm, and sustainable and organic agriculture pressure groups to begin conversations to create a pathway to join forces to influence USDA policies and programs (Gottlieb and Fisher, 1995). It took a number of years before leaders from these various groups resolved their differences and competing interests. While environmentalists were concerned about conserving fragile soil, rotating crops, and preserving open space, rural-development advocates called attention to the plight of small farmers and the need for price supports (Gottlieb, 2001). Other groups worked to alleviate hunger in urban areas, largely by advocating for continued federal-level support for emergency-food and food-assistance programs (Gottlieb, 2001). Although food-system activists embraced the perspective that many problems in the food system had intrinsic environmental and social dimensions (Gottlieb and Fisher, 1996), each of the pressure groups was focused on their own food-system interests. What was missing was a coalition united around both urban and rural issues concerning desired reforms in the agrifood system (Gottlieb, 2001). By the early 1990s, convergence around food issues entered a new phase.

In 1994 more than 30 food-systems analysts and leaders from these different NGOs, with the exception of the environmental groups, met in Chicago to devise a “common approach to food-system issues and community food security action” (Gottlieb and Fisher, 1996; Gottlieb, 2001, p. 227). Hosted by the Hartford (Connecticut) Food System, the meeting initiated a process to draft a new food security act. The resulting Community Food Security Empowerment Act, which linked environmental, environmental-justice, and food-security concerns (Gottlieb and Fisher, 1996), garnered the support of more than 125 organizations in the anti-hunger and sustainable-agriculture communities and others (Gottlieb and Fisher, 1996, p. 199). The year prior to that meeting, a group of UCLA graduate students in the Department of Urban Planning, under the supervision of Robert Gottlieb and Peter Sinsheimer, had released a report titled *Seeds of Change: Strategies for Food Security for the Inner City* in which they proposed “a regional food systems approach” involving connections between rural and urban areas, which would help alleviate hunger through the development of community food security (Gottlieb, 2001, p. 229). Community food security was the “overarching concept” of the year-long study (ibid., p. 182), which emphasized the importance of employing a food-systems approach toward analyzing any food-related issue.

By 1995 *community food security* had become a powerful central organizing concept, garnering support from both urban-centered community food security groups and rural-focused sustainable agriculture groups (Gottlieb,

2001), indicating the beginnings of a possible rural-urban connection in food-systems activism. Advocacy for the Community Food Security Empowerment Act influenced the creation, in the 1996 Farm Bill, of the Community Food Projects (CFP) Competitive Grant Program (Gottlieb, 2012; Gottlieb, 2001), which since 1996 has “promoted self-sufficiency and food security in low-income communities through community food projects, planning projects and training and capacity building projects” (National Institute of Food and Agriculture, 2011). The CFP supports proposals that promise to develop small, innovative food-system-related projects at the community level (Maretzki and Tuckermanty, 2007).

In the meantime, the group that met in 1994 formed the nonprofit Community Food Security Coalition (CFSC) in 1997, which, although initially having “a distinctly urban orientation,” soon “became concerned with bringing visibility to the plight of small family farmers” (Maretzki and Tuckermanty, 2007). Based for many years in Venice, California, it moved to Portland, Oregon, but dissolved in 2012 under new leadership, under much controversy. Prior to dissolving, by 2011 the CFSC boasted a coalition of more than 500 organizations “dedicated to building food systems that are healthy, sustainable, just and democratic” (Community Food Security Conference, 2011). Many of the projects launched by these organizations, including by the CFSC, were supported by CFP grants (Gottlieb, 2012).

After the landmark 1996 Farm Bill legislation, CFSC and other groups expanded their reach and scope. With dozens of food-movement groups, workshops, and conferences organizing around the country, the coalition created the country’s first training and capacity-building program in 1996 for applicants and grantees of the USDA’s CFP (CFSC, n.d.-a). The CFSC later adopted the following definition of community food security: “Community food security is ... a situation 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” (Hamm and Bellows, 2003, p. 37). CFSC became the “common front for the food movement” in the U.S. (Gottlieb, 2012). At the time of its last annual conference, in 2011, CFSC had won several grants over the years from the federal government and private foundations. Its stated goals were foundational to the original framing messages of the FTS campaign. CFSC programmatic goals were:

- Develop just, sustainable, and diverse food systems
- Meet the food needs of everyone, including people with low incomes
- Promote good nutrition and health
- Revitalize local communities and build self-reliance and collaboration
- Foster community economic development and strengthen local and regional food systems
- Link farmers and consumers, and support sustainable and family-scale farming
- Promote good working conditions and sustainable livelihoods for farmers and food system workers
- Change policies and institutions to support community food security goals
- Honor and celebrate diverse cultures and traditions
- Enhance the dignity and joy of growing, preparing, and eating food

- Build capacity for people to create change through education and empowerment

—(CFSC, n.d.-a, p. 1)

These goals informed the organization’s activities, which included facilitating: CSA, farmers’ markets, community gardens, farm-to-cafeteria initiatives, community food assessments, food policy councils, community economic development, and youth programs (CFSC, n.d.-a, pp. 2–4). To further the development of farm-to-cafeteria initiatives, the CFSC focused its energies on mobilizing support and resources to advance the FTS agenda. The coalition identified the arena of school food as a viable place in which to advocate for community food security, particularly for low-income schoolchildren, and sustainable agriculture, as well as new direct-marketing opportunities for local and regional farmers (Gottlieb, 2001; Gottlieb, 2012), which ostensibly would put more dollars into farmers’ pockets. When these institutional markets are developed, the benefits to farmers are thought to spill over into their communities, where the additional income would be “invested in the local economy” (Bellows et al., 2003, p.1) through the creation of jobs (Benson and Lott, n.d.) and purchasing of supplies.

In 1997 the coalition launched the “Healthy Farms, Healthy Kids” campaign, which promoted nutritional and environmental educational programs as well as school purchases of local foods (Gottlieb, 2001, p. 264). These efforts met with mixed success as participants ran up against the challenges of establishing procurement arrangements with farmers and difficulties in maintaining school gardens, particularly in the summer months. Out of this experience, the coalition published many materials to further the cause of FTS, including a guide for schools, farmers, and organizers (Kalb et al., 2004); survey templates to collect data from students, parents, teachers, school food service directors (SFSDs), and farmers to assess interest in FTS (Kalb and Larsen, 2005; National Research Center, 2004); and a federal policy advocacy handbook (Ebright and Borron, 2007). Ideas expressed in FTS documents, from the early 2000s until now, have informed FTS advocacy and policy development at local, state, and federal levels. Key ideas disseminated by the CFSC include farmers’ benefiting from “increased sales opportunities” provided by the “steady, predictable” school-food market (Kalb and Larsen, 2005, p. 1). In addition to the CFSC, other NGOs developed guiding documents, including the National Sustainable Agriculture Information Service (see Bellows et al., 2003) and the Institute for Agriculture and Trade Policy (see Berkenkamp, 2011).

Origins of the First FTS Programs: Governance and Funding

FTS advocates typically distinguish between “top-down,” or government approaches toward program implementation, and “bottom-up,” or grassroots origins of FTS projects. However, the empirical reality of FTS project and program origination, implementation, and administration is more complicated. It is characterized by coordination and collaboration among actors from various administrative levels and sectors of society and economy who draw upon several types of funding sources. These actors are from both the top and the bottom, from academia and government as well as from inside classrooms and school cafeterias and from food-system reform NGOs. Many grassroots projects have been launched thanks to grants from state, federal, or private funding sources, and more often than not, neither farmers nor schoolchildren have clamored for the initiation of FTS programs; rather, children have participated by default, because their schools do, and farmers have enrolled in program participation only after state, academic, or NGO actors have presented the idea to them.

The boundary between top-down and bottom-up approaches to FTS initiatives is blurred when staff members at privately funded NGOs write the model legislation eventually adopted by public entities, whether it is a city council, state legislature, or the U.S. Congress. Since the goal of much environmental and food-system activism is, however, to effect eventual policy changes, or to institutionalize their desired reforms, one may describe the work to build new agrifood systems as a process of democratic engagement, in the absence of statutes to guide, shape, and direct such work. In other words, putting “public pressure on legislators” can result in the passage of laws that change some aspects of the food system (Fisher, 2007). However, genealogies of such incremental reforms must identify which groups put pressure on legislators and what interests they represented, as well as the funding sources of their efforts, if research is to scrutinize where power is exercised in processes of democratic engagement.

One of the graduate students who researched and wrote *Seeds of Change*, Andy Fisher, eventually became the executive director of the CFSC. One of his UCLA advisers, Robert Gottlieb, went on to an academic appointment at Occidental College in Los Angeles. Under Gottlieb’s directorship, the Urban & Environmental Policy Institute (UEPI) propelled the development of FTS programs in California forward through its Center for Food and Justice (CFJ) in collaboration with the CFSC; Fisher effectively situated the concept of FTS within the overarching concept of community food security (Kalb, 2011¹). A grant from the W.K. Kellogg Foundation supported UEPI’s efforts to grow FTS in California from 2002 to 2006, and a second grant in 2007, for \$2.4 million, enabled UEPI to create a national FTS network (UEPI, 2008). The Kellogg grants funded the creation of the NFSN’s website and the establishment of regional offices to serve as clearinghouses of information, guidelines, and technical advice; the grants enabled the CFJ to lead the NFSN in collaboration with the CFSC for years until 2011, when the network entered a new stage of development (Kim, 2011).

Three of the First FTS Programs

Three early FTS programs provided exemplars in the formation of actor networks and funding sources. The first exemplar comes from Hartford, Connecticut. In 1978 the city of Hartford supported the formation of a new NGO, the Hartford Food System (HFS), focused on using a systems approach to ameliorate the causes of hunger and poor nutrition among the city’s residents (Gottlieb and Joshi, 2010; HFS, 2016). Among its inaugural projects was one of the country’s first FTS programs. Its first executive director, Mark Winne, became a renowned alternative food-systems activist and author (see Winne, 2008a; Winne, 2010). Grounded in a philosophy of community food security, the HFS continues to “fight hunger and improve nutrition” (HFS, 2016). For more than 30 years the HFS has launched dozens of projects that have addressed an array of issues concerning the cost, quality, and availability of food (HFS, 2016).

¹ Marion Kalb. Untitled remarks (spoken on stage at the plenary session of the Community Food Security Coalition’s 15th Annual Conference, “Food Justice: Honoring Our Roots, Growing the Movement,” Oakland, CA, November 6, 2011).

After assuming the post of HFS executive director in 1979, Winne set about to create “a highly integrated local food system” patterned after the proposals in the 1978 book *Food for People, Not for Profit* by Michael Jacobson and Catherine Lerza (Winne, 2008a, p. 13). Lerza had also authored a “food action plan” for the City of Hartford, and Winne was eager to launch initiatives based on the plan’s ideas (p. 13). The plan proposed to implement and integrate known types of AAFIs at the neighborhood level, so that, for example, every neighborhood would have a farmers’ market, community garden, greenhouse, cold frame, rooftop garden, co-op stores and warehouses, food-buying clubs, and a food-processing center. Activists perceived these to be “self-help approaches” that would reduce annual household food expenditures by between \$300 and \$500 a year (p. 14). The farmers’ markets and FTS projects were intended to increase demand for the products of Connecticut farmers.

The second exemplar emerged in 1995 in North Florida as a pilot project of Florida A&M University’s Cooperative Extension services. The North Florida FTS initiative was one of three federally recognized pilots at the time, which were administered at the state level. Granting early and critical support for these pilots was a landmark report published by the USDA’s National Commission on Small Farms, *A Time to Act* (1998). In 1998 the three pilot FTS programs, in Florida, Georgia, and North Carolina, respectively, involved various USDA agencies. The report commended the Food and Nutrition Service (FNS), Agricultural Marketing Service (AMS), and Natural Resources Conservation Service (NRCS) for pursuing “marketing opportunities for small farms to supply local school lunch programs” (p. 50) and recommended that Cooperative Extension also become involved. The authors wanted these agencies to commit “to overcoming any barriers to developing this market” and encouraged the publication of results along with a manual to ensure their replication. Important to note is that this original federal support of FTS programs was couched in the context of a policy recommendation “to promote and foster local and regional food systems for the benefit of *small* farms, rural community citizens, and low-income people in rural and urban areas” (p. 49, emphasis added). FTS programs were seen as one component toward furthering this goal. Relatedly, the report also called for a feasibility study to support the creation of a federal policy that would encourage the sourcing of locally grown food for cafeterias at federal agencies, such as national parks (p. 50).

In Florida, Vonda Richardson, of Cooperative Extension at Florida A&M, along with Glyen Holmes, an outreach liaison from the USDA NRCS, contacted smallscale, low-income, minority farmers from northern Florida to encourage their participation in a training and market development program to supply food to local schools. SFSDs from the Gadsden and Jackson county school districts were also key to launching the project, which became the New North Florida Cooperative Association Inc. (NNFC). These institutional champions of the pilot program collaborated with other stakeholders to win grant and loan funding to build infrastructure while the first farmers involved “put their own sweat equity into the project” (Joshi, Kalb, and Beery, 2006, p. 6) as they sold fresh greens to Gadsden County, Florida, schools. The grant funding, in particular, was significant: The USDA AMS awarded a \$40,000 grant in 1997 and a \$30,000 grant in 1999 as critical start-up funding to expand the NNFC’s marketing activities to schools (Joshi et al., 2006, p. 7; National Good Food Network [NGFN], 2015), and the USDA’s Rural Business Enterprise Grant program awarded \$327,000 in 2001 to build infrastructure; the NNFC bought four refrigerated delivery trucks with the funding (NGFN, 2015). Since that time, the NNFC, which evolved to function less as a cooperative and more as a “producer-driven” coalition that aggregates, processes, and distributes “a few

signature crops” from smallscale minority farmers (NGFN, 2015), has funded itself. Its products—collard greens, green beans, sweet potatoes, and turnips—are sold to 30 school districts in a five-state region of the Southeast; the NNFC also markets to 60 independent retail stores, to which farmers sell produce on a more regular schedule compared with that of the school districts (NGFN, 2015). School districts and grocery stores account for approximately 90 percent of the coalition’s income.

While the NNFC moved through its initial phase, on the opposite side of the country scholar-activists at the UEPI at Occidental College in Los Angeles sought to extend to schools the key idea of a successful program that had increased access to fresh foods at the community level (Gottlieb, 2001). The idea to link consumers and farmers directly through school-food purchasing arrangements was proposed to the Santa Monica–Malibu School District (Gottlieb was a parent of a child in that school district). The UEPI proposed the creation of a salad bar in the school cafeteria featuring the produce from regional farmers. In 1997 the pilot program at one elementary school, a majority of whose children (most of them Latino) qualified for reduced-price or free meals, soon expanded to other sites throughout the district. This FTS program was seen by Gottlieb as a “pathway ... for a social and ecological food-systems approach” (ibid., p. 265) that would nurture new relationships between urban schools and farmers on the urban periphery, while advancing an environmental agenda within the public schools through school garden projects and the shortened distance that food travels to the cafeteria. From the outset, Gottlieb and colleagues set their sights high. Commenting on the initial success of the “Market Basket” program in Santa Monica school cafeterias, Gottlieb wrote (2001):

A sustainable school-food program had proven to be successful, but could that success be translated into a new framework for policy to lay the groundwork for an alternative food systems approach? Like the Santa Monica school district experience, changes needed to be institutionalized. This required not only new policies about food, environment, and schools. It also meant participation by those impacted by new programs and policies, and a change in discourse where the concept of eating healthy also meant enjoying the food, feeling empowered to make choices, and connecting with the farmers and with the process of growing food. (p. 268)

Although the Santa Monica–Malibu example has been much celebrated by scholar-activists (Feenstra and Ohmart, 2012), missing from the story-telling are details of the farmers and farms involved. And while all three of these early FTS programs were conceived as ways to improve conditions for economically disadvantaged citizens (to help alleviate hunger among the poor in Hartford; to expand economic opportunities for limited-resource, minority farmers in North Florida; and to provide greater access to and appreciation of fresh produce among low-income schoolchildren in Santa Monica), the framing discourses for these three programs differed from each other. In particular, the NNFC and the Santa Monica–Malibu cases emphasized benefits to different populations: rural farmers in Florida and urban schoolchildren in Santa Monica. On the one hand, benefits to producers were emphasized, while on the other, benefits to consumers were highlighted.

As these examples show, to distinguish between top-down and bottom-up approaches to FTS initiation and implementation is misleading. The impetus to launch these first FTS programs came not from smallscale farmers or

schoolchildren but from strong institutions, some with the support of various municipal, state, or federal agencies and national NGOs (see Table 2.1). FTS champions emerged from these institutions and shaped the development and governance of incipient FTS projects. Government entities, NGOs, and institutions defined the problems that the FTS food-procurement model was intended to address. Significantly, the awarding of the Kellogg grants to the UEPI laid the foundation for FTS framing discourse to become largely controlled by scholars and activists who had

Table 2.1. Characteristics of Three of the First FTS Programs in the U.S.

	Florida	California	Connecticut
Pilot’s launch year	1995	1997	1978
Site	North Florida farms and schools	Santa Monica–Malibu Unified School District	City of Hartford
Initiating actors	Florida A&M Cooperative Extension; USDA AMS	CFSC; Center for Food Justice at the UEPI, Occidental College	City of Hartford; Hartford Food System
Launched from the top down or bottom up?	Top down	Top down	Top down
Funding sources for launch	USDA AMS; USDA Rural Business	NGOs	City of Hartford and an NGO
Targeted beneficiaries of local foods	Small, minority farmers; rural community; low-income people in rural and urban areas	Low-income, public-school students; regional farmers	Poorly nourished, low-income residents; farmers in Connecticut
Supportive, foundational documents	USDA’s National Commission on Small Farms’ “A Time to Act” (1998)	“Seeds of Change” report (1993)	“A Strategy to Reduce the Cost of Food for Hartford Residents” by Catherine Lerza (1978); <i>Food for People, Not for Profit</i> by Jacobson and Lerza

been involved with the launch of the Santa Monica–Malibu FTS model, which had emphasized improvements to school food, in contrast to the NNFC FTS model, which had emphasized increased market opportunities for smallscale, minority farmers.

The rationale to create direct-market opportunities for farmers came from academic, nonprofit, and government institutions, not from individual farmers or farmers’ groups, collectives, or cooperatives. Resource mobilization and leadership in the initial pilot programs came from the top down, not the bottom up. More often than not, as the idea

for the FTS model has diffused across the country, programs have been initiated by local elites (which have included universities, government agencies, and NGOs operating at various levels—local, regional, state, or federal) and/or by school districts.

The distinction between top-down and bottom-up origins for any food-localization effort is important because of processes of path dependency. Key actors and champions involved in start-up efforts, for example, may continue to be involved as programs mature, to the exclusion of actors interested in participating later. Moreover, as a project writ large on the landscape of AAFIs, it matters whether a food movement is propelled from the bottom up by grassroots stakeholders or directed and managed from the top down by a professional class of marketers, government employees, and researchers. In the cases of Florida and California, labor and material support from university personnel telegraphed top-down leadership at the outset, even though, in the case of Florida, the effort was eventually led by farmers.

The Small Farms/School Meals Initiative/DoD Fresh

A prior existing, well-developed, food-procurement and distribution system to federal institutions such as “military bases, federal prisons, and veterans hospitals” (Poppendieck, 2010, p. 104, 105) led to a partnership between the DoD, FNS, and AMS in the 1994–95 school year to supply fresh produce to schools in eight states (USDA, FNS, 2000). Within two years, the project had expanded to 32 states. As a result of this success, in 1997 the USDA/DoD partnership launched its Small Farms/School Meals Initiative as a pilot program in North Carolina (USDA, 2000). The Small Farms/School Meals Initiative was conceived as a collaborative effort that would involve local, state, and federal groups, organizations, and agencies. It initially worked by empowering the DoD to purchase fresh fruits and vegetables from individual farmers or farmers’ cooperatives on a state-by-state basis and giving SFSDs in those states the option of purchasing these foods. Its core mission was framed thus:

“The Small Farms/School Meals Initiative is an important step toward improving both the economic stability of small farmers and the long-term health of children in our school systems. The farmers are able to sell fresh produce to local schools for use in their meal programs, and children get the benefit of adding fresh fruits and vegetables to their diets. It is a win-win situation for everyone involved.”—Shirley Watkins, Under Secretary for Food, Nutrition, and Consumer Services, U.S. Department of Agriculture (USDA, 2000, epigraph; quotes are in the original)

Similar to the framing of the initial FTS efforts promoted by the CFSC, the USDA/DoD framed its efforts as a strategy to connect school cafeterias with *small* farms. The National Commission on Small Farms endorsed the initiative in 1998.

Over time, the DoD program has undergone some changes. The Small Farms/School Meals Initiative is now called DoD Fresh. Schools may use their USDA entitlement dollars to purchase fresh produce from the program, which is now managed by the Defense Logistics Agency (Defense Logistics Agency [DLA], 2016; USDA FNS, 2015b). The food-procurement structure of the program has changed significantly since it was first launched. In 2006 the DoD began to “outsource its procurement, storage, and delivery to commercial vendors” (Poppendieck,

2010, p. 309), essentially privatizing the program. More than 45 produce vendors in the U.S. are contracted with the DLA to provide produce supplied by contracted growers in their specified regions (USDA FNS, 2015b). These vendors are not required to purchase local products but only “encouraged” to do so, resulting in just 15% to 20% *local* produce offered by DoD Fresh to schools in its purchasing catalog (USDA FNS, 2015b), while commodity foods (now called USDA Foods) may be sourced from anywhere in the country or U.S. territories.

The definition of local varies according to the vendor. It could mean that the produce is sourced from within the same state as the school or from adjacent states. To increase the demand for local foods on this program, the USDA exhorts states and school districts to be proactive:

States and schools looking to purchase local foods through DoD Fresh should start by looking for products already marked as local in the ... catalog. States or schools can also contact their DoD Fresh produce vendor to find out which local products the vendor expects to carry throughout the year. ... States or schools should determine what additional products they would like to buy locally and make those desires known to their DoD Fresh produce vendor. —USDA, FNS, 2015

The above recommendations underscore the deepening of public-private coordination that has shaped the direction of school-food governance in recent years and arguably demonstrate processes of devolution to lower administrative units. In addition to exhorting schools on the NSLP to request locally grown foods, the USDA suggests that “states and schools” actively engage in building their own local-foods networks with these private vendors:

Finally, states and schools should consider connecting their state departments of agriculture, or other farm to school contacts, with the DoD Fresh vendor in their area. These contacts may have suggestions for producers the vendor can source from, or may be able to provide information about what products schools want to see on their cafeteria trays. —USDA FNS, 2015a

In the absence of a designated FTS program, then, schools are asked to demonstrate a demand for local foods by requesting them from DoD produce vendors. The emphasis in these USDA recommendations is on local foods. *Local* itself becomes a marker of value and alterity. In this logic, local connotes freshness and proximity, and by extension, community. The emphasis on sourcing from smallscale growers has been deemphasized or eclipsed along the way. As in the discourse of the NFSN, the qualities of localness and freshness have been separated over the years from the original CFSC emphasis on supporting sustainable agriculture and smallscale growers.

Small Farms and Community Food Security

Discourses about sustainable food systems and community food security reveal initial intentions to promote FTS as a vehicle for social, economic, and environmental change. Although the USDA originally framed its Small Farms/School Meals Initiative in terms of market relations not reflective of a universal shift in policy, the department demonstrated the government’s willingness to support an alternative market arrangement by lending support personnel and guidelines for a handful of pilot programs. The USDA’s generative report, *A Time to Act*, recommended the development of direct-marketing arrangements: “USDA should develop an interagency initiative to promote and foster local and regional food systems featuring farmers’ markets, community gardens, Community

Supported Agriculture, and direct marketing to school lunch programs” (USDA National Commission on Small Farms, 1998, p. 10). The impetus to develop these direct markets arose from the commission’s desire to spark a “sustainable rural renaissance ... anchored in a vibrant, dynamic, small farm sector” (p. 6). The commission recognized America’s small farms as the “cornerstone” of the country’s agricultural and rural economy and acknowledged that federal farm programs had been “historically ... structurally biased toward benefiting the largest farms” (p.14). This bias included more than 60 years of federal subsidies to commercial growers of commodity crops (Lyson, 2004; McKibben, 2007) while small- to midscale growers of other foods, such as fruits and vegetables (deemed “specialty crops” and thus ineligible for government subsidies [Mortazavi, 2011]) were squeezed out of much market participation. Over the last 20 years, however, the USDA has implemented policies not only to strengthen the viability of small farms and improve children’s nutrition (Kish, 2008b) but also to embrace the framework of community food security (Andrews, 2008).

Geographic Preference

The 2002 Farm Bill allowed institutions receiving funds through the USDA Child Nutrition Programs, which include the NSLP, to specify a local geography for food purchases, but confusing guidance from the USDA caused many districts to understand that such preferences were disallowed (CFSC, n.d.-b). In summer 2008, the USDA issued a clarification of the rule. The new “geographic preference” provision, effective October 1 of that year, allowed schools and other institutions operating USDA Child Nutrition Programs “to apply a geographic preference when procuring unprocessed locally grown or locally raised agriculture products” (Long, 2008). The NFSN, at the time still a collaborative program of the CFSC and the CFJ at Occidental College, heralded this change (Kalb, 2008), which represented the realization of one of the network’s goals. The geographic-preference provision has become a cornerstone of the initiation and continuance of FTS programs around the country.

State FTS Programs: Heterogeneity of Governance Forms

The notion that childhood nutrition and local food economies could both be improved by connecting schools and farmers directly through new market arrangements became a policy objective in state legislatures around the country. As model policy language was communicated from the CFSC and the NFSN to privately funded NGOs in the states, these latter groups proposed model legislation for their legislative bodies. Supportive wording encouraged not only procurement by schools of locally or regionally grown foods but also grant programs to establish school gardens, nutrition-centered curricula, and pilot FTS programs, as well as task forces and food policy councils to develop strategies to develop local-foods economies. Proposed legislation also promoted farm visits by schoolchildren, detailed guidelines for local-foods purchasing, and encouraged state agencies, many of them departments of education or agriculture, to promote locally grown foods. Such disparate proposals demonstrate the wide variability of FTS programming and the array of entities involved in FTS governance. Proposed FTS bills have been many, and not all have been passed. Where bills have become law, funding for various types of FTS programs, whether educational or nutritional, has come through appropriations, grants, or other state funding (NFSN and the Center for Agriculture and Food Systems, 2015, p. 8).

Oklahoma: One of the First State-Coordinated FTS Programs

By the end of 2014, 40 U.S. states had enacted some type of FTS legislation (NFSN and the Center for Agriculture and Food Systems, 2015, p. 8). Oklahoma was one of the first to pass a statewide law establishing a FTS program. The initial study to gauge interest in such a program was conducted as a joint project of the nonprofit Kerr Center for Sustainable Agriculture in Poteau and the Oklahoma Department of Agriculture, Food, and Forestry (ODAFF) in Oklahoma City (McDermott, 2003); together, the nonprofit and the state agency founded the Oklahoma Food Policy Council (OFPC) in October 2001, which comprised 27 Oklahomans who represented diverse groups (detailed in Chapter 2). The council advised the Oklahoma commissioner of agriculture, then serving during a Democratic administration under governor Brad Henry, on food policy issues (McDermott, 2003). (Oklahoma's FTS Program was implemented during a Democratic administration, which lasted from January 13, 2003, to January 10, 2011.) The council produced the *Oklahoma Farm-to-School Report 2003* as a joint project of the Kerr Center and the ODAFF, in partnership with the USDA Risk Management Agency (McDermott, 2003). The report not only set a policy agenda for the creation of a statewide FTS program but also included the results of a statewide survey of institutional food service providers.

The OFPC's report paved the way for the establishment of Oklahoma's first pilot FTS program, in 2004, which served seedless watermelons to schoolchildren in four school districts initially and in six districts in 2006. At that time, partnerships between the state departments of Human Services; Education; and Agriculture, Food, and Forestry, as well as with the Kerr Center, ensured that the pilot programs got off the ground (ODAFF, 2014). Other entities involved in launching the program were the USDA FNS, Southwest Region, and the DoD Fresh Produce Program office in Ft. Worth, Texas. The SFSDs in the four pilot school districts also participated. The involvement of these state and federal entities reflects the top-down nature of the governance of the program from its inception.

Prioritizing improved child nutrition and childhood obesity reduction in Oklahoma, the nonprofits Oklahoma Institute for Child Advocacy and the Oklahoma Fit Kids Coalition endorsed the establishment of the program (Kerr Center for Sustainable Agriculture, 2006). The watermelons were sourced from a producer-owned, commercial company in western Oklahoma, which continues to participate in the statewide program. After the success of the pilot, a 2006 law established the ODAFF as the lead agency (Oklahoma Sessions Laws, 2006) and housed the program within the Market Development Division. Once the FTS Program had been legislated, the OFPC dissolved for a number of years. The law had created a full-time position in the ODAFF to develop a market for FTS and help coordinate FTS activities. After 10 years, about 60 of the state's 516 school districts participate in the statewide FTS program. The inaugural FTS coordinator worked tirelessly for several years to facilitate market relationships between growers and school districts. Under a Republican state administration, however, there have been many personnel changes in the FTS Program, with the original full-time coordinator, who championed the FTS model, leaving, and a succession of individuals filling the post with periods of vacancy in between.

Convergence of Federal Policy and FTS Campaign Goals

The message to improve school food, one of the marketing pillars of the FTS campaign, converged with voices of others in the school-nutrition community to culminate in the Healthy, Hunger-Free Kids Act (HHFKA) of 2010 as part of the quinquennial Child Nutrition Reauthorization (CNR) process. The HHFKA was championed by First Lady Michelle Obama in conjunction with her Let's Move! Campaign and was signed into law by President Barack Obama in December 2010. This legislation reformed nutritional standards for the NSLP and other USDA nutrition programs and provided an additional six cents reimbursement per meal for qualifying schools, the first increase in 30 years (Mortazavi, 2011). During the same time period, the Economic Research Service of the USDA announced a partnership with the NFSN. Significantly for the FTS campaign, Section 243 of the HHFKA established a national FTS program within the USDA. A significant component of that section was the allocation of \$5 million annually for a competitive grant program to support nascent FTS projects. The money is not only for the food-procurement component of FTS but also for the curricular, supporting FTS "training, planning, and ... partnerships," as well as kitchen equipment, school gardens, and field trips to local farms (USDA, 2015b). In its first three years, the grant program awarded 221 grants, funding one in five applications (NFSN Staff, 2015). Because of the robust demand for the program, the bipartisan Farm to School Act of 2015 was introduced in Congress in February 2015 as part of the 2015 CNR. It proposed, among other things, to augment the grant funding from \$5 million to \$15 million. In 2014 the USDA announced that it had placed seven FTS coordinators in regional offices around the country "to help build direct relationships between small- and midsized producers and school districts" (USDA, Office of Communications, 2014). This wording reveals a potential return to one of the original goals of FTS efforts in the late 1990s and early 2000s with an emphasis on small- and midscale producers.

School Expenditures on Local Foods:

The data disseminated by the USDA's FTS Program are collected from a census of U.S. school districts. The 2015 Farm to School Census found that school districts, on average, had spent 11% of their school-food budget "on local foods during the 2013–2014 school year with most districts purchasing local fruits and vegetables, followed by local milk, baked goods and other dairy products" (USDA, FNS, 2016c). Schools purchase locally produced food through the various channels available to participants in federal nutrition programs. These channels include distributors, individual food producers, food processors and manufacturers, USDA Foods, and vendors on the DoD Fresh Program (USDA, FNS, 2016b). The FTS Census combines all monies spent on purportedly locally produced food, asserting that together these amounts exert multiplier effects at the community level. Payments made to many of these entities, however, are not direct payments to farmers, nor is it clear what the geographic distance is between the schools that make these payments and the recipients of them. Distributors, for example, have large operations usually located in a state's major metropolitan areas; they may be located hundreds of miles from school districts. Many farmers do not live on or near their farms, and some farmers do not live in the state where their farm holdings are situated. The conclusions drawn from the FTS Census presume that schools' purchases of local foods help local economies, and anecdotal quotes from success stories are given to support the claim (USDA FNS, 2016b). On a USDA FTS Program web page in 2016, the rationale of the claim that FTS boosts rural economies is stated thus:

When schools purchase local foods, their purchases trigger even more local economic activity. In fact, the faster a dollar circulates in a defined region, the more income and benefits it creates beyond the school cafeteria. Imagine a school buying local fruits and vegetables from a nearby farmer. The farmer then buys seeds and other supplies from the local feed store, which in turn hires local employees, who wear uniforms made by a local manufacturer. — USDA FNS online (2016b)

The quoted passage assumes that the school and farmer occupy “a defined region” and that the monies spent by schools on local foods are directed into the local communities where farms are located. This line of reasoning is problematic along a few dimensions. First, a farm located in the same region as a school may be owned by a farmer who does not live there and may have limited interest or motivation in re-investing school-food dollars in the community. Second, when schools purchase foods from distributors, USDA Foods, and the DoD Fresh program, the distributors’ operational bases are likely to not be located near the producers of such foods. Third, sales to farms through FTS programs lump the sales figures into a total number that does not differentiate between types of farms to which the FTS dollars flow. From these numbers one cannot discern, for example, whether the money is being paid to large commercial farms or to small- to midsize farms. Fourth, there is no mention of farm labor. I argue that the FTS campaign tends to romanticize the role of the farmer, rendering invisible questions of how the farmer structures his or her labor force and whether farmworkers are treated fairly and justly.

The Physical Setting of Oklahoma

The land of Oklahoma slopes eastward. Elevations above 4,000 feet are found in the western reaches of the Panhandle, while points in the southeastern corner are just a few hundred feet above sea level. The high and dry Panhandle region bears no physical resemblance to the lower, wetter Little Dixie of the Ouachita Mountains and



South Central Plains. In many regions across this diverse landscape, red soils and reddish clay subsoils imbue the state with a sense of identity. In 1987, reddish “port silt loam” was designated the state soil (Armstrong, 2011). “Red dirt” (see Figures 2.2 and 2.3), as Oklahomans like to call the earth beneath their feet, signifies a sense of place. An eponymous

Figure 2.2. End-of-season okra stands in neat rows in the red soil of northcentral Oklahoma in October 2011. *Photo:* Author.

genre of country-folk music thrives in the Sooner State. Stillwater hosts the annual Red

Dirt Film Festival, and Oklahoma City is home to the annual Red Earth Native American Cultural Festival.

“Oklahoma” connotes the color red: It derives from two Choctaw words: *okla*, meaning “people,” and *humma*, meaning “red” (Oklahoma Tourism and Recreation Department, n.d.).

Port silt loam graces the state along with 40 other types of soil identified and surveyed by geologists (Carter and Gregory, 2008). These diverse soils join the state’s varied patterns of climate, terrain, hydrology, elevation, vegetation, and land use to shape the conditions under which farmers and ranchers engage in agricultural activities.

Oklahoma’s exceptionally rich diversity of ecoregions among U.S. states (Woods et al., 2005; TravelOK, 2015), from the High Plains and Southwestern Tablelands in the west to the Cross Timbers, Ozark Highlands, and Boston Mountains in the east, provides agriculturalists with a natural environment in which to grow a huge array of crops and animals—when weather and climate permit.

Elevation, latitude, and proximity to the Rocky Mountains and the Gulf of Mexico contribute to considerable variation in mean temperatures and growing seasons. The mean annual temperature and the length of the growing season increase from north to south (Woods et al., 2005), giving farmers an average of 24 frost-free weeks in the northwestern Panhandle and 33 frost-free weeks in the southern parts of the state along the Red River (Johnson, 2008). The growing season for fruits and vegetables is defined by these frost-free periods, and farmers must plan accordingly (Johnson, 2008). In addition, in normal years an east-west precipitation gradient shapes agricultural practices: Eastern areas may average up to 55.71 inches of precipitation annually, while parts of the Panhandle may see less than 17 inches on average (Johnson, 2008). Mixed farming of vegetables, fruits, nuts, sod, and livestock are largely found east of the 30-inch isohyet down the center of the state, while wheat, livestock, grains, and sorghum production are seen from the center westward. Range grazing lands can be found in several regions (Armstrong, 2011). Principal rivers are the Cimarron, Canadian, Arkansas, and Red, which all flow in a southeasterly direction.



Figure 2.3. Red Rock Canyon State Park in southwestern Oklahoma offers camping spots and hiking trails, providing a tranquil respite. *Photo:* Author.

Oklahoma is subject to an array of hazards, which make farmers vulnerable to significant economic losses. Extreme variations in temperature from place to place, unpredictable weather, and being situated in Tornado Alley (Johnson, 2008) mean that “farmers deal with very unpredictable seasons, making for constantly changing plans for raising and changing crops and livestock in an attempt to turn a profit” (Hoskins, 2014, p. 1). In addition to tornadoes, hazards include severe thunderstorms, flooding, drought, wildfires, pest invasions, and earthquakes. During my period of fieldwork, Oklahoma was in the throes of an intense drought, which lasted from 2010 to 2015, with extended periods of extreme or exceptional drought as defined by the U.S. Drought Monitor, gripping almost the whole state (see Figure 2.4). Because of the ongoing drought, in January 2013 the USDA “issued disaster declarations for all 77 Oklahoma counties” (State Impact, n.d.). Such declarations are important to farmers because it makes low-interest loans available to them. The state’s agricultural sector lost \$1.67 billion in 2011 (Elliott, 2012), with farmers posting record-low harvests for oats, sorghum, cotton, watermelons, and alfalfa hay that year (USDA NASS, Oklahoma Field Office, 2015). Further compounding the hazards that Oklahomans faced, the drought made conditions ripe for wildfires, and in 2012 many areas in Oklahoma burned, causing great property losses.

In contrast to the hazards of extreme drought, storms also wreak havoc in the Sooner State, and sometimes the state oscillates between the two poles of too dry and too wet. Unusually heavy rainfall from a slow-moving storm on May 24 to 26, 2015, triggered record-breaking floods. That storm was one of several that made May 2015 the wettest month of any in the state’s history (Oklahoma Climatological Society, 2015). More catastrophic flooding occurred from the effects of Tropical Depression Bill in June 2015. In spite of such historic precipitation events, the drought-relieving rains of 2015 came too late for Oklahoma wheat farmers. The 2014 wheat harvest was just one-third of a typically good year (Wertz, 2015). “Flash drought” returned during an abnormally dry, hot September 2015, “envelop[ing] nearly 17 percent of the state by month’s end” (McManus, 2015). Areas in southcentral and southeastern Oklahoma that had received record amounts of rainfall from April through July suddenly found themselves again in drought or abnormally dry conditions.

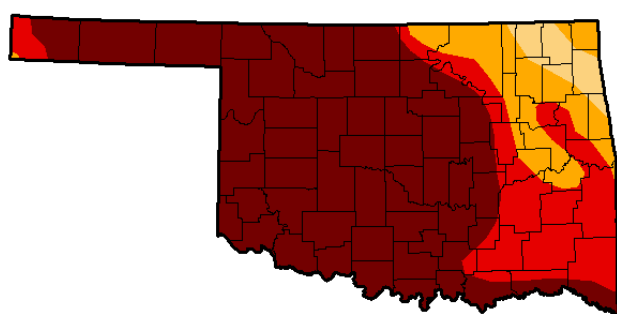
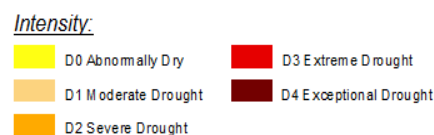


Figure 2.4. This map depicts drought intensity in Oklahoma as of August 23, 2011. *Source:* U.S. Drought Monitor. *Author:* E. Luebehusen, USDA.



The Population of Oklahoma

Oklahoma is uniquely positioned as part of the Midwest, Southwest, West, or South, depending on which standard is used to make the determination. Its transition from Indian Territory to Twin Territories to statehood involved an influx of white and black homesteaders who came to claim land made available from federal actions that reneged on promises made to the American Indian tribes. At the end of the Civil War, there were approximately 50,000 American Indians, 8,000 former slaves, and 2,500 whites in the Indian Territory (Baird and Goble, 2008). By the turn of the 20th century, after the federal government had opened up Indian Territory in a series of “land runs,” the population of American Indians had not risen, while that of whites had mushroomed to 302,000 and of blacks to 36,853 (p.126). Several generations later, Oklahoma remains a racially and ethnically diverse state while it becomes home to an increasing number of Latino immigrants (Borgerding, 2012).

Oklahoma’s racial diversity, when measured at the county level, is greater than that of most Midwestern states. Oklahoma shares this level of diversity with the southern tier of the U.S. from coast to coast, where county-level racial diversity is greater than in the Midwest, Appalachia, and much of New England (Olson, 2014). Estimates from the U.S. Census Bureau in 2014 revealed that of Oklahoma’s nearly 3.9 million residents, the population of Hispanic or Latino residents had increased to 9.8% from 5.2% since the 2000 Census (U.S. Census Bureau, 2015a; U.S. Census Bureau, 2015b). Proportionately this increase is greater than the increases for blacks (from 7.6% in 2000 to 7.7% in 2014), American Indians (from 7.9% in 2000 to 9% in 2014), Asians (from 1.4% in 2000 to 2.1% in 2014),

Native Hawaiians (from 0.1% to 0.2%), and two or more races (from 4.5% to 5.9%). From 2000 to 2014 whites alone declined from 76.2% to 75.1% of the state's population; when whites only without Hispanic or Latino ethnicity were counted, the decline was more pronounced, from 74.1% to 67%. Oklahoma has the second highest percentage of American Indians among the U.S. states (CDC, 2015a).

American Indians figure prominently in the history, demographic composition, economy, culture, and society of Oklahoma. Of the 67 tribes that were forcibly relocated between 1828 and 1887 to Indian Territory, which became Oklahoma in 1907, 39 remain today. Their treatment by the federal government has been fraught with events and processes of betrayal and erasure, which diluted and fragmented their traditional tribal values and systems of governance during at least the first 60 years of statehood and contributed to deep poverty and lack of opportunity (Debo, 1940; Morgan, England, and Humphreys, 1991; Walker, 1994). Since the 1970s, however, many Indian nations have been steadily making strides to renew their customs, forms of governance, and societies, experiencing a renaissance after the effects of a "policy of self-governance" began to take hold (Harden, 2004; Oklahoma Tourism & Recreation Department, n.d.). Tribal economies are improving and their cultures are being revived.

Oklahoma Agriculture

Between the 2007 and 2012 Census of Agriculture, the number of farmers in Oklahoma declined 7.3% from 86,565 to 80,245. This decline, however, does not tell the whole story. When the change in numbers of farmers across racial and ethnic categories is scrutinized, a more complex pattern emerges. In the broad categories, declines occurred only among white farmers and those who reported more than one race. The number of white farmers, for example, declined 6,770, or 8.9%, from 76,058 to 69,288. The number of principal operators among those reporting more than one race shrank by 269, or 12.9%, from 2,083 to 1,814. In contrast, the numbers of principal operators from racial minorities and Hispanic principal operators increased between 2007 and 2012 (USDA NASS, 2012a). The percentages of the state's American Indian, Black, and Asian principal farm operators rose 6.16%, 20.34%, and 15.85%, respectively. The increase was greater among the state's Hispanic or Latino farmers: 49.6%. The increasing diversity of Oklahoma's farmers is consonant with a national trend in which percentages of American Indian, Black, and Asian farmers rose 9%, 9%, and 22%, respectively, from 2007 to 2012 (USDA NASS, 2014). Nationwide the percentage of Hispanic principal operators rose 21%.

The latest report on Oklahoma's economy reveals that the agriculture, forestry, fishing, and hunting sector contributed 1.1% to the state's gross domestic product in 2014 (Evans, 2015). In terms of the number of acres of land in farms, Oklahoma ranks 8th in the nation, while it ranks 4th in the number of farms (USDA NASS, 2012b). I will focus only on agriculture, since farmers are the topic of this dissertation. General trends in Oklahoma's farmers are that the number of farms declined from 83,200 in 2010 to 79,600 in 2014, while the acreage in farms declined only very slightly from 34,700,000 acres to 34,300,000 acres during the same time (USDA NASS, Oklahoma Field Office, 2015). These trends taken together likely indicate consolidation of farmland into the ownership of fewer proprietors. Of the total number of farms in 2014, 75,200, or 94.5%, earn less than \$250,000 a year in farm sales, placing them in the USDA-defined category of "small family farms" (USDA NASS, Oklahoma Field Office, 2015; eXtension.org, 2013). Another 3,380 Oklahoma farms have sales from \$250,000 to \$999,999 annually, while 1,000

farms sell \$1 million or more in farm products annually. Top crops in Oklahoma include winter wheat, corn for feed, soybeans, canola, rye, and sorghum, while top livestock produced are cattle and calves, hogs, poultry and eggs, and broilers. Of Oklahoma's \$1.34 billion of cash receipts for crops in 2014, just \$4.3 million, or 0.32%, were for vegetables and melons, while \$13.9 million, or 1.04%, were for fruits and nuts, particularly pecans (USDA NASS, Oklahoma Field Office, 2015).

Although farm products marketed through FTS programs sometimes include non-produce items such as whole-wheat flour or organic beef products, most of the locally grown food sourced by Oklahoma schools participating in the FTS Program are fruits and/or vegetables. Fruits and vegetables require a lot of labor to pick, wash, box, and ship them. The source and structure of labor on Oklahoma farms varies widely, and this research included queries about labor practices as part of farmer interviews. Many farmers have relied on immigrant Mexican workers for these labor-intensive crops, and while many of these workers are in Oklahoma on H-2A visas, some are undocumented. One report estimates that as of 2014, 75,000 "undocumented immigrants (mostly Mexican)" resided in Oklahoma, and that "a large number" of them were likely "working in agricultural settings" (Hoskins, 2014, p. 6). A draconian anti-immigrant law passed in 2007, which proved to be difficult to enforce, created a climate of fear for Latino immigrants and communities, causing many Latinos to leave the state (Koralek, Pedroza, and Capps, 2009; Allegro, 2013) and making it more difficult for employers to hire undocumented migrants (Hoskins, 2014).

Poverty and Hunger in Oklahoma

FTS advocates argue that FTS programs can help improve childhood nutrition and reduce rates of childhood obesity. The mechanisms that ostensibly achieve these outcomes are (1) the provision of freshly prepared school meals made with locally sourced food and (2) the inclusion of agriculture and nutrition lessons in school curricula. Income and health data reveal that Oklahoma's children would arguably benefit from these programmatic changes. Oklahoma is a state where levels of income inequality are visible on the landscape and embodied in its residents.

Wealthy neighborhoods of palatial mansions on multi-acre estates in Oklahoma City and Tulsa rival their counterparts in Beverly Hills, California, or Johnson County, Kansas. Yet a short distance from such locations of wealth accumulation, children face food insecurity, looking forward on Mondays to school meals, having gone hungry over the weekend. Exacerbating levels of hunger in the state is the fact that Oklahoma has slashed its education spending more than any other state in the union (Perry, 2016), a result of state-level tax cuts on the energy industry, which were made permanent in 2014 (Cohen and Schneyer, 2016). In 2016, these education cuts resulted in about 100 Oklahoma school districts' switching to four-day school weeks (Putnam, 2016). Fewer school days mean fewer school meals, which means that more children in Oklahoma will experience hunger more days per week, since many of their households are food insecure. (More than two-thirds of Oklahoma schoolchildren qualify for free and reduced-price school meals [Putnam, 2016].) Fewer meals also means a decreased demand for school-food procurement of any kind, much less from local farmers.

Childhood hunger in Oklahoma is likely also exacerbated by a state tax on groceries. While the wealthy folks of Oklahoma might not mind the regressive tax on food, it likely poses a burden on low-income families in the state.

Oklahoma is one of seven states that impose taxes on groceries (Center on Budget and Policy Priorities, 2009). Of these seven, five, including Oklahoma, offer offsetting tax rebates, but these may not be enough “to give eligible households full relief from sales taxes paid on food purchases” (p. 1). During my fieldwork, I paid more than 8% in state sales taxes on food purchased in grocery stores.

According to measures of poverty and food insecurity, Oklahoma does not fare well. In 2015, for example, while the official poverty rate for the U.S. was 13.5%, the rate for Oklahoma was 16.1%, ranking the state 38th nationwide (Center for American Progress [CAP], 2016). Its child poverty rate was 21.8%, placing it 35th of 50 states and the District of Columbia (CAP, 2016). Food insecurity, or a household’s “difficulty providing enough food due to a lack of money or resources” at some time during the year (CAP, 2015), rose from about 15% in 2004 (McDermott et al., 2006) to 16.5% in 2012–2014 (USDA ERS, 2015), ranking Oklahoma 44th nationwide. Factors contributing to high rates of food insecurity are inflation and rising food prices after the Great Recession of 2007–2009 (Nord, Coleman-Jensen, and Gregory, 2014).

Exacerbating such pressures on low-income families, however, are the more than \$2 billion in cuts to the Supplemental Nutrition Assistance Program (SNAP) nationwide, which kicked in on November 1, 2013 (Mortazavi, 2011; Zornick, 2013). The HRFKA mandated these cuts. This “funding offset” for the six-cent-per-meal reimbursement increase of the HRFKA effectively punished food-stamp recipients, even though it was probably unnecessary (Zornick, 2013). Improving school lunch while increasing household food insecurity is a zero-sum game when it comes to efforts to improve childhood nutrition and reduce childhood obesity. In other words, while children may have a chance to eat better at lunchtime, they may face empty cupboards for dinner at home. In Oklahoma in 2014, 608,492 people received SNAP benefits via electronic debit cards, known as EBT (USDA FNS, 2015a). They accounted for 15.64% of Oklahoma’s population.

Obesity rates in Oklahoma are relatively high compared with the rest of the country. Thirty-three percent of Oklahoma adults are obese, ranking the state 6th in the nation, while 17.4% of children ages 10 to 17 are obese, ranking the state 14th (StateofObesity.org, 2015). Rates of two diseases associated with obesity, diabetes and hypertension, have risen notably in Oklahoma since 1990. Oklahoma ranks 7th in the country for adult diabetes (12%) and 9th highest for hypertension (37.5%) (StateofObesity.org, 2015). These trends have got the attention of state officials and food-system activists, who regard the FTS program and other school-food reform efforts as approaches to improve Oklahomans’ health (McDermott et al., 2006). Trends in the consumption of fruits and vegetables among the state’s 9th through 12th graders, however, reveal that inculcating better dietary habits in them will take more time, and perhaps different approaches. Data from three time points after the inception of the OK FTS Program show that Oklahoma high-schoolers had yet to translate nutrition lessons into personal habits. Data from 2009, 2011, and 2013 showed that Oklahoma teenagers were not eating the USDA’s recommended number of servings of fruits and vegetables (CDC, 2015b; Oklahoma State Department of Health [OSDH], 2009, 2013a, 2013b). In 2009, 90% of Oklahoma youth ate vegetables fewer than three times a day (OSDH, 2009). The 2013 survey reported that 58.7% of high school students ate green salad one or more times during the seven days prior to

the survey, which was “a statistically significant decrease from 66.4% in 2003” (OSDH, 2013a), three years before the advent of the Oklahoma FTS Program.

AAFI in Oklahoma

Food-system activists in Oklahoma have been working since the beginning of the 21st century to forge direct connections between producers and consumers in a variety of ways. The early 2000s were a particularly ripe time in which several initiatives were born. These AAFIs include direct-to-consumer marketing businesses such as the Oklahoma Food Cooperative (an online local-foods and local-artisan-products buying platform launched in 2003), Urban Agrarian (a local-foods distribution company founded in 2008), the proliferation of farmers’ markets throughout the state, the Buy Fresh Buy Local marketing initiative, which was initially a project of the Kerr Center (in partnership with the Oklahoma Sustainability Network and others), and a growing agritourism industry. Other direct-marketing arrangements include CSA, farm to restaurant, and roadside stands. At the 2012 Northeast Oklahoma Regional Summit, a session titled “Rural Economic Drivers—Agriculture,” supported conversations about the potential of local-food initiatives to boost economic growth. Food-system activists, an official from USDA AMS, and representatives from the Cherokee County Food Policy Council attended.

The Oklahoma FTS Program

In October 2001, the Kerr Center and the ODAFF established the OFPC, which consisted of 27 members and ad hoc members (their affiliations are listed in Table 2.2). The council set out to identify systemic problems that might be addressed by boosting the purchase and consumption of locally grown food. FTS programming became an early priority. The USDA Cooperative State Research, Education and Extension Service (CSREES) awarded a CFP grant to the Kerr Center to produce a report that detailed the rationale for several food-localization, direct-to-consumer activities, such as FTS, farmers’ markets, and CSA.

The OFPC, along with key institutional partners, including the Oklahoma State Department of Health; the nonprofit CFSC; the Oklahoma Department of Human Services Commodity Distribution and School Nutrition Unit; the Oklahoma Department of Education Child Nutrition Program; OSU; the USDA FNS, Southwest Region; and DoD Fresh, laid the foundation for Oklahoma’s FTS Program. Also participating in the process were four SFSDs; a commercial watermelon grower; and a regional produce distribution company based in Oklahoma City.

Through surveys and reports, the OFPC built a case for a FTS program. To better understand food-system actors’ interest in farm-to-institution food procurement, for example, the OFPC surveyed food service managers at 638 institutions in the state: public schools, colleges and universities, vocational-technology schools, resorts, prisons, and hospitals (McDermott, 2006). The survey reaped a 66.8% response rate; two-thirds of these providers indicated an interest in purchasing locally produced food if the quality and price were competitive (McDermott, 2003). The OFPC then published a directory of institutions interested in buying from local growers and of Oklahoma agricultural producers interested in selling to institutions. The directory was supported by a CFP grant of the USDA’s CSREES (McDermott, 2006, p. iv).

The OFPC and its partners launched a pilot program in four school districts in 2004, which was expanded to six school districts in 2005. The pilot program supplied the Broken Arrow (a Tulsa suburb), Edmond (an Oklahoma City suburb), Shawnee (a small city in central Oklahoma), and Tahlequah (a small town in eastern Oklahoma and the capital of the Cherokee Nation) school districts with Oklahoma-grown seedless watermelons for four to five weeks at the beginning of the school year. The structure of the network employed in the pilot program is important because, I argue, it may have created a path dependency in the types of farmers to participate later in the state-legislated program.

Table 2.2. Entities Represented on the First Oklahoma Food Policy Council, Established in 2001

Name of Group or Organization	Type of Group or Organization
Kerr Center for Sustainable Agriculture	Private nonprofit educational and advocacy organization
Regional Food Bank of Oklahoma	Private hunger-relief charity
Oklahoma Dept. of Education, Child Nutrition Programs	State agency
Oklahoma Land Stewardship Alliance	Professional association of land managers focused on educational events
Oklahoma Landowners and Tenants Association	Association to provide assistance to under-served farmers and rural communities
Oklahoma Conservation Commission	State agency
Daily Oklahoman	Newspaper
Oklahoma Conference of Churches	Nonprofit group focused on spiritual care after disasters; social justice; and interfaith understanding
Oklahoma Dept. of Human Services, Commodity Distribution and School Nutrition Unit	State agency
A commercial-scale grower of grains and vegetables	Family farmer
Oklahoma Food Cooperative	Online marketing network of farmers, ranchers, artisans, customers, and volunteers
Oklahoma Farmers Market Alliance	Statewide association of farmers' markets
A public school	Public school system
ODAFF	State agency

Risk Management Agency, USDA	Federal agency
Former senator of state legislature	State legislative branch
Natural Resources Conservation Service, USDA	Federal agency
Small, Oklahoma grocery store chain	Private grocer focused on promotion of organic and local foods
Oklahoma State University	Land-grant public university
Attorney	Attorney specializing in public policy

Source: OFPC, 2008.

Supplying the four school districts in the pilot program with seedless watermelons involved these steps: (1) The SFSD placed an order for the watermelons through the Department of Human Services Commodity Distribution and School Nutrition Unit. (2) To fill that order, the ODAFF and DoD Fresh identified one western Oklahoma commercial watermelon grower to supply the product. (3) The DoD purchased the watermelons because the department contracted with growers through its own network and could assure buyers that products were of good quality. (4) The school districts purchased the watermelons with commodity funds. (5) A regional produce-distribution company based in Oklahoma City, which also had a contract with DoD Fresh, subsequently delivered the watermelons to the schools (OFPC, 2008).

Several supply-chain features of the pilot program determined the further development of the Oklahoma FTS Program. First, state and federal agencies identified the farmer to participate in the pilot. Their coordination of the purchase and distribution of watermelons from a commercial-scale grower is one distribution system among several that have been identified by FTS advocates as a viable way to increase schools' purchases of locally grown food (Bellows et al., 2003, p. 3). Second, the DoD Fresh program played a significant role in the pilot because of its distribution infrastructure. Third, the schools used commodity funds to exercise a geographic preference in purchasing the watermelons. Oklahoma's pilot FTS program, then, was at the forefront of availing itself of the correct understanding of Congress's intent regarding the rule on geographic preference. Fourth, the regional distributor sent trucks 70 miles west to pick up the watermelons that were then delivered (possibly the next day) to the four school districts on the pilot. The approximate distances from the farm to the districts were: 70 miles to Edmond, 100 to Shawnee, 185 to Broken Arrow, and 230 to Tahlequah. That the commercial grower enjoyed an economy of scale resulting in competitive prices for the regional distributor is a feature typically not benefiting small- to midscale farms. In other words, midscale farms are often caught between the two extremes of "vertically integrated, commodity markets and the direct markets" (Kirschenmann, Stevenson, Buttell, Lyson, and Duffy, 2008, p. 3; Diamond and Barham, 2012). The distances, then, that one farmer's produce traveled for the pilot program would have incurred prohibitively high transportation costs for an individual midscale or smallscale farmer to absorb. Paradoxically, those watermelons traveled 70 miles to the city and then traveled another 60 miles back to be delivered to the school that was local to where they were grown.

FTS advocacy asserts that local-food purchasing by schools will “help farmers remain on their land, restore rural communities, and enable children to connect with the sources of their food” (McDermott, 2006, p. iv). These assumptions are the bedrock of FTS framing discourse and are implied in the text of the law enacted in 2006 to establish the statewide Oklahoma FTS Program (see Table 2.3).

Table 2.3. Key Language in the Oklahoma Farm to School Program Act of 2006,
§ 5-60.2. Legislative Findings

Farm to School Programs link schools and Oklahoma farms in order to provide schools with fresh and minimally processed farm commodities for inclusion in school meals and snacks, to help children develop healthy eating habits, and to improve Oklahoma farmers’ incomes and direct access to markets....

The benefits of Farm to School Programs often include activities that provide students with hands-on learning opportunities, such as farm visits, cooking demonstrations, and school gardening and composting programs, and integrate nutrition and agriculture education into school curricula.

It is the intent of the Legislature that school districts encourage the implementation of the Oklahoma Farm to School Program, which will emphasize the purchase of locally and regionally produced foods in order to improve child nutrition and strengthen local and regional farm economies.

The legislation implies the identification of three broad societal problems that FTS was meant to ameliorate: children’s poor eating habits, depressed incomes for Oklahoma farmers, and limited access to direct markets. The law housed the program within the ODAFF, providing funding for a full-time coordinator, whose charge was “to administer and monitor the programs and activities related to the Oklahoma Farm to School Program with the advice of and guidance of a nonprofit food policy council” (Oklahoma Farm to School Program Act, 2013). The OFPC, however, was disbanded after the creation of the FTS Program. A key informant told me that the FTS Program was a priority of the council and that once it was realized the council dissolved. In 2012, however, activists were working to resurrect the statewide council.

After the Oklahoma FTS Program was established, one of the members of the OFPC became its first statewide coordinator. At the time of my fieldwork, the FTS coordinator worked tirelessly in a variety of capacities to build the state’s FTS network, fulfilling the duties of her position as they were delineated in the law. She interacted with farmers, school cafeteria personnel, distributors, schoolchildren, dietitians, and many others, striving to build a market for locally grown produce and to forge connections between these various stakeholders. She provided technical assistance to SFSDs, farmers, distributors, and processors. In addition to holding weekend trainings for school cooks to learn scratch cooking, the inaugural FTS coordinator connected growers and school districts with each other by making introductions, nurturing relationships, and communicating price information. She also produced, with grant money, a FTS cookbook for use in Oklahoma schools, as well as an educational video series to be used in K–12 classrooms.

During the first few years of the program, a significant part of the coordinator's work consisted of traveling throughout the state to give presentations to farmers and school food service professionals on the merits of FTS. As of 2012, however, the toll of consecutive, year-over-year budget cuts to the program limited the coordinator's travel and promotional activities. These cuts deepened after the 2010 election, when the Democratic governor was replaced with a Republican one. Since my fieldwork, the inaugural FTS coordinator has left the position and at least two others have served and left the position, working for nine months each as coordinator.

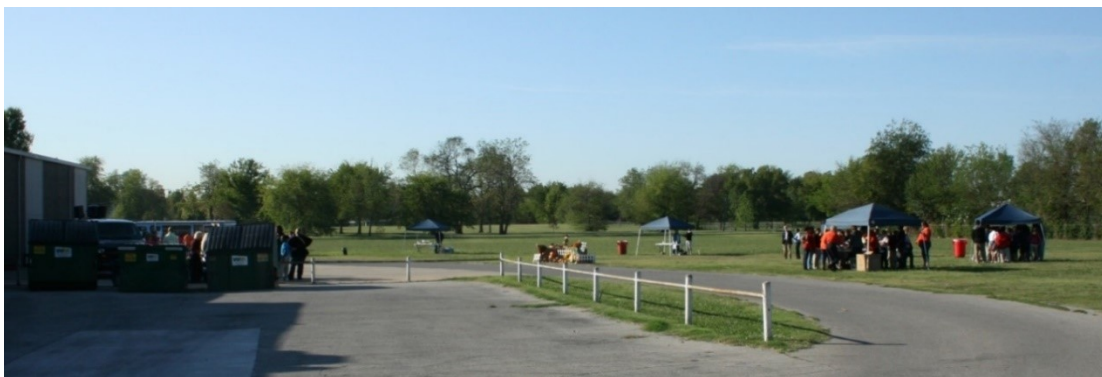


Figure 2.5. Elementary school children in east Tulsa attend a FTS educational event in 2011. October is the country's annual FTS month during which such lessons are presented and local foods are featured on the menus of participating schools. *Photo:* Author.

The FTS program is housed within the Market Development division of the ODAFF along with several other programs, including agritourism, economic development, Ag in the Classroom (AITC), Plasticulture, and Made in Oklahoma. Several of these intersect with the goals of FTS. The Plasticulture Program, for example, helps “limited resource farmers” with very small acreages obtain grants to either begin or expand production of fruits and vegetables (ODAFF, 2011). Similar to FTS's agriculture and nutrition curricular activities, AITC is a federally coordinated agricultural literacy program for K–12 education. It is administered differently state by state. In the ODAFF, there are three full-time AITC employees in the same division as the FTS coordinator. There is some coordination on classroom curricula between the two programs.

In 2012 during my second stint of fieldwork, the Oklahoma FTS coordinator distinguished between the statewide and “direct” forms of the program. Of Oklahoma's 516 school districts, about 60 participate in the statewide program, and it is unclear how many schools have direct-marketing relationships with farmers. Chapter 5 provides evidence of a handful. The curricular components of the Oklahoma FTS Program include a Harvest of the Month food item featured at school lunchtimes, farmers' classroom visits, school gardens, and FTS field days (see Figure 2.5). On field days, educational stations are staffed variously by teachers, OSU Extension nutrition educators, private-industry representatives, master gardeners, and volunteers. During these events, schoolchildren are shepherded from station to station to participate in agriculture and nutrition lessons and to sample freshly prepared food. On the field day that I attended in east Tulsa, children tasted freshly sautéed zucchini, salsa made of Oklahoma-grown watermelons, and whole-wheat products. They also learned how to make a flower pot out of newspaper, observed worms in soil, watched a cow-milking demonstration (see Figure 2.6), and received a seedling to take home for planting (see Figure 2.7).

Conclusion

This chapter has provided a context for the emergence of the FTS campaign nationally and in Oklahoma. In so doing, it has described some of the challenges that schools face in striving to improve the health of Oklahoma children and that farmers face in toiling to grow healthful food for everyone.



Figure 2.6. A Texas dairy man gave a presentation with a live cow. He squirted fresh milk at the children in the front row, who giggled. Photo: Author



Figure 2.7. Volunteers and educators prepared seedlings for the children to take home. Photo: Author.

Chapter 3. Literature Review

This literature review undergirds the research along three dimensions: thematic, analytical, and empirical. Drawing upon the literatures in the fields of rural studies, the geographies of AAFIs and movements, and the sociology of agriculture, this chapter is divided into two parts, highlighting the themes, analytical approaches, and empirical findings most relevant to the research at hand. Part One discusses some of the major analytical frameworks and debates in the study of AAFIs and movements. Part Two reviews and discusses academic literature on FTS projects and programs most germane to this study.

Part One: Analytical Frameworks in the Study of AAFIs

Structure and Agency in the Study of AAFIs

Political-economic explanations of change in the global agrifood system emphasize macroscale structural phenomena and processes. These analytical frameworks have been criticized for oversimplifying complexity and rendering “alternative voices” silent (Bonanno and Constance, 2008, p. 37). They tend to be deterministic, attributing outcomes at lower levels of analysis to economic forces at higher levels. For this reason, actor-oriented approaches are required to understand the ways in which people respond to and understand events around them, or in other words, how they exercise agency. Friedland (2008) argued that people exercise agency against a specifically identified problem or issue, expressing a “dissatisfaction with conditions of everyday life” while searching for solutions (p. 51). Individual expressions of dissatisfaction or resistance, however, are not socially significant unless and until they broaden to the “social level” (p. 51). Agency emerges from a set of social, environmental, economic, or cultural conditions which constitute a particular context.

Structure, rather than determining action, serves as the *context* for how “actors exercise agency in numerous ways” (Wright and Middendorf, 2008, p. 3). Therefore, structural and actor-oriented approaches may be productively employed simultaneously in a complementary framework. Structural approaches that examine the global political economy may help explain, for example, the geographic, economic, environmental, political, and social contexts in which people, as well as “individual firms and institutions in localities,” choose to act or not (Ward and Almås, 1997, p. 621). Studies employing such a complementary framework may emphasize local-level expressions of “global processes” (p. 621), giving rise to the formulation of “hybrid categories” (Winter, 2005, p. 610) in which food-supply chains may be evaluated for the overlap observed among network actors, both human and nonhuman, in “hybrid spaces” (Ilbery and Maye, 2005, p. 823).

Ilbery and Maye (2005) applied the concept of *hybridity* to food-supply chains to describe their observations that features of both alternative and conventional supply chains function together in food-localization initiatives. Notions of hybridity expand the concept of “food chain” beyond a linear movement from production to consumption to movement in complex networks in all directions, like a rhizome (Winter, 2005, p. 610, citing Whatmore, 2002, Deleuze and Guattari, 1976, and Murdoch, 1998). Such a nonlinear conceptualization connects structure to actor and actor to structure, examining the ways in which the local actor extends his or her reach into the global and how the global reaches into the local.

On the other hand, actor-oriented, microscale approaches reveal idiographic, localized expressions of human agency as people disregard, resist, or respond to macroeconomic trends. These approaches foreground the social, historical, economic, geographic, and environmental relations between people and the places in which they live, as well as the relations between people in networks. Actor-oriented approaches help reveal the spaces for potential engagement, participation, and activism, or “local social action” (Ward and Almás, 1997, p. 612), precipitated by the contradictions in the larger structure, while structural approaches provide a road map indicating the potential targets of such activism. Weaknesses in the global agrifood system present openings through which people may express agency in the forms of individual and collective resistance (Hendrickson and Heffernan, 2002). By agitating for changes to the industrial agrifood system, people propose counternarratives and launch projects characterized not only by market-based transactions and exchange but also by social and ecological dimensions (Hendrickson and Heffernan, 2002). When pushing for agrifood-system reforms, people demonstrate their capacity for food *citizenship*. Citizens of food systems are “active participant[s] in the construction of alternative food networks that support sustainable local production and communities” (Lockie, 2009, p. 194, citing Baker, 2004).

Food-System Localization, Reflexive Localism, and the Global-Local Binary

Most AAFIs, including the broader farm-to-cafeteria movement of which FTS efforts are a part, valorize locally produced food and shorter distances between producers and consumers. However, there is no universal definition of the bounded space constituting “local,” as each AAFI adopts its own understanding of the term. In many places, “local” means sourcing food from within state boundaries, even when food grown across a nearby state boundary might be much closer to the purchasers of such food than food from an in-state farm. The “spatial content” of *local*, then, involves social processes of scale construction (DuPuis and Goodman, 2005; Hinrichs, 2003). In human geography’s body of work concerning the “new politics of scale” (p. 368), “territories and scales are ‘contested social constructions’” (Herod, 1991, p. 84, emphasis in the original, cited in DuPuis and Goodman, 2005, p. 368). Yet much of the advocacy literature on AAFIs and some of the academic literature falls into the so-called local trap, which Born and Purcell (2006) defined as “the tendency of food activists and researchers to assume something inherent about the local scale” (p. 195).

The local is assumed to be desirable; it is preferred a priori to larger scales. What is desired varies and can include ecological sustainability, social justice, democracy, better nutrition, and food security, freshness, and quality. For example, the local trap assumes that a local-scale food system will be inherently more socially just than a national-scale or global-scale food system. (p. 195)

They argue that “there is nothing inherent about any scale. Local-scale food systems are equally likely to be just or unjust, sustainable or unsustainable, secure or insecure” (p. 195). The social relations within any agrifood network strengthen or weaken the various “actors and agendas” that produce various outcomes (p. 196). Place matters. And the politics in rural places cannot be assumed to be purified or simple. When AAFIs remain silent “about social relationships in production, inadvertently assum[ing] or represent[ing] that rural communities and family farmers embody social justice” (Allen, FitzSimmons, Goodman, and Warner, 2003, p. 74), they fall into the local trap. AAFIs’ advocacy materials, in their silences, may fail to require that their projects engender fairness and economic and social

justice in the field of productive activities (Allen et al., 2003) because of an assumption that family and/or smallscale farmers would practice and promote just production structures, in which, for example, farmworkers are treated with dignity and respect through the practices of paying fair wages in a timely manner or providing adequate housing, when required by law.

A body of literature offers critiques on the localization of agrifood systems and calls for scholars to consider the importance of place (Bagdonis et al., 2009; DuPuis, 2006; Hinrichs, 2003; Kloppenburg and Hassanein, 2006). Places large and small are marked by processes of inclusion and exclusion (Allen, 2004) and dimensions of inequality (Morgan and Sonnino, 2008), which could be reproduced in efforts to localize the food system. For example, the processes by which shorter food-supply chains are formed might benefit affluent, large-scale growers who possess the financial, social, human, and infrastructural capital to outcompete smaller-scale producers. Local elites (their elite position may be due to access to power brokers, human capital, financial capital, and material infrastructure) may benefit from their participation in AAFIs while access to participation is hindered for others with fewer resources. Therefore, the economic gains from localization efforts might accrue to certain food-system actors at the expense of others (Morgan and Sonnino, 2008).

Localization of agrifood networks is a feature of “the restructuring of government toward ‘governance’: the devolution of decision-making to local networks of self-governing actors, coordinated through multilayered institutional structures” with effects in particular places (DuPuis and Goodman, 2005, p. 367). Remaking agrifood-system governance may incorporate “left ideals of political participation and right ideals of non-interference in markets” (p. 368). The “neoliberal form of global logic” inhering in such attempts has weakened or undone the “hard-fought government institutional capacities” in other arenas of society, such as in the regulation of utilities, corporate monopolies, or social welfare (p. 368).

The governance forms of AAFIs may be experienced as more or less fair depending upon participants’ social position and circumstances (DuPuis, 2006). For example, a farmers’ market may mandate that members sell only produce they grow themselves. If the market manager discovers that a member has been selling a cousin’s produce, that member might be kicked out of the market, even though she worked regularly on the farm to produce the product. Because new-market governance can result in both “winners and losers” (DuPuis and Goodman, 2005, p. 368), those involved in the “civic processes” of governance and decision-making must pay attention to establishing mechanisms to build trust among participants, such as writing guidelines for “openness, inclusion, and transparency” into market rules (DuPuis, 2006, p. 9).

Attention paid to such concerns of trust building and fair outcomes would constitute a *reflexive approach*. Reflexivity impels agrifood-system actors to consider, continuously, whether decisions are fair and for whom (DuPuis, 2006). Likewise, a reflexive approach to agrifood-system research requires that scholars “observ[e] real people in real places” in order to uncover the particularities of localization and governance forms (p. 10), including the content of and networks involved in decision-making processes. Both agrifood-system activists and scholars should approach their respective vocations with “an inclusive and reflexive politics in place” that embraces a

diversity of values and viewpoints while rejecting the “romantic” notion of universally shared values among AAFI actors (Goodman et al., 2014, p. 157).

In their appeal for a reflexive politics of localism, DuPuis and Goodman (2005) argued that the debate over local food systems had to be situated within “the larger debate over devolutionist forms of governance” (p. 365). Citing Lawrence (2005), they noted that shifting decision making down to the lowest levels of government can give rise to “three major political problems” (p. 365): (1) processes of localization can maintain the position of “local elites at the expense of other local actors”; (2) localization can spark competition among regions, leading to a “zero-sum solution”; and (3) “localization is not necessarily incompatible with globalization,” since its consequences may mirror on the local scale problems of inequality and inequity seen at the global scale. Shorter supply chains do not necessarily produce fairer outcomes or resolve problems of social, racial, and economic justice nor do they help mitigate the effects of systems of social, racial, and economic privilege. Nor are sustainability goals of energy reduction through the shortening of distances between producers and eaters an automatic outcome.

Hinrichs (2003) examined the practice and politics attached to notions of local food in an analysis of localization initiatives in Iowa. Contrasting *localization* and *globalization* as opposites misleadingly attributes certain traits to the terms “local” and “global,” while obscuring place-specific political and social complexities (Hinrichs, 2003; see Table 3.1). These attributions, problematically, assume that spatial relations “correspond to desirable forms of social and environmental relations” (p. 35). Farmers living close to their customers, however, are not inherently better stewards of the environment nor are they intrinsically more fair employers of farm laborers. They may become such, however, in response to more frequent direct contact with customers, who communicate their concerns and values about production methods. Therefore, if farmers implement more sustainable farming practices in the course of expanding direct-marketing arrangements they do so because of the new “social relations” that the farmer has with customers not because of any “spatial location” (Hinrichs, 2003, pp. 35–36).

Table 3.1. Attributes Associated with “Global” and “Local”

Global	Local
An economics of price	An economic sociology of quality
Commodities across space	Communities in place
Corporate profits	Community well-being
Homogenization of food habits	Regional foodways
Industrial models	Organic, sustainable, or biodynamic models
Intensification	Extensification

Large-scale production	Small-scale production
Market economy	Moral economy
Monoculture	Biodiversity
Relations across distance	Relations of proximity
Resource consumption and degradation	Resource protection and regeneration
Technocratic rules	Democratic engagement

Source: Adapted from Hinrichs (2003), p. 36.

In an analysis of the “Iowa-grown banquet meal,” Hinrichs (2003) found evidence of a defensive politics in which “regional boundaries” were invoked as a bulwark against the power of globalized agricultural markets (p. 40). Such defensive localism may encourage nativist sentiments to the exclusion of newcomers or racial or ethnic minorities. Particularly if the social gatherings at which local food is served are attended primarily by affluent local residents, localization activities ignore the possibilities of a food democracy that invites all classes of people to sit at the table together. Farm workers, for example, and farm proprietors usually occupy very different socioeconomic classes and social positions. A defensive politics of localism might imbue food-system localization efforts with subtle assumptions “about the homogeneity and common interests of local places and regions that need defending,” while opposing “heterogeneous and destabilizing outside forces, perhaps a global ‘other’” (Hinrichs, 2003, p. 37). Critical examination of these initiatives may reveal practices that exclude people of color, immigrant farmers, farmworkers, American Indian communities, low-income neighborhoods, and other marginalized groups from opportunities to gain access to healthful food (Alkon and Agyeman, 2011).

Prioritizing the localness of food might obscure more urgent considerations of socially and economically *just* food. Localization of the food supply does not “solve problems of equity” in the food system (Allen, 2010, p. 298).

Working only at the local level is not only insufficient to rectify inequities, localism may actually be the source of these inequities. In many cases the disenfranchised have turned to the federal government for relief precisely because progressive change was impossible at the local level or because local elites persisted in denying them basic rights. (Allen, 2004, p. 173)

The NSLP exemplifies such government-subsidized relief. It was launched by the USDA after World War II in part because local authorities had failed to ensure adequate nutrition for millions of American schoolchildren.

Governance of Alternative Agricultural Markets and Value Chains

Alternative market arrangements have engendered new forms of governance. The term *governance* stands in contrast to *government* in that it connotes the participation and interaction of both state and nonstate actors in

defining significant societal problems and devising solutions to them (Marsden, 2006; Painter, 2000). NGOs, activist groups, social movement organizations, and private companies and individuals may work in conjunction with or contribute to the work of government institutions (Painter, 2000). For example, a nonprofit food policy council may collaborate with multiple state agencies to outline the framework for a state-administered FTS program.

In the realm of developing alternative agricultural markets, the range of interactions constituting governance can also be characterized as “socially interactive rulemaking around markets” (DuPuis, 2006, p. 2). Drawing upon Humphrey and Schmitz’s work on the governance of global value chains, DuPuis argued that governance of markets involved “both structure (the rules) and process (the ways in which these rules are determined through relationships and social coordination)” (p. 2). Of interest to policymakers and social scientists is how power, mediated through the relationships linking various actors in agrifood networks, influences the formulation of the rules of market governance. Actors with the greatest power in agrifood networks tend to formulate the rules of governance in an agrifood network.

In addition to rules, norms of behavior may become tools of governance. In the overall FTS campaign, for example, the soft power of encouragement was the primary governance tool employed by FTS champions to enlist the buy-in of school food service professionals and farmers. Further governance tools included technical assistance (provided through myriad publications, workshops, and webinars) and incentives (i.e., competitive grants) to guide and direct the start-up of FTS projects. For many farmers who sell their products to local schools on an irregular basis, norms of trust govern the relationship with the schools, and no written contract is used.

A useful analytical concept for studying these relationships is the *value chain*. The many transactions between buyers and sellers constitute a “market chain” over which network actors exercise power (DuPuis, 2006, p. 2). “Value chain” describes how these actors accumulate profit in proportion to the level of control and influence they exert over the chain (DuPuis, 2006, citing Humphrey and Schmitz [2000] and Kaplinsky and Morris [2000], p. 2). Analysis of value chains includes concerns over how much value accrues to the most powerful actors in an agrifood system. The domination of huge supermarket retailers over food purchasing in “conventional value chains,” for example, enables these firms to wield increasing levels of control over how food is grown, processed, and packaged (p. 2) and how much farmers should be remunerated for these activities. Research on value chains examines how this control is exercised in the processes by which the governance mechanisms of mainstream markets are forged, with attention paid to the negative consequences of such control for “smaller, less powerful actors in the chain” (DuPuis, 2006, p. 2). As agribusiness behemoths assumed control over most upstream and downstream segments of commodity networks in the late 1900s, primary producers earned a declining proportion of the value added to food after it left the farm gate (Heffernan, 2000; Marsden, Banks, and Bristow, 2000; Ward and Almås, 1997).

To counteract the hegemony of agribusiness giants in conventional value chains, rural development agencies have proposed strategies to help smallscale producers gain access to markets (DuPuis, 2006). These strategies take on various country- and region-appropriate forms, but in the U.S. a major one is “development of alternative market niches” (p. 3). The alterity of these niches brings to bear an alternative sense of the word “value,” too. Contributing to the economic value that may be gained by participation in such niche marketing, small- to midscale growers,

through product differentiation and relationship marketing, among other strategies, attach principles of fairness, equity, trust, collaboration, and transparency to the stories of their products. The value chain, then, becomes the *values-based supply chain* (Stevenson and Pirog, 2008, p. 119). This concept was developed by scholars participating in the Agriculture of the Middle research initiative (Stevenson and Pirog, 2008), which was launched in the first decade of this century to recommend ways to restructure the food system to benefit agricultural enterprises earning gross annual sales of between \$100,000 and \$250,000 (Lyson, Stevenson, and Welsh, 2008, p. *xiii*; Stevenson and Pirog, 2008).² The initiative recognized that farms in the middle tier of U.S. agriculture struggled to compete in “corporate-dominated commodity systems” and produced too much volume for the types of direct markets increasingly occupied by smallscale producers (p. *xi*). Stevenson and Pirog developed the values-based supply-chain model to propose strategies to develop regional agrifood systems. They conceptualized the “midtier food value chain” as a “strategic alliance[] between midsize independent (often cooperative) food production, processing, and distribution or retail enterprises that seek to create and retain more value on the front (farmer or rancher) end of the chain, and effectively operate at regional levels” (Stevenson and Pirog, 2008, p. 120). Cooperatively organized and managed regional food hubs constitute one strategy for overcoming distribution and marketing barriers to retain more value (Barham et al., 2012).

Consumer demand has increased for locally and sustainably produced food, but “there’s little infrastructure in the current food system to imbue these foods with these values from farm to fork” (Visher, 2011³). Value-chain partners’ commitment to both economic profitability and social values (Diamond and Barham, 2012) reflect an interest in realizing benefits to small- to midscale farmers (Visher, 2011). Diamond and Barham (2012) have presented evidence for four value-chain models, based on the “type of organization that drives the distribution operation” (p. 1): retail driven, nonprofit driven, producer driven, and consumer driven. Features observed for all four types include commitments “to improve the economic welfare of small-scale farmers and ranchers,” to harmonize business practices with “social missions,” and to connect producers and consumers (p. 8). Value chains are marked by transparency and an ability to increase production volumes and reduce transaction costs through processes of aggregation and branding (Visher, 2011). Branding means that a story comes with the food, and value is added through the telling of the food’s story, either on packaging or in face-to-face interactions.

Governance of Value Chains

New market niches form new value chains in which people become empowered to assert their vision of system reform (DuPuis, 2006). As actors form new value chains they devise alternative rules of market governance. DuPuis (2006) provides several examples, one of which is the formation of food policy councils (FPCs), which emerged as

² The USDA, on the other hand, defines “small family farms” as those earning less than \$250,000 a year from farm sales.

³ David Visher. “Values-based supply chains” (workshop presentation at the CFSC’s 15th Annual Conference, “Food Justice: Honoring Our Roots, Growing the Movement,” Oakland, CA, November 6, 2011).

the primary institutions overseeing agrifood-system localization efforts. FPCs engage in system-building activities to prepare for and launch AAFIs, such as farmers' markets and FTS programs, as was the case in Oklahoma.

Governance forms of emerging markets vary according to political ideologies. Some may take authoritarian stances toward market members, while others may be grounded in democratic ideals (DuPuis, 2006). Governance structures operate according to formal and informal rules. Social processes of rule-making engage citizens in “dynamic and interactive public conversations” (p. 3), which characterize democratic processes of “civic” engagement. Such processes of democratic engagement distinguish these new markets as *civic* markets, signifying their connection to the social and political conditions and processes from which they emerge. While all markets are *embedded* in society at large (the concept of embeddedness is discussed later in this chapter), the potential exists, and advocates argue, that alternative markets created by AAFIs are “more civically engaged, more socially embedded, than mainstream markets” (DuPuis, 2006, p. 3). The alterity and embeddedness of alternative markets, however, do not guarantee fairness or equity. A market's governance structure has consequences, determining “who wins and who loses” (p. 3). Farmers' markets provide an example (DuPuis, 2006). The governing boards of farmers' markets set rules for participation, including limitations on distance to market, creating a geographic boundary to define local; types of products allowed; whether the farmers must produce all of the items they wish to sell in their stalls; and whether products must be organically produced or not. These rules are particular to the market, engendering variability among market rules across regions, cities, and towns.

Value Chains in a Transitional Food System

Bloom and Hinrichs (2010) compared the value-chain model to one rural and one urban food-distribution network in Pennsylvania to understand the specific challenges experienced in transitional food systems. A transitional food system is one in which agrifood system actors take steps to coordinate local-food distribution while continuing to utilize the infrastructure of the conventional agrifood system (p. 13). Bloom and Hinrichs characterized the transitional system as “piggybacking” on the conventional one during an era when communities and food systems struggle to accommodate burgeoning demand for food grown locally or regionally (p. 13). Struggles, in particular, involve scaling up production of local food, building and coordinating distribution infrastructure, and ensuring equitable “outcomes for both producers and consumers” (p. 14).

In their examination of governance mechanisms and network structure, Bloom and Hinrichs (2010) focused on the dynamics of two food-distribution networks in which wholesale distributors of conventionally grown produce increased their levels of purchasing and selling locally grown produce. The authors identified the cases through a separate study of FTS programs in Pennsylvania. In that study of FTS initiatives in eight public school districts, they discovered that some districts procured local produce not directly from local farmers but rather through wholesale produce distributors. The 2010 study characterized these two distributors as intermediaries between suppliers and buyers. Suppliers included local growers, produce terminals, and produce brokers, which included schools, restaurants, local stores, farm stands, institutions, and supermarkets. Using snowball sampling, they interviewed 14 participants, including the two distributors, five farmers, and six buyers. The 14th participant was an outside NGO that had facilitated the connections between the distributors and producers in the urban case.

A cornerstone of present-day AAFIs is the strategy to add value to farm products through product differentiation, whereby producers engage in activities that distinguish their products not only from other locally or regionally produced items but also from mainstream, industrially produced food. Differentiation encompasses aspects of production, processing, and packaging and typically adds value, or a price premium, to the finished product (Bloom and Hinrichs, 2010). Organic and fair trade labels are common examples. Many entrants into the alternative food system feature labels that relate the story of the farm, the development of the product, and/or the geographic origin (Bloom and Hinrichs, 2010). Bloom and Hinrichs found that the ways in which food-system actors in each case differentiated local food affected various aspects of the distribution networks, including “the governance mechanisms coordinating the supply chain” (p. 16).

By using the value-chain framework as a lens through which to view the “supply chain dynamics” in these two food networks, Bloom and Hinrichs (2010) found that there were challenges in distributing value to all supply-chain participants and also in “coordinating supply and demand” (p. 21). Their findings have implications for the wider food movement as a whole because many authors and advocates, including in the FTS campaign, have promoted the idea of “scaling up” local-food supply and distribution. In the absence of dedicated local-foods distribution facilities, many nascent AAFIs might turn to conventional food distributors to play a role in moving local food to local buyers. As a pathway to enhance rural economic development, “moving local produce through the conventional food system infrastructure will require additional strategies to generate and redistribute value” (p. 22). Possible strategies are the promotion of farmers’ cooperatives in which ownership is shared and the creation of regional food hubs in which a shared processing and storage facility as well as shared delivery vehicles help ensure an equitable distribution of risks, responsibilities, opportunities, and profits among participating producers.

Part Two: Analytical Frameworks in the Study of FTS Activities

Value Chains for Large School Districts

The value-chain framework was also applied to a case study of FTS efforts in two large school districts, one each in Denver, Colorado, and Saint Paul, Minnesota (Conner, Nowak, et al., 2011). The cases were the first pilot initiatives of the School Food Learning lab, a program of the nonprofit organization School Food FOCUS. All study authors were involved with School Food FOCUS in some manner. The researchers employed participatory action research methods, which included using a cyclical, iterative process that involved many actors in the FTS value chains. In the Saint Paul Public Schools (SPPS) pilot, the school district sought to source fresh, local produce, while in Denver Public Schools (DPS), the district wanted local, pasture-raised beef. This paper focused on a subset of interviews from a larger project in which 17 interviews had been conducted in Minnesota and 26 had been done in Colorado. The research strove to apply the concept of the value chain to the development of the FTS supply chain. In both cases school food services aimed to procure “more healthful, sustainable, and locally produced foods,” reflecting values grounded in concerns not only for children’s health outcomes but also for environmental impacts (p. 58). The stakeholders in this case study included school food service professionals, farmers, distributors, food processors, and district partners. A district partner, in this study, was a member of a local NGO purposed with building local-foods systems. At each site the district partner played an active role not only in building relationships

between schools and vendors but also in transmitting knowledge to stakeholders about issues of transparency, fair prices for farmers, and the “agriculture and the distribution chain” (p. 64). In the Denver case, the district partner helped the school food service professionals and commercial vendors understand each other, since they used different terminology to describe the same or similar features of food procurement and menu planning.

In the process of constructing a FTS value chain, these pilots generated benefits for participants while also revealing systemic challenges or barriers. Table 3.2 presents a summary of the benefits and barriers described in Conner, Nowak, et al. (2011). In the SPPS, benefits included fair prices for farmers, while in the DPS, benefits included the creation of a reliable market for surplus ground beef. Barriers to participation included mismatch of seasonality, time-consuming effort to maintain relationships with farmers, low price points due to constrained school food service budgets, variable levels of scratch-cooking skills in school kitchens, and the need for schools to market local foods to boost participation in the school lunch program. The low price points, in particular, have been found by Izumi et al., (2010a, 2010b) to translate into a small fraction of annual farm income for participating farmers. In addition to these barriers, Conner, King, et al. (2011) have noted that small- to medium-sized farms face the following difficulties: articulating with an infrastructure that can efficiently distribute their products, “affording liability insurance,” and conforming to the requirements of the FDA’s Hazard Analysis Critical Control Point (HACCP) food-safety management system (p. 137).

Given these daunting challenges, dedicated staff from NGOs devoted to building local-foods systems can provide valuable support to building capacity in nascent FTS efforts. In Conner, Nowak, et al. (2011), both pilot programs relied heavily on the involvement of the district partners and selected “vendors who had prior experience in the school food market, who could bring in capacities and skills the school districts lacked” (p. 64). In-person meetings of stakeholders in each value chain were facilitated by the district partners, “foster[ing] communication and trust” among them (p. 64). The district partners, in turn, recognized the value of the scholars from the Learning Lab and the “external resources” made available through School Food FOCUS, which included research, technical assistance, and the transmission of “emerging practices” to participating school districts (pp. 58–59). The knowledge, guidance, and coordination provided by the district partners were instrumental in facilitating effective communication among value-chain stakeholders and forging the relationships needed to procure locally produced food. Whereas in Denver food procurement took place informally, without contracts, such that the “strength of the relationship[s]” in the value chain “govern[ed] the transactions” (p. 65), in St. Paul, an RFP process resulted in contractual arrangements between schools and growers. Both pilot programs illustrated the possibilities of “incremental positive changes” at the local level engendered by partnerships, demonstrating a pathway to scale up efforts to the state, regional, or national level (p. 65), provided the value-chain approach is applied. Replicating this approach across various geographies will likely be difficult, however, given constraints on the availability of funding and the challenge of enrolling the participation of an NGO with the appropriate resources.

Table 3.2. Benefits of and Barriers to Participation in FTS Value Chains
in Two Large U.S. School Districts*

District	Benefits	Barriers
<p>SPPS: the “self-operated” Nutrition and Commercial Services division prepared meals in a central commissary and delivered them to 56 schools in a system of 38,000 students</p>	<p>SPPS successfully sourced the desired produce</p> <p>Farmers’ stories became part of educational and marketing efforts</p> <p>Produce vendors increased their capacity to source produce from local farmers</p> <p>Farmers obtained a fair price</p> <p>A market was created for slightly blemished and surplus produce</p>	<p>There was a seasonal mismatch between the school calendar and availability of produce</p> <p>With the distributor linking schools with farmers, maintaining a relationship with the farmers was a time-consuming task that had to be taken on by one of the partners in the value chain (e.g., the distributor, district partner, or school district)</p> <p>Since the district offers lower price points, the quantity of produce may be limited as the FTS program matures (lower prices were suitable for No. 2 and surplus produce)</p>
<p>DPS: the “self-operated” Nutrition Services division prepared food in several kitchens throughout the district, delivering meals to 156 schools in a system of 73,000 students</p>	<p>The rancher/meat processor gained a reliable market for surplus ground beef</p> <p>DPS used the selling point of “local” ground beef on menus, possibly leading to increased meal-participation rates</p> <p>DPS kitchen staff reported more pride in their work after switching to scratch cooking</p> <p>The quick-chill processor expanded his line of products appropriate for school menus</p>	<p>DPS was in the process of building its capacity to handle raw meat</p> <p>Once the school district matures this capacity, the meat processor will have to expand his market to other school districts</p> <p>DPS aimed to put more effort into marketing the locally sourced beef so that more students would participate in the school lunch program, thereby generating more revenue for Nutrition Services</p> <p>Lower prices were suitable for the surplus ground beef “for which producers lacked good markets”</p>

*Information for and quotations in this table appear on pages 60–65 in Conner, Nowak, et al. (2011).

Pragmatic Politics vs. Neoliberalism

In the debate between Allen and Guthman and Kloppenburg and Hassanein that erupted on the pages of *Agriculture and Human Values* in 2006, Kloppenburg and Hassanein clarified the important role that location plays in grounding democratic action. “The turn to locality is motivated not by some perceived virtue inherent to a particular location but by the prospect of fostering the engagement of citizens in an active process of change in which proximity literally grounds thought and action” (Kloppenburg and Hassanein, 2006, p. 418). Kloppenburg and Hassanein advocated for a food democracy that allows all actors in to the “sites of contestation” where conflicts are worked out by citizens with divergent views and values. They emphasized direct community action in which people shake off habits of passive consumption and learn ways to become “active, educated citizens” (p. 80). For Kloppenburg and Hassanein, a pragmatic politics of engaged citizens seeking incremental change, willing to make compromises, is better than a passive, uninvolved population. A pragmatic politics of incremental change (Hassanein, 2003) leads food-system actors to participate in dynamic, democratic processes in which differences of values and perspectives are heard and worked through in order to strike compromises, build coalitions, and strategically mobilize around issues of agriculture and food. Similarly, the concept of food citizenship frames personal consumption choices as having broader implications: the individual, through her alimentary choices, assumes responsibilities to society at large (Lockie, 2009).

Allen and Guthman, however, doubt “whether ... ethical consumption or other market-based movements can achieve meaningful social change in societies where neoliberalism is hegemonic” (Goodman et al., 2014, p. 143). FTS programs, by emphasizing nutrition education so that children will choose the foods deemed healthful by school-food professionals and the USDA, “embrace[s] consumer choice as a primary form of governance” and “as a mechanism for creating change” (Allen and Guthman, 2006, p. 411). In choosing the “right” foods to eat at lunchtime, children will ostensibly drive improvements in not only their own nutritional outcomes and the quality of school lunches but also in the economic vitality of small farms and the rural communities in which they are embedded. These are great expectations for the lunchtime choices of America’s schoolchildren. Such politics of “individual consumer choice,” according to Allen and Guthman, “reinforces the ideologies, subjectivities, and governmentalities of neoliberalization, notably by absolving the state of its regulatory functions and its universalistic commitments to the social welfare of its citizens” (Goodman et al., 2014, p. 143). Schoolchildren become subjects without agency: Captive to the uneven attempts to retrain their palates, they are expected to develop more healthful dietary habits, which are, in turn, believed to have far-reaching implications for the economic well-being of local and regional farmers.

In contrast, Kloppenburg and Hassanein argued that FTS provides an opportunity for citizens to exercise a pragmatic politics of food-system change. Incremental gains in FTS legislation at the state and federal levels, for example, reflect democratic processes in which the ideas of advocates have been embraced by legislative bodies and then codified into law. These legislative gains came about “through experience, new practices, engagement, and experimentation” from the ground up, argued Kloppenburg and Hassanein (Goodman et al., 2014, p. 155). “While [Kloppenburg and Hassanein] do not use the concept in their argument, discovering workable rules of governance

through grassroots initiatives is a form of prefigurative politics, a way to try out new ways of living as a precursor to larger social change” (ibid., p. 155). FTS can serve as a large-scale emancipatory political project, Kloppenburg and Hassanein argued, but participants have to get started somewhere in some *local* place. By acting in their locales and working toward change at a variety of scales, FTS participants had begun to address global concerns. Referring to critiques of national school food policy, they wrote, “Had the federal government actually undertaken to educate and nourish children healthfully, there would be no need for the FTS movement today. State action in and of itself is hardly the guarantor of progressive outcomes or equal distribution of benefits” (p. 419). While FTS advocates do not “intend to undermine entitlement programs,” school food programs have become “exciting terrain for reform” because they present an opportunity to make the social relations in “at least one modality of food provision” more fair and just (p. 419).

Dependent on “site specific” features, such as volunteer labor, “FTS advocates are in essence producing neoliberal forms and practices afresh” (Allen and Guthman, 2006, p. 404, p. 401). Allen and Guthman wrote, “We would argue that this idiosyncratic site specificity is reflective of neoliberal approaches to providing services and is one of the key ways that FTS diverges from the uniform, national traditional school food program” (p. 405). The emphasis on connecting local farms with local communities can be problematic when not all localities have equally strong social- and human-capital networks to launch a program. “[T]he populist localism” embraced by FTS advocates “happens to resonate with the neoliberal devolution of responsibility and accountability to the local” (Allen and Guthman, 2006, p. 409). Furthermore,

if the goal of FTS is to provide all schoolchildren with excellent nutrition, standards, and resources, decision-making cannot be only local, because this can only produce inconsistent and ultimately unequal results. (p. 410)

Dependent on flexible labor arrangements and “non-secure funding streams” (p. 410), FTS reproduces neoliberal relations between society and state, they argue. (Nonsecure funding streams include competitive grants awarded by the USDA.) The results are unequal, posing problems for social justice. Low-income school districts, for example, with high participation rates in the NSLP will have to include some commodity items, such as “cubed bologna,” in their salad bars (Allen and Guthman, 2006, p. 409) to ensure full reimbursement from the NSLP. On the other hand, an affluent school district, with low participation rates in the NSLP, might have access to external nonfederal funds.

Contributions from Economic Sociology

The discipline of economic sociology provides three productive concepts for the research at hand: embeddedness, marketness, and economic instrumentalism. The concept of embeddedness, in particular, has been developed in several empirical studies of AAFIs, including of FTS programs (Hinrichs, 2000; Izumi et al., 2010; Thornburg, 2013; Winter, 2003). In the generative work of Karl Polanyi (1944) and Mark Granovetter (1992), “embeddedness” acknowledges the role of social relations in economic transactions (Granovetter, 1992, p. 23). “A main issue is how much economic activity is carried out among individuals who have personal knowledge of one another, [which] affects their economic action, as compared to the rather impersonal relations implicit or explicit in most neoclassical economic theorizing” (p. 23). In a similar vein, Polanyi asserted that the economy assumed a

subordinate role to social relations, religion, and politics (Block, 2001, *xxiv*). Proponents of self-regulating markets, however, strive to assign a separate sphere to the market, so that it is “disembedded” from society, operating free of political and social pressures (Block, 2001, *xxvii*). Society resists such efforts to separate the economy from the rest of human activities by forging “protective countermovement[s]” (Block, 2001, *xxviii*).

In origination documents and stated goals, AAFIs seek to resist processes of disembedding. The development of direct-marketing activities between producer and consumer, eliminating middlemen, for example, contrasts with the status quo of grocery shopping in a supermarket. As such, these and other contemporary AAFIs seek to re-embed social and economic relations into local places. Alterity does not determine embeddedness, however (Winter, 2003). And when AAFIs succeed in re-embedding economic activities, “close social and inter-personal interactions and relations of loyalty” (Winter, 2003, p. 25) cannot be presumed to follow naturally, since “a wide range of politics” (p. 30) may be expressed in any given place at any time.

Social embeddedness is colored by two features of market relations: marketness and economic instrumentalism. The continuum of marketness evaluates transactions, whereas the continuum of instrumentalism evaluates the “motives of economic actors” (Block, 1990, p. 53). In a continuum of marketness, actors decide to buy or sell a good based on price signals (Block, 1990). In the realm of agriculture, for example, high marketness implies that consideration of price dominates a farmer’s decision-making process regarding whether or not to participate in a given market. Lower degrees of marketness mean that other factors related to food-provisioning activities, such as a desire to provide fresh food to schoolchildren, influence farmers’ decision-making. While the continuum of marketness helps explain “the degree to which behavior is price-driven,” the continuum of instrumentalism helps explain “the degree to which self-interest places economic goals ahead of friendship, family ties, spiritual considerations, or morality” (Block, 1990, p. 52). Economic instrumentalism is a feature of markets characterized by levels of competition in which certain actors strive to achieve market dominance.

Hinrichs (2000) was an early observer of the features of defensive localism in direct-marketing arrangements. In a study of farmers’ markets and CSAs, she applied Block’s concepts of marketness and economic instrumentalism to qualify the notion of social embeddedness. Hinrichs demonstrated that considerations of price and instrumental motivations of economic self-interest operated alongside interpersonal exchanges between producers and consumers. Both of these market dimensions “color and complicate social embeddedness” (Hinrichs, 2000, p. 297). As farmers participate in AAFIs, for example, they express through their behaviors and discourse a dynamic interplay of considerations for their community and their own economic well-being. Building a retail business for locally grown vegetables and fruit, for example, may depend on the farmer’s capacity to build rapport and trust with his or her customers. Offering fair prices to local residents while also running a viable farm business, such as a roadside stand, CSA plan, or stall at a farmer’s market, entails a complex regard for one’s position in the community and one’s need to be a savvy businessperson. To make purely instrumental business decisions might weaken social ties through the alienation of customers. Social embeddedness, then, contributes to the economic viability of the farm operation (Thornburg, 2013).

Izumi et al. (2010a) argued that the concept of embeddedness could provide a meaningful theoretical basis for research on FTS programs. Citing 21st-century work on alternative agrifood networks (AAFNs; i.e., Kirwan, 2004; Murdoch et al., 2000; Sage, 2003; Sonnino, 2007), they noted that attributes of these networks reflected various aspects of embeddedness as it is understood to characterize the “alterity of AAFNs” (Izumi et al., 2010, p. 377). These attributes include “territoriality or the links between food and its area of production”; the “socially entrenched nature” of AAFNs; and shared values among producers and consumers “that reflect a commitment to place and an ethic of care and regard for the community, animals, and the environment” (Izumi et al., 2010a, p. 377). Such attributes inform the notion of embeddedness underpinning FTS advocacy, which also emphasizes reconnecting food to place.

Izumi et al. (2010a) also enriched the use of the concept of embeddedness by listening for economically instrumental and price considerations in interviews with seven farmers in the upper Midwest and Northeast of the U.S. The interviews took place within a larger study on seven FTS programs. Building upon Block’s (1990) and Hinrichs’ (2003) work, the authors focused on farmers’ motivations for participating in FTS programs. Although the authors did not explicitly focus on governance or farmers’ relationships to the mechanisms and tools of governance, in the background section of the article, they provided an overview of the structure of the funding streams in the NSLP. Highlighting the budgetary constraints and complexity of funding mechanisms, they asserted that the process to procure foods for school cafeterias “tends to favor vendors who can accommodate the intense budget and time pressure of school food service” (Izumi et al., 2010a, p. 376). Citing Berkenkamp (2006), they noted that “preferred vendors” were able “to provide year-round access to a large variety of competitively priced fruits and vegetables packaged and processed to food service specifications, one-stop-shopping for food and non-food items, and streamlined service” (p. 376). Sourcing food directly from local farmers posed its own challenges to both SFSDs and farmers. SFSDs are challenged by the time-consuming process of identifying local farmers, negotiating prices, and coordinating deliveries, while school cafeteria personnel may possess neither the kitchen equipment nor the cooking skills to prepare foods from scratch. Meanwhile, farmers are challenged by “consistently low-volume sales,” logistical barriers in the timely delivery of farm-fresh products, and a lack of “storage or refrigeration space in school food service kitchens or warehouse[s]” (p. 376). These problems imply an incompatibility between the well-established industrial-scale infrastructure of school-food provisioning in the U.S. and the direct-market model promoted by FTS advocates.

The authors chose to study only FTS programs that had been in operation for at least two years, a length of time that implied the presence of a sustaining level of institutional support and FTS networks’ capacity to conform to government structures and guidelines. The influence of governance mechanisms is also implied in their results, which revealed that farmers’ motivations aligned with “food service professionals’ need to comply with federal and local nutrition guidelines” (p. 380). These nutrition guidelines form the policy foundation directing the composition of school meals, and thereby the purchasing decisions made by school food service professionals.

Key findings in Izumi et al. (2010a)’s research include: (1) among the seven farmers, sales to school food service operations amounted to between less than 1% to less than 4% of total farm income, (2) low sales volumes to

schools did not weaken farmers' determination to continue FTS participation, (3) farmers sought ways to diversify market strategies, and FTS fit within this goal of distributing risk among various market outlets, (4) FTS programs provided a market for surplus products, second-class products, and products that were too small for the wholesale market (called "out-size" [p. 379]), (5) farmers remained hopeful that their pursuit of the school-food market would become more profitable in the future, and (6) farmers related perceived "social benefits" resulting from their FTS participation. These social benefits were mediated through the "considerable dedication and labor" of farmers and school food service professionals as they built and maintained food-procurement networks (p. 380). The authors found a complex interplay of marketness, economic instrumentalism, and embeddedness among the farmers they interviewed. While FTS participation did not contribute significantly to farmers' income, it allowed farmers to distribute their risk and diversify their markets.

Ideas foundational to FTS programs were communicated by farmers as motivating their FTS participation, but Izumi et al. did not disclose how these ideas and concerns arose among the farmers. These motivations included a desire to (1) inculcate a taste for new and different foods among schoolchildren, which would then contribute to instilling "life-long healthy eating habits" (p. 379), and (2) participate in building local-food networks, which farmers perceived as supporting "their local communities" (p. 380). While Izumi et al. reported that the farmers and school food service professionals echoed each other in their concerns for improving childhood nutrition and nurturing local community, readers have no way of knowing the chronological development in farmers' justifications for FTS participation. It is possible that these concerns for childhood nutrition and local community were latent and were activated through their contact with school food service professionals seeking to enroll farmers' participation. Through conversations in which FTS was promoted, these ideas may have been transmitted from school food service personnel to farmers.

Two of Izumi et al.'s findings are particularly germane to this Oklahoma study. First, they found that farmers strove to balance economic and social goals while engaging with FTS programs. While future economic goals through market diversification were important to them, farmers were equally motivated by social benefits that they perceived to contribute to the strengthening of the social fabric of local communities. Second, Izumi et al. reported that farmer participants uniformly expressed a desire to continue FTS participation (a quotation from one study participant, however, begs the question whether he intended to continue). This result may have reflected a confirmation bias in the research methods. The researchers had identified dimensions of variation "most important to local school food procurement" (p. 378). Therefore, they purposefully selected farmers who were currently participating in the seven FTS programs included in the study. People who have begun an endeavor and report a desire to continue with it will naturally describe perceptions and motivations that conform to this desire to persist. The expressed intent to continue, however, does not a sustainable, localized food system make, particularly in the context of an emerging form of local-foods procurement specific to one locale.

Frame Analysis

In a comparative case study of two nascent FTS initiatives in Pennsylvania, Bagdonis et al. (2009) activated the concept of civic engagement and showed the importance of place and local context in how the stakeholders within

school communities perceived and received FTS as a programmatic possibility. Their qualitative interviews took place with FTS stakeholders in one predominantly white rural school district and one predominantly Black urban school district in Pennsylvania. In the rural case, FTS programming was launched districtwide from within the district and was led by the SFSD; the rural FTS program emphasized improvements to the school lunches. In the urban case, FTS programming was a classroom-based pilot program in one school and encompassed nutrition education, locally sourced healthy snacks, and cooking demonstrations using locally sourced foods; as part of the program children also visited local farms. The urban FTS program was spearheaded by an outside NGO, “whose mission [was] to provide city residents with adequate access to nutritious foods, while also supporting local farms and sustaining the environment” (p. 112). These organizational differences may have influenced and shaped the ways in which the programs developed and who was involved in their implementation. For example, in the rural case, the SFSD became the champion of FTS program implementation. Champions of FTS programs are key in shaping their development and outcomes. In the rural Pennsylvania school district, the SFSD was able to communicate the features, organizational needs, and potential benefits of a FTS program to a variety of stakeholders in the school community. The forum at which he communicated his interest in FTS came about because of the district’s response to a federal mandate that U.S. school districts develop wellness policies.

Although not explicitly named in Bagdonis et al. (2009) as a dimension of school-food governance, the federal mandate “structure[d] a significant new expectation for civic engagement in school communities” (p. 112), effectively becoming a guiding policy mechanism spurring action in localities. The rural Pennsylvania school district responded to the mandate by assembling a health council of school administrators, teachers, and parents, as well as members of the general public; in a series of meetings the council hammered out the details of a wellness policy for local schools. It was at these meetings that the SFSD spoke about FTS and expressed the idea that a “formal program” might benefit the school district and its community (p. 112). The council considered how and whether FTS could be a pathway for improving health outcomes in the district. The SFSD’s leadership was critical to the success of project initiation and execution. And although Bagdonis et al. (2009) stated that the SFSD in the rural setting had communicated his rationale for FTS to various community stakeholders, they remained silent on the provenance of his ideas and motivation for FTS. The words with which the authors’ study participants framed the benefits of FTS align closely with the messages used by national NGOs to promote FTS for almost two decades, but no explanation for this alignment is given.

In the broader FTS campaign, NGOs have served as institutions of governance, collaborating with local, state, and federal government entities since the beginning while also disseminating a coherent discourse and framing of the perceived problems that the FTS model is intended to resolve. Parameters for civic engagement in the urban case of the Bagdonis et al. (2009) study were tacitly established by an outside NGO, which had designed and implemented a curricular FTS program that aligned with its mission. Although parents of schoolchildren had been invited to participate in the FTS program, they, the teachers, and school administrators took a back seat to the NGO’s staff in program implementation.

The authors employed frame analysis to examine how the FTS initiatives were defined, promoted, perceived, and received by the stakeholders engaged with them. Frame analysis “helps to illuminate how groups construct meaning in reaction to situations perceived as problematic” (p. 110). The process of framing problems and their prescriptive solutions is shaped by the structural and cultural context in which actors operate. Problems and solutions, then, are socially constructed.

“Three broad frames” emerged in interviews but were differentiated according to whether study participants lived in a rural or urban setting. The first frame identified the problem to be addressed by FTS activities as unhealthful food environments replete with convenience stores, fast food chains, and difficult or absent access to fresh produce. While rural stakeholders perceived FTS as a helpful “counterforce to an increasingly widespread and harmful fast food culture,” as well as a pathway for “reintroducing students to healthier food traditions and practices from the past,” urban stakeholders saw FTS as a way to educate children about the provenance of food and to teach them to distinguish between healthful and unhealthful food (p. 113). The second frame identified poor nutrition behaviors and low indicators of students’ well-being as the set of problems that could be addressed by a comprehensive wellness policy that included FTS as one component. In the rural case, FTS was largely seen as one tool among several to help improve the health outcomes of children. In the urban setting, although stakeholders employed a health framing for justifying support for FTS, their framing of the problem was “strongly inflected by concern about food insecurity” (p. 114). Stakeholders observed that children appeared to suffer from both a lack of access to enough vegetables and fruit and exposure to unhealthful foods that contributed to obesity. FTS was seen as a way to provide healthier food and to teach children about nutrition.

The third broad frame to emerge in the interviews was the need to strengthen markets for local and regional agricultural producers to revitalize rural communities. Rural and urban stakeholders, however, articulated this frame differently. Although rural stakeholders prioritized the potential benefits that FTS could have on children’s nutrition and well-being, they also reasoned that the direct-marketing opportunities provided by FTS would trickle down to rural communities: When farmers earned more through direct sales to schools, they would pay more taxes and thereby provide greater financial support for rural schools. Although the authors did not search for evidence of such an effect, they cast doubt on whether the market created by FTS would produce such generous economic effects, since the farmers struggled to produce the volume and type of foods that schools needed; moreover, they had access to other markets with better prices. In addition to potential economic benefits, rural-community stakeholders saw FTS as a strategy for preserving rural land, as well as increasing the connections between producers and consumers, thereby strengthening the social fabric of rural communities.

For urban stakeholders, the local-agriculture frame reflected notions of a rural idyll and motivations to support farmers’ livelihoods and their way of life. However, their concerns for the economic livelihood of farmers were subordinated to their concerns for the health outcomes of local schoolchildren. For that reason, urban FTS stakeholders prioritized the curricular aspects of the program, desiring that children learn better eating habits.

In sum, the authors found that the champions of local FTS programs “shape[d] organizational practices and program pathways,” including the opportunities provided to local stakeholders for civic engagement (p. 117). They

also found that both in the rural and urban contexts, stakeholders' motivations to support local agriculture were subordinate to motivations to improve childhood health outcomes. In prioritizing health framings over local-agriculture framings, FTS champions might face even greater difficulty in forming the relationships and infrastructural connections required to build FTS supply networks situated in and identified with particular locales: "Promoting more healthful diets could come to emphasize simply increasing intake of fruits and vegetables, regardless of where they come from" (p. 117). While the authors pondered that such a "limited objective" might detract from comprehensive approaches to "improve students' food experiences," I would like to add that a health-only or health-mainly framing of FTS might draw boundaries around understandings of better school food as being *fresh* and *local*, without considerations for *how* it was grown. To educate students to enjoy fresh produce does not go far enough if the original environmental goals of FTS are to be advanced. School cafeterias can just as readily prepare conventionally grown produce sourced locally as they can sustainably or organically grown produce. FTS as input substitution, that is, replacing canned, frozen, or boxed food with fresh, local food can preclude the construction of more progressive or environmentally conscious meanings. "Local" does not essentially signify sustainable, organic, or fair.

Ethnography

Janssen (2014) used an ethnographic approach to study the social dimensions in FTS procurement in a medium-sized Midwestern public school district. A local parent served as the volunteer director of the district's FTS program. Study participants were one SFSD, the parent volunteer, and two farmers. Janssen's four-year project was the culmination of her contact with the school district, for which she worked (without monetary remuneration) to help develop strategies to procure local foods. An ethnographic approach facilitated "close observation of participants' interactions," discovering "the ways that differences in knowledge, training, and point of view [could] create barriers for farm to school programs" (p. 141). Janssen found, for example, that farmers and school food service professionals had different perspectives on food production and procurement, "particularly in their approach to food handling" (p. 131). These varying perspectives complicated efforts to forge the types of direct-marketing activities that are the goal of many FTS programs. Whereas the institutional kitchens of school food service prioritized food safety and adherence to requirements of hygiene and documentation, local farmers valued the qualities of hand-picked food that came with an origin story. They did not document or track on-farm qualities that were important to school food service. The individual story of the food shaped the farmers' marketing strategies, not whether the food had been triple washed. When school food service professionals visited two local farms, they departed with concerns about how food was handled, the lack of licenses for processing foods (in this case, lettuce), and the lack of documentation for farm components, such as well-water quality and the schedule for manure application on crops. Documentation is vital for industrial kitchens, since, in the case of an outbreak of foodborne illness, the production and processing practices of food must be traceable along the product's entire journey from field to kitchen. Janssen also found that school food service professionals would take their concerns over proper food handling to their local health departments. Schools' request for bids also included a stipulation difficult for the two local farmers to meet: the lettuce had to be ready to eat, and the farmers could not meet this requirement.

Several authors have reported farmers' perceptions of barriers to FTS food-procurement, such as low price, regulations, and equipment and storage costs (Gregoire et al., 2005); seasonality and unfamiliarity with marketing to institutions (Rosenberg et al. 2014); uncertain, inconsistent, and mismatched demand (Berkenkamp, 2011; Rosenberg et al. 2014); and difficulties meeting "schools' requirements for specific quantities, delivery dates and product specifications" (Berkenkamp, 2011, p. 3). Contributing to this research on growers' perceptions is Janssen's in-depth fieldwork. She concluded, "[T]he social interactions of various actors are also highly relevant and it is critical that farm to school practitioners recognize the extent to which different viewpoints about best practices can affect the purchasing process" (p. 141). She recommended that advocates promote cross-pollination of knowledge between farmers and school food service personnel by inviting farmers to observe the workings of school kitchens and educating food service personnel about customary agricultural practices.

Rural Schools and Voluntary School Meal Reform Efforts

Askelson, Cornish, and Golembiewski (2015) conducted 20-minute telephone interviews and an online survey of SFSDs from rural schools in Iowa to learn more about their perceptions and experiences regarding voluntary efforts to reform school meals, such as FTS and Chefs Move to Schools, in the context of cafeterias' efforts to conform to the HRFKA. Authors' conversations with SFSDs covered not only efforts to procure food from outside of the school campus but also efforts to grow food in school gardens. The researchers selected school districts situated in places that had been coded as "distant rural" and "remote rural" according to the National Center for Education Statistics (NCES), whose geographic definitions are also used by the USDA FTS Program to conduct its biennial FTS Census (these two definitions will be defined and the FTS Census discussed in Part Three of Chapter 5). Askelson et al. (2015) interviewed 67 SFSDs and collected 57 completed online surveys, but the article did not clarify whether there was overlap between these two groups.

The authors found that although rural SFSDs expressed perceptions and challenges similar to urban SFSDs, such as lack of time, constrained cafeteria budgets, and difficulty establishing FTS distribution methods, they found that rural SFSDs might face barriers and challenges unique to their rural settings. These barriers included (1) a lack of knowledge about FTS or other voluntary reform programs; (2) lack of smallscale farmers who grew suitable crops for inclusion in school meals, due to the low population base as well as the presence of largescale and widespread commodity farming in distant rural and remote rural areas; (3) concerns about volume and whether their schools required too much or too little of a food item, presenting a mismatch with local farmers' production capacity; (4) concerns about farmers' ability to conform to the food-safety requirements of institutional food service (also found by Janssen, 2014); (5) lack of interest on campus from most stakeholders, including parents, schoolchildren, teachers, and administrators; and (6) unreliability of supply from local farmers due to the effects of weather patterns. Of their study participants, just five had reported some experience with a voluntary school meal reform program.

To ameliorate the challenges faced by rural SFSDs, the authors recommended "intervention strategies" (p. 8), such as providing rural SFSDs "with resources, knowledge, and skills" that are appropriate to their particular settings. Such support should come from the various state agencies that intersect with the implementation of federal child nutrition programs. The authors also suggested that rural SFSDs should take the lead in "mobiliz[ing]" "local

community networks”: “Although they may not all be conscious of this fact, food service directors are part of local community networks that can be mobilized to improve the nutrition of rural children” (p. 8). Aside from its mildly condescending tone, this statement contradicted evidence reported in the article that rural SFSDs had engaged in “creative, nontraditional sourcing” of local foods from “community members, parents, and even their own gardens” (p. 6). The point the authors meant to make was that rural SFSDs needed help in reforming school food. To that end, they would do well to establish relationships with other institutional resources in their communities, such as “long-term care facilities, food banks or food pantries, and faith-based institutions” (p. 9). Longer interviews and onsite visits by the researchers would have likely generated observations of and conversations about the ways in which the SFSDs were already part of their local community networks.

Although this article is valuable for pointing out challenges faced by rural schools regarding FTS participation, it joins many others in recommending strategies to make FTS food procurement work rather than questioning whether the FTS model of food procurement is compatible at all with rural areas in the Midwest and on the Great Plains. In recommending the intervention strategy of disseminating resources and knowledge to rural SFSDs, the authors did not mention the large array of resources available online from the NFSN and the USDA FTS Program or why the rural SFSDs would not have access to them. The authors suggested both top-down and bottom-up strategies toward improving knowledge and building capacity for FTS implementation. The authors asserted that FTS participation was lower in the rural Midwest and Western states, citing USDA FTS Census 2015 data. FTS Census survey respondents in Oklahoma, for example, reported a participation rate of 36% in 2013 and 28% in 2015 (USDA FNS, 2013b, 2015c). In Vermont, however, also a largely rural state, FTS participation was nearly 78% in the 2013–2014 school year (USDA FNS, 2015d). Low FTS participation in rural places in the Midwest and Great Plains, then, may be due to another variable—distance between farms and schools, which will be discussed in chapters 5 and 6. (Moreover, it is important to point out that these percentages include not only food purchases but also other FTS components, such as lessons and field trips.)

Governance Network Analysis

In Conner, King, et al. (2011), the authors grounded an analysis of Vermont’s FTS food-provisioning system in a review of FTS literature and their own case-study research. They diagrammed Vermont’s FTS food-provisioning system, in which NGOs and state agencies worked together in “well-coordinated partnerships” (p. 138). In particular, the NGO Vermont Food Education Every Day (Vermont-FEED) and the Vermont Agency of Agriculture, Food and Markets (VAAFAM) work closely together to grow and maintain a FTS program that operates in more than a third of the state’s schools.

Conner, King, et al. (2011) employed a “governance network” methodology (p. 138). A governance network is a “complex network of actors” whose purpose is to “carry out one or more policy function[s]” (p. 139); the NSLP, for example, is a governance network whose purpose is to carry out federal policy on school lunches in participating public and nonprofit private schools (the authors mistakenly assert that the NSLP provides “nutritionally sound lunches throughout all public schools,” when in reality the NSLP operates only in schools that choose to participate, and it is available to both public and nonprofit private schools [see Ralston et al., 2008]). Generally, a governance

network includes public and private groups, organizations, and agencies operating in or across several governmental administrative levels (i.e., school district; municipality; county; state; and nation), as well as individuals across an array of sites, such as homes, schools, farms, and businesses (and includes monolithic designations such as “taxpayers” [p. 142]). FTS programs articulate with the NSLP’s governance network through the addition of the NGOs, farmers, teachers, and parents upon whom they rely. The authors define network *nodes* as composed of actors operating at specific geographic scales and in particular sectors of society and analyze the ties between them.

The authors identified four categories of ties, which they described as “flows”: financial resources, food, information, and “regulatory and legal authority” (p. 139). Actors and institutions who work closest, in a geographic sense, to the operation of a FTS program are considered *core* and include farmers, school food service staff and directors, teachers and students, and parents. *Peripheral* actors and institutions constitute an array of people and entities, including other school staff, the school board and its wellness policy, community members, food distributors and processors, state agencies, nonprofit organizations at the state and federal levels, and federal agencies and policies. Network analysis may be useful for “identify[ing] where in the system particular challenges and opportunities for programmatic development and research exist” (p. 147). The various flows of information, funding, food, and authority are related to each other through “leverage points,” a concept developed by Meadows (2008; see p. 148 in Conner, King, et al., 2011). A leverage point is a feature of the food-provisioning network, such as the experiential-educational and curricular components of some FTS programs, “where a small change could lead to a large shift in behavior” (Meadows, 2008, p. 145, cited in Conner, King, et al., 2011). To illustrate this concept, Conner, King, et al. (2011) suggest that experiential education could influence children to prefer locally sourced food, thereby increasing demand for it. Such demand could in turn motivate school food service to purchase more of it, which they could do using the federal rule on geographic preference, among other regulatory mechanisms. In this example, flows of information, food, funding, and regulatory authority all come into play. At the community and regional scales, farmers may participate in either the food-provisioning or curricular components of FTS or both.

Farmers’ “production practices are subject to scrutiny and regulation at the state level” (p. 144), but farmers also face county- and federal-level health and food-safety regulations. State agencies shape and influence the implementation of FTS programs in a variety of ways. Departments of education may weigh in on the curricular aspects of FTS, while departments of health or agriculture regulate aspects of food production, processing, and distribution. Federal school-food programs look to state-level agencies for their implementation (Conner, King, et al., p. 145). The agency involved depends upon the state.

The article has several lacunae. Although the authors mention in passing that “private food-service management companies” (p. 144) may be contracted to provide school meals in some school districts, they are not placed on the diagram nor is their role described in depth in the article. For-profit food-management companies, such as Sodexo, Chartwells, Aramark, or Sysco, are in charge of food provisioning at many U.S. schools, colleges, and universities. Another gap in the article is the lack of discussion of a critical missing piece that determines how FTS programs develop and function at the state level: the language used in the policy that guides them. Although “legislature” is placed as a state-level government actor on the diagram (p. 142), the authors do not scrutinize the role that policy

plays as a guide to shape the development of FTS pilots and programs. Moreover, policy concerning FTS programs may or may not emphasize types of on-farm production methods. As DuPuis (2006) has observed, “Different market governance structures may support different agro-ecological practices, making the environment part of the public conversation about market governance, even when markets are not explicitly designed to meet environmental goals” (p. 5). Conner, King, et al. (2011) take for granted that FTS food-procurement practices “enhance the natural environment by supporting sustainable agricultural practices” (p. 136), but sustainable agriculture has not universally been a focus of the FTS campaign since it began to emphasize local, fresh food.

A third gap in the article is the absence of a discussion of labor. “Farmer” is presented as a monolithic category, without acknowledgment of demographic differences or of heterogeneous farm-labor structures. Meanwhile, the diagram omits the labor needed to launch and maintain FTS programs, which often requires volunteer hours from interested parties, such as parents, students, and other community members. Flows of labor, then, and time, as a proxy for hours spent maintaining FTS programs, are important components of any FTS governance network. In spite of these gaps, the article is useful in demonstrating the complexity of FTS programming. The authors acknowledge that the diagram is not applicable to all FTS programs, which are heterogeneous and vary along many characteristics across geographies.

Finally, a fourth gap is the diagram’s absence of the information flows from the NFSN and the now-defunct CFSC to other NGOs, farmers, legislators, the USDA, university researchers, and other FTS stakeholders. The NFSN and the CFSC played major roles in shaping federal and state policies and disseminating ideas and technical guidance to schools, farmers, and others. In writing that the “NFTSN [sic] mainly helps to raise awareness and share information and acts as a nexus around which local-level initiatives can interact directly with one another,” the authors gloss over the more profound political role that the NFSN (and the CFSC when it existed) played in shaping policy at the state and federal levels. Also missing from their review is recognition that grant makers awarded millions of dollars to launch and sustain the NFSN. The network’s website has served as a clearinghouse of information on FTS, while the eight regional offices have added the capacity to provide technical assistance to FTS stakeholders. Conner, King, et al. (2011) missed the flows of finances between grant makers and the most important influencers of FTS campaign messaging and capacity building. Nevertheless, the article provides a systems perspective on some microlevel effects of macroscale policies and highlights a variety of flows of resources among network actors at several geographic scales.

Governance of School-Food Programs

In *Free for All: Fixing School Food in America*, U.S. sociologist Janet Poppendieck analyzed the complex relational and funding networks involved in providing school meals, detailing the labor of SFSDs and cafeteria workers. She demonstrated the challenges of providing nutritious meals to children on an extremely limited budget (“most schools have less than a dollar to spend on food for each meal,” p. 284) that must not only cover the cost of the meals but also the cost of labor, administration, and supplies in school food service.

Nutritionism also comes under critical scrutiny in the book. Nutritionism is an overemphasis on the nutrient content of food as a basis for meal planning. When federal nutrition standards govern meal composition based on

nutrients, often the meal ends up being monochromatic, such as a lunch of “golden chicken nuggets, golden fries, and a golden roll” (Poppendieck, 2010, p. 281). Poppendieck advocates for a more common-sense approach to meal planning based on color, taste, appearance, texture, and scent. She also advocates for streamlined funding of school meals as well as universally free meals in schools.

FTS programs faced many barriers to their implementation (Poppendieck, 2010). These barriers include tight school budgets, overwhelmed SFSDs, lack of farms near schools, mismatch of growing season with the academic calendar, unreliability of the supply of locally grown food, and lack of scratch-cooking skills among frontline cafeteria workers. Geographic disparities in human capital and wealth present barriers: Poorer school districts may not have the human or financial resources to jumpstart a FTS program. Citing Allen and Guthman (2006), Poppendieck urges that quality meal programs be made available to all of the country’s schoolchildren—wealthy and low-income alike—and “that barriers of bureaucracy and stigma” (p. 244) should not prevent children from obtaining access to high-quality school meals.

Gaps in the Academic Literature

The gaps in the literature constitute opportunities for this dissertation to fulfill its objectives. To move beyond the language of barriers to FTS participation, the body of literature on FTS needs an analysis that merges microscale and macroscale analytical perspectives. Units of analysis are typically at the microscale: the actors within FTS networks, particularly SFSDs, distributors, and farmers, as these actors work to forge new local-foods procurement arrangements. Research has also taken place at the mesoscale, with some authors examining *interactions* among key network actors (e.g., Conner, King, et al., 2011). Although this body of work is valuable for revealing the barriers and opportunities faced by farmers, as well as the social and material challenges that arise in nascent relationships among the various network actors, a larger context is missing. This macroscale context includes two broad dimensions: (1) current state-, federal-, regional, and NGO-level governance mechanisms and structural characteristics that guide, shape, and influence many (but not all) FTS projects at the local level; and (2) climatic, biological, and geophysical phenomena that produce farm-level vulnerabilities that may make FTS program participation uniquely challenging, if not impossible, for smallscale producers.

FTS advocates assert that FTS initiation and implementation may originate from the top down or the bottom up. The terms “top down” and “bottom up” connote scalar dimensions, e.g., macroscale and microscale, as well as structural properties shaping FTS program development. Missing from the peer-reviewed literature, however, is an examination of how these different approaches to program implementation shape the responses of prospective farmer participants and how the particular power relations of these approaches vary. In their article on food chain clusters and the possibilities for the emergence of alternative food networks, Hendrickson and Heffernan (2002) wrote, “[W]e are firm in the belief that human agency is a powerful and dynamic force in strengthening, enlarging and creating spaces for what we call personalized, sustainable food systems. However, examining power and where it is situated in the food system is as important for thinking and acting strategically in trying to bring about food systems that actually enhance the life chances of more and more people. Understanding the twined forces of agency and structure along the entire continuum of production/consumption is critically important” (p. 349). The “twined

forces of agency and structure” at play in FTS programs are in need of examination. While FTS programs aim to connect producers and consumers, the power relations in these emerging food networks are often obscured in research reports. However, the governance structure of any FTS program shapes the possibilities for human agency. For example, the cost of complying with federal food-safety regulations may be more difficult for limited resource farmers to meet than for wealthier farmers. Most FTS literature to date, however, does not explicitly merge structure and agency through concrete empirical examples. More empirical research is needed employing a complementary analysis that situates network actors within a structural context in order to understand farmers’ perceptions of and practical responses to governance features.

FTS literature to date has not examined program failure or the reasons farmers would have for ceasing participation. The labor structure of farms has also not been discussed, to my knowledge, in FTS literature. While some scholars have emphasized that food-system reform takes place in specific locales, FTS literature has not effectively connected farmers’ actions and practices with the places in which they have been studied. Moreover, on-farm production methods are not fully understood or interrogated in FTS literature, with some scholars presuming that agricultural production linked to FTS procurement in general strives to employ sustainable farming practices.

Conclusion

The prominent themes, analytical frameworks, and empirical findings in the literature on AAFIs and FTS programs reviewed here illustrate that localization of food systems has been proposed as a viable way to boost rural economies and communities through the provision of direct-marketing opportunities for small- to midscale farmers. Scholars, however, have cautioned not to fall into the local trap, whereby positive attributes are assigned to localization and negative characteristics to globalization. Meanwhile, scholars debate whether or not FTS is a new form of neoliberal devolution of state responsibilities onto local, private actors and lower-level governmental entities. Governance takes on many forms and includes not only people and institutions but also processes of rulemaking and social relations of trust. Place is important as a location where an array of politics unfolds and processes of social inclusion and exclusion may color and complicate efforts to build more sustainable and just food systems. The FTS campaign and some scholars acknowledge that the pragmatic politics of incremental change may be the most effective way for local actors to engage in democratic action while considering broader-scale systemic change. Nevertheless, at the local site, some producers and SFSDs have encountered an array of barriers and challenges in their efforts to implement direct purchasing arrangements, even while they remain committed to building successful FTS programs. Several investigators have demonstrated the critical roles that NGOs play in building relationships among agrifood-system actors. Food citizenship is expressed when personal food choices have larger repercussions for the health of communities and the environment; in FTS, much depends on educating schoolchildren to make healthful food choices. Farmers have expressed a variety of motivations for participating in FTS programs, and their economic considerations exist alongside perceived social benefits.

Chapter 4. Research Approach and Methods

This chapter provides the intellectual foundation for the study of farmers' engagement with the Oklahoma FTS Program. As such, it describes the connection between a researcher's worldview and choice of methods, situating the research within a tradition in human geography broadly conceptualized as public geographies. It describes the knowledge claim and analytical approach and the importance of interrogating the relationship between knowledge and power. The concept of *phronesis* and its application to social science are explained. The methods employed in collecting and analyzing data are described and justified.

Worldview

A researcher's worldview influences her choice of research methods (Creswell, 2014, p. 6). Creswell (2014) has defined *worldview* as "a general philosophical orientation about the world and the nature of research that a researcher brings to a study" (p. 6). This study contributes to traditions of activist and policy geographies that reflect researchers' goals to "make a difference, within the ... area in which they research" (Ward, 2007, p. 696). In choice of research topic (FTS programming) and unit of study (farmers), this research expresses a transformative worldview, which proposes that academic inquiry be attuned to politics in order to suggest changes to alleviate oppression wherever it is found (Mertens, 2010, cited in Creswell, 2014). Such an agenda to advocate change reflects the researcher's intention to make a difference. Creswell calls this aspect of transformative research "an action agenda for reform" that addresses issues faced by marginalized populations (2014, p. 9).

In agrifood studies, transformative approaches that engage with political concerns, particularly the political economy of conventional agrifood systems as well as the political-economic possibilities of newly emerging AAFIs, are a growing tradition. As reviewed in Chapter 3, some of this work problematizes certain practices and politics of emerging AAFIs. These critiques, in highlighting dimensions of unequal power relations and blind spots in the agendas of such initiatives, contribute to a transformative worldview by reminding the academy and society that much work remains to create a fair, just, healthful, and durable agrifood system.

A transformative worldview foregrounds (1) the experiences of marginalized groups of people, examining constraints placed on their lives by oppressive actors and structures, as well as their forms of resistance to such constraints, and (2) the social and economic inequities stemming from "asymmetric power relationships" (Mertens [2010], as cited in Creswell [2014], p. 10). In agrifood studies, a transformative worldview gives rise to theoretical framings of critical agrifood studies (see, e.g., Bonanno et al., 1994; Goodman and Redclift, 1991; Goodman and Watts, 1997; Guthman, 2004; Magdoff, Foster, and Buttel, 2000); food democracy (see, e.g., Hassanein, 2003; Lang, 1999), civic agriculture (Lyson, 2004), food justice (see, e.g., Alkon and Agyeman, 2011; Gottlieb and Joshi, 2010), food sovereignty (Holt-Giménez, 2011), and the right to food (de Schutter, 2010), approaches which seek to broaden the research agenda to include the concerns and experiences of typically marginalized actors in the agrifood system. Inasmuch as research conducted from a transformative worldview calls attention to social and economic inequities, it highlights the need for political action to address such inequities and blurs the distinction between the realms of activism and academic research.

Within human geography an array of research approaches can be broadly categorized as “activist, participatory and policy” approaches, in which geographers inform public policy and engender publics for their work (Ward, 2007, p. 696; see Table 4.1), with the aim to apply their research to real-world problems, effecting positive change (Fuller and Kitchin, 2004; see also Ward, 2007). Although these approaches differ, Fuller and Kitchin (2004) perceive an ideological unity among them: “a shared commitment to: expose the socio-spatial processes that (re)produce inequalities between people and places; challenge and change those inequalities; and bridge the divide between theorisation and praxis” (p. 5). Geographers engaging in this type of bridging work often blur the line between academics and activism (Ward, 2007). While the terms “activist,” “participatory,” and “policy” geographies are meant as shorthand labels, each label signifies an array of approaches, with some commonalities between them. This study of farmers’ engagement with the Oklahoma FTS Program reflects a transformative worldview in which characteristics of these three public geographies inform the work. The overlapping of activist, participatory, and policy geography characteristics within this research speaks to the hybrid nature of the FTS project, since FTS articulates with federal feeding programs, such as the NSLP and the NSBP, while soliciting the participation of actors from the private sector, for example, farmers and distributors.

Table 4.1. Public Geographies*

Components	Activist	Participatory	Policy
Research approach	Challenge existing power structures, oppressive practices and institutions; in some cases, the researcher dons the role of scholar-activist; brings “into dialogue the personal and the political”	Involve study participants in one or more stages of the research process in a nonhierarchical, collaborative way; involve “geographical or social groups” who are “typically ignored or underrepresented and ... give them a voice in debates over their future” (p. 701)	Produce knowledge useful for informing and shaping policy
Knowledge valued and produced	Academic and public	Detailed and situated knowledge is valued within its specific context	Useful for policymakers and practitioners
Change orientation	Transformative (radical), from grassroots	Reformist (incremental), from grassroots	Reformist (incremental), from top-down (decision-makers, policymakers)
Objectives or purpose	Human geographers use their research tools and	Study participants involved in the research process are	Published research aims to influence and shape the

knowledge to engage in activism outside of the academy	encouraged to claim ownership of the products of such research; “[a]cademics work with community or group members in an empowering and facilitating role” (p. 701)	formation of policy and the evaluation of proposed and/or existing policy
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Accountability	Academia and designated publics outside of academia	Study participants and their milieu; like-minded academics with similar research methods	Clients, evaluators, nongovernmental organizations, policy-makers, government agencies and regulators
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*Mostly adapted from Ward (2007), pp. 698 and 701. Additional interpretations are author’s.

Although these public geographies are forms of applied geography, when they are pursued from a critical perspective, they differ “from what is commonly held to be applied geography ... because of [their] ideological intent; [their] challenge rather than support of the status quo” (Fuller and Kitchin, 2004, p. 5). Critical geography

... stands in opposition to calls from non-radical/critical geographers for the discipline to become more ‘relevant’ and ‘applied’ by serving the interests of the state and business through consultancy.... The differences between approaches lie in how they conceptualise the ways in which inequalities should be theorised and exposed; what kind of change is required (from liberal ideas of inclusion through to radical and fundamental societal restructuring); and how theory should be made to work. (p. 5)

This research proceeds from a critical perspective, and as such contributes to a growing body of literature in critical food and agrifood studies across several academic disciplines.

Knowledge Claim

Popular knowledge of FTS programs in the United States has been produced and controlled largely by activists and NGO and government FTS proponents (these people sometimes overlap, having moved from NGO to government positions). Their framing and guiding discourses have been disseminated in printed publications and on websites, as well as at national-level meetings such as farm-to-cafeteria and Agriculture, Food and Human Values Society conferences. The need for more research among farmers has been expressed in these publications. “More resources need to be invested to delve deeper into the impacts of direct marketing programs such as farm to school for small and midsize farmers,” while “much more concrete data and information is needed to understand the role of farm to school in community dynamics and connections” (Joshi and Azuma, 2009, p. 55). Academic production of knowledge on FTS programs has included publications that are largely supportive of them. While Allen and Guthman (2006) have critically examined FTS as a neoliberal project, others have noted that FTS advocates’

rhetoric on economic benefits to farmers do not match farmers' reality (Izumi et al., 2010a; Schafft et al., 2010). Izumi et al. (2010a) wrote, "As advocates seek to institutionalize public procurement of locally grown goods, it is critical that farmers' needs and motivations are considered" (p. 374). Because this study focuses on farmers' motivations, experiences, and agency, its claim to knowledge is grounded in farmers' situated knowledges, emphasizing their particular experiences and values.

The focus on farmers arose from my own curiosity about the absence of their voices from advocates' printed materials, meetings, and websites, with the exception of anecdotal success stories. Because advocates emphasized the heterogeneity of FTS projects and programs, particularly whether they were organized and administered from the top down or bottom up, I thought it valid to explore farmers' FTS engagement in a case of top-down implementation. In seeking to understand FTS from farmers' perspectives, I mean to produce knowledge useful to them, not only in the context of Oklahoma but also in other states with nascent or proposed top-down programs.

The Generative Role of Conversations

In his study of practical farmers in Iowa, Michael Mayerfeld Bell wrote that a book was a "both a product of, and a contribution to, the continuing history of human conversation" (2004, p. 22). He continued,

Some of that conversation is written down But most conversations never get written down. One way to understand the goal of academic research is as the effort to record that which is not recorded, for if human wisdom is the accumulated result of conversation (as I think it must be), we are that much the wiser the more of us we can keep at least potentially active in the conversation of social life. (p. 22)

In a similar vein, this dissertation contributes to the ongoing conversation about the role that farmers play in AAFIs. I argue that farmers' perspectives can be productively represented through the social-science approach of building situated knowledges. Feminist geographer Haraway (1988), rejecting the "god trick" of the all-knowing researcher with "infinite vision" and "various forms of unlocatable, and so irresponsible, knowledge claims" (p. 414; p. 415), asserted that "[a]ccounts of a 'real' world do not ... depend on a logic of 'discovery' but on a power-charged social relation of 'conversation'" (p. 421). Knowledge, for Haraway, is "situated conversation at every level of its articulation" (p. 422). The researcher learns from the study participants and, in turn, returns the research results to the community studied. Knowledge flows in a dialogic process between researcher and study participants and to the broader community of scholars. To report on farmers' experiences, motivations, perceptions, and practices vis-à-vis a top-down approach to FTS programming—"giving voice to the widest possible variety of situated knowledges" (Sheppard, 2004, p. 745), this dissertation offers primary research that seeks to convey context-dependent knowledge on farmers' involvement in FTS (Flyvbjerg, 2006).

Situated Knowledges

Sheppard (2004) issued a clarion call to geographers to actively seek out, investigate, and report on "the variety of situated knowledges that make up the world we seek to understand" (p. 745). Haraway (1988) argued that situated knowledges are partial and embodied, in contrast to the universal and detached epistemology of traditional objectivity, with its disembodied vision that "distance[s] the knowing subject from everybody and everything in the

interests of unfettered power” (p. 414). Situated knowledge is grounded in people, places, and communities. Only through in-person fieldwork in a “particular” place can a geographer develop a larger vision concerning the research topic (Haraway, 1988, p. 419).

Situated knowledge differs from the mechanistic, reductionist thinking of traditional agricultural science, in which highly specialized knowledge of technological innovations has been divided among many disciplines without collaboration among them (Hassanein, 1999), resulting in knowledge flowing from university departments to farmers, with a focus “on agricultural *production*,” not on the “interests of farmers” (p. 12). This paradigm neglected to take into account “the entire economic, social, physical, and ethical context in which food is produced and in which human and other beings live” (Hassanein, 1999, p. 16). In contrast, AAFIs, beginning with the organic farming movement, have typically adopted a holistic, or whole-systems, perspective that values the “interdependencies of all life” (Hassanein, 1999, p. 17, citing Freudenberger, 1986). A holistic approach to knowledge production in AAFIs privileges context-dependent knowledge.

Analytical Approach

Among the research practices that produce situated knowledges is *phronesis*, an approach to conducting social science that was developed and advanced by Danish economic geographer Bent Flyvbjerg in the book *Making Social Science Matter: Why Social Inquiry Fails and How It Can Succeed Again* (2001). *Phronesis* is an Aristotelian concept that can be translated “as prudence or practical wisdom” (Flyvbjerg, 2001, p. 2) and is concerned with values. It derives from the verb *phronein* and connotes “intelligent awareness” (Irwin, 1999, p. 345). *Phronesis*, along with *episteme* and *techne*, belongs to three “intellectual virtues” elaborated by Aristotle (Flyvbjerg, 2001, p. 3). Flyvbjerg broadens *phronesis* beyond values to include dimensions of power. Likewise, “feminist social inquiry [is also] interested in placing power at the centre of analysis” (Eubanks, 2012, p. 229). This dissertation applies Flyvbjerg’s reworking of *phronesis* to the study of Oklahoma farmers’ engagement with the state’s FTS program. To the best of my knowledge, *phronesis* has not yet been employed in the literatures on agrifood studies or geographies of food and agriculture. (However, one human geographer, Ranu Basu, has applied *phronesis* to critical-GIS research, developing the concept of “spatial *phronesis*” [see Basu, 2012].) A brief overview of *phronesis* follows.

Modern languages, and social sciences in general, mark a continuity of two of Aristotle’s three intellectual virtues, *episteme* and *techne*, in the words “epistemology” and “technology.” However, there is no corresponding term for *phronesis*, a lacuna which Flyvbjerg (2001) has argued reveals the degree to which “thinking in the social sciences has allowed itself to be colonized by natural and technical science” (p. 3). Yet Aristotle considered *phronesis* to be “the most important of the intellectual virtues ... because it is that activity by which instrumental rationality is balanced by value-rationality, and because such balancing is crucial to the sustained happiness of the citizens in any society” (p. 4). Flyvbjerg argues that the social sciences, to make a difference in society, should not strive to mimic the natural sciences. While the strength of the latter lies in their capacity to generate predictive theories, the strength of former lies in their role as *phronesis*, that is, in their contributions “to the reflexive analysis and discussion of values and interests, which is the prerequisite for an enlightened political, economic, and cultural development in any society” (p. 3). The natural sciences and social sciences should not be “compared in terms of

their epistemic qualities,” because their strengths and weaknesses occupy “fundamentally different dimensions” (p. 61). Society needs all three intellectual virtues to function properly, and Flyvbjerg defines them thus:

Episteme: Scientific knowledge. Universal, invariable, context-independent. Based on general analytical rationality.

Techne. Craft/art. Pragmatic, variable, context-dependent. Oriented toward production. Based on practical instrumental rationality governed by a conscious goal.

Phronesis. Ethics. Deliberation about values with reference to praxis. Pragmatic, variable, context-dependent. Oriented toward action. Based on practical value-rationality. (p. 57)

Flyvbjerg also characterizes these intellectual virtues as “the different roles of science” (p. 61) and exhorts researchers to clearly communicate which role their research plays. “Today’s researchers seldom make explicit which one of these three roles they are practicing. The whole enterprise is simply called ‘science,’ even though we are dealing with quite different activities” (p. 61). Research, for example, may be “rationalized as *episteme*” when in fact it is *techne* or *phronesis*. These distinctions help clarify that the value of social science lies in its dissimilarity from natural science (Schram, 2012):

Phronesis is ... the practical wisdom that comes from an intimate familiarity with the contingencies and uncertainties of any particular social practice. Epistemé, however, is knowledge that is abstract and universal; and techné is the know-how associated with practicing a particular craft. (p. 16)

By emphasizing praxis or action in specific contexts, *phronesis* produces context-dependent knowledge (Schram, 2012). Such situated knowledges are intended to be put into action, imbuing *phronesis* with a change orientation.

Like *phronesis*, critical geography seeks a broader audience, content not only with engaging in academic inquiry but also with effecting positive change in the world (Fuller and Kitchin, 2004). Written and spoken products of research, for example, are meant not only for academic audiences but also for policy, advocacy, and practitioner audiences so that they might interrogate “the relationships of knowledge and power” in order to effect change (Schram, 2012, p. 17). Because of its applicability to and engagement with real-world phenomena, *phronesis* is well suited for the study of policy-driven phenomena, such as the NSLP and FTS, which are beholden to rules and regulations across multiple levels and scales of government. It is an appropriate research approach for engaging in public geography and describing the processes and discourses of governance from the perspectives of the actors who shape and respond to them. *Phronesis* is well suited to tracing the connections between structural forces and individual agency, providing a nuanced analysis that moves beyond dualistic thinking.

Values, Rationality, Knowledge, and Power

To develop *phronesis* as an analytical framework and practical approach to social science, the researcher should include an analysis of values and should frame questions that get at the relationships between rationality, knowledge, and power (Flyvbjerg, 1998, 2001; Flyvbjerg et al., 2012). What follows are overviews of key dimensions of *phronetic* research.

Values and rationality

Aristotelian phronesis is an approach to knowledge that analyzes values (Flyvbjerg, 2001) and uses reason to search for truth while being “concerned with action about things that are good or bad for a human being” (Irwin, 1999, p. 89). These things cannot be understood, however, in abstract terms but must be investigated experientially. About phronesis, which is also translated as *prudence*, Aristotle stated:

Nor is prudence [phronesis] about universals only. It must also acquire knowledge of particulars, since it is concerned with action and action is about particulars. That is why in other areas also some people who lack knowledge but have experience are better in action than others who have knowledge. (p. 92)

The value-rationality of phronesis contrasts with the goal-oriented, production-driven, instrumental rationality of *techne* (Flyvbjerg, 2001, p. 57). “The objective of *techne* is application of technical knowledge and skills according to a pragmatic instrumental rationality,” while “*phronesis* emphasizes practical knowledge and practical ethics” (p. 56). Practical knowledge is gained through experience, which is, in part, composed of actions impelled by values rooted in careful deliberation. Possessing only universal knowledge, one does not act with prudence. Value-rationality in classical phronesis generates these three questions for any given research topic: (1) Where are we going? (2) Is this desirable? and (3) What should be done? In addition to these questions, Flyvbjerg adds another. By developing an analytical framework for joining considerations of power relations with Aristotelian classical phronesis, the fourth question comes into focus: Who gains and who loses; [and] by which mechanisms of power? Flyvbjerg cautions that no researcher can provide complete answers to these questions. They can, however, develop partial answers that would contribute to “the ongoing social dialogue about the problems and risks we face and how things may be done differently” (p. 61).

Knowledge and power

Flyvbjerg draws upon Foucault’s analyses and concepts of power to argue that phronesis ought to place power at the core of analysis. For Foucault, power is not an entity to be possessed but rather a *force relation* that is exercised in “strategies and tactics” in concrete applications (Flyvbjerg, 2001, p. 116). Flyvbjerg recognizes that both Foucault and Aristotle emphasize “details and concrete practices” (p. 118), which are necessary in any research that investigates how power is exercised. In his detailed, in-depth case study of a public-transportation project in Aalborg, Denmark, for example, Flyvbjerg found practical examples of how power relations shaped rationality, and rationality in turn produced particular discourses, or knowledge, which then was employed to support the power relations. These “rationality-power relations” turn the Baconian adage “knowledge is power” on its head. Because of power relations and the capacity of some people, groups, or institutions to shape discourses and their material outcomes, the dictum becomes “power is knowledge” (Flyvbjerg, 1998, p. 27).

Power does not seek knowledge out of a Baconian imperative. Rather power defines what counts as knowledge and rationality, and ultimately, ... what counts as reality. (p. 27)

We see this relationship amply demonstrated in public debates over agrifood issues, particularly in the labeling of food. Analyses of the exercise of power in FTS programs and how power might be exercised to shape knowledge about outcomes attributed to FTS are missing from the literature, however.

Practice and Discourse

In phronetic research, practice is emphasized over discourse and theory (Flyvbjerg, 2001). “[P]hronetic research does not accept the maxim that there is nothing outside the text, or outside discourse. Discourse analysis must be disciplined by the analysis of practices” (p. 134). Research focuses on quotidian activities. In researching actual daily practices, the researcher “gets close to the phenomenon or group whom one studies during data collection” and emphasizes detail and minutiae (Flyvbjerg, 2001, pp. 132–134). Focusing on details sparks the researcher to ask seemingly “small questions,” which “often lead to big answers” (p. 133). In other words, a focus on detail reveals relations between micro- and macro-level dimensions of the phenomenon being studied, between actors and their contexts, between agency and structure. In the complex phenomenon of farmers’ engagement with a state-administered program that articulates with a federal child-nutrition program, practice *and* discourse are both important objects of study, since the discourse at the macro-level shapes the political-economic context in which actors exercise agency at the micro-level.

Women’s studies professor Virginia Eubanks (2012) calls attention to the resonances between phronesis and feminist epistemology while emphasizing the importance of investigating and analyzing both practice and discourse. Drawing upon the work of Dorothy Smith (Eubanks, 2012), Eubanks argues that discourses shape women’s experience: “Texts are the mechanisms through which ideological codes—pieces of discourse with real, concrete impacts, such as ‘standard North American family’, ‘political correctness’ or ‘personal responsibility’—order and organize practice and understanding across a variety of sites and settings” (p. 235). In the FTS campaign, advocates employ forceful texts about the purported benefits local-foods procurement to both schoolchildren and farm communities. Such discourses have been transmitted to farmers and school food service professionals through their contact with FTS champions, potentially shaping the former’s food-production and -marketing practices and the latter’s food-procurement practices.

Agency and Structure

As discussed in Chapter 3, placing structuralist analytical approaches in dialogue with actor-oriented approaches engenders research that reveals more about the phenomenon under study than either approach alone would offer (see also Guptill, Copelton, and Lucal, 2013, p. 10). To that end, phronesis provides a value-rational framework for investigating relations between structure and human agency. Flyvbjerg (2001), writes,

Phronetic research focuses on both the actor level and the structural level, as well as on the relation between the two in an attempt to transcend the dualism of actor/structure, hermeneutics/structuralism, and voluntarism/determinism. Actors and their practices are analyzed in relation to structures and structures in terms of agency, not so that the two stand in an external relation to each other, but so that structures are

found as part of actors and actors as part of structures. Understanding from ‘within’ and from ‘without’ are both accorded emphasis (p. 137).

Public geography requires the investigation of processes and power relations in a particular place which reveal, upon close examination, the connections between human agency and structural political-economic, socioeconomic, and cultural forces. To unpack the term “context” as it concerns farmers in Oklahoma, one finds multiscale conditions and processes that articulate with farmers’ perspectives, decision-making, and practices. The articulation between agency and structure is more complex than a simple dichotomy.

Methods and Their Justification

The purpose of this explanatory, sequential, mixed-methods case study was to obtain quantitative results from a mail survey and then to complement that survey with qualitative fieldwork to explore in depth and expand upon the quantitative results. These methodological phases allowed the researcher to triangulate the quantitative and qualitative data to more effectively understand the research problem (Creswell, 2003, p. 100). In the first phase, on a mail survey to Oklahoma farmers who had previously expressed an interest, to a state NGO, in marketing products directly to schools, questions addressed the relationship between farm characteristics and farmers’ interest in and/or engagement with the Oklahoma FTS Program and other direct-marketing arrangements. The first field trip in Oklahoma in October 2011 took place concurrent to farmers’ receipt and completion of the mail survey. During this field trip, a semistructured interview guide used many of the same questions found on the survey to interview farmers identified on the Oklahoma FTS website as being involved in FTS activities.

Analysis began after all of the surveys were collected. I derived concepts and themes from survey respondents’ answers to questions, their notes written in the margins of the surveys, and additional communications (letters and an email) sent in conjunction with the surveys. As Corbin and Strauss (2012) have noted, “Concepts are derived from data during analysis and questions about those concepts drive the next round of data collection” (p. 2). After the quantitative data were analyzed, a second field trip was planned. During the second field trip in Oklahoma, in October and November 2012, farmers who had completed and returned the mail survey were purposefully selected for interviews based on the concepts that emerged from analysis of the survey responses. The goal of the interviews was to follow up on and explore the survey results, particularly the forms of engagement with FTS that were mentioned (Creswell, 2014). A method similar to the one employed in this dissertation has been called “theoretical sampling” (Corbin and Strauss, 2012) because the researcher collects concept-driven data, visiting “places, persons, and situations that will provide information about the concepts they want to learn more about” (p. 3). In 2012, in addition to interviewing farmers who had completed the survey, I followed up with several farmers whom I had interviewed the prior year, and I interviewed several other farmers from the list of farmers on the Oklahoma FTS Program website and from snowball sampling. An analysis of survey data and farmer interviews led to the construction of categories of engagement. I stopped interviewing when no new categories emerged, which is defined as “data saturation” (Corbin and Strauss, 2012, p. 7). In addition, to gain an understanding of the context in which Oklahoma farmers operated, interviews were conducted with other key food-system actors, including distributors, SFSDs, government officials, a store-food buyer, and local-foods activists. This research represents a “more

innovative research method[] than those based [only] on questionnaires” in the field of agricultural geography (Morris and Evans, 2004, p. 107). This section explains the rationale for choosing Oklahoma as a case and describes the data-collection strategies.

Rationale for Selection of the Oklahoma FTS Program

I chose Oklahoma as a case study because it was the first state to legislate the creation of a statewide FTS program coordinated by a full-time, paid state employee. And although the legislation alone did not breathe the program into being, its wording figured importantly as a discursive tactic that shaped its top-down structure and implementation. Touted as a success by many in the FTS campaign, the Oklahoma FTS Program has sometimes been regarded as a model for other states. A detailed analysis of what kind of model it is, however, has not been offered until this dissertation.

Because I conducted in-person primary fieldwork I was able to learn from farmers the considerations that influenced their decisions regarding participation in the program. Interviews with key informants and other actors in the FTS networks provided multiple viewpoints from which to understand FTS as a policy-driven endeavor. I strive to “join agency and structure” (Eubanks, 2012, p. 234) by getting close “to real-life situations,” a research process that engenders a richly textured depiction of farmers’ realities (Flyvbjerg, 2006, p. 223). This case study produces “concrete, context-dependent knowledge” (p. 223). Given the state’s complex history of both large-scale commercial agricultural production and small-scale family farms, I expected that large-scale growers would more likely benefit economically from FTS over smaller-scale growers. Chapter 5 presents the research findings.

Not all case studies serve the same purpose or are chosen for the same analytical reasons. Flyvbjerg describes strategies for selecting cases. *Random* cases are chosen to “avoid systematic biases in the sample,” wherein “the sample’s size is decisive for generalization” (Flyvbjerg, 2001, p. 79). In contrast, *information-oriented* cases are chosen to “maximize the utility of information from small samples and single cases,” whereby “cases are selected on the basis of expectations about their information content” (p. 79). The Oklahoma FTS Program is an example of an information-oriented selection. Flyvbjerg (2001) justifies such a selection:

When the objective is to achieve the greatest possible amount of information on a given problem or phenomenon, a representative case or a random sample may not be the most appropriate strategy. This is because the typical or average case is often not the richest in information. Atypical or extreme cases often reveal more information because they activate more actors and more basic mechanisms in the situation studied. In addition, from both an understanding-oriented and an action-oriented perspective, it is often more important to clarify the deeper causes behind a given problem and its consequences than to describe the symptoms of the problem and how frequently they occur. Random samples emphasizing representativeness will seldom be able to produce this kind of insight.... (p. 78)

Breadth and depth of information, insight, and clarification of the causes of a problem may illuminate paths toward desired courses of action concerning a problem under study. The four types of information-oriented cases identified by Flyvbjerg are (1) extreme/deviant cases, (2) maximum variation cases, (3) critical cases, and (4) paradigmatic

cases. Cases may simultaneously be more than one type. I argue that the Oklahoma FTS Program fits most closely with the description of an extreme, paradigmatic case. An extreme/deviant type is selected to “obtain information on unusual cases, which can be especially problematic or especially good in a more closely defined sense” (p. 79). The paradigmatic case is meant to “develop a metaphor or establish a school for the domain which the case concerns” (p. 79). A paradigmatic case “highlight[s] more general characteristics of the societ[y] in question” (p. 80). A paradigmatic case is not easily identifiable, but it does set the standard for its type.

Intuition plays a role in identifying whether or not a case is paradigmatic. Case selection and execution each play a role in whether or not the case comes to be regarded and understood as paradigmatic (Flyvbjerg, 2001). The ways in which the research community and the group or groups studied respond to the research will also matter in determining whether or not a case is paradigmatic (Flyvbjerg, 2001). The research itself is designed to answer the value-rational questions detailed previously. In the case of the Oklahoma FTS Program, with a focus on farmers, the four value-rational questions become (1) Where are we going in the Oklahoma FTS Program? (2) Which farmers gain, and which farmers lose, by which mechanisms of power? (3) Is this desirable? (Is the direction of the Oklahoma FTS Program desirable?) (4) What should be done? Schram (2012) writes that these questions should be answered in ways that are useful to the situation and people being studied. This particular situation must be understood to include processes shaping the political economy of Oklahoma farmers.

Mixed Methods: Data Collection Strategies

Crucial to understanding farmers’ engagement with the Oklahoma FTS Program is the triangulation of different sources of data (see Creswell, 2003). Although this project focuses on farmers’ perspectives, it gathers interview data from other key stakeholders in FTS networks, who include SFSDs, regional produce distributors, a gatekeeper, nutrition educators from the state university Extension office, and nonprofit community activists engaged in food-system localization efforts. In addition, I collected data through participant observation, participatory action, and archival research on the FTS campaign as a whole. Collecting data from a variety of sources provides breadth and depth of information about the concepts being sampled (Corbin and Strauss, 2012), allowing the researcher to develop categories of concepts “in terms of their properties and dimensions ... and possible relationships to other concepts” (p. 7). Concepts that emerged from the initial quantitative results informed the purposeful choice of some of the study participants for the next, qualitative, interview phase (Corbin and Strauss, 2012; Creswell, 2014). And although many of the same questions were used on the mail survey and in the semistructured interviews (see Appendix A), an analysis of concepts in prior interviews generated additional and more focused questions in the unstructured portions of later interviews. This process reflected a dimension of the research “that data collection and analysis go hand in hand” (Corbin and Strauss, 2012, p. 3). Two guiding documents served as sources of questions for both the mail survey and semistructured interview: Joshi and Azuma (2009) and Hinrichs and Schafft (2008). This study was approved by the University Research Compliance Office of Kansas State University.

Strategies to minimize error in data collection

Unlike research on FTS to date, this dissertation sought to expand detailed, qualitative analysis beyond those farmers regularly participating in a FTS program by beginning with the concept of engagement and remaining open

to various forms of engagement that might emerge as data collection proceeded. A purpose of the research was to understand an array of types of FTS engagement and experience that farmers had had. This range of activities included momentary contact, such as calling the FTS program office to gather information or seek assistance; more time-consuming involvement, such as attending state-sponsored meetings at which the FTS coordinator promoted the program to farmers; and sporadic or regular actions and practices to market products to schools. The data-collection challenge was constructing a sampling frame that would include a population of farmers who had not only regular experience with FTS but also other forms of contact or involvement.

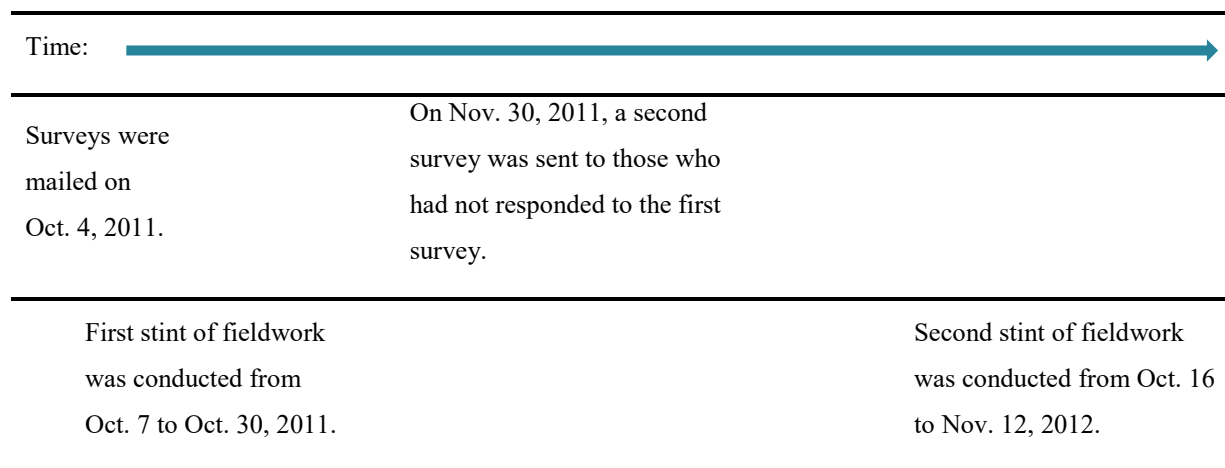
There were no lists of all farmers in Oklahoma, nor were there lists of all farmers involved with all forms of direct-marketing arrangements. The USDA's biennial FTS Census sends its electronic survey to SFSDs, and the information collected does not include details of participating producers. In the state of Oklahoma, however, there were two lists that could be used as sampling frames. The first was a list of 97 farmers who expressed an interest in marketing their products directly to institutions, such as schools, which appeared in *The Oklahoma Food Connection 2006: A Directory of Agricultural Producers, Crops, and Institutional Buyers* (McDermott, 2006) by the Kerr Center, based on a survey that the center had conducted several years prior. The center had updated the list at the end of 2010, and I worked from that list. The second sampling frame was the list of 14 "participating growers" on the Oklahoma FTS website. Using *only* one or the other list would have increased the risk of creating a research bias due to "undercoverage" of the target population (Weisberg, 2005, pp. 206–207). Therefore, to minimize coverage error, I used "multiple frames" (Weisberg, 2005, p. 216), that is, both lists, "in the hope that the second frame [would] counter the coverage limitations in the first frame" (p. 216). The study employed two sampling modes, a mail survey and a semistructured interview based on the survey. Some study participants who completed the mail survey were interviewed during the second stint of fieldwork. Study participants from the list on the Oklahoma FTS website were identified with the help of a gatekeeper and were interviewed either in 2011 or 2012. The gatekeeper's help in identifying farmers was necessary because, as it turned out, only two producers on the list were regularly marketing food to schools, while several had no engagement with FTS at all, and others had merely sold seedlings to the Oklahoma FTS coordinator for use in classroom FTS demonstrations. The gatekeeper also provided contact details for other farmers with whom she had discussed FTS. The total number of interviewed farmers arising from the second sampling frame included nine farmers from the website list and four others, not on the list, whose contact information she provided to me.

Quantitative and qualitative data

Quantitative and qualitative data were collected in two phases. Quantitative and qualitative data were both collected in the first phase, and qualitative data only in the second phase. Figure 4.1 diagrams the sequence of data collection. I began collecting primary quantitative and qualitative data on farmers and other key stakeholders in the Oklahoma FTS network in fall 2011. In early October I mailed surveys, along with a cover letter and a \$1 inducement in each, to the 97 farmers whose names and addresses appeared on the list of producers in *The Oklahoma Food Connection 2006* (McDermott, 2006). Therefore, the title of the survey used for this dissertation research, "Survey of Oklahoma Farmers Expressing an Interest in Marketing Directly to Schools," reflected the

presence of the farmers' names in the Kerr Center directory, not an assumption that they were still interested. Salient questions on marketing products to schools probed their interest at the time of data collection. In their study of FTS in Vermont, Conner, King, et al. (2012) also conducted a survey of farms whose contact details appeared in documents and lists prepared by a leading NGO and other organizations. "Such purposively assembled lists are valid sample frames of rare populations when the costs of screening out large numbers of ineligible respondents are prohibitively high, although statistically not generalizable" (Weisberg, 2005, cited in Conner, King, et al. [2012]). In my study, of the 97 farmers on the list, 15 of the addresses turned out to not be viable; these surveys were returned to me as undeliverable, making a total of 82 viably addressed surveys. At the end of November, I sent the survey a second time (without an inducement) to the viable addresses from which I had not received a returned survey. From the two mailings, the total response rate was 47.5% (39 completed surveys were returned), but two were discarded. One because it was filled out by a 17-year-old, and another because the section on selling farm products to schools was not completed correctly. The result was a response rate of 45%, or 37 surveys from which I could collect and analyze data. Twenty people returned the \$1 bill.

Figure 4.1. Sequence of Data Collection



Shortly after mailing the surveys I spent three weeks conducting fieldwork in Oklahoma. In addition to the farmers I interviewed through contact details provided by a gatekeeper, I interviewed a farmer I had met at popular farmers' market in Tulsa. Snowball sampling led to the selection and interviewing of another farmer, who coincidentally had received the mail survey. In total in fall 2011 I interviewed 16 farmers, accounting for 15 farms (two participants were husband and wife interviewed together). Of those 16, two had also completed the mail survey. The sources for the farmer study participants during the concurrent first phases of fieldwork, both mail survey and semistructured interviews, are shown in Table 4.2.

The process of interviewing farmers graced me with tours of farms, agritourism operations, and roadside stands, as well as sit-down conversations in on-farm offices and homes. (Three interviews were by phone, but I met two of these farmers in person, too.) Other study participants during this first stint of fieldwork included the gatekeeper and

other key informants; a local-foods activist; a SFSD; two employees of a food-services corporation that plans and provides the meals to a large urban public-school system; two employees of a regional produce distributor that delivers much of the FTS produce to schools on the statewide program; and an OSU Extension nutrition educator. I attended a school nutrition field day, where I observed groups of elementary schoolchildren engaging in experiential activities concerning food production and consumption. After completing this first stint of fieldwork, I read through and organized the collected surveys and reflected on the interview material. I also analyzed the survey data, organizing it into tabular form to discern emergent concepts and themes and relationships and patterns among them. These concepts and themes inspired me to seek interviews with more farmers and other food-system stakeholders. Selected interview data with other food-system stakeholders are presented in Chapter 5 in the presentation of profiles of specific farmers.

Table 4.2. Sources for and No. of Farmer Study Participants and Farms, October–November 2011

	Completed Mailed Survey	Interview Sources					Total <i>n</i> *
		OK FTS Website	Gatekeeper Referral	Farmers Market	Mail Survey	Farmer Referral	
No. of farmer participants	37	7	6	1	1	1	51
No. of farms	37	7	5	1	1	1	50

*The total number of farmers and farms adds up to two fewer than the numbers in each row because the farmers in the Mail Survey and Farmer Referral columns each had completed a survey. This happened because of a coincidence: a farmer who had been referred to me for an interview had also already completed the survey.

In fall 2012 I returned to Oklahoma, spending four weeks across October and November conducting interviews (see Table 4.3). During that time, I conducted first-time, semistructured interviews with the farmers affiliated with two additional farms on the list on the Oklahoma FTS website. For one farm I interviewed the grower and a farmer who formerly produced a FTS product for him. For the other farm, I interviewed a married couple of farmers as well as one of their adult children. I also conducted open-ended, follow-up interviews with four of the farmers whom I had interviewed in 2011. Additionally, farmers who had completed and returned the mail survey were selected to be interviewed. Five farmers representing four farms (two farmers were a husband-and-wife pair) were selected based on their answers to the questions and in particular, their handwritten responses to open questions.

Many more food-system actors also participated in the study on the 2012 trip. I interviewed more SFSDs, including from a school for American Indian children; a school health coordinator for the Cherokee Nation; regional and broadline produce distributors; food-system activists; a USDA official with experience in helping to build alternative food-system structures; and the owner of an alternative agrifood-system business, as well as the director of an American Indian nonprofit working to transform food production, distribution, and education for its tribal

communities. I ate school lunches each at an urban high school, a suburban middle school, and an American Indian school. One study participant whom I interviewed referred me to a farmers’ conference and a good farmer friend of his. I attended that conference, of the Green Country Food Policy Council, where I met the farmer and interviewed her later. My attendance at another conference, the Northeastern Oklahoma Regional Summit at Northeastern Oklahoma University in Tahlequah, put me in touch with yet another farmer, whom I interviewed, on her farm, at a later date. Table 4.3 displays the sources and number of farmer study participants from fall 2012. These two stints of fieldwork yielded interviews with 27 farmers and 22 interviews with other actors or key informants involved in Oklahoma’s agrifood system. Farmers are counted by each individual farmer interviewed, not by the number of times a farmer is interviewed. Therefore, since 16 farmers were interviewed for the first time in 2011, and 11 were interviewed for the first time in 2012, 27 farmers were interviewed. However, since four of the first 16 were interviewed a second time in 2012, the total number of farmer interviews is 31.

Table 4.3. Sources for and No. of Farmer Study Participants and Farms, October–November 2012

	OK FTS Website	Follow-up Participants from 2011	Mail Survey Respondents [†]	Farmer Referral	Regional Food Policy Council Meeting	Total <i>n</i>
No. of farmer participants	4	4	5	1	1	15
No. of farms	2	4	4	1	1	12

[†]These four farms are also counted among the 37 farms represented by the mailed surveys.

Participant observations and phronetic dialog

To build an understanding of the context for farmers’ experiences with direct-marketing food-procurement activities, I attended the 4th National Farm to Cafeteria Conference in Portland, Oregon, in March 2009, where I participated in a six-hour short course on how to coordinate research and evaluation efforts “to strengthen farm to school and school garden programs, practices and policies.” Issues discussed focused primarily on the consumption, or school-based end of FTS efforts, and the hosts presented a model for food- and garden-based education in the pre-K through 12th-grade school settings. Although the environmental and ecological impacts of agriculture were mentioned, farming was not the focus of the course on FTS. In Oakland, California, in November 2011, I attended the last conference of the CFSC, where I participated in the “2011 Farm to School & School Garden Research Consortium Work Session.” In this workshop, topics discussed were program evaluation and how to measure the success of FTS programs. Practical topics concerning food production included season extension and food processing. FTS goals for producers were envisioned as “sustainable procurement and economic development,” which were believed to result in farmland preservation, greater financial security for farmers, a greater diversity of

on-farm production, and sustainable production methods. In 2012 I presented preliminary results of this dissertation at the 2012 meeting of the Agriculture, Food and Human Values Society Meeting in New York City and engaged in conversation about my work with a senior academic who has researched school-food issues. She told me that my work was already “having an effect.”

Archival research

I consulted many published documents, both in print and online, pertaining to the Oklahoma FTS Program, as well as documents disseminated by other advocates for agrifood-system change, such as those working to promote farmers’ markets and buy-local activities. Printed publications and online texts distributed by the NFSN were also read. Analysis of the discourse of advocacy literature highlights the discursive relationship between the national FTS campaign and the top-down approach to program implementation embraced by the Oklahoma FTS Program.

Data Analysis Procedures

Because the quantitative data were gathered from a purposive sample, an inferential statistical analysis would be inappropriate. However, descriptive statistics were calculated from the survey data and are presented in Part One of Chapter 5. In Part Two of Chapter 5, qualitative textual data from the interviews provide material for narratives of the farmers’ lived experiences and expand upon the concepts and initial findings of the quantitative data (see DeLind, 2011). Using both the mail survey and interview sampling modes allowed for a sampling of a variety of farm sizes, from small to large scale, as well as a variety of forms of contact and engagement with the Oklahoma FTS Program. Chapter 5 will first report the quantitative results, then the qualitative findings. Quantitative and qualitative findings will be analyzed, compared, and explained.

Suitability of These Methods

This mixed-methods approach is appropriate for this topic of study because each method complements the other and together they provide a more complete understanding of farmers’ engagement with the Oklahoma FTS Program. While the survey provided breadth, the interviews provided depth. If this study had employed only the mail survey, the data would have become static objects from which some interpretation could be made but from which in-depth, context-dependent knowledge based on farmers’ experiences would have largely been missed. Moreover, the mail survey alone would have resulted in undercoverage of the target population. Therefore, the interviews of farmers on the Oklahoma FTS website list were necessary in order to capture the two farmers who consistently supplied produce to schools. The interviews of these farmers and others also provided depth that survey data alone could not. Spending hours with individual farmers, food-network stakeholders, and key informants resulted in the collection of a vast and deep trove of interview data that flesh out the processes and power relations in the FTS networks in Oklahoma. These data are useful for constructing narratives that will add to debates about strategies for the formation of direct markets for small-scale growers.

Chapter 5. Results: Data Presentation and Analysis

Chapter 5 has three parts. The purpose of Part One is to present and analyze the quantitative data gathered on the survey mailed to Oklahoma farmers. Part Two presents and analyzes the qualitative data gathered in interviews with farmers and other food-system stakeholders. Farmers have been categorized according to their engagement and experience with the marketing dimension of the Oklahoma FTS Program. The qualitative data from interviews with 17 farmers, representing 13 farms, are presented in narrative form. Although 27 farmers were interviewed, narratives are provided only of those whose experiences and perspectives are representative of each category and/or contribute knowledge about heretofore unknown forms of engagement with FTS programs. Excluded from this analysis, therefore, are the two farm operations from which the Oklahoma FTS coordinator had purchased starter plants for FTS demonstrations and presentations; two smallscale farmers and one agritourism operator who had never marketed products to schools and had no intention of doing so; one farmer I interviewed (who had completed the survey) who had never sold to schools and had quit farming because of the drought; one who had launched a school-garden project in the timespan of the fieldwork; and three farmers who were somewhat interested in marketing to schools but who had not looked into it in detail. Part Three presents an analysis of data concerning Oklahoma school districts' expenditures on so-called local food during the 2011–2012 school year. The data were gathered by the USDA on the USDA Farm to School Census 2013. A conclusion completes the chapter.

Part One: Presentation and Analysis of Survey Data

The survey mailed to Oklahoma farmers, which garnered a response rate of 45% (see Chapter 4), collected both quantitative and qualitative data across 37 returned surveys. Quantitative variables included the respondent's age, number of years farming, number of acres farmed, gross farm sales in 2010, and estimates of percentages of sales generated by a variety of marketing activities (see Appendix A). Qualitative, or categorical, variables included sex, off-farm employment, main occupation, and answers to yes/no and multiple-choice questions. Textual data included types of labor employed on the farm, the challenges and benefits of marketing products to schools, types of nonmarket involvement with schools, and suggested policies to make market connections with schools easier for farmers. Categorical variables were counted and analyzed. A thematic approach is applied to the textual data, which included written answers to survey questions as well as mailed and emailed letters sent in response to the survey. Themes as they relate to the academic literature and to emerging patterns from the survey responses are highlighted by briefly narrated profiles of individual farming operations. To protect the identity of survey respondents, pseudonyms have been assigned to them.

Part One begins with the presentation of selected demographic and farm characteristics (Tables 5.1 and 5.2, respectively) of the survey respondents, accounting for 37 farms in Oklahoma. A few of the farmers also sent letters or an email to me. Frequency tables are employed to organize and categorize the data. Descriptive statistics provide insights into the central tendencies of data from two categories of farmers: those who expressed an interest in marketing farm products to schools in the future and those who did not. The division of the survey respondents into these two groups is carried through much of the analysis in Part One.

Demographic Data

Table 5.1 presents the frequencies at which survey respondents reported off-farm employment, whether or not they lived on their farms, and whether or not their off-farm employment or an agricultural activity was their main occupation. In addition, the mean ages for the men and women who completed the survey are displayed.

The selected demographic data in Table 5.1 reveal that 54% of men, $n = 13$, and 69% of women, $n = 9$, worked in occupations off the farm, for a total of 59% of respondents working in other occupations outside of their farms ($n = 22$). Moreover, of the 24 men who responded to the survey, 11, or nearly 46%, did not work in an off-farm occupation (two of these were retired from other careers). Of the 13 women who responded to the survey, 4, or almost 31%, did not engage in an off-farm occupation. In contrast to men, women reported that their main

Table 5.1. Selected Demographic Data

Sex	Mean Age	Off-Farm Employment			Reside on Farm?*		Self-Reported Main Occupation**	
		Part time	Full time	None	Yes	No	Off-farm employment	On-farm occupation [†]
M ($n = 24$)	58+	5	8	11	18	6	10	11 ^{††}
F ($n = 13$)	57+	6	3	4	12	1	3	10
Total	58	11	11	15	30	7	13	21 ^{††}

*In addition to a question about living on their farms, the survey asked about farm ownership. All respondents except one reported that they owned the land that they farmed. One stated that she owned some acreage and also rented some.

**One of the men did not answer this question.

[†]On-farm occupations reported by study participants included farming, ranching, bee keeping, horticulture, managing a vineyard, or keeping greenhouses or a truck garden.

^{††}Not included in this number are two men, ages 71 and 75, who reported “retired” as a main occupation but kept a smallscale farm operation going, each with 2010 gross sales of less than \$10,000. These two survey respondents are included in the number of men who reported no off-farm employment.

occupations were on the farm more frequently ($n = 10$) than the rate at which they worked off farm ($n = 9$), with only 3 of the 9 working off farm considering their off-farm employment as their main occupation. This finding may indicate that women, more often than men, required a source of income in addition to the on-farm occupation, in order to support the continuance of the agricultural endeavor, which they considered the main occupation. For the male survey respondents, a reverse phenomenon was observed: They considered their off-farm employment as their main occupation more frequently than did the female respondents. That is, 77% of the men working off the farm

considered that work to be their main occupation, whereas just 33% of the women who reported off-farm employment stated it was their main occupation. Off-farm occupations reported on the surveys included store operation, surgeon, professor, gardener, employment with a parcel-delivery company, registered nurse, house cleaning, independent contractor, lawyer, school teacher, farming advocacy, and an automotive-industry occupation.

Thirty of the 37 survey respondents lived on their farms. Whether or not the farmers live on their farms matters because it can determine farmers' choice of schools or school districts to which marketing products makes sense. In rural areas, especially, the choice of schools is limited. Moreover, given the smaller population base in the rural Great Plains and Midwest, many school districts have been consolidated, resulting in longer distances across which not only students must travel but also farmers, if the task of delivering farm-fresh products to schools falls on their shoulders. The cost of gasoline is a factor in farmers' decision-making. The cost of delivering products to schools is one of several logistical barriers for farmers considering FTS participation (Izumi et al., 2010b) and speaks to the difficulties of creating distribution networks for locally produced foods (Bloom and Hinrichs, 2010).

Farm Data

Table 5.2 presents characteristics of the farms surveyed, categorized according to level of gross farm sales in 2010. The information includes farm size, types of products grown or raised, and categories of sales, as well as the number and types of labor who worked on the farm other than the survey respondent. The distribution of survey respondents across categories of gross farm sales is proportionally similar to the distribution of economic classes of Oklahoma farmers by market value of farm sales in 2012 (USDA NASS, 2012c; see Appendix B), with the exception of the category of farmers with gross farm sales of between \$50,001 and \$100,000. The survey sample has a slightly greater proportion of farmers in this category, but the number ($n = 7$) is so small that a meaningful interpretation cannot be made.

Of the 37 survey respondents, two stated that a percentage of 2010 gross farm sales had been attributable to schools, and both of them reported living on their farms. "Arthur" reported that 20% of sales had come from a pumpkin patch. His tourism operation—which included hay rides and a corn maze—was a destination for school field trips in a Tulsa suburb. (Farmers can earn a significant income with these operations, since they may charge an admittance fee, and on-farm sales also take place.) Arthur supports his farm income by working full time off-farm, and considers that occupation as his primary one. His farm operations exemplify the type of direct-marketing arrangements that the authors of *A Time to Act* and the many proponents of AAFIs have advocated for years. "All the farm products I grow are sold directly from the farm (retail)," Arthur wrote on the survey. Of the 37 respondents, all but three participated in direct-to-consumer marketing of their products.

Like Arthur, "Judy" also runs an agritourism operation. In southeastern Oklahoma, her diverse operation includes a pumpkin patch, hay rides, and a pick-your-own operation. Five percent of 2010 gross farm sales had been earned through sales to schools, but it was not clear whether these were due to food for school cafeterias, transplants for classroom lessons, or tickets for school tours. The variety of activities available on her farm, which she owned with her spouse, accounted for all direct-to-consumer sales. Judy's farm hosts many groups of visiting schoolchildren because she and her husband enjoy teaching children about agriculture. Enthusiasm for educating

children about food and agriculture corroborates findings in the FTS literature that cites the social benefits perceived by farmers (Izumi et al., 2010a). However, hosting school tours does not mean that the farmers considered themselves part of the Oklahoma FTS Program. Neither Arthur's nor Judy's farm was listed on the Oklahoma FTS website. Moreover, the Oklahoma FTS Program is not mentioned on either farm's website. Similarly, research from Pennsylvania demonstrated that although farmers and schools in Pennsylvania had engaged in much "FTS-like activity," the people involved had "very seldom recognized or thought of [them] at the local level as farm-to-school" (Schafft et al., 2010, p. 37). While these two Oklahoma farmers engaged in limited FTS-like activities, their surveys indicated interest in marketing their products to schools in the future (this finding is expanded upon in Tables 5.3 and 5.4). These farmers and other survey respondents engaged in entrepreneurial activities to diversify their markets. Direct-to-consumer sales served as ways to embed farmers' economic activities in their communities.

Labor Structure

Table 5.2 also presents the farms' labor structure versus the gross sales. Particularly noticeable is a break in the labor data between those farms earning less than \$10,000 a year and those earning more. While 11% ($n = 2$) of farms earning less than \$10,000 in gross sales had hired laborers, almost 89% of those with gross sales above \$10,000 had hired either part-time or seasonal labor or both. A closer examination shows that 89% percent of the farms earning under \$10,000 ($n = 16$) largely relied on the labor of family members, including spouses and friends, with no nonfamily hired help. Each of the two who hired help did so on a part-time basis, one seasonal and one year-round. Of the 19 farms grossing more than \$10,000, while 6 relied only on the labor of themselves and/or their spouses and/or family members, 13 (68%) had hired laborers year-round or seasonally or a combination of the two. The most obvious explanation for the relative absence of hired labor among the lowest-grossing farmers is a lack of financial capital to pay for hired workers. Other factors, too, most likely played a role. For example, farmers' goals for their farming operations likely influenced their decision-making processes. With 59% of farmers among the survey respondents also earning off-farm income, one may infer that people farm for a variety of reasons, including, but not always primarily, economically instrumental ones. Some may engage in agriculture as an additional source of retirement income and for the lifestyle. "Stephen," whose pecan farm earned under \$10,000 in 2010, faced many challenges as a grower, some of which he detailed in a letter sent with his survey. (A discussion of this letter appears on pages 89–90.) At the end of the letter, he wrote, "Thus far, the operating costs have outweighed the total amount of sales. But, as a person doing this for the lifestyle, I am not about to quit." He prioritized his commitment to farming as a lifestyle over economically instrumental concerns, reflecting the value of cultural dimensions of rural, agriculture-centered livelihoods.

A preponderance of the 18 farms that generated less than \$10,000 in sales in 2010 had crop mixes suitable for a school-lunch menu. These included fruits, vegetables, and strawberries. The producer of poultry, goats, and chicken eggs would also have something to offer a school, if the school would accept raw meats and eggs for scratch cooking. In contrast, the farms that grossed over \$10,000 in 2010 were more likely to produce items that either were inappropriate or difficult to market directly to schools: soybeans, beef, honey, deer meat, pecans, a highly specialized crop, and buffalo. Therefore, in terms of crops grown on Oklahoma's farms, and the determination and

enthusiasm for producing them, a latent potential exists for agrifood-system localization that involves the institutional procurement of local foods from *smallscale* farms. These farmers are arguably who the original framers of the FTS model had in mind when they asserted that school food procurement could provide a huge, institutional-scale market for family farmers (Bellows et al., 2003; Kalb et al., 2004). Discourse at the 15th Annual Conference of the CFSC reinforced this intent.

Farmers' Interest in FTS Participation

A section of the survey dealt with farmers' interest and experiences in marketing farm products directly to schools. The questions aimed to capture textual data on the concept of farmers' interest in selling products to schools, additional features of their farm operations, and specific challenges they encountered when trying to market products to schools (see Appendix A). Questions were also asked about their perceptions of the farm- and community-level benefits of marketing products to schools. If farmers had not participated in a FTS program, they were asked to skip over a large portion of the survey to answer the last two questions, one about their involvement with schools outside of marketing activities, such as hosting school field trips, and the other requesting their policy suggestions regarding making market connections with schools.

Table 5.2. Characteristics of Survey Respondents' Farms, Ranked by Gross Farm Sales, 2010
N = 37

Farmer's Name*	Farm Size (acres)	Farm Products**	Retail Sales to Direct Markets (%)†	Wholesale Sales (%)††/Other Sales ^a (%)	On-farm labor in addition to that of survey respondent or spouse/significant other
< \$10,000, n =18					
Derek	21	Fruit, vegetables, cut flowers	100	0	1 family member
Kenneth	16†††	Fruit and vegetables	100	0	None
David	1†††	Fruit, vegetables, and eggs	90	10	1 family member
Connie	2†††	Fruit, vegetables, starter plants	95	5	1 family member
Gerald	3†††	Fruit and vegetables	100	0	Not answered
Walter	64	Fruit and vegetables; hay; pasture rental	37.5	12.5/50	1 part-time, hired, year-round laborer; 1 to 2 family members, not formally hired; 2 friends doing exchange work

Max	57	Duck and fish	He entered zeroes for all categories.		1 family member
Danny	28	Vegetables and hay	100	0	1 family member
Nancy	80	Grapes and wine	100	0	Family members
Stacy ^b	10	Poultry, goats, chicken eggs	x	x	Family members
Virginia	15 ^{†††}	Fruit and vegetables	100	0	1 part-time, hired, seasonal laborer
Stephen	42	Pecans	100	0	None
Paul	27	Vegetables; meats; eggs; goat dairy	100	0	5 family members
Margaret	4 ^{†††}	Strawberries	No sales in 2010 due to drought.		4 family members
Beverly	>1 ^{†††}	Seedlings/transplants	100	0	None
Robert	15 ^{†††}	Vegetables, eggs, herbs	A series of hardships disrupted this farmer's business in 2011. By 2012 he had begun marketing produce to a restaurant 60 miles away.		
Carolyn	60	Raw goat milk	100	1 other, not formally hired	1 other, not formally hired
Martha	160 ^{†††}	Fruit and vegetables	100	1 other not formally hired	1 other, not formally hired
\$10,001–\$25,000, n = 2					
Tony	10	Wine	25	75	2 full-time, hired, seasonal laborers; 2 part-time, hired, seasonal laborers; 1 family member
Eric	300	Pecans	0	100	2 full-time, hired, year-round laborers; 6 full-time, hired, seasonal laborers
\$25,001–\$50,000, n = 5					
Henry	14	Fruit and vegetables	99	1	2 full-time, hired, seasonal laborers
K.J.	127	Soybeans, cattle	13	5/82	1 part-time, hired, year-round laborer

Barbara	160	Pecans	30	10/60	1 part-time, hired, seasonal laborer; 1 family member
Melissa	40 ^{†††}	Fruit and vegetables	100	0	1 family member
Diane	10 ^{†††}	Vineyard	100	0	2 part-time, hired, year-round laborers; 3 part-time hired seasonal laborers; 2 family members

\$50,001–\$100,000, n = 7

Ron	N/a (bee keeper)	Honey	10	100/20	Part-time hired labor, year-round
Arthur ^c	400	Fruit and vegetables	100	0	1 part-time, year-round, hired laborer; 6 part-time hired seasonal laborers; 5 family members
William	800	Beef	100	0	1 family member
Gary	2 ^{†††}	Vegetables	100	0	1 part-time, hired, seasonal laborer
James	120	Deer meat; beekeeping	75	25	3 family members
Peter	2 green-houses; 1 straw-bale building	Highly specialized crop	93	7	3 part-time, hired, seasonal laborers
Ryan	5	Fruit and vegetables	95	None	None

\$100,001–\$250,000, n = 4

Jay	2,000 acres' pasture	Cattle, pecans	0	50/100	1 full-time hired year-round; 1 part-time hired year-round
Judy ^d	90 ^{†††}	Fruit and vegetables, peanuts	95	0	2 full-time hired labor, year-round; 2 full-time hired seasonal labor; 2 family members; 2 others
Pamela	660	Pumpkins, wheat, cattle	5	0/95	1 family member
Dennis	5,100	Livestock	20	20/60	2 family members

>\$250,000, n = 1

Kurt	320	Buffalo	40	60	2 full-time hired year-round laborers; 1 part-time hired year-round laborer; 2 family members
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*A pseudonym is given to each farmer.

**I have the more specific lists of crop mixes for each of these farms. However, for brevity's sake I have created broad categories to describe the crops.

†Direct markets entail retail sales at farmers' markets, from the farm, from greenhouses, roadside stands, and truck gardens, at agritourism operations, or through a CSA subscription.

††Wholesale sales include to restaurants, stores, or other businesses that then sell to end consumers, as well as to distributors, brokers, grower-owned co-ops, or independent packers or shippers.

†††These farms have some limited production in greenhouses or hoopouses.

^aOther sales take place through the Oklahoma Food Co-op, livestock auctions, commodity markets, and other, unspecified markets by the survey respondents. Some survey respondents entered figures that added up to more than 100%, possibly because they assigned percentages to different agricultural products, such as produce versus cattle.

^bThis respondent misunderstood the questions about gross farm sales and checked the blanks instead of filling in percentages.

^cArthur was one of only two survey respondents who generated some income from schools. Schools bring children on field trips to his agritourism operation in a Tulsa suburb.

^dJudy reported that her farm earned 5% marketing products to schools in 2010.

In answer to the yes/no question, "If you have not yet marketed your farm products directly to schools, are you interested in doing so sometime in the future?," 14, or 38%, of survey respondents (N = 37) answered yes, and 23, or 62%, answered no. A frequency count is made of this categorical data according to those who answered yes and those who answered no. Data on those who answered in the affirmative appear in Table 5.3, while the data on those who answered in the negative are presented in Table 5.4. The rank order for age and years in farming appears in parentheses. The data reveal the heterogeneity in the relationship between farmer's age and years in farming. Measurements of central tendency are then calculated for the ages and years in farming for each group of farmers. After these measurements are calculated for both groups, a comparative analysis follows.

To complement the comparative analysis, textual data from the surveys are presented. First, remarks representative of common themes emerging from those who expressed a desire to participate in FTS someday are presented and analyzed. Second, remarks representative of common themes emerging from those not interested in marketing to schools are presented and analyzed. Because this group was larger, the remarks are more numerous and thus are analyzed in conjunction with the presentation of a frequency table (see Table 5.5), which displays the number and variety of reasons given for a lack of interest in marketing products to schools.

Table 5.3 displays the ages and number of years in farming reported by survey respondents who expressed interest in marketing their farm products directly to schools in the future. Their places in the rank order of age and years in farming are enclosed in parentheses. It is useful to read the data on ages and farm tenure closely. One finds no directional relationship between farm tenure and the farmers' ages. Some older farmers have farmed far fewer

years than younger farmers. For example, “Jay,” who was 47 in 2011, had farmed just 7 years, while Stacy, 39, had been reared on a farm and had taken up farming as an adult. The wide range of years in farming, independent of age, may imply a wide array of reasons for farming, varying degrees of practical know-how, and a range of skills for marketing products. Although the mean age for the 37 survey respondents is approximately 58, which parallels national statistics on the average age of U.S. farmers (Kurtzleben, 2014), one should not assume that these farmers have been lifelong farmers or are nearing the end of their agricultural endeavors. Many, in fact, have entered the profession in middle age on a second or third career. A so-called beginning farmer could be of any age.

Table 5.3. Farmers Interested in Marketing Products Directly to Schools vs. Age and Years in Farming, $n = 14$

Survey Respondent	Age (Rank)	Years in Farming (Rank)
Arthur	47 (3)	13 (6)
Barbara	64 (13)	35 (12)
Dennis	59 (10)	41 (14)
Gary	65 (14)	15 (8)
Jay	47 (2)	7 (2)
Judy	57 (8)	12 (5)
Martha*	62 (12)	13 (7)
Melissa	50 (5)	16 (9)
Pamela*	58 (9)	40 (13)
Paul	49 (4)	4 (1)
Robert	56 (7)	31 (11)
Stacy	39 (1)	21 (10)
Stephen	60 (11)	10 (4)
Virginia	56 (6)	8 (3)

*I selected these two farmers for interviews on the second stint of fieldwork.

Ranking the data on age and years in farming versus farmers’ interest in marketing products to schools provides the opportunity to measure the central tendency in each data set. Measures of central tendency are useful statistics to

describe a data set numerically. The mean age of these 14 farmers is approximately 55 years. Because there is an even number of observations, the two middle ranks are used to calculate the median, resulting in 56.5 years. In addition, the mean number of years in farming for farmers who were interested in marketing products to schools is 19, while the median is 14. Table 5.4 presents the equivalent data for farmers who were *not* interested in marketing their products to schools. After this presentation, a comparison of the two data sets is given.

Ages and farm tenure of this second group validate the observations of the first group, in Table 5.3, which is that people begin farming at various points in the course of life. In Table 5.4, for example, whereas Beverly, 67, had been farming for 12 years, Connie, 59, had farmed for 38. Beverly became a farmer in the midst of an off-farm career, which she still engaged in at the time of the survey, while Connie had farmed most of her adult life.

Table 5.4. Farmers Not Interested in Marketing Products Directly to Schools vs. Age and Years in Farming, $n = 23$

Survey Respondent	Age (Rank)	Years in Farming (Rank)
Beverly	67 (16)	12 (6)
Carolyn	50 (5)	26 (15)
Connie	59 (9)	38 (22)
Danny	37 (3)	20 (12)
David	32 (1)	12 (7)
Derek	54 (7)	31 (21)
Diane	69 (18)	30 (20)
Eric	60 (11)	10 (5)
Gerald	75 (22)	12 (9)
Henry*	56 (8)	8 (2)
James	69 (17)	27 (16)
Kenneth	73 (21)	20 (11)
K.J.	73 (20)	54 (23)
Kurt	60 (10)	12 (8)
Margaret	64 (14)	20 (13)

Max	63 (13)	20 (14)
Nancy	51 (6)	10 (4)
Peter*	67 (15)	30 (19)
Ron	80 (23)	30 (18)
Ryan	34 (2)	8 (3)
Tony	50 (4)	8 (1)
Walter	71 (19)	27 (17)
William	63 (12)	17 (10)

*I selected these farmers for interviews on the second stint of fieldwork.

Of the subset of farmers in Table 5.4 ($n = 23$) who expressed no interest in marketing their products to schools, the mean age is approximately 60 years, about 5 years more than the mean for those who expressed an interest in selling products to schools. The median age is 63, which is 6.5 years more than the median age for the other group. In addition, the mean number of years in farming for farmers who were not interested in marketing products to schools is approximately 21, while the median is 20, in comparison to a mean of 19 and a median of 14 years in farming for the group interested in marketing to schools. Therefore, the group expressing no interest in marketing products to schools tended to be older and more experienced with farming than the group who expressed an interest in marketing to schools, although the differences between the two groups were more pronounced when the medians, rather than the means, were compared. One possible interpretation of this slight to moderate difference, depending on whether means or medians are compared, is that the older, more experienced farmers may hold perspectives shaped by more years of participation in various types of markets, which may in turn influence their capacity to judge the value of participating in a government-led program, such as the Oklahoma FTS Program. Although this difference might be due to chance, it points to a line of inquiry and follow-up research that could be part of a nationwide data-collection effort on the types of farmers who participate in farm-to-institution arrangements generally and in FTS specifically. By “types,” I mean the array of characteristics and attributes pertaining to agricultural operations and producers similar to that which is collected by the USDA in its Census of Agriculture. Particularly interesting to researchers of AAFIs would be an examination of producers’ years in farming compared with their interest or willingness to market farm products to institutions.

Analysis of Textual Data from Respondents Interested in Marketing Products to Schools

On their survey forms, neither Judy nor Arthur, whose farms were described earlier, detailed potential benefits to future FTS participation. A 47-year-old midlevel farmer, “Jay,” however, although having never marketed products to schools, stated that he would be interested in helping his local schools make local purchases. The community could benefit from FTS food procurement, he wrote, because such activity would “get more young

people interested” in farming and ranching and it would “help the economy.” Likewise, “Stacy,” 39, was interested in teaching children about farming. She had hosted school field trips on her southeastern Oklahoma farm and visited classrooms to teach about agriculture. Although Stacy had not yet sold her farm products to schools, she wrote that she “wished the school had their own supply (vegetables, milk and meat). [Market connections to local schools] [w]ould be a great ag idea.” Her farm produced mostly poultry and dairy products at the time and had 2010 gross farm sales under \$10,000. The nearest school to her was 8 to 10 miles away, and she had participated in the local PTA. She seemed unfamiliar with the Oklahoma FTS Program and had not yet availed herself of the materials published on the Oklahoma FTS website. In her case, social connections and close proximity to a local school made marketing to schools an attractive idea. Her written remark indicated some familiarity with the quality of school food and a belief that a local supply of food would benefit not only the school but also the farmer. Jay’s and Stacy’s remarks were based on the *promise* offered by school-food procurement from local farmers, not on experience.

In contrast, “Pamela,” a long-time, midlevel farmer, whom I selected to interview for my return to Oklahoma in 2012, had stated an interest in marketing to schools while also placing a question mark and the words “tried it” next to her tick mark on the survey. Her experiences with marketing products to schools gave her some insight into the structural context for FTS and shaped her choices moving forward. At the time of my research she was no longer interested in marketing products to schools, which is why she qualified her yes answer with a question mark. Her reason for quitting FTS was the “poor understanding of school nutrition personnel. They don’t want to prepare foods. They want to buy already to serve.” She drew a frowning face next to these comments. Her efforts to connect with the statewide FTS program involved meetings with key FTS personnel and the principal of her local school, which was 25 miles distant to her farm, where she lived in a remote, rural area of west-central Oklahoma. Although her farm produced summer fruits, including watermelon and cantaloupe, as well as fall pumpkins, in sufficient quantities to match the needs of the school food service, Pamela found that her efforts marketing to the school were hampered by several phenomena: a mismatch of the growing season with the school calendar, meeting the school’s expectations for how the produce should be prepared for shipping and delivery (also observed in Janssen, 2014), and finding and coordinating storage and refrigeration. The long round trip to the school and back also made marketing products to the school district infeasible, because of the cost of gasoline and time. She wrote on the survey that there was no one available for local delivery. Her experience provides a farmer’s perspective on the difficulty of marketing suitable foods to schools in distant or remote rural locations (Askelson et al., 2015).

Pamela suggested that policies be implemented that would “give schools workstation[s] to prepare foods or products” and to “teach [cafeteria personnel] to cook, not peel and stick it in [the] oven.” Pamela’s direct experience working with school authorities speaks to the challenges of localizing school-food procurement, which have been suggested by farm-to-institution advocates (Bellows et al., 2003; Sanger and Zenz, 2004) and academics (Poppendieck, 2010). Pamela’s report of encountering resistance from school authorities contrasts with the findings of Izumi, Alaimo, and Hamm (2010), who found that school food service professionals in the Upper Midwest and Northeast of the U.S. were motivated to buy food from local farmers, in part, in order to support farmers’ livelihoods. The latter study, however, was conducted in the context of seven FTS programs that had been running at least two years, at schools already equipped with the proper kitchen implements and appliances, as well as skilled

personnel to cook from scratch. These schools “therefore did not have to pay the extra costs associated with lightly processed items” (pp. 89–90). These findings, of school food service’s support for farmers and school kitchens’ being well equipped, would have been expected, given the built-in bias in the study’s method of selecting school sites that had already successfully managed a FTS program for two years. School food service personnel in an established program would logically be supportive of farmers and their livelihoods after committing to purchasing from them for years and making the necessary menu changes while promoting the new food items to the schoolchildren. Pamela’s case offers a stark contrast. She approached the school with the idea of supplying farm-fresh produce to be incorporated into the school menus. The school rejected the proposed change.

A third study participant interested in marketing to schools sent a letter along with his completed survey. Stephen, who is semi-retired, had moved back to Oklahoma “to tend the pecan trees that [his] great uncle had planted and grafted” after working in a career on the West Coast. Ten years of farming experience informed his survey answers and the letter he wrote to me, here quoted in part:

In the 10 years I have been farming, the weather, insect pests, and various varmints have curtailed my production. In the event the crop is ever not wiped out by an early season frost, a late spring frost, drought, or other malady, the farm has a potential to produce between ten and twenty thousand pounds of pecans. ... I entered my name on the list for direct-to-schools marketing as a long-shot, in the hope that it could be a potential market for my products. The major challenge for my operation will be to provide a reliable, continuous source of pecans at a competitive price. (The pecan shellers have a tremendous advantage in this regard.) The other challenge, beyond actually having a crop of course, would be the establishment of connections with school districts for the product. ... Thus far, the operating costs have outweighed the total amount of sales. But, as a person doing this for the lifestyle, I am not about to quit.

The list to which Stephen refers is described in Chapter 4. It was the list of names to which I mailed the survey and had appeared, updated in 2010, in the *Oklahoma Food Connection 2006*, a directory of growers, crops, and institutional buyers published by the Kerr Center and the OFPC. As of 2011 nothing yet had come of Stephen’s being listed therein.

Although Stephen had taken the step of placing his name in the directory of farmers, crops, and institutional buyers, additional forces had converged to prevent him from taking the next step. First, the biological and climatic forces of pests, drought, heat, and frost limited his farm’s production capacity. Second, structural constraints in the form of competition from pecan shellers gave him a comparative disadvantage because he could not match them on supply or price. These combined with his not knowing how to connect with a school district.

The *Food Connection* directory is an example of myriad FTS or farm-to-cafeteria media, which include directories, guides, printed toolkits, online tools, websites, manuals, and videos, as well as experiences, such as webinars, meetings, workshops, training sessions, and conferences, that together constitute a large body of information or avenues to acquire information so that farmers and school food service personnel can initiate and sustain a food-procurement network. These hundreds, if not thousands, of publications, tools, and events, when taken together, co-constitute the macro-level structure of the national FTS campaign and act as mechanisms and

tools of governance for actors at the micro level. For example, an online produce calculator is available to farmers and school food service personnel to figure how much product a farmer must supply to a school based on the number of servings it requires of the product. The calculator also figures the cost per serving of the product, based on the price that the farmer and SFSD have agreed to. Because FTS food procurement is voluntary, meaning that there is no federal mandate to do it, farmers and school food service personnel are expected to avail themselves of such resources to build the relationship that will make the marketing arrangement possible (McDermott, 2006). They are expected to exercise their agency to make a series of choices aimed to educate themselves about the logistics and rules pertaining to local-foods marketing and procurement, respectively. In the absence of intermediaries, however, such as regionally based food distributors (Izumi et al., 2010b) or NGOs (Conner et al., 2012; Conner, Nowak, et al., 2011), which have been shown to be helpful in some contexts as liaisons between schools and farms, initiating these relationships can prove daunting, since growers may lack “the marketing skills needed to drum up business with schools” (Izumi et al., 2010b, p. 345). In his letter, Stephen stated that it would be challenging to establish “connections with school districts for the product.” His remark implies that the responsibility to make the market connection with schools has been devolved onto farmers. Oklahoma farmers’ agency expected at the microscale—to reach out to schools—runs up against the mesoscale structural constraint of a statewide program reliant on the organizational efforts of a sole coordinator, who was charged to facilitate connections between farms and schools statewide. Without the partnership and coordination of outside NGOs, as in the cases of Vermont (Conner et al., 2011) and Denver and St. Paul (Conner, Nowak, et al., 2011), much of the responsibility to forge links between farms and schools must by necessity fall onto the farmers and school food service personnel themselves. Farmers, however, may not know how to begin, as Stephen’s case shows, and school food service may not be interested, as in Pamela’s case. Moreover, in the rural setting, a lack of knowledge about how to initiate connections with farmers may contribute to a low rate of FTS food procurement among rural SFSDs (Askelson et al., 2015).

Analysis of Textual Data from Farmers Not Interested in Marketing Products to Schools

Farmers gave a variety of reasons for not being interested in marketing their products to schools (see Table 5.5). Several farmers gave more than one reason. A frequency count is given for each instance that a reason was written in or checked off on the surveys of the farmers who had expressed no interest in marketing products to schools ($n = 23$). To place these reasons in a context, categories of various scales of governance structures are defined. A farmer exercises his or her agency in reaction or response to an array of governance tools or mechanisms, such as food-safety rules, that open up or constrain possibilities for action and practice. (This assertion is not meant to say that structure determines farmers’ actions but rather that structure and its governance mechanisms impart information or send signals to farmers that they in turn weigh and consider when deciding which actions and practices are best to refrain from, try, or adopt.) Below are the definitions of the various scales—macroscale, mesoscale/microscale, mesoscale, and microscale—with examples from Table 5.5 used to illustrate them.

Definitions of the various scales of structure are explained in descending order. At the macroscale, a farmer makes a decision in the face of state- or federal-level governance structures, such as school nutrition guidelines and rules, which are set by the USDA; food-safety regulations; and state or federal laws that direct a farmer’s ability to

hire seasonal workers. For example, nutritional requirements of the NSLP have led to the development of school menus geared toward fulfilling the minima and maxima of nutritional constituents such as protein, sodium, fat, and sugar (Poppendieck, 2010). These requirements combined with a well-developed infrastructure to supply schools participating in the NSLP with commodity foods and prepared, prepackaged foods have led to fairly predictable meals typically composed of ingredients such as beef crumbles, pepperoni, commodity cheese, and chicken nuggets, leading to a chorus of criticism over school lunch (Mortazavi, 2011; Nestle, 2002, in Kloppenburg and Hassanein, 2006). Farmers producing foods that require special handling, storage, and preparation, such as venison and honey, are aware that schools would likely not be interested in their products.

At the next level, macroscale/mesoscale, a farmer responds to practices and structures of the Oklahoma FTS Program and/or the school food service, which have been shaped by tools and mechanisms of governance that have been sedimented over time at the state and local level by back-and-forth flows of informational exchanges among various levels of government (Conner, King, et al., 2011). An example would be paperwork required for FTS participation. The farmer may have been directed to obtain the paperwork by the FTS program office but may have had to acquire the paperwork elsewhere, for example, from the ODAFF, a county health department, the state Extension office, or a federal office. At the mesoscale, a farmer decides to participate in FTS or not after learning information about a local or statewide institution or structure that influences his or her decision. An example from Table 5.5 is learning that the local schools source all of their food from one or more wholesalers or distributors. This information might preclude a farmer’s participating. The farmer, having been encouraged by the Oklahoma FTS Program office to reach out to his or her local schools, has acted on a mesoscale structural governance tool—encouragement from the Oklahoma FTS Program. Upon contacting the schools, the farmer then learns that the school prefers not to change its food-procurement procedures or channels.

Table 5.5. Frequency of Reasons Given for Lack of Interest in Marketing to Schools, Categorized by Scale*

Scale	Reasons	Frequency
Macroscale	Mismatch of school calendar with growing season	8
	Low prices/inadequate school budgets	4
	Product is not widely used in or suitable for school meals	4 [†]
	Interference from federal immigration officials	1
Macroscale/ Mesoscale	Regulations/paper work/liability/“red tape”	7
	Lack of means to transport and deliver product	2
	School food service cannot source or prepare locally grown food	2
Mesoscale	Local schools buy from a wholesaler	1

Microscale	Lack of time	2
	Not interested in increasing production	1
	Tried to contact FTS Program but “never got any interest”	1
	Tried to market a product to a local school, but school did not want it	1

*The frequencies add up to more than 37 because several respondents gave more than one reason.

†These products were wine, honey, venison, and a highly specialized crop.

At the microscale, personal and household-level conditions and circumstances affect a farmer’s market decisions. Influencing his or her perception that marketing to schools is undesirable could be, among other things, satisfaction with his or her current market outlets, a lack of interest in increasing production, or lack of time to begin something new. The microscale also refers to a farmer’s experience directly interacting with the Oklahoma FTS Program or a local school district and the choices he or she makes as a result of that experience. The usefulness of organizing farmers’ reasons according to scaled structures is to sort which signals might be unique to the farmer and which might be generalizable to farmers nationwide. For example, not being interested in increasing production might be the perspective of some farmers in some places, but the mismatch of the school calendar with the growing season is a nearly universal problem in the U.S.

Table 5.5 shows that the two most common reasons cited for lack of interest in marketing to schools are structural: the mismatch of the school calendar with the growing season and required paperwork and regulations for providing food to child nutrition programs. What follows are profiles of farmers whose remarks represented common themes among this group of survey respondents.

“Diane,” 69, managed a vineyard and earned between \$25,001 and \$50,000 in gross farm sales in 2010. She had been farming for 30 years, and her farm had diverse activities and types of land use: a 10-acre vineyard, 30 acres of pasture, 20 acres of woodland, and a greenhouse. All of her farm sales were retail through direct marketing, and she was a member of a farmers’ market in a midsized college town. She sent an email to accompany the survey. Like many of the farmers surveyed, she, too, had hosted school field trips to her farm and had participated in the PTA, indicators of her social ties to the community. In her email, she wrote that her name had been on the *Oklahoma Food Connection* farmers’ directory because of her membership in her town’s farmers’ market. Therefore, she had not sought out an opportunity marketing products to institutions, such as schools, hospitals, or prisons. She wrote,

After receiving the survey and cover letter, I did some investigation on the FTS program here in Oklahoma. ... I believe it is a difficult program for a grower/farmer to implement. First is seasonal growing of vegetables on the part of the farmers, 2nd is the lack of ‘how do we prepare and cook what is available’ on the school cafeteria side. 3rd is transportation and delivery of the product and 4th extensive preparing, sanitizing of the product to meet school’s and government criteria.

All of these reasons reflect a “practical rationality, based on judgment and experience” (Flyvbjerg, 2001, p. 58), that imbues her, as well as other farmers, with the capacity to reason whether the school-food market makes economic

sense. Diane's reasons for not marketing products to schools speaks to structural features of school-food procurement, preparation, and provisioning and provide an opportunity to merge macroscale and microscale analyses. Like Diane, seven other farmers in this group also mentioned the incompatibility between school and agricultural calendars: "Our produce is not available until after school recesses, and when school reconvenes there is inadequate quantity," wrote Beverly, 67. To overcome this macroscale incompatibility, FTS advocates encourage a microscale solution, that is, that farmers extend their growing season by erecting hoophouses or greenhouses.

Diane's second reason considers signals across scales. The decline of cooking skills in school kitchens tracked the decline in such skills in U.S. society as a whole as the agrifood system became increasingly industrialized (Goodman and Redclift, 1991). Nevertheless, today there are exceptions, in school districts with central or satellite kitchens where kitchen staff prepare meals from scratch for thousands of children on a weekly basis (Conner, Nowak, et al., 2011; Poppendieck, 2010). Therefore, although a lack of cooking skills is a macroscale feature of the school-food environment, individual school kitchens have varying levels of skill sets. Likewise, her third reason, lack of transportation and delivery of local farmers' product, is both a mesoscale and a macroscale problem. While the NSLP has for decades relied on national, broadline distributors, regional and local distributors, USDA Foods, and the DoD Fresh program, among others, state and federal agencies working together at the macroscale in at least one state, North Carolina, figured out the importance of storage, transportation, and distribution to individuals at the microscale. Farmers there are not responsible for the transportation of their produce to schools, because the state sends trucks to pick it up (NC Farm to School Program, no date). In Oklahoma, such a macroscale solution was not forthcoming: storage, transportation, and delivery were left to farmers to sort out, resulting in geographic disparities at the microscale within the program. Farmers who could afford delivery and distribution could pay to market their products to Oklahoma schools, while those with less financial capital could not. The geographically uneven rollout and development of the Oklahoma FTS Program is a characteristic of neoliberal agendas that move to devolve state responsibilities onto local actors (Allen and Guthman, 2006). As macroscale structures weaken or fail to materialize, actors at the microscale are expected to fill the gaps.

The fourth reason that Diane gave echoed the comments provided by six others in this group of farmers: regulations that govern how food is produced and prepared can be too cumbersome and costly for smallscale growers to comply with. "Margaret," 64, for example, who had been farming for 20 years when she completed the survey, wrote that selling farm products to schools would present her with "too much hassle, not a good price, liability, paper work, etc." Like many others among the survey respondents, she had hosted school field trips and had visited classrooms, but the notion of marketing her products to schools was unappealing. She gave some thought to what policies could be implemented to make marketing her products to schools more feasible. She suggested "less liability for farmer, less paper work, easier tax laws for part-time ag labor (I use local teenagers or retirees when needed, which has been a long while ago) now I use family only." Her farm labor consisted of herself, her spouse, and four family members, not formally hired. In suggesting policy changes, she added "tax laws for part-time ag labor," which speaks to structural features that have made it hard for her to hire people who are not family members.

In northcentral Oklahoma, “Peter,” 67, and his wife, “Sally,” 65, found the regulatory hoops insurmountable to participate in FTS. Growers of a highly specialized crop that can be processed as a nutritious ingredient in sauces, dips, and soups, they had tried to market their products to a local elementary school, “but the school did not like to serve soup,” wrote Peter, who completed the survey, while his wife wrote comments in the margins. (I interviewed them in 2012, details of which appear in Part Two.) Sally added, “The paperwork with OSU [Oklahoma State University] was overwhelming and we did not pursue it. As I remember, the requirements were too rigid for fulfillment at our farm.” They had made a concerted effort to make FTS work for them, having gone through “the farm to school training.” Therefore, while the Oklahoma FTS Program had motivated them enough to connect with a local school, they had received “no good response. Fresh sales would have required different management and production operations.” Exercising their agency in response to the guidance and encouragement, and a training session, of the Oklahoma FTS Program, they tried to market their products to a local school. The arrangement did not pan out, however, and the reasons they gave largely concerned structural incompatibilities between the preferences of school food service and their farming operations and the crop they produced. Attributes of macroscale and mesoscale structures had microscale effects in terms of the preferences of school food service and the necessity to complete paperwork and conform to cumbersome regulations. In spite of these farmers’ best efforts, however, the school rejected their product because it did not want to serve soup.

When making purchasing decisions, SFSDs must collect three bids for the foods they procure. Farmers who have looked into supplying food to schools have noticed that the prices schools offer are low compared to the retail prices from farmers’ markets, restaurants, caterers, and CSA plans. Several survey respondents remarked on the low prices, which are a macroscale structural feature of the NSLP and other federal school-nutrition programs. “Ryan,” who at 34 was among the youngest of the study participants, is a full-time farmer along with his partner, “Chelsea,” in northeastern Oklahoma. Their 2010 gross farm sales were between \$50,001 and \$100,000. At the time of my research they supplied all of the labor that the farm needed. Reflecting a high degree of marketness (Block, 1990), Ryan wrote, “The price point is too low for a small farm,” so he and Chelsea had decided not to sell products to schools. Ninety-five percent of Ryan and Chelsea’s farm sales in 2010 were direct-to-consumer retail sales. In response to the question about policies that could help farmers connect with schools, Ryan wrote, “If there was a wholesale buyer who came to the farmers’ market to purchase from all the farmers we would be able to sell to the schools via that buyer.” This comment suggested some willingness to sell at wholesale prices if products were aggregated with those of other farms. It also suggested a change to the way that the Oklahoma FTS Program was organized. At least as of the end of 2012, it had just one coordinator with no additional organizational, administrative, or governing personnel to facilitate relationships between farmers and schools. Ryan’s suggestion would entail state-level structural change. His disinterest in marketing to schools did not preclude interacting with them, however. He and Chelsea had hosted field trips of schoolkids to their farm and had visited classrooms to give presentations on agriculture-related topics.

Labor issues undergird several of the reasons given for being uninterested in marketing to schools. Whose labor is supposed to make FTS food-procurement work? When farmers perceive “regulations,” “paper work,” “liability,” and “red tape” as obstacles, their concerns revolve around not only the legal implications of providing food to a

supply chain requiring traceability back to the farm but also the time demands on learning, navigating, and complying with food-safety rules. Demands on time, reflected also in the explicit references to time by two respondents, also translate into demands on resources, since farmers must purchase, install, and implement various forms of equipment, such as handwashing stations to comply with the good agricultural practices (GAP) required by the Oklahoma FTS Program.

A narrative thread running through the surveys and interviews was woven by farmers' recalling their trying experiences of the exceptional drought that had begun in 2010 (it lasted until 2015). Farmers in both groups, those interested and not in FTS sales, conveyed the stress and heartache left in the wake of the drought and heat. In the group of farmers not interested in FTS food sales, three farmers wrote that drought or heat had greatly diminished their farm output in 2011, as Stephen in the prior group had also alluded to in his letter. For example, while Margaret sold her produce at farmers' markets in normal-precipitation years, because of the drought, her only production was in greenhouses, which allowed her to market produce to stores.

Drought delivered a crushing blow to the tiny acreage of a woman-owned farm beyond the exurbs of Tulsa. "Connie," 59, whose smallscale operation consisted of selling produce and starter plants from her greenhouse and truck garden, had been farming for 38 years, with her husband contributing his labor. She had been interested in FTS, inquiring about it, but perceived that the program had not shown interest in her farm. FTS seemed like a "wonderful" direct-marketing opportunity for farmers "still in business," she wrote. After two years of drought, however, in fall 2011, she wrote, "Weather has ruined my endeavors." The prolonged drought caused her to proclaim that she would cease farming altogether: "115° summer—no production. \$200 water bills. I am changing directions. ... 2010 wasn't great, but 2011 was horrid. I'm done." Prolonged exceptional drought, although difficult to withstand for farm operations of all sizes, is particularly challenging for smallscale growers with limited resources, who may not be able to rebound after the drought ends. As far as linking such vulnerable farmers to school-food procurement, an incompatibility is self-evident. Schools plan menus weeks, sometimes months in advance, and sourcing fresh ingredients from local farms at the mercy of immediate climatic and biological hazards makes for a sometimes inconsistent and unreliable supply stream.

The Curricular Components of Interactions between Farmers and Schoolchildren

This section presents the data on the number of farmers surveyed who had been involved with schools through hosting field trips or farm tours or visiting a classroom to teach children about agriculture-related topics. Of the 37 survey respondents, 21, or 57%, indicated various types of social contact with schools. When this result is considered in the context of farmers' interest, an interesting pattern emerges.

Of the 14 survey respondents who expressed an interest in marketing products to schools in the future, 8 of them, or 57%, were among the 21 who had been involved with schools in other ways, such as classroom presentations on agriculture-related topics or hosting field trips (including the previously described two farmers who had reported some sales to schools). By comparison, among the 23 farmers who did not want to market products to schools in the future, 13 of them, or nearly 56%, had also visited classrooms or hosted field trips or farm tours. Another way to look at these data is to consider that among these 21 farmers, 8 (or 38%) expressed an interest in

marketing farm products to schools in the future, while 13 (or nearly 62%) did not desire to market farm products to schools in the future. This observation is the same as the ratio for the whole dataset of 37: Among all survey respondents, nearly 38% ($n=14$) expressed an interest in selling their products to schools, while 62% ($n=23$) expressed no interest in doing so. One might have expected to find that all 14 of those interested in selling products to schools had also had previous curricular experiences connecting their farms to schools, but that was not the case. Likewise, one might have expected that the 23 farmers not wanting to market products to schools in the future had not had curricular experiences linking their farms to schools. Again, that was not the case, since 13 of them had. The two datasets, then, overlapped—in each group, those interested and those not interested in FTS school sales, farmers had engaged in curricular activities with schoolchildren. What can be inferred from these findings is that whether or not farmers had had such prior experience was not an important influence on whether, or not, they desired to market products to schools in the future. There may be other considerations involved in farmers’ decision making whether or not marketing food to school cafeterias is attractive to them.

These findings point to the value of interviews for delving deeper into farmers’ motivations for participation and nonparticipation in Oklahoma’s FTS Program. For 21 of the survey respondents, teaching schoolchildren about agriculture or sharing their farms with them likely deepened their ties to surrounding communities, whether or not they perceived these activities to be part of a named, formal programmatic activity called “farm to school.” These linkages are threads in the social fabric of Oklahoma culture, creating connections between town and country, and may demonstrate concerted efforts on the part of the state’s farmers to educate youngsters about rural ways of life and the role that agriculture plays in society and economy.

Excess Farm Capacity for the Purpose of Growing Food for School Meals

This section presents data on whether or not the respondents’ farms possessed excess capacity to be used to produce food for schools. The yes/no question asked, “Is there excess capacity on your farm that you could plant specifically for a farm-to-school program?” A count of the yeses and noes was made. These frequency counts are displayed according to whether or not the farmers were interested in marketing their products to schools, and are further categorized by gross farm sales for 2010 (see Table 5.6).

Table 5.6. Farmers’ Interest in FTS Marketing vs. Frequency Count of Excess Capacity, by Gross Farm Sales (2010), N = 37

Do you have excess capacity?	Interested, $n = 14$	Not interested, $n = 23$
$< \$10,000, n = 18$		
Yes, $n = 11$	6	5
No, $n = 7$	—	7

\$10,001 – \$25,000, <i>n</i> = 2		
Yes, <i>n</i> = 0	—	0
No, <i>n</i> = 2	—	2
\$25,001 – \$50,000, <i>n</i> = 5		
Yes, <i>n</i> = 3	1	2
No, <i>n</i> = 2	1	1
\$50,001 – \$100,000, <i>n</i> = 7		
Yes, <i>n</i> = 3	2	1
No, <i>n</i> = 4	—	4
\$100,001 – \$250,000, <i>n</i> = 4		
Yes, <i>n</i> = 4	4	—
No, <i>n</i> = 0	—	—
> \$250,000, <i>n</i> = 1		
Yes, <i>n</i> = 0	—	—
No, <i>n</i> = 1	—	1

Of the 14 survey respondents who indicated interest in participating in FTS food sales in the future, 13, or nearly 93%, had excess capacity on their farms for a FTS program. Data on excess farm capacity are valuable for revealing possible, future, agricultural land use on the farms surveyed. Among those farmers interested in marketing products to schools, farms with excess capacity come from several sales categories, with one category represented 100%: that of the midlevel farm of between \$100,001 and \$250,000 annual sales (Kirschenmann et al., 2008). The number of midlevel farms has declined at an “alarming rate” in recent decades (p. 7). In this case, the willingness of midlevel Oklahoma farmers to plant for school-food procurement reveals a latent capacity for market development, food-system localization, and product differentiation. These data also indicate that some smaller-scale growers interested in FTS have excess capacity to grow for schools, but of the smallest farmers, just 35% had room on their farm to expand for FTS-focused production. If FTS is a proxy for any AAFI, then self-reported excess capacity suggests a potential, unutilized asset of productive land to serve local populations.

Of the 23 survey respondents who said they were not interested in participating in FTS food sales, 8, or nearly 35%, had excess capacity on their farms for a FTS program, while 15 (65%) did not. Of those who did not, 14 of 15 all had gross farm sales in the sales categories below or capped at \$100,000, in addition to the only survey respondent earning more than \$250,000 from farm sales. When compared with the farmers who expressed an interest in marketing products to schools, those not interested were more likely to report not having excess capacity to plant crops specifically for a FTS program: 7% ($n = 1$) in the former group, and 65% ($n = 15$) in the latter group did not have excess capacity. This lack of capacity may have informed their lack of interest in FTS. Although advocates promote FTS as a boon to rural economies, farmers apply their own practical knowledge to judge its viability. Farmers apply a “practical rationality” (Flyvbjerg, 2001, p. 58) to assess whether marketing products to schools is good or bad for them. Many variables factor into their decision-making processes regarding how, where, and to whom to market the products of their labor. A lack of excess capacity on their farms is one of them. In total, among the 37 survey respondents, almost 57% ($n = 21$) reported excess capacity on their farms, with 13 of them also expressing interest in marketing products to schools. This finding could be interpreted as a latent potential on Oklahoma farms for supplying farm-fresh products to local schools or other institutional buyers.

Part Two: Presentation and Analysis of Interview Data

Categories of Engagement and Experience

In Part One, categories of engagement and experience began to emerge in farmers’ contact with the Oklahoma FTS Program. Engagement connotes farmers’ actions and practices to develop markets for themselves, such as attending meetings, contacting the program director or local schools, bringing samples of product to schools, and changing farming practices or operations to accommodate the needs of schools. Farmers’ accumulated direct experience interacting with FTS stakeholders and participating in FTS activities informs their decision-making processes. Although Part One revealed that none of the survey respondents had considered themselves as *currently* (at the time of the survey) participating in the Oklahoma FTS Program, two of them had invested significant time and resources into participating in the direct model of the program through visiting their local schools several times, discussing their products with school food service personnel, and providing their products to the schools, only to have their products rejected. Therefore, they quit trying to market to those schools and did not make an attempt to market to any other school. Aside from these two farm operations, the survey did not uncover any consistent involvement with the FTS program or with FTS-like food-marketing activities. A second category of engagement and experience involved farmers who had not sold food to schools in the past and did not intend to do so in the future. A third category involved curricular or social interactions with groups of schoolchildren, but without selling their products to schools for the purpose of inclusion in school meals. Through their agritourism operations, Arthur and Judy, respectively, had earned a small percentage of annual gross farm sales through contact with schools. (Similarly, Izumi et al. [2010a] found that marketing food to schools accounted for a very small percentage of annual farm income.) Although it is not a practice per se, the survey revealed what can be characterized as the promise of direct-market arrangements, since 38% expressed an interest in marketing their products to schools in the future. Whether or not survey respondents were interested in marketing farm-fresh products to schools, 57% of them

had spent time hosting groups of schoolchildren on their farms, visiting classrooms to present agriculture-related talks and demonstrations, and/or been involved with their local PTA. Social embeddedness in their community, then, did not appear to be related to whether or not they wanted to market their products to schools. The lack of interest was due to other reasons, many of which were given on the surveys.

The reasons for lack of interest in marketing to schools touched on a variety of themes, reinforced particularly by a letter and an email that survey respondents sent along with their completed surveys. Themes that emerged in Part One include the vulnerabilities of smallscale growers to climatic and biological shocks; the labor burdens on smallscale farmers and their families; time constraints; structural reasons to reject schools as a viable market: seasonality and burdensome paperwork; and farmers' perceptions and experiences that school food service personnel do not know how to or do not wish to prepare fresh food from scratch. Seasonality and lack of scratch-cooking skills have been found consistently in FTS literature as barriers to FTS implementation that have been reported by SFSDs (Vogt and Kaiser, 2008). Through the analysis of the survey data, it appears that neither smallscale nor midscale growers in Oklahoma benefitted from marketing products to schools, although Judy's 5% of sales to schools might have been products for school meals. With the exception of the two farmer survey respondents who had tried to market products to schools, none of the other respondents had engaged in marketing activities that they identified as being part of the Oklahoma FTS Program. The survey sample, then, did not sufficiently cover the target population of farmers engaged with the Oklahoma FTS Program, because it missed farmers with regular sales to schools. The second sample frame, provided by the list on the Oklahoma FTS website, captured these farmers, and their profiles are presented here in Part Two.

Part Two has several purposes. It will reveal further categories of engagement and experience, including the farmers who regularly participated on the statewide program and one who was regularly participating in a direct model with an unusual delivery method. The identified categories of engagement and experience help reveal which types of farmers benefitted from the Oklahoma FTS Program and which did not. The interviews provide insight into the mechanisms of power that contributed to these outcomes. The analysis of interviews in Part Two deepens understanding of farmers' perspectives and experiences as implied by the survey results by (1) reinforcing themes from Part One and providing voice to new ones, (2) reinforcing categories of engagement and experience that emerged in Part One and opening a window to new ones, and (3) addressing the phronetic question, who wins and who loses, by which mechanisms of power? Only through presentation and analysis of the qualitative data can a more complete picture be revealed of Oklahoma farmers' engagement with the Oklahoma FTS Program. Part Two addresses all study objectives and, along with Part One, answers all research questions.

Two points about this research must be emphasized: (1) This dissertation focuses on farmers' experiences as they relate to the market-oriented, food-procurement activities of the FTS campaign in Oklahoma. The NFSN and its predecessors have long argued that the school food system presents a significant market opportunity for America's farmers and, by extension, offers a pathway for rural economic development. The Oklahoma legislation that created the Oklahoma Farm to School Program intended that the program "improve Oklahoma farmers' incomes and direct access to markets" and "emphasize the purchase of locally and regionally produced foods in order to improve child

nutrition and strengthen local and regional farm economies” (Oklahoma Farm to School Program Act, 2013). This dissertation provides evidence from farmers’ perspectives on whether marketing products to schools has improved their incomes. (2) The food-procurement model of the FTS campaign is just one activity among many in a nationwide movement to localize agrifood systems. As such, it is one trend in a complex, dynamic system in a constant state of adaptation (Meter, 2010). This system is characterized by many moving, networked parts and people linked by synergies affected by endogenous and exogenous factors and structures. Studying any AAFI poses particular challenges, not the least of which is that these initiatives are constantly in flux, with various “structures, patterns, and properties” emerging over time (Meter, 2010, p. 24).

At the time of research, eight years after the pilot program and five years after the passage of the law creating it, the program had two models: the statewide program and the direct program. On the statewide program, farmers incur the cost of transporting their produce to urban-based distribution companies, which then truck the produce to various school districts. In the statewide model, the distance between the farm and the schools can be hundreds of miles. The direct model is supposed to entail a much shorter distance between a farm and a school district or school. In the direct model, the SFSD purchases produce from a farmer who lives close enough to manage the deliveries him- or herself. Profiles of farmers will be organized according to these approaches.

The 31 interviews with 27 farmers (four farmers were interviewed twice) revealed a variety of categories of engagement with the Oklahoma FTS Program. Two commercial growers who regularly supplied produce to the statewide program were the most engaged. The least engaged had not sold their products to schools in the past and did not intend to do so, yet they had given some thought to the viability of the program, having had some contact with it through meetings or other interpersonal interactions. Two farmers grew starter plants, and the FTS coordinator had purchased trays of these to use in demonstrations. For the purposes of this analysis, however, which is focused on the market potential of FTS, narratives only pertaining to those categories of engagement concerning the FTS market dimension are presented. These categories are listed in Table 5.7 with a frequency count given for the number of farmers interviewed and profiled whose textual data helped to construct each category.

The empirical findings in Part Two are presented in narrative form as profiles of farmers. Since the data collection was driven by the concept of engagement, fieldwork and interviews continued until I began hearing many of the same things from various farmers. I found that farmers had had a variety of types of engagement with the Oklahoma FTS Program. I was “purposely looking for indicators” of where farmers’ experiences logically fit on the spectrum of contact with FTS (Corbin and Strauss, 2012, p. 3). After collecting all of the data, analyzing it during the process of organizing and transcribing it, I found that eight categories of engagement—from momentary contact to regular sales on the statewide program—emerged from farmers’ recounting of their perspectives and experiences. In the research practice of phronesis, a “hard-to-summarize narrative ... may be a sign that [a] study has uncovered a particularly rich problematic” (p. 84). Narratives of farm operations from each category of engagement and experience are provided. Therefore, it is not necessary to profile each of the 27 farmers interviewed, although 17 are. The narratives are constructed from interviews with producers, a distributor, two SFSDs, a gatekeeper, and archival material because the thread of analysis tracing the concept of engagement identified these other interviews as

valuable in adding depth to understanding the categories and, thereby, in reaching “the point” of data saturation (Corbin and Strauss, 2012, p. 5). One of the challenges of conducting this research was ascertaining the actual number of farmers who marketed their products to schools. The fact that 14 farmers and one value-added processor were listed on the program’s website as “participating growers” gave me, as a researcher, the impression that the program was robust.

After the first stint of fieldwork, however, it became clear that few were formally involved. It is possible that there were, and are, Oklahoma farmers who market products to their local schools without communicating their activities to the FTS program office or requiring its assistance. In fact, archival research (Vo and Holcomb, n.d.) and the literature review (Askelson et al., 2015; Schafft et al., 2010) provided evidence that farmers and schools sometimes enjoy these informal market arrangements without necessarily recognizing them as “farm to school” or

Table 5.7. Farmers’ Engagement and Experience with the Oklahoma FTS Program, by Farm Profiled

Category of Engagement and Experience	No. of Farms*
Consistent Sales of Food to Statewide Program	2
Regular Direct Sales of Food to Schools	1
Began Direct Sales of Food During the Study Period	1
Sporadic Sales of Food, Desires to Continue	1
Marketed Food to Schools in the Past and Has Quit	3
After Much Effort, Rejected by School	3
No Past Sales of Food, No Intention to Do So	1
Made Inquiries but Has Not Made a FTS Connection	1

*Interviews were conducted with 2 farmers for one of the farms marketing produce consistently to the statewide program, with 6 farmers from among the 3 farms that had marketed to schools in the past and quit, and with 4 farmers from among the 3 farms that had been rejected by school food service.

considering them part of a larger movement, campaign, or program. When such activities are not captured by a formal FTS program office or the USDA FTS Program, the people involved in them are difficult to track down for research purposes. In Oklahoma, to be considered a participating farmer on the FTS program requires working in conjunction with the ODAFF (key informant, distributor).

In-person interviews turned out to be the only way to determine how many farmers actually participated in the formal Oklahoma FTS Program, since the information disseminated about the program via the website and at conferences was inaccurate. The number of participants, however, was less important to this research than gaining

an understanding of farmers' actions, practices, and decisions as indicators of categories of engagement with the FTS program. Of course, without accurate information to begin with, a researcher would not know whom to contact. The "sampling path" within the target population of Oklahoma farmers, therefore, had to pass through both sampling frames (as described in Chapter 4), since the second frame (from the Oklahoma FTS Program website) was the one that yielded several categories beyond those that had emerged from the mail survey.

Participating Farmers in FTS: Statewide

The statewide FTS program involved two commercial-scale growers who distributed their produce to about 60 school districts via about a dozen local and regional distributors. What follows are narratives that incorporate textual data from interviews with these growers.

In 2003 when the OFPC prepared to launch the pilot FTS project, one of the council members contacted "Jeff," a broker of commercially grown produce who had years of experience supplying FTS programs in Texas and Indiana. Jeff had family ties to Oklahoma through marriage but lived in Texas. His father-in-law was a former Oklahoma state senator who had served as chair of the Committee on Agriculture and Rural Development in the 1990s; the father-in-law was also a co-owner of an agricultural company that years prior had developed a seedless watermelon, which was the fruit chosen to be offered on the FTS pilot program. When the pilot was launched, Jeff, 50, brokered watermelons produced by three conventional farmers in the Great Plains country of Oklahoma. As of our 2012 interview, Jeff, who had been a broker for 25 years and a farmer for 10, had continuously participated in the FTS program, brokering, and eventually growing, seedless watermelons. His experiences with FTS programs in three states gave him a unique perspective on the challenges faced by both small- and largescale farmers, the effects of the regulatory environment on farm labor, and workable distribution systems. Therefore, his profile offers an opportunity to merge macroscale and microscale analyses and highlight the interactions between structure and agency. The following narrative is informed by interviews with Jeff; a farmer that grew watermelons for him; and one of the distributors that delivered his product to school districts.

Before he learned of the pilot program, Jeff had already heard about the need to improve school food—from a relation of his who worked in school food service in Kansas. "She's been preaching for years, 'We need to get better produce to the kids,'" he recalled. Therefore, microlevel family ties had called attention to a perceived structural problem in federal child-nutrition programs. His pride in the quality of his product was evident to me, and he expressed his enthusiasm for efforts to provide farm-fresh products to schools. "[On] most of the farm-to-school programs, you're gonna get better produce to the children," he asserted. When he began participating in the Oklahoma FTS pilot, in addition to his Texas operations, he brokered watermelons for three large-scale, commercial growers on the Great Plains, taking an approximately 10% cut of the wholesale prices for his role as broker. (Although his earnings from FTS were minimal, gross sales from all of his produce-brokering operations exceeded \$250,000.) Within a few years, the growers retired, and he bought 300 acres to begin growing his own. In the meantime, he started brokering the watermelons of a father-and-son team of farmers in western Oklahoma who between them had 100 acres in production. The farmers grow for him, and his company packs and ships the

produce. Because of his experiences with Indiana and Texas FTS programs, he made insightful comparisons concerning the variability of how FTS programs were structured.

In Oklahoma, farm products must originate from Oklahoma farms to qualify for inclusion. In the Texas context, Jeff equated the DoD Fresh program with FTS, since his produce, purchased by the DoD, was shipped to Texas school cafeterias. (U.S. schools participating in federal child nutrition programs are allowed to use their USDA Foods entitlement dollars to buy fresh produce from the DoD Fresh program.) He also understood that his FTS participation in Texas was not limited to sourcing produce only from Texas, since DoD Fresh produce is sourced from all over the U.S. This gave him flexibility as a broker so that he could supply watermelons to Texas schools both in spring and fall. Oklahoma schoolchildren, however, enjoy his watermelons only in the fall, because of the limited overlap between the growing season and school calendar. The short overlap with the school calendar means that Jeff used very little product from the two other Oklahoma farmers for the program. His farming practice of successive planting allowed some produce to be available during the fall. FTS orders had typically accounted for only about 3% of his total gross farm sales.

In the 1980s Jeff worked in grower relations between his father-in-law's produce company and about eight Indiana producers, whose farms ranged in size from 5 to 40 acres. His experience there taught him that if smallscale growers aimed to supply produce to schools, it was best to organize into a co-op which would receive farm products from all of its growers. "Then their volume's big enough that they can pull a percentage of it out to use for farm to school," he said. Likewise, the production volume of his Oklahoma growers far exceeds the demands of the Oklahoma FTS Program, so that he considers what produce he sells to the FTS program as produce that is being "pulled out" of the overall crop volume. His practical experience spoke to the intersections not only of structure and agency but also governance and agency: aggregating products from multiple farms increased the chance of there being enough product volume to meet schools' needs, while the underlying governance structure of child-nutrition programs determined what those needs were.

Practical experience had led Jeff to conclude that FTS as a procurement model did not work for the individual smallscale farmer and was rather best for farmers who are organized into a cooperative. When a single farmer supplies produce to a school, problems arise for school food service because their need for reliable, consistent quantities of food would be difficult for an individual, smallscale farm to meet, in his opinion. Jeff is worth quoting at length on this topic:

And that's the main problem that [the Oklahoma FTS Program] had with some of the other commodities on the farm to school. They [the farmer] might have enough this week, but they don't have near enough the next week. And that goes back to your question, how many acres do you grow for farm to school? It won't work. You cannot just [say], okay, I'm gonna grow five acres for farm to school. It won't work, because produce doesn't work like wheat or corn or anything. You start picking light and then you peak and you pick light. Well one week they're gonna have not enough, two weeks down the road they're gonna have more than they know what to do with, and then they're not gonna have enough again, and it won't last that

long. So it's got to be tied in to somebody who's growing commercially, and taking part of that crop out [for the purpose of FTS], or [aggregated together] into the co-op.

Experience taught him that if smaller-scale growers were to participate in FTS they needed "some sort of a coordinator" who aggregated produce from several farms. In the absence of this practice, and given the size of school feeding operations, larger-scale growers are best suited to supply produce to schools, he said. His assessment reflected an understanding of how farmers' agency articulated with the governance and structure of school nutrition programs, while it contrasted with the original aim of FTS food procurement to support sustainable, community-based food systems. Indeed, the USDA FTS Program is housed in the FNS's Office of Community Food Systems.

One of the farmers who grew watermelons for Jeff, some of which had been supplied to the Oklahoma FTS pilot program, concurred with Jeff's assessment of smallscale farmers' difficulty marketing their products to schools. "Roy," 71, used the colloquialism "deal" to describe markets and market relationships. "The farm-to-school deal is tough, for an individual, because making all those deliveries to all those schools is a tough deal," he said. When he grew watermelons for Jeff, Jeff had control over the entire wholesale crop. Two 260-acre farms composed Roy's productive land, and more than 90% of his output was directed to wholesale sales to big-box stores and supermarket chains, including Wal-Mart, Safeway, Sam's Club, and Costco. The same high-quality, conventionally grown watermelons were marketed to both the stores and the schools. The No. 2 culled fruits were sold to local peddlers. Izumi et al. (2010a) found evidence that irregularly sized or slightly blemished produce was marketed to schools, thereby providing a market not otherwise available to farmers and resulting in a price break for schools, but this was not the case in the sales of watermelons to Oklahoma schools. These differences point to the heterogeneity of FTS programmatic features.

Having a broker govern the sale and distribution of the produce was worth it to Roy, who said it would be difficult for a farmer to become involved in a direct-marketing relationship with schools. When mulling over the idea of a direct-marketing arrangement, he thought the only workable way would be for the smallscale grower to work within his or her geographic area. He said,

I think they need to stay in their area. Like here, if you were interested in doing this, I would say, have four, five, [or] six schools. Depending on how big the schools are, too, for one thing, to do what you can to deliver in a route yourself. I'm sure there are people that do that, but that's what I would do if I was gonna try to do that.

An apt description of the so-called direct model that the Oklahoma FTS Program was striving to facilitate during my study period, Roy's remarks imply the distribution barriers that have been described by FTS advocates (Berkenkamp, 2006; Joshi et al., 2008) and in the academic literature (Conner, Nowak, et al., 2011). These barriers are especially cumbersome for smallscale producers working individually (Joshi et al., 2008).

The Oklahoma FTS Program, however, was launched utilizing existing distribution infrastructure, but it took some friendly persuasion, and time. Bloom and Hinrichs (2010) observed that as agrifood-system actors strive to meet a growing demand for locally grown food, they turn to existing infrastructure to move food through the value

chain. In Oklahoma, although a number of entities were involved in linking the schools and Jeff with a distributor based in Oklahoma City, at first the distributors would not work with Jeff. He recalled,

[During] the first year *we* actually delivered to some of the schools because [the Oklahoma FTS coordinator] was trying to get it going and nobody wanted to work with us. When I say nobody [I mean that] the distributors are real leery because somebody's telling them who they have to buy from. And we've still got some distributors in the state that won't participate. But the majority of the schools want it in, so some of 'em switched distributors. But it's my responsibility to get it to the distributor, then they get it to the school.

These remarks once again speak to existing infrastructural features and how he, as a broker and farmer, exercised his agency to coordinate his marketing activities with them. After that first year, a regional distributor came on board. Jeff's same contact with the DoD Fresh Program office in Texas helped facilitate a relationship with the contracted DoD Fresh distributor in Oklahoma City at the time, "Smith Produce" (a pseudonym). An interview with an official from that company, "Ted," provided further insight into how delivery of the watermelons was organized.

Because Smith Produce was the contracted distributor of DoD Fresh produce to "all of the larger [school] districts in the state," the DoD Fresh purchasing office asked the company whether they would also deliver FTS produce. The four school districts chosen for the pilot program were all within a 1.25-hour drive from the distributors' warehouses in Oklahoma City and Tulsa. A large suburban school district in each city participated in the pilot, as did one small-city school district 37 miles from Oklahoma City and one about 70 miles from Tulsa. At the time of my 2012 interview, the company still delivered FTS produce to four school districts, but the Oklahoma suburb had been replaced with an Oklahoma City district. The location of the school districts is important for understanding the particular challenges faced by agrifood-system activists and sympathetic academics working to build community-based food systems with more direct links between producer and consumer than are found in the conventional agrifood system. Farmers and school food service in the larger states of the U.S. have greater distances to manage, and the cost of transportation may be felt more keenly there. Oklahoma is the 19th-largest state in the union, and many distributors based in the cities do not wish to travel to the remotest regions of the state. Ted from Smith Produce, for example, explained that the multinational food-services company Sysco delivered products to the distant rural areas not within the service areas of the local and regional distribution companies. "[E]verywhere that no one else wants to go, Sysco goes for it," he said. "They cover the whole state." Distance is one of several considerations that a distributor weighs in choosing the boundaries of its service area. For example, considerations of profit margins combine with geographic considerations in the distributor's selection of delivery destinations.

As of 2012, the distributor imposed a \$1.80 per-box fee, paid by the schools, to deliver FTS produce. That fee, however, was two to three times lower than the fee that the distributor could command from other customers. Therefore, delivering FTS produce only made economic sense when the distributor already had to go to the schools to deliver other, non-FTS fruits and vegetables sourced from all over the country. If Smith Produce was not a distributor of choice for school districts "not that far away," Ted said, the company "didn't want to go drive and hit 30 different schools, and deliver one or two cases of watermelons, and make a dollar eighty a case doin' that,

because all that does is help the watermelon growers and it costs us a lot of money.” Where one distribution company does not cover a territory, another one will, and it took time in the beginning of the FTS program to work out which companies should be asked to carry FTS produce. Distributors’ efforts to keep out of each other’s FTS territory sparked some friction between companies. “It’s not a very friendly thing,” Ted said. Ted emphasized that it only made economic sense to deliver FTS produce while also delivering other foods to schools, since the cases of FTS produce resulted in making “a few extra bucks per drop.” He appreciated the idea of procuring Oklahoma-grown foods for the schoolchildren, calling it “a great idea, because you’re gettin’ somethin’ local.” But, he said,

The theory of it is all good, but from a business perspective, if that’s all you’re gonna do is farm to school, it’s hard to make any money doin’ that. And it’s really not set up for us to make money. I think it’s basically the \$1.80 that we get to make is more of just like a delivery fee, to be able to get something. Because back in the day when ... diesel was \$2 a gallon, makin’ a \$1.80 was okay. Now that ... diesel is \$4 a gallon, makin’ \$1.80 really doesn’t work out.

Ted’s remarks demonstrate that both marketness, or considerations of price, and economic instrumentalism, or prioritizing economic goals over other, more socially mediated interests (Block, 1990), come to bear not only for farmers but also for distributors. Both groups of agrifood system actors are in many ways acting as entrepreneurs, weighing prices, time constraints, and labor and transportation costs to make decisions about whether to participate in FTS or not. Yet prices and transportation costs, in particular, are shaped by the macroscale political economy in which these business considerations and transactions are embedded. Concurrent to these economic considerations are perceived social or emotional benefits from participating in a value chain that delivers high-quality, locally grown fresh produce to children, analyses that have been offered by other FTS researchers in other U.S. contexts (Hinrichs, 2000; Izumi et al., 2010a).

As the number of regional distributors willing to deliver FTS watermelons multiplied (by 2009 the FTS program coordinator had facilitated the support of 12 local and regional distribution companies [ODAFF, 2009]), Jeff arranged to have the watermelons delivered to the various urban-based distribution warehouses. Jeff’s base of operations was a little more than 70 miles west of the distribution companies that had agreed to truck the watermelons back out to the schools. It was Jeff’s responsibility, both as a broker and as a commercial farmer, to move the produce from the packing shed to the distributors’ loading docks. To do this, he hired a local driver with a semi-truck. The driver dropped off the correct number of cases or boxes at each distributor expecting FTS produce. Jeff’s capacity to afford trucking costs highlights the difference in scale at which his farm operated compared with small- to midscale growers. The expense of trucking produce to the regional distributors’ locations is not one that smaller-scale growers could be expected to shoulder.

One of the more practical adaptations to supplying produce for FTS programs concerned the size of boxes used to pack watermelons. During the pilot FTS program in Texas, Jeff learned that the school food service personnel, all women, could not lift the standard 68-pound boxes. This information, however, was miscommunicated to him from the distributors as simply “a box problem.” It took his calling a school cafeteria in Texas to learn the truth of the matter. He recalled,

So I called and I said, “Look, I need to talk to somebody’s having the problem.” So I talked to a couple of lunch ladies in Austin, and they said, “We can’t pick the boxes up.” I said, “There’s no problem with the box?” And they said, “No, they’re too heavy.” And I said, “Why didn’t you just tell me?” So we came up with this little box that weighs about thirty to thirty-five pounds. They can pick that up. Problem solved.

This context-dependent, pragmatic adaptation arose from Jeff’s motivation to accommodate the needs of the school cafeteria workers. Having learned this lesson in Texas, he applied it to the case of Oklahoma, where watermelons are also delivered in “a special little box ... because the lunch ladies couldn’t pick up the big box.” When I mentioned that his action to solve this problem spoke to the fact that many people working in school cafeterias were female, he said, “Right, and the majority of them are older. So you don’t want your grandma lugging around a 70-pound box.” Jeff’s practical knowledge was acquired by his learning about the everyday situations faced by the “lunch ladies,” who had tried to communicate their complaint to him via the distributor. But the message got garbled, and Jeff took matters into his own hands. Privileging the practical activity of these actors in this story—the school “lunch ladies,” the distributor, and Jeff—before discourse (Flyvbjerg, 2001) points to the need for innovation by some agrifood-system actors seeking to participate in FTS food procurement. While the 68-pound box had served Jeff well for years as he marketed his produce to stores, it failed in the school setting. Structural features of supplying food to large, retail, chain stores, namely the practice of using heavy boxes and the presence of male workers to lift them, contrasted with the needs and reality of school cafeterias in Texas and Oklahoma.

The practicalities of growing food were routine for Jeff, but harvesting and packing it had become increasingly challenging because of problems with the supply of labor. He lamented the absence of a U.S. labor pool to draw from and the government regulations that made hiring migrant labor increasingly difficult. In fact, the primary reason that Roy stopped growing watermelons for Jeff was because of problems with securing good labor and constant concerns over being audited by the U.S. Department of Labor. When asked why he was audited, Roy said,

[When] you have migrant workers working for you on a seasonal basis, that sends up red flags to them [the labor department]. And in the past, there have been some abusers, but we don’t do that kind of stuff. We had nothing wrong with our audit. Nothing.

Farmers turn to the H-2A agricultural worker program, which permits the hiring of foreign workers for a period not to exceed 10 months at a time, because they cannot find competent labor here in the U.S., according to Roy and Jeff. Roy said, “The Mexican help is the only good help in the field there is.” When I asked him why he thought that was the case, he said that Americans were “too lazy” and “too soft.” He missed the days when American teenagers were capable enough to work in the fields. Nowadays,

You can’t get a kid to come out and work in the fields; they’re not gonna do it. If they do, it’ll be in an air-conditioned tractor, or even in the packing shed, which is easier. They don’t want to do it.

Jeff echoed Roy’s sentiments. He said that he had tried to hire local high school kids or adults who would try working in the fields. He said, “And they just can’t take it. You know, because it’s hard work out there, and as the migrant people have stopped migrating, due to government regulations, it’s getting harder.” His recollections

acknowledged the real, microscale effects of features of the political economy of the agricultural labor force. Because of his Texas base of operations, however, he had devised a solution to the lack of good labor in Oklahoma.

Since Jeff lives in McAllen and has “plenty of labor down there,” he hires Texas-based work crews to travel to Oklahoma to harvest and pack the watermelons. However, that process has become more difficult over the years, too, because of regulatory requirements to ensure that the labor force is legal. Checking legal status is challenging because “they may have cards and numbers, but they’re not legal. They’re not their numbers,” he said. The dearth of labor has become so pronounced that he has had to curtail his agricultural production. Whereas he used to have enough labor to harvest and pack up 700 acres’ worth of produce, now he has to check with the labor crews at the beginning of the year, *before* he plants his crop, to suss out the labor capacity in order to decide how much to plant. He describes this process:

So, I sit down with my crews at the beginning of the year, and I say, “Okay, here’s the deal, guys. How much can you guarantee me that we’ll have enough people to pick and pack this crop? If it’s only a hundred acres, I’ll only plant a hundred acres. If it’s two hundred, I’ll plant two hundred. If it’s three hundred, I’ll plant three hundred.” [W]e’re getting to the point that we’ve gotta look at it backwards, ‘cause if you can’t get the labor, your crop’s going to rot in the field. So that’s what I’m doing. I’m looking at it backwards. And this year they told me for this area they would guarantee me they would get two hundred and forty acres’ worth of crew here.

The labor crews are almost all men, and most of them are from Mexico but some are second-generation Mexican-Americans, he said. He criticized the rules of the H-2A program, “because ... by the time you jump through all the hoops, you always get in a lawsuit, or you get fined. Always. Friends of mine have tried it, and big, big farmers that have made it work, but every year they just know they’re gonna get an eighty- or hundred-thousand-dollar lawsuit against ‘em.” One particular regulation that causes trouble for farmers, he said, is the rule that they must hire any U.S. citizen who walks in the door of the farm operation, whether they are qualified or not to do the work. Jeff would prefer a return to the guestworker program of decades ago, which he perceived as being simpler than the current H-2A visa program.

On a fresh, windy day in October 2011, I met up with “Jo,” 52, at her 330-acre organic farm in southcentral Oklahoma. I interviewed her both in her office and all around the farm, as she took me on a tour in her white pickup truck over deeply rutted lanes between fields. We stopped to get out to talk about the crops and her farm operations (see Figure 5.1). She also escorted me around the beehive of activities taking place in the washing and packing shed, as workers loaded a truck with produce, and she showed me the storage areas and hoophouses.

Although Jo did not consider herself a farmer per se—she had hired a professional, organic farmer from Oklahoma as her operations partner—she had learned a lot in the nine years since she had assumed control of one of her husband’s agricultural enterprises. She and her husband lived in one of Oklahoma’s larger cities about an hour’s drive away from the farm. Beginning with 110 acres, she added more acreage as she went, and her production was spread out over three parcels of land. Gross farm sales exceeded \$250,000 in 2010 and her steady monthly payroll of \$10,000 covered 21 employees, 14 of whom were seasonal migrant workers on the H-2A program, for whom she

had, by law, provided housing while they worked in Oklahoma, as well as transportation to and from Mexico. (The Oklahoma FTS coordinator had provided Jo with the contact in an agency that administered the paperwork for the H-2A workers.) Most of her employees lived in a nearby small town. She also employed convicted felons who had served their time. “I believe that we all have possibilities and that hard work is where life is. That that is the only way out,” she said, revealing a core value that motivated her in her career as a farm operator.

In her pickup truck, Jo took me into the village where she housed the H-2A workers, showing me the bungalow and trailer where 14 men lived, 10 in a small house, and four in a trailer. There were five bedrooms and two bathrooms among them, she said. Three “out-of-country” female workers, as Jo called them, lived in a two-bedroom, two-bathroom bungalow in the middle of a 160-acre field. A female intern from Kansas lived with them.

Jo’s farm was the only Oklahoma farm supplying both fruits and vegetables to the statewide program (key informant, gatekeeper), which operated in about 60 school districts. This knowledge was not widely known either within or outside Oklahoma. In the month before our interview, her FTS sales had been \$60,000. In fall 2011, 5% of her sales were direct sales from a roadside stand and farmers’ markets, but she intended to quit farmers’ markets to focus entirely on wholesale markets, which included FTS. As a supplier of organic produce to a national health-food grocery chain, she said she received a fair price from that company.

Total wholesale sales to stores accounted for 35% of gross farm sales in 2011, while 60% of the gross farm sales were to distributors. She did not sell to brokers. The FTS sales were folded into the total sales for distributors and she did not know the actual percentage for FTS. Nevertheless, she



Figure 5.1. Several of Jo’s employees harvest a field of butternut squash, October 2011. *Photo:* Author.

considered the preparation required to market products to schools as a valuable learning experience that had taught her how to develop the wholesale farming business. In terms of the economic benefits to the whole operation, FTS did not contribute enough to make it a necessary market: “Now that I’m totally birthed, I wouldn’t have to do it [FTS], but I’m still committed to it,” she said as we walked the edges of the vegetable fields. When the Oklahoma FTS coordinator approached Jo about FTS, she had been marketing her products at farmers’ markets. One of the reasons that FTS was attractive to her was that it provided a market at the end of summer and beginning of fall when the customer base at farmers’ markets had dropped off.

Passionate about the FTS program, Jo perceived her mission as one to construct a model for producing healthful food for school meals. She said,

You know, my goal is to be of use to God and my fellow man. So, I really feel like we are showing that there is a different way... that we can give quality food to schoolchildren year-round from within our own

system. So, we found school systems that are willing to buy into that and we opened up a dialogue and we asked them.... If you could have anything from your farmer, what is it that you want?

To establish a model FTS program, she worked closely with the Oklahoma FTS coordinator and a SFSD at a wealthy school in an urban district; for that school, she agreed to plant fruit trees to produce a desired menu item. She also added hoopouses so that she could grow winter greens for schools. Her farm was about 135 miles from that wealthy high school.

Jo was aware of her unusual socioeconomic position in the rural place where her farm was situated. Self-described as “affluent,” she knew that other farmers looked at her with curiosity. “They come by and ask me all the time, ‘Why don’t you just stay home? Why do you do this?’ ... They can’t figure out why someone’s working this hard.” I asked her whether their perceptions contained a gender bias, and she rejected that notion. But I am not so sure. Clearly an ambitious woman, she may have faced others’ jealousy and judgment because she was a woman, not only or primarily because she had money. An ambitious man in her position might have been regarded more favorably. Jo approached her work with zeal. She embraced the ideology of pulling oneself up by the bootstraps and was adamant about not taking any “federal dollars.” Her efforts to produce food for schools were meant to create an example for others to follow. She believed wholeheartedly that school cafeterias had the capacity to make tasty, nutritious meals. The idea of free and reduced-price lunches, however, irritated her. She said,

See, really I am opposed to that [free lunches], because the people that get the free and reduced lunch are also getting food stamps. If you have a food stamp card, you get a free and reduced lunch. So, now I’m paying those families food stamp dollars.... Now we’re talking about a whole social thing. So, I am powerless over what’s going to go on at the federal government. What I’m not powerless over is what’s going on in my state. We’ve chosen in this state a farm to school coordinator and I am trying to make her position as valuable as possible so that when you come out and do research you can see that there is a farm doing it and doing it successfully in a sustainable way. Because I think her job ultimately will be eliminated. As we continue to cycle down and be in huge debt problems, I think ... she’s up for grabs every year. So, while we have her coordinating it, I want to do as much as I can so that a system is in place that other people can come along on my coattails and say, Well, if they’ve done it, how can we do that?

This lengthy quotation speaks directly to Jo’s awareness of macroscale and mesoscale structures. Apparently embracing a conservative ideology of limited federal government, she focused her thoughts on the exercise of her own agency at the mesoscale, that is, the state of Oklahoma. It was in her home state where she felt empowered to make a difference by working to construct a model relationship between a producer and a school. Yet she accepted matter-of-factly the impending mesoscale “debt problems,” which she perceived would ultimately have real implications for the top-down, state-coordinated FTS program.

Jo was one of three farmers who expressed their awareness that budget shortfalls were putting the paid position of the FTS coordinator in peril. Their awareness of the alleged lack of support for that position within the ODAFF demonstrated for me how small, and personal, the farming networks were in Oklahoma and how information—and gossip—easily traveled across the state through social and political connections. Through several gatekeeper

interviews in 2011 and 2012, I learned that the ODAFF had steadily cut the budget for the FTS program before and during my stints of fieldwork. These interviews validated what Jo and the other farmers had said to me. They all had sensed that the coordinator's job was going to be eliminated. I eventually learned that the coordinator had left that position, but since it was mandated by law, the position was kept, just renamed and given no budget for traveling or outreach into the rural hinterlands. The advertisement announcing the job vacancy disclosed a salary that was only 37% of what the inaugural coordinator had been earning.

The urban school with which Jo closely coordinated is a well-endowed high school that resembles a college campus, with five eateries, including a deli, snack bar, and cafeteria. Some of the best food of my trip came from the school's salad bar one lunchtime in October 2012. The salad bar also had non-produce items on it, where the most popular one, vanilla pudding mixed with crushed Oreo cookies, had been scraped to the bottom of the container. As I sat at a table in the dining hall, the lunch bell rang, and a stream of teenagers hurried past me out the front doors, presumably to get fast food for lunch. All of the eateries, including the cafeteria, offered numerous à la carte food items: Otis Spunkmeyer cookies, Lays potato chips of many flavors, and sweet, flavored waters. In the Cyber Café, there were bagels and hot soup, as well as hot and iced coffee. Dasani vending machines were on hand in the dining room. The irony of teenagers rushing away from some of the best school food in the country while also passing by numerous junk foods was not lost on me. It was only through participant observation that my data-gathering process encountered this illustration of the role that schoolchildren played in the political economy of FTS. Observing children streaming away from eateries featuring Jo's Oklahoma-grown produce allowed me to identify the dimension⁴ of children's food preferences as one that complicated efforts to build a robust FTS local-foods-procurement model. My experience also spoke to the long process of building such a program. While the SFSD and Jo had been working together for several years, at the time of my visit, only 1,100 children participated in the lunch program out of a school population of 3,200. I learned later, however, that the number had risen to 2,000 by about the 2014–2015 school year.

The SFSD gave me a tour of the kitchen, where I observed the staff constantly in motion. The kitchen staff, all women, with the exception of the chef, busily prepared meals for a preschool to be delivered that day, in addition to gearing up for the high school's lunch, the entrees and side dishes of which were being placed in their respective food wells. The district's executive chef developed menu items utilizing farm-fresh produce and was in regular contact with Jo's operations manager, with whom he had been friends for many years. The fluid communication between them let the chef know what produce would be available several weeks in advance so that he could plan accordingly. However, some crops were more unreliable than others, so Jo's manager would call the chef to suggest substitutions when a crop failed or was delayed.

⁴ Corbin and Strauss (2012) wrote, "Only when a researcher has explored each category/theme in some depth, identifying its various properties and dimensions under different conditions, can the researcher say that the research has reached the level of saturation" (p. 7).

When discussing the logistics of FTS, the SFSD referred to herself, Jo, and the Oklahoma FTS coordinator as “quite a triad.” The school had been lauded nationally for the quality of its food, and I had been encouraged to spend some time there by key informants. It was a showcase of a school in many ways, from its football stadium, conference-ready auditorium, and glass-walled computer lab, to its five eateries, having benefited from the fundraising efforts of a well-endowed private foundation established 21 years prior for the school district.

Like Jeff’s operation, Jo’s farm relied on city-based regional distributors to deliver produce to schools. Instead of hiring a local driver to bring her produce to the distributors’ warehouses, however, Jo used three ways to move the produce off the farm and into the city, where the distributors then took possession of it and delivered it to schools. The first method of moving produce off the farm was to pay one of the regional distributors to drive to the farm with an empty truck, load it up, and then make drops of the correct number of cases to the other distributors in the city who handled the produce. The second method involved Smith Produce, discussed earlier, with whom she reported “good relations.” She said that company sent a truck for free and picked up produce. The third method involved one of her employees driving a loaded refrigerated truck to the Oklahoma City and Tulsa warehouses of one of her distributors, but this practice was occasional and seemed to be a result of problems, “bad mo-jo,” she called it, that the distributors had with each other. When she submits her produce bids to the schools, she factors into the per-serving price the fee charged by distributors to pick up and/or deliver produce.

In Jo’s case, economic instrumentalism and social embeddedness co-exist (Hinrichs, 2000; Thornburg, 2013). Jo valued the social connections she had gained through her FTS participation, in particular her interactions with the SFSD. Further social connections came from the farm internships she offered because she wanted to “find people that we can train to farm, to repeat our model.” While I was there, a young woman from Kansas served on an internship. In Jo’s case, the social benefits of spreading the gospel of organic agriculture prevailed over considerations of price, since she was on the cusp of leaving retail markets to dedicate herself entirely to wholesale markets. Further deepening her ties to the community was her participation in a summer work program for youth from the Chickasaw tribe. The tribe paid the youngsters to come to Jo’s farm to learn about farming and agriculture. In her case, low marketness and a high degree of social embeddedness accompanied a high level of economic instrumentalism, however, since she was earning payments from 60 school districts.

When it comes to food-safety practices, Jo had no hesitation to embrace them. “If it’s worth doing, it’s worth doing well. I would be so upset if I made somebody ill. So, I don’t see food safety as a barrier. I see it as my friend. And I called the state, and I said I need help, where could you point me? And they sent me to the state agricultural school. And the people from OSU came down here and taught me how to have SSOPs—standard sanitary operating procedures, and they showed me how to be HACCP,” she said. Her experience speaks to the transfer of knowledge from land-grant universities to farmers, whether they are relatively new to farming, as Jo was, or are experienced and seek new ways of food production. While meeting food-safety requirements was within Jo’s financial means, doing so can be too expensive for smaller-scale growers, who may not be able to afford the equipment or facilities to comply with the rules. Although Jo admitted that it was not easy learning to overcome potential contaminants, she was dedicated to food safety. “It’s worthwhile,” she said, “because we’re committed to providing quality, safe food

to people. I don't look at it as the enemy. I look at that as a gift...." Capacities to conform to food safety, to truck food to distributors' warehouses, and to cover a large monthly payroll are privileges exercised by a grower with significant financial capital. Affluence shaped the possibilities for the exercise of agency and response to government regulations.

Although Jo spoke of a desire to create a model FTS program, the actions and practices involved in the operation of the program with the high school are difficult to replicate. Jo and the state FTS coordinator found a sympathetic SFSD who moved heaven and earth to improve the quality of food in that school and the other 17 that she oversaw as the districtwide child-nutrition director. Working closely with one of Jo's distributors, she always prioritized produce from Jo's farm, "even if it's more expensive" (key informant, SFSD). Her high school was one of the first schools in Oklahoma to come into compliance with the new nutrition guidelines under the HHFKA. Regularly seeking grants to help fund the purchase of fresh fruits and vegetables, she had secured a \$185,000 Fresh Fruit and Vegetable grant from the USDA for the elementary schools and had submitted another grant proposal to boost her FTS participation. (An outside, expert grant writer assisted in writing the latter grant proposal.) A devolutionary tactic of neoliberal governance, competitive grants by definition result in winners and losers, posing "serious consequences for equity" (Allen and Guthman, 2006, p. 409), particularly since "school food programs are public entitlement programs designed to ameliorate the effects of poverty" (p. 409). The successes of one urban Oklahoma school district, then, relied on a constellation of social and human capital that is likely impossible to emulate in all U.S. school districts. Most school districts are not going to hire their own chefs, have "their very own farmer ... to grow fruits and vegetables" (key informant, SFSD), or have access to a professional grant writer with expertise in writing grants concerning public health and good food.

None of this critique is intended to imply that the transformation of a school food program is not laudable in its own right. The people, almost all of them women, who work long hours performing exhausting physical labor to make healthful food for thousands of children a day, accomplish an extraordinary feat, in an atmosphere of constant budget constraints and a need to seek additional funding. These salutary benefits, however, will always be unevenly distributed geographically, because not all school food services embrace the values of local, sustainably grown, farm-fresh food, nor do they all have the social and human capital required either to initiate such changes or to sustain them. Additionally, Askelson et al. (2015) highlighted rural SFSDs' lack of knowledge regarding how to initiate voluntary school-food reforms. Since FTS participation is voluntary, there is no penalty for continuing the status-quo procedures for procuring foods. Fresh produce is not mandated. Fruits, for example, may be sourced as canned, frozen, fresh, or dried, and vegetables as canned, fresh, or frozen.

This research provides additional empirical evidence for Allen and Guthman's assertion that "FTS programs ... [had] emerged in highly idiosyncratic ways" (2006, p. 408). In the case of the urban Oklahoma school district, hiring an executive chef is expensive; indeed, when another, small-town, Oklahoma school district on the opposite side of the state did it, it proved to be highly controversial because of the expense, I found during my research. In Jo's case, the friendly and open relationships among the chef, SFSD, state FTS coordinator, Jo, and her operations manager are unique to the history and culture of the location. Moreover, the state FTS coordinator worked tirelessly to facilitate

communication and build relationships between distributors in Oklahoma City and Tulsa and the two largescale growers who participated on the statewide program, including Jo. This process of relationship building may have been unique to this paradigmatic case, i.e., a top-down model of program implementation in which no outside NGO assisted to build relationships among the various stakeholders. Whereas other FTS research (e.g., Conner, Nowak, et al., 2011) found that NGOs had facilitated relationships between farmers and other FTS stakeholders, this research found that in Oklahoma the statewide coordinator was the point person for building and nurturing relationships between farmers and distributors and farmers and schools. Jo benefited from her efforts, as did Jeff before her.

Jo enjoyed the privileges of wealth, which helped make food-safety regulations easier to follow and distribution pathways affordable. She also knew whom to turn to for assistance when wanting to learn about food-safety requirements, undaunted by the prospect of navigating governance structures. Not all farmers of every scale would have the human or financial capital to make FTS work as well as it had for her. I argue that the example of this much-touted success story in Oklahoma's FTS Program provides some evidence to support Allen and Guthman's reservations about whether "small farms will be the ones to benefit from FTS" (2006, p. 408), since in Oklahoma the two farms capturing almost all FTS program monies (at the time of my fieldwork) were two largescale, commercial growers. Furthermore, the awarding of the USDA grant to the urban school district is an example of neoliberal governance (Allen and Guthman, 2006). "FTS programs are supported by a combination of private and public funders ('partnerships'), with funds usually doled out through a competitive grantmaking process. ... One question is whether these programs can sustain themselves without increases in regular, stable funding" (p. 407). In the intervening time since that publication, the HHFKA provided for an additional six cents per reimbursable meal for qualifying schools. This "performance-based reimbursement" was tied to schools' ability to meet the updated nutrition standards, which, among other stipulations, mandated more servings of fruits and vegetables (USDA FNS, 2011). One of the smallscale growers whom I interviewed in both 2011 and 2012 said she was hopeful that the new rules would translate into greater demand for her locally grown products.

Labor Issues

Discussions of farm labor and farmers' labor have been absent from FTS advocacy literature, to the best of my knowledge. The analysis of the survey responses led to the dimension of labor, not only because the survey queried this dimension but also because several reasons for not participating in FTS had to do with time constraints. Who is supposed to perform the labor to improve child nutrition programs? Research on FTS-related labor has focused almost exclusively on the labor of school-cafeteria workers. And while those analyses and concerns are valid, the food has to be produced first before it reaches the cafeteria. The farmworkers, the folks in the field without whom we would have nothing to eat, have been rendered invisible in FTS discourse and policy. Farmers have been privileged to the detriment of farmworkers, yet the class of "farmer" has not been scrutinized to ascertain which farmers are more likely to benefit and in which policy and structural contexts.

In 2015 one of the farms in this study was fined by the U.S. Department of Labor for allegedly violating the rules of the H-2A visa program between 2010 and 2012. One of the alleged violations was withholding of wages. An agreement negotiated between the farm and the Department of Labor banned the farm from participating in the H-

2A program for at least three years. It was the second case brought against the farm for alleged violations of H-2A regulations (the reference for this information is withheld to protect the farmer's identity). Whether or not the alleged violations occurred, exploitation of farmworkers is a hallmark of a high degree of economic instrumentalism. Nevertheless, as interviews with Jeff and Roy revealed, farmers need the H-2A program in spite of its design flaws. The program seems best suited for wealthy farmers who can afford to incur the expenses of housing and transportation of workers, in addition to the mandatory minimum wage they are bound by law to pay. Harvesting produce is labor intensive. If FTS policies from their inception had taken this factor into consideration, the policies could have been written so as to encourage fair labor practices.

Participating Farmers in FTS: Regular Direct Sales

Among the study participants, one couple of farmer-ranchers regularly marketed a product to schools directly. They had participated in the Oklahoma FTS Program for three years when I met them at an urban farmers' market selling organic cuts of beef. A few days later, "Mary," 63, and I rode together through Red Carpet country, where her and her husband's cows grazed on organic pastures (see Figure 5.2).

In fall 2011, Mary and her husband produced organic wheat on 1,500 acres and worked 2,500 acres of organic pasture for the certified-organic beef they raised. They owned some ground and rented some, but Mary was not certain how much of either. Their 2010

gross farm and ranch sales exceeded \$250,000, and they participated in several types of markets. One was the Oklahoma Food Cooperative, an online direct-marketing platform for Oklahoma-produced products—both fresh and value-added—that generates comparatively good prices for participating farmers. The co-op operates like a buying club, with both producers and consumers sharing

ownership (Diamond and Barham, 2012). Mary and her husband's membership in it, along with their participation in farmers' markets, generated retail sales that accounted for 25% of their 2010 gross ranch and farm sales. Wholesale sales to distributors and a mill that milled their wheat accounted for 70% of their gross sales in 2010. An additional 5% of sales involved wholesale sales to stores. Limited, but regular, participation in marketing a product to schools accounted for less than 1% of total gross sales.

Mary was grateful that she and her husband, 64, enjoyed good health, since running that many acres of farm- and ranchland was laborious. Their only employee was a seasonal, full-time, ranch- and farmhand (a Mexican national), whom they had hired through the H-2A program for several years in a row. Tragedy had struck Mary's family years prior when her son had perished in a farm accident in his late 20s. She and her husband had planned to pass the ranch and farm onto him and they had to do some soul-searching to decide whether to continue or not. Her



Figure 5.2. These organically raised cattle spend their days on organic pasture on the High Plains. *Photo:* Author.

two grown daughters and sons-in-law, who lived in large Oklahoma cities, occasionally helped transport the flour and other wheat products to market for them, and, at other times if Mary and her husband got “in a real big jam,” they could rely on these relatives, as well as her brother-in-law and his family, to spend a weekend at the farm and ranch contributing their labor. In addition, a teenage granddaughter had worked for them at farmers’ markets. Other than that, Mary wished she had a year-round, full-time employee, since the volume of labor can become difficult, and she and her husband were getting on in years.

Transitioning to organic production felt like a “calling” to her husband, she said, and relationships with the ODAFF inspectors benefited their business. The inspectors visited three times a year because the ranchland, cropland, and the cattle all required inspection to retain organic certification. Mary said, “We’re always glad to see ‘em. They have been so helpful in helping us source the information that we need. If I ask them a question and they don’t know it, they will try their best to direct me to where I need to go.” She and her husband derived satisfaction knowing they had converted their production from conventional to organic, hoping to contribute to a more healthful food supply, as well as to regenerate and stabilize the soil. A period of intense soil erosion on some of their acreage had motivated them to plant a mix of nine native grasses, including big bluestem, little bluestem, and Indian grass, which was “awesome for the livestock, because they know each one of those grasses has its own nutrients, and they know by instinct which to eat when.” The native grasses had restored the soil, taking it “back a hundred years” to a time when her father had farmed before the advent of industrial agriculture. Wheat does not naturally grow in sandy soils of their legacy lands, so it made sense to consider “what’s the best for the soil ... and let it go back to what it can support.” Their story of embracing organic wheat and beef production resonates with the ethic of care that the early advocates of FTS and other AAFIs expounded for plants, animals, soil, and water, as well as for people.

Mary and her husband produce several value-added products made from organic wheat and beef. Instrumental in assisting them market their products was the Robert M. Kerr Food and Agricultural Products Center at OSU, indicating an intersection between mesoscale structure and their decision-making as producers. Mary and her husband send their beef to a USDA-inspected organic processor in Kansas, which transforms it into an array of cuts. The processor also has the capacity to process beef into jerky, so several years prior Mary and her husband had a jerky product made with their own trademarked brand. Because the added spices were not organically produced, however, the jerky does not carry the USDA organic label. This is the product that the FTS coordinator thought would do well in the FTS program.

Marketing the jerky to schools required a learning curve. Mary learned, for example, that if she had used organic spices in the jerky the price point would have been too high for the schools to afford. “[The schools] want me to be able to sell them a good product at the very least possible price. So, I don’t believe they would be interested in purchasing a certified organic product,” she said. In fact, the organic wheat flour was too expensive for the schools, she found out. The Oklahoma FTS coordinator served as the intermediary between Mary and the schools, negotiating a price for the beef jerky. One of the ways that Mary kept the price down on the jerky was that she shipped it directly to the schools in a flat-rate box via the U.S. Postal Service. By shipping the product in this way, she was able to propose a predetermined price per box to the schools. “That way we know what our cost is going to

be; they're not paying it [the distribution], but I am. And I know that I always have a container it will fit in. It just really helps the logistics of the whole program." She folded the price of the shipping into her price bid for the jerky, presenting the price and per-box quantity to the schools. In the first three years marketing jerky to schools, some schools either delayed or indefinitely postponed paying her, so she stopped marketing the product to those schools. As of fall 2011, marketing to three schools was working out, and Mary enjoyed her relationships with them.

Mary's distribution method has not been seen in the FTS literature, to the best of my knowledge. While Conner, Nowak, et al. (2011) found that Colorado-raised beef had been sent to a processor to be turned into ground beef for schools, the processor had distributed the hamburger. Mary and her husband sent their beef to be processed and converted into jerky, and the processor shipped it back to them, already packaged, so that they could then mail it to the schools. This became a workable and convenient way for her to guarantee a price and quantity to the schools and, importantly, it saved her the trouble of driving 100 miles to the schools from her relatively remote ranch and farm to the school districts (her farm, where she and her husband live, is on the outskirts of a small town). The 1-ounce serving of jerky comes two sticks to a package, and each of the three schools ordered 100 packages a month during the whole school year. Therefore, she had overcome two of the main challenges that farmers interested in FTS have had to consider: distribution and seasonality. A third challenge faced by farmers were food-safety regulations, but in the case of the beef jerky, that burden fell on the USDA-inspected processor in Kansas.

The interview and field trip with Mary revealed pragmatic and innovative solutions not reflected in the surveys and demonstrated the value of engaging in concept-driven fieldwork that follows a trail of data collection where ongoing analysis leads. The category of ongoing, direct sales that Mary's case constructed had unique properties. Survey data had shown that low prices made the FTS program unattractive to several farmers. Mary and her husband did not have to negotiate prices directly with the schools, because the Oklahoma FTS coordinator filled that role. As relatively large-scale agricultural producers, and with their FTS sales making up less than 1% of their total sales, this ranching-farming couple had agreed to a price and a shipping method that benefited them and the schools. Therefore, marketness was not prioritized over the social benefits of providing a healthful product to schools and maintaining contact with them.

Began Direct Sales During Fieldwork Period

Tucked away in a tony Oklahoma City suburb is an 8-acre property ripe with hope. "Greg," 60, a cattle rancher from Texas, began converting a former horse property to farmland two-and-a-half years before I met him and his wife in October 2011. He was the first of several study participants for whom the incomes of spouses or their own off-farm employment supported the farm and household. (Greg was also one of the four farmers with whom I conducted follow-up interviews in 2012.) The learning curve as a new farmer had been expensive. He found himself "reacting to a lot of things.... In the cattle business, you're always ahead of it." Nevertheless, Greg was all-in, working full time on the farm, while his wife worked full time off farm.

In fall 2011, Greg had two hoopouses, and almost 1.5 acres were planted in rows of vegetables near his suburban home, even though at the time the property was not zoned for agriculture. CSA customers were his "bread and butter," with shares costing \$600 for 20 weeks' worth of fresh produce. In 2010, in the midst of a crushing

drought, farm sales had been under \$10,000. A recipient of a cost-sharing grant from the ODAFF for solar-heated hoopouses (see Figure 5.3) and another grant from the Plasticulture Program for field crops (see Figure 5.4), Greg was in the second year of the three-year process of transitioning his ground to organic production. In addition to the CSA, Greg sold produce to a caterer and a restaurant and at a local farmers' market (Thornburg, 2013).

Although Greg was interested in marketing products to schools, he had not done so yet, expressing concerns about low prices. He already received what he perceived to be fair prices at the farmers' market and from a caterer and restaurant (Thornburg, 2013). Therefore, as a new farmer struggling to make ends meet, he prioritized marketness. Although he was in communication with the Oklahoma FTS coordinator in fall 2011, he said that she had been "premature in talking to me about farm to school." He cited several barriers besides price to FTS participation. For him, the mismatch between the school calendar and the growing season were intertwined with the unpredictability of vegetable farming. Comparing his farm operations to Jo's, he said that he wanted flexibility in committing to producing specific volumes of vegetables because he needed "room for error." He had experienced the vagaries of supplying his CSA customers during the intense drought of 2011, having to stop the CSA allotments for three weeks because, he said, "there was nothin' growin'". So there was probably three weeks or a month the CSA didn't even get their package...." His experience echoes that of the survey respondents who stated their production levels had declined because of drought. Pests had also reduced Greg's vegetable production.

When asked whether he had excess capacity on his farm to plant for FTS procurement, he said, "I don't have any extra land; I would adjust my program to fit that. You know, if the school wants a particular thing, in talking to them, we'd try to grow something for that school in a hoopouse, you know. ... I've gotta make my bottom line work. And I've gotta sustain this, too, and I'm not sure what the school, or how the school pays." FTS procurement at that point was an opaque process that he did not fully understand, and the instrumental decisions in running the CSA and selling to other direct markets took precedence. It took more conversations between him and the FTS coordinator and visits from school food service personnel to bring it into focus as a viable direct market. Notable, however, was his willingness to grow crops specifically for the schools.

In the meantime, the hiring of a new districtwide child-nutrition supervisor (CNS) sympathetic to supporting local farmers was about to benefit Greg. The Oklahoma FTS coordinator had kept in touch with him and the new CNS during 2011 and 2012, when he was mulling over which crops he could grow for schools. He decided that until he could solve some of the production issues with pest-prone vegetables, he would produce only hoopouse carrots and cherry tomatoes. For the 2012–2013 school year, the CNS and Greg agreed to his supplying produce on a weekly basis. In this way, it was incorporated into the menus of two schools per week on a rotating basis until all 25 schools in the district had used it. In fall 2012 Greg expressed such gratitude for the persistence of the Oklahoma FTS coordinator in making the school connection for him that he said, "[The FTS coordinator] has been huge. She's essential for me to be there. I just hug her neck every time I see her." The coordinator's efforts had helped build the relationship between Greg and the school district. When I interviewed the CNS, I learned that by fall 2012 she had also purchased other vegetables from Greg, including green peppers. (Data from an interview I conducted with the CNS also informs Greg's profile, indicated by "key informant, CNS" below.)

The district was too large for Greg to supply even one day's worth of one vegetable on a consistent basis. For example, the district used 2,500 pounds of carrots every week (key informant, CNS). Therefore, they agreed to the weekly plan. Because his neighborhood was adjacent to the district, taking responsibility of distribution made financial sense for Greg, who delivered the produce to the district's warehouse every week. By the end of harvest season, his produce had been served in all of the district's cafeterias. Whenever possible, the CNS also liked to promote to the children that the foods were locally grown, emphasizing the story of Greg's farm. The CNS also sourced Oklahoma-grown produce through the statewide FTS program and directly from Jo's farm.

Between my 2011 and 2012 visits, Greg had added two more hoopouses and had begun marketing carrots and cherry tomatoes to the school district. His eyes lit up when he did the math, calculating how much produce he could supply to the schools. While his gross farm sales had risen to between \$25,001 and \$50,000 in 2011, he anticipated that 2012 would be an even better year, with FTS sales accounting for nearly half of his farm income. Recalling 2011, he recognized that self-doubt had underlain his hesitation toward the school-food market. "I was uncertain as to my skill as a gardener and a farmer. I mean, could I meet the needs with my little farm?" He could not do so, he learned, but the CNS was willing to procure quantities that fit her budget and gave him a new income stream. Although the school district could not pay as well as his other direct agricultural markets, scaling up production made FTS participation economically feasible (Thornburg, 2013).

The CNS enthusiastically supported local farmers, but she could not afford to source all of the district's produce directly from them, because of the price premium. For example, when she purchased 3 pounds of green peppers from a regional distributor on the statewide FTS program, the distributor charged her \$4. When she purchased green peppers from Greg, he charged her \$5.95 a pound. The premium on locally grown produce made sourcing it "a little bit difficult," she said. Her enthusiasm for incorporating locally grown foods in school meals was supported by the district's board of directors and was rooted in a set of values she attached to local food: It was less processed and had traveled shorter distances than other foods, and ultimately, it signaled support for local farmers. But she had to strike a balance between wanting to purchase locally grown food and controlling cost because although the school board supported the local purchases, her boss, the child-nutrition director, prioritized the consistency and cost control gained through produce-company purchases. She said,

I believe in that whole process [local sourcing]. I mean, I think it's best for our kids. I wish that the kids could ... be more involved in the growing process because I wholeheartedly believe when kids see food growing, they respect it more. And they don't get to see that. They just think they go to the grocery store ... [and] they don't know it came from Peru, or it came from Mexico, and what that food had to go through just to get to the grocery store.... And I think when you realize how valuable it is, then you respect it more, and you eat it more. And you'll try it more. And that's a problem with providing some of the food that [Greg] can grow. I would love to buy it from him. But our kids will *not* eat it. It would just go right in the trash, and I would *hate* for that to happen.

The CNS's passion for locally sourced food was reflected in the values she attached to it and the educational benefits she perceived accruing to children. Her choice not to purchase certain foods from Greg because the children would not eat them stemmed from her experience of their food preferences, knowing that the children would reject foods like kale. Even though Greg had extended his growing season and had the capacity to grow dark, leafy greens throughout the winter, she would not source it for fear of its going to waste. Her knowledge of children's dietary preferences combined with the district's need to stay within budget to shape her purchasing decisions, showing that children's food habits imposed a limitation on the scope of FTS food procurement.



Figure 5.3. Cost-sharing grants helped Greg add these hoophouses to his small farm.

Photo: Author.

These interviews with Greg and the CNS followed the conceptual path of farmers' engagement with the FTS program. This path led to the collection of details of school-food procurement from a school nutrition official's perspective that illustrated processes and mechanisms through which macroscale forces guide microscale choices and decisions. At the macroscale, the school-budget constraints provided a context within which the CNS had to make microscale decisions about food procurement, which were also colored by her personal values concerning the importance of serving locally grown, fresh food to children and educating them about it. As well, her microscale decisions served as expressions of her purchasing power, which was mediated by pressure from her boss and by her intimate knowledge of children's food habits. Exercising the power of the purse, however, was not fueled only by a purely instrumental rationality. A values-based rationality also came into play: She felt loathe to waste Greg's organically produced, locally grown food. This case illustrates how human agency and structure co-constitute one another. Agency can no more be disembedded from structure than can structure function without human agency.

Through classroom-based nutrition education, children could learn to enjoy eating fresh produce, the CNS said. Therefore, in 2011 she participated in a cooking demonstration at a district school, where she observed that children enjoyed the taste of the hummus, red bell pepper sticks, and kale she had prepared. She concluded that such experiential lessons were the key to making FTS successful. On the other hand, an all-day cooking class for Oklahoma SFSDs in 2012 (110 attended; about one-half of them had traveled farther than 60 miles to participate [key informant, gatekeeper]), showed her that some recipes were too exotic for children's taste buds. The directors made a few of the recipes from the then newly issued, professionally produced *Oklahoma F2S Cooking* cookbook. (Recipes include Kale and Quinoa Medley, Sesame Broccoli, Apple-Glazed Sweet Potatoes, Salad Pizza, Marinated Italian Vegetables, and Lower Fat Ranch Dressing.) Of that experience, the CNS said,

[A]s an adult, they [the recipes] were delicious. It's just a lot of kids are reluctant to try that because they don't eat that in their homes. And when your parents aren't cooking that way, and your parents are letting

you heat a Hot Pocket for dinner, you're not gonna try kale, even if it's delicious. ... So, I think the more classroom education that can come into play with this is probably the key to success on it.

Her testimony emphasizes the pedagogical dimension of the FTS campaign, which aims to change children's food preferences and inculcate healthier eating habits, with the implication that children would be transformed into better "food citizens." *Food citizenship* (Lockie, 2009) is a concept that conveys consumers' civic responsibilities stemming from their consumption choices. Through dietary choices, consumers may shape the direction of the development of alternative food systems by resisting the status-quo industrial diet. At school, children are the consumers upon whom the burden to make the so-called right choices falls. Political-economic critiques of neoliberalism and the devolution of state responsibilities onto local actors, however, would characterize the education of children to prefer freshly prepared food as a neoliberal project aimed to create subjects whose choices constitute "a primary form of governance" that drives changes in the agrifood system (Allen and Guthman, 2006, p. 411). In relying on the atomistic choices of individuals, the power of collectivities is pre-empted, while the state's "universalistic commitments to the social welfare of its citizens" are abrogated (Goodman et al., 2014, p. 143). If, for example, one school district more effectively shapes children's dietary habits than another, then that district may in turn purchase more locally sourced foods than another. Geographically, FTS by design naturally unfolds in uneven and unequal ways.



Figure 5.4. The Plasticulture Program supports produce farming on plots between 0.25 and 1 acre. Greg and the author are walking in the background. *Photo: C. Kirby.*

The CNS and Greg indicated different understandings of the role that FTS played in his farming operations. Greg perceived the promise of scaling up production of specific crops for schools as an economically instrumental way to boost his income. The CNS, however, believing that the CSA was

Greg's main focus, perceived his supply of produce as coming from his "extra" or "surplus" production. She said, "We're just filling in with his kind of surplus. And we're thrilled to be able to work with him because [the farm is] so close. And he can let us know a week in advance, 'I've got 60 pounds, or 150 pounds, or 300 pounds,' let's say. And that's easy for us to handle.... And also, it helps control the cost because if we buy [only] his carrots ..., [they] are probably going to be maybe a third more than we can buy them from, let's say [a regional distributor]." The administrative structure, then, of the district's school food service played a larger role in Greg's success than he may have been aware of. If the enthusiastic CNS were to change jobs, Greg might lose his champion, and the district's need to control costs might be prioritized over the benefits of sourcing local foods. The CNS said school food service staff acknowledged that the children did not care whether the food was sourced locally or not, but she and

other staff members cared. Her values impelled her to support a local farmer, but ultimately, her purchasing decisions exercised power over that market relationship. It was hers to sever or not, regardless of whether Greg desired to continue marketing his products to her school district. The power relation was unequal. In the context of the repeated claims that FTS is a pathway to rural economic development, the discrepancy between the two viewpoints takes on some significance. While the CNS perceived her efforts as merely supplementing his markets, Greg saw FTS as a pathway to becoming a significant percentage of his annual sales.

In 2011, FTS food-safety requirements almost scared Greg away from program participation. He perceived Jo's capacities to meet such requirements as something he could not compete with. A visit by an official from one of Jo's distributors, arranged by the FTS coordinator, had cast doubt in Greg's mind on whether his farm was a suitable source of school food. Greg's dog roamed freely on the farm, and the distributor must follow USDA food-safety regulations strictly, which disallowed that practice. Greg's perception of the distributor's response was that *wholesalers* had "restrictions" on the way food was produced. "I was too early in my farming [when the distribution official came to visit]. 'Cause I don't have any facilities," he said. "I have some old number-two wash tubs that I've washed, and you clean [the vegetables], because you do what you have to do." One year later, Greg had added some cold-storage facilities but still had the washtubs. Although it did not prevent him from selling produce to the schools, improving his food-safety practices was on his mind. He was communicating with a staff member of OSU Extension, who was designing a packing shed for him so that his food-safety practices would conform to GAP. He intended to incur the cost of any required new equipment to bring his food-safety facilities into compliance.

The repurposing of old washtubs demonstrated that limited-resource farmers may devise resourceful solutions to fulfill farm tasks without purchasing new implements. Greg pursued such solutions because he kept in mind the debt burdens that many farmers before him had incurred. He said, "I'm not going to go into debt to say, 'Well, it's going to get better next year.'" He contrasted his limited resources with the "deep pockets" of Jo's farm operations and her "big, clean facility," "big coolers," and a forklift. "I can't just buy a new tractor. [A]ll the little stuff that I have is my big stuff. I have to make it work." He also compared her marketing skills with his. "She sells pretty hard.... She could mop the floor with me. Boy, she's strong." He said his personality was not suited to marketing products assertively. "I don't want to be a head cheerleader.... I just want to be a worker." His perceptions of one of the two growers for the statewide FTS program revealed intrafarmer dynamics at play in food systems. Farmers hold perceptions of each other's production and marketing methods and capacities that may shape how they rank themselves in their local or regional food system. This is the first study, to the best of my knowledge, to call attention to the social dimensions of the relationships among farmers trying to market their products to schools.

An analysis of the perspectives that Greg and the CNS offered points to the concept of power relations between farmers and school-food officials and, as well, to two expressions of power: soft and hard (Nye, 2008). "Soft power rests on the ability to shape the preferences of others to want what you want" (Nye, 2008, p. 29). The FTS campaign exercises soft power at different administrative levels through its persuasive marketing messages, which have influenced policymakers to modify rules to allow and encourage local-foods procurement in schools. The campaign's soft power has shaped policy at various administrative levels across an array of governance structures.

At the microlevel, the FTS coordinator's soft power motivated Greg to consider the school-food market and, ultimately, to alter his production practices to accommodate the needs of local schools. Likewise, the message of the value of farm-fresh produce in school meals was influential in winning the support of the CNS, partly because it articulated with her values concerning the importance of fresh food in children's diets.

The CNS's choice to purchase food from Greg illustrates the juncture where the soft power of persuasion (both Greg and the CNS were persuaded by FTS rhetoric to participate in the program) meets the hard power of the purse string (the CNS, not Greg, decided the volume of local-foods purchases). Depending on a school district's structure, this decision-making authority falls on various administrative positions. School food service exercises its power to choose whether or not to source food from local farmers. Soft power is not about direct control but rather about influence. Hard power, on the other hand, stems from the authority to mete out payments and rewards, to hire and fire, among other things (Nye, 2008). SFSDs have the authority to select their food vendors, and local farmers participate in FTS food procurement at the discretion of the people who make these selections.

Labor on a beginning farmer's farm

This dissertation has expanded analysis of FTS-participating farmers to include features of farm-labor structure. Two justifications for this analysis are to highlight the challenges of growing, harvesting, packing, and distributing produce, since produce is the most common category of crop included in FTS food procurement, and to ascertain whether labor structure changes as farmers strive to scale up operations to accommodate their sales to schools. When I visited with Greg in 2011 he had a few pathways for seeking outside help to supplement his labor needs. Much of the outside help came to him through social connections with a local high school and his Catholic parish. The lens through which he viewed his farming activities, which he sometimes referred to as "gardening," is colored by his religious convictions. Twice in the prior year he had hosted a group of 15 students from a local high school's environmental club to perform community-service hours. One of those students, a boy, had returned to trade his labor for food to supplement his family's needs. Other free labor was provided by a 79-year-old man from Greg's church who worked on the farm out of sheer enjoyment. In 2011, Greg could not afford to pay for labor, but one year later, thanks to the additional income from marketing produce to schools, he paid a Latino farmworker 30 hours a week. This development tracked well with the survey findings, which showed that as farmers earned more income they tended to hire nonfamily, outside workers. Greg intended to hire "Andres" year-round.

Instrumental motivations to increase his bottom line comfortably coexisted with the social benefits of hosting community-service days for schoolchildren and the religious morals to allow low-income people to trade labor for food. Greg sought to strike a balance between making a success of his late-middle-age career change—farming—and being part of his surrounding community. He also wanted to collaborate with other farmers to learn how to "work hard and smart" and so had joined a loose association of fruit and vegetable growers, but the group had disappointed him. Although it was a useful way to learn about "what's coming down the pike" concerning policy and regulations, he hoped that more experienced farmers would share knowledge on prices and processing methods, but he found that they viewed him as competition. They did not share information particular to their farms. "Fellow

growers aren't sharing their prices," he said. His impulse toward cooperation ran up against an ingrained tradition of competition in capitalist relations.

Sporadic Sales to Schools

For every farmer profiled above who eventually marketed food to schools, the FTS coordinator played a vital role in negotiating prices, providing price lists to SFSDs, and exercising soft power to encourage connections. Likewise, in the case of a smallscale farmer in northcentral Oklahoma, the coordinator helped identify schools that were open to purchasing limited quantities of her conventionally grown produce.

Late in the afternoon on a crisp, October day in 2011 I drove on red dirt through the hills northeast of Oklahoma City. "Cheryl," 53, greeted me as I slipped through a windbreak into the driveway of her remote farm. We walked around to the side of her house, where an insistent cat named Slowpoke wrapped itself around my leg, purring loudly. Horses chewed grass behind a wire fence, and egg-laying chickens scratched in the dirt next to the house. On this 50-acre farm, four acres were in conventional production, three in row crops (melons and vegetables) and fruit trees (several varieties of apples), and one in grapes. The severe drought had crushed the apple production. A 10-by-24-foot greenhouse was dedicated to starter plants, and a repurposed, refrigerated trailer sat in the back of the driveway (see Figure 5.5), serving as the cooler—a necessity where summer heat in 2011 remained in the triple digits for more than 60 days. Our conversation ranged as we explored the farm, split into two parcels, one of which was accessible via a bumpy ride in an open, two-seated farm vehicle.

A native Oklahoman, Cheryl had lived for many years on the West Coast but had returned to Oklahoma. Farming since 1992, she blamed weather and pests as chief factors in contributing to the unpredictability of the outcomes of her gardening efforts. "I don't think we could have picked a worse place to try to garden, because you just never know what you're gonna get," she said. Cheryl's annual farm sales were typically under \$10,000, 95% of which came from farmers' markets and selling directly from the farm, and 5% from marketing produce to three schools within a 10-mile radius of her homestead. The prices to schools were 30% below the retail prices she earned at farmer's markets. Her husband worked full time in another job and also put in many hours on the farm. They both recognized the importance of off-farm income to sustaining the farm, which they hoped to grow over time.

A significant former market had been local grocery stores, but after they were shuttered, the warehouses that replaced them offered half the price that Cheryl had been accustomed to. The loss of grocery stores on the Great Plains and in the Midwest has been observed in the rural geography literature (Thornburg, 2007; Thornburg, 2005). To develop new markets, Cheryl was in the process of establishing farmers' markets in three nearby villages. Such markets were vital for community food security, because, paradoxically, fresh food was lacking in the area. She and her husband planned to build two hoopouses using salvaged materials, which would allow them to extend the growing season. Cheryl focused most of her marketing efforts on the farmers' markets, which were her "bread and butter." She and her husband performed most of the labor and had occasionally hired a local resident to help accomplish tasks like thinning and weeding. When I spoke with her, she was planning to let members from a local family of eight children come "work for shares" the following year to help pick, wash, and pack produce.

Cheryl became involved with FTS through various agriculture meetings, during which the FTS coordinator had promoted the direct model of the program to smallscale farmers. “She wants the farmers to be directly involved with the cooks and things, and so she will initially do all the introductions and all the calling. Then she encourages the farmers to go directly to the cooks and work up a relationship that way,” she said. Cheryl credited the FTS coordinator with connecting her with the schools, but she had not yet sold any significant amount of produce to them. When I visited, she was still working out the format and structure for communicating with schools and was hesitant to call school food service personnel by phone for fear of interrupting their busy day. She was creating an electronic order form so that she could email the cooks once a week to let them know what she had available. She had not established a routine of regular deliveries, but she enjoyed sporadic trips to deliver bags of apples, cucumbers, or sweet potatoes and derived a lot of satisfaction in providing schoolchildren with fresh produce and interacting with the cooks. She said,

I prefer being able to deliver directly just so that I can get that relationship so that they feel confident buying from us. If there’s a problem we can resolve it right then without having to go through channels and find out. I just like that one-on-one thing a whole lot better.

Learning new ways to communicate, particularly using a computer, had taken her out of her comfort zone, since she preferred to keep paper records. Public relations, Cheryl said, was “not one of [her] strong suits,” so she had to put some effort into “organizing and getting things set up in a manner that will work” for the school food personnel. Interacting with schools also taught her that she had to keep track of their holidays and breaks. Although she planned to focus most of her production and marketing efforts on farmers’ markets, the introduction of hoopouses might allow her to expand her sales to schools.

When asked about food-safety issues, Cheryl repeated a refrain uttered by other farmers: In late 2011 smallscale farmers were aware of new food-safety regulations being debated in the U.S. Congress. Her approach was to prepare for them. She and her husband had purchased the secondhand refrigerated trailer because “it already [had] the Chemlite in it; it’s already been approved for food and this way it’s something that can be hosed down, washed



down, sanitized, and [we can] keep it nice.” They followed GAP, keeping “things as clean as possible.” They triple-washed produce for market, adding bleach to the first wash water. When they put freshly harvested produce in the cooler, they rotated it so that when it came time to bring it to market, nothing was more than two to three days past harvest. They were also aware of the dangers of cross-contamination. Therefore, food-safety regulations were not a burden but rather guidelines that they had responded to, trying to stay ahead of the curve. Knowing that more regulations were on their way, however, affected their spending choices, because they

Figure 5.5. A repurposed refrigerated trailer provides cold storage. *Photo:* Author.

reasoned they would need money to “buy stuff” to conform to the new requirements.

Cheryl's case reinforced practices and perceptions that had emerged in other farmer interviews: a need for the off-farm income of a spouse or partner, the awareness of food-safety regulations "coming down the pike," and actions reflecting compassion to indigent neighbors. And as had been the case for other farmers (except Greg), her FTS sales accounted for a small fraction of annual farm income. Reiterated in this profile was the critical role played by the FTS coordinator in linking farmers and schools. The interview data at this point were becoming saturated.

Sold to Schools in the Past but Quit

This section reports on the three farms and their farmers who had previously marketed products to schools and had quit. I interviewed one farmer for the first farm, two for the second, and three for the third (a married couple and their adult son).

A lifelong farmer and former full-time wheat breeder, "Frank," 53, grew produce conventionally on 20 acres in a rural area northeast of Oklahoma City when I interviewed him in October 2011. He kept 150 head of cattle on 1,500 acres elsewhere, where he lived with his wife. He had had the 20-acre farm for 27 years. His gross sales in 2010 were between \$50,000 and \$100,000, with farmers'-market produce sales accounting for under \$10,000. While he worked full time on the farm, his wife and son worked there part time. During the summer, he hired four to six high school and college students full time. His farm income came predominantly from the sale of cattle.

Several years before the Oklahoma FTS Program was launched, Frank had sold produce on an informal basis to the local school system, an arrangement that grew naturally out of social connections in his community. Those sales had accounted for less than 1% of his farm income. After the FTS program was announced, he added another school district, 15 miles away, but his relationship with both schools was short lived. When the dietician who purchased from him in the farther district moved on to a new job, the new one "[didn't] want to have anything to do with it," he said. As for his local school, its food service was taken over by a multinational food-services company, and he stopped selling to the school at that time. Even though Frank had informally connected with local schools and had marketed his products successfully for one to two years before the Oklahoma FTS Program began, the FTS coordinator claimed his activities as being part of the program. As a researcher trying to discern how the program worked and which farmers participated or not, I could not have discovered this discrepancy without digging further, asking pertinent questions of the farmers involved.

Although he had quit marketing to schools by the time I interviewed him, Frank said he would not mind selling overage to schools, even though he was more interested in staying in retail markets. Nevertheless, he did not think that FTS was going to live up to its promise of providing robust markets for farmers. "It's not a big deal, and I don't think it'll ever be a big deal," he said. Among the challenges that farmers face in marketing their products to schools, Frank perceived food-safety regulations to be the most problematic.

As had several other farmers interviewed, he spoke of the new food-safety rules that loomed on the horizon. "I don't mind selling overage to a school if I don't have to jump through too many hurdles, and it sounds like [the FTS coordinator] is going to make all the growers get GAP certified. She's kind of pushing that." I asked him whether that was difficult or not. And he said, "Oh yeah. We wouldn't pass GAP certification around here. We're too dirty.

And GAP certification—it doesn't, you know, it doesn't help anything anyway." Burdensome requirements for GAP certification, in his opinion, included keeping a log that showed daily cleaning of on-farm restroom facilities, as well as a separate written GAP plan. In his studied opinion, GAP had not achieved what it was intended to accomplish. He applied his background in hard science to critique the rulemaking and legislative processes that saddled farmers with such restrictions. "All of our laws are not bad as long as they're based on sound science," he said. For him, GAP did not pass muster. "GAP certification has not stopped any foodborne illness. It's just a third-party certification, it's all it is. I would come to your facility and say, yeah, it looks good, here's your certificate." In addition to federal rules, county-level interpretations of state food-safety rules were particularly onerous, in his opinion. At farmers' markets, for example, he sold beef products out of a van, which is equipped with freezers. The county health department required him to carry a portable wash station, which consisted of a pump pot, a bucket to catch the wash water, paper towels, and liquid soap. Moreover, the water must be warm. Frank found this requirement "ridiculous" because every farmers' market in which he participated had washroom facilities where he could wash his hands.

Although he had his doubts about the market potential of school food service, and he had run up against the hard power of SFSDs, he saw value in teaching children about the provenance of their food (Thornburg, 2013). He lamented cultural trends in rural America where, he said, most children ate three fast-food meals a day: "We're in rural America and we're eatin' out of a sack." Supportive of experiential learning, Frank said that children were more likely to eat an unfamiliar vegetable if they had tried growing it themselves. "[Y]ou can't expect a kid to eat something he's never seen at home." Similarly, he complained that the cafeteria workers had not been willing to prepare all of the produce he had supplied, because they said it "was too much work." They were able to use squash, cucumbers, and cantaloupe, but the sweet corn was more than they could handle, he said. He wondered aloud about the changes since he was a child when the cafeteria "ladies" took pride in their meals made from scratch.

As "Larry," 50, greeted me when I arrived at his farm, like many of the other people I had interviewed, he could not wait to sit down to talk. Off the bat, he told me he thought the FTS program was "stupid." Farmer after farmer gave me the impression that they were hungry to be heard, and I could not turn my tape recorder on fast enough. They wanted to talk about their experiences with the program. "It's one of the worst ones Oklahoma has come up with," he told me. Larry had been running an agritourism operation for 11 years and he still farmed wheat, from which he made whole-wheat flour. He considered the flour and agritourism businesses to be his main occupations, and himself a farmer since the age of 7. Proprietors of thousands of acres on the southern Great Plains, Larry and his wife kept 50 acres to farm in wheat and use for the agritourism attractions, such as a corn maze and an events barn, while renting out the rest. His is the only labor on the farm, but he has about six employees for the agritourism operation and about 20 seasonal, part-time "spooks" who "haunt" the corn maze during the Halloween season. As of fall 2011, his farm averaged 10,000 visitors a season, with 3,000 to 4,000 being schoolchildren on field trips. In the events barn, Larry hosted entertaining game-show-like events in which he educated children about the distance that food travels for various types of meals, comparing, for example, a frozen TV dinner with a lunch made from locally sourced products. "And we talk about preservatives with the kids.... [M]y passion falls in trying to educate kids about our food system," he said. Such educational visits to farms are considered part of the curricular aspect of FTS

programming. Larry, however, did not consider these educational events to be part of FTS. Having had experience trying to market his flour to schools (more on that below), he saw FTS as consisting of the food-procurement dimension. Larry was one of four farmers whom I interviewed twice, once in fall 2011 and again in fall 2012. He reported 2010 gross farm sales of between \$50,000 and \$100,000.

State and federal grants had funded the construction of the agritourism barn and a flour mill, both of which the state had studied. He told me that the state was interested in learning how much value could be added to a bushel of wheat if it was processed into whole-wheat flour. Larry said he was the first farmer in Oklahoma to receive a grant to encourage and establish value-added processing of Oklahoma-grown products. Another grant “paying [him] for his time and labor” to develop markets for the flour spurred him to try several avenues, including marketing flour to schools. To that end, he hired a salesperson (another farmer participant in this research; her comments on Larry’s endeavor are summarized below) to visit many schools over a one-year period to persuade school food service to purchase the whole-wheat flour. The result was the sale of 750 pounds of flour to three schools. The FTS coordinator had advised him to create a promotional brochure.

Larry’s efforts to market whole-wheat flour to schools shaped his views of the Oklahoma FTS Program. He was critical of it for several reasons. First was that, in his opinion, with the exception of Jo, there were no largescale vegetable growers in Oklahoma, so the program itself seemed a bad fit for the state. Second was the seasonal mismatch between school and agricultural calendars. “We can’t get fresh vegetables in Oklahoma to a school in December. It doesn’t work,” he asserted. Third was that the schools had no incentive to buy from local farmers. “There’s no benefit to be in this, because the commodity’s going to be cheaper,” he said. He thought that if the schools had been mandated to purchase a certain percentage of local products, both the schools and farmers would have benefited from developing the market for local foods. “But if we don’t do anything like that and they can still get away with doing whatever [i.e., buying commodities], there isn’t a benefit. That’s the problem with the program. Why have a program that doesn’t have a benefit?,” he asked. From an economically instrumental perspective, this assessment was valid. He was essentially referring to the market potential of school food. In simplistic terms, if sellers of a product (e.g., farmers) target potential buyers (e.g., SFSDs), but the buyers are not interested, how does the potential constitute a real market?

Larry thought that the HHFKA mandates on the horizon (as of fall 2011) would make the whole-wheat flour more marketable to schools. The mandate stipulated that beginning in school year 2012–2013, grain-containing foods sold at school had to have at least 50% whole grains by weight or have their first ingredient be whole grains (USDA FNS, 2013c). “[S]o that’s where some schools are actually using [our flour], just because they know they’re going to have to start doing it.” In 2011, he sold flour to three schools, but at a price substantially lower than retail. He accepted 40 cents a pound only because the grant money was supplementing his efforts to market it. “That’s not very much money, and I’m getting reimbursed mileage right now so that makes it work, but it can’t work when the grant goes away. So I’ve got to establish these people while I still have time to do it through the grant.” One of the schools was located 120 miles from his farm. He had tried to market flour to the schools closest to him, but the SFSDs were not interested. In the end, FTS income amounted to less than 1% of his income from the sale of food

products. One year later I interviewed him again, and I also interviewed, coincidentally,⁵ his grant-funded salesperson, who turned out to be one of my survey respondents, “Pamela.” When speaking about her efforts to market Larry’s flour, she recounted what she had learned about the HHFKA rules pertaining to grain products:

That’s why [Larry] and I worked really hard to get the whole-wheat flour into the school system so that they would bake bread and have hot rolls that were whole-wheat that were filling and their substance was good and it wasn’t ... a processed product. Well, now you can only serve bread so many times a week. You cannot make hot rolls every day.

Therefore, while the farmers initially perceived the new, mandated nutrition guidelines as being beneficial for marketing the flour to schools, they ultimately understood them to work to limit the quantity of product that could be marketed. A combination of factors—the end of the grant money, the need to raise the price, and the limitation on ordered quantities—contributed to the HHFKA not fulfilling the perceived promise of benefiting local farmers. Moreover, the distances between farm and school were difficult to manage, when Larry weighed the cost of the deliveries against what he earned from selling the product.

By the time I visited with Larry one year later, he had been selling flour to a school district 45 miles away, but that deal ended. The three main factors contributing to its end were price, volume, and distribution. After the grant money ran out, to make marketing the flour worth the almost 90-mile round trip, he needed larger orders, but the school was not interested in ordering more than its standing \$60 order. The school food service contact did not want to store excess flour, he said. “That’s my best school, and her reply to me was, ‘Well if you can’t deliver it, we’re just going to have to find somewhere else to buy it,’ ” he said. He indicated that that was the end of his involvement with FTS. “It’s much easier for me to package a 2-pound bag and make 100% or a 140% margin, versus what I sell it to schools for. ...” Considerations of marketness played into his decision-making, but as had Frank before him, he had encountered the hard power of the SFSD, who exercised the authority to select vendors.

Larry described some interpersonal tension between him and Jo that had burst out into the open when they encountered each other one day at a health-food store. He told me that he thought there might be some bitterness on her part because the grant-funded flour mill had originally been destined for her farm. (She had told me that she had competed for that mill.) Once again in my research I encountered reports of intra-farmer dynamics that I had not anticipated and that I had not seen in the literature. It seemed to me that farmers, as well as schools, were in competition with each other for scarce grant dollars to help move AAFIs forward. Perhaps this competitive environment worked against goals to localize food systems, creating atmospheres in which people were less likely to work together in cooperative arrangements.

⁵ Coincidences such as this in the course of data collection are “fortuitous events” that contribute to identifying the properties and complexities of the concepts being analyzed (Corbin and Strauss, 2012, p. 4), in this case, farmers’ engagement.

Compounding his difficulty with distribution was his experience of no assistance from the FTS Program office. “Our biggest problem is distribution. ... [we’re] trying to get that fixed, and there’s no real easy fix.” In the beginning of the grant period, Pamela had at first tried to market the product only to schools within a 60-mile radius of Larry’s remote farm. Not only did Larry perceive a lack of support from the program office but he also perceived that it had prioritized a value-added co-op processor of flour products in northern Oklahoma over his individual endeavor. Fortunately, while he was striving to market his flour to schools, the local-foods buyer from a national health-food grocery chain had called him. Eventually, he placed his flour in the chain’s two stores in Oklahoma. This placement became a selling point to successfully market the flour to other grocery stores. Thus, through trial and error, and a lucky call from a local-foods buyer, he discovered a better market for his flour.

In central Oklahoma, a married couple of vegetable farmers were proud of their multigenerational farming tradition and intended to pass the farm on to their grown, college-educated sons, who also worked on the 40-acre farm where they had been reared. At the time of the interview, in November 2012, the couple lived on the farm in the house where the husband’s grandparents had also lived. I interviewed one of their sons at a large, urban farmers’ market, where he had staffed their farm stall, the day before I went to visit with his parents, co-proprietors “Jennifer,” 51, and “Dale,” 58, at their retail store. The store sold a variety of fresh fruits and vegetables (see Figure 5.6). They also sold value-added products, like preserves, which they sourced from other Oklahoma producers, including American Indian tribes. In addition to the 40 acres they owned, Jennifer and Dale rented about 260 acres, where they grew alfalfa and wheat and kept 50 cows. They also operated greenhouses. Gross farm sales for 2010 had exceeded \$250,000. Annually, from April through October for several years in a row, they had hired the same four Mexican laborers on the H-2A visa program, considering them “family,” and making their required accommodations as comfortable as possible.

Experienced with both the curricular and food-procurement dimensions of FTS, Jennifer intended to continue the former but discontinue the latter when I spoke with her and her family members in fall 2012. Son “Todd,” 30, and Jennifer had the most to say about the Oklahoma FTS Program, because of their experiences with it. Jennifer waxed enthusiastic when speaking about giving presentations to children in the elementary schools of a small city and a remote rural town, where her sons had attended. “That’s where my children graduated from school, and so I want to work with them. They don’t have a grant. That’s just me, because I want to and I can.” Her educational outreach included bringing groups of children to a farmers’ market; she had “loved” watching them respond to what they were seeing. “It is a very poor school district. So, a lot of these kids don’t have the opportunity to eat fresh foods. If you want to make changes to education, it has to begin with your school district. And the only way that happens is by you getting involved.” She faulted the federal government for not providing enough funding to improve school food. The supply of vegetables that she gave to the schoolchildren in the small city in conjunction with lessons on how to prepare them were paid for by a USDA specialty grant for fruits and vegetables that the school district’s nutrition director had been awarded. She sang the praises of the local SFSD, who “[n]ever ever gets a thank-you or credit from anybody in this community for using the dollars that she’s given as wisely as she does.” Jennifer adjusted the content of the presentation by age group. A particular autumn vegetable was given to each child along with a recipe in the hope of encouraging the parents at home to cook with it.

The family had tried marketing products to schools but had quit. Delivery costs, price, regulations, and the lack of scratch-cooking skills among school cafeteria workers were the four primary reasons that selling to schools had failed. They were not familiar with the statewide program. Because of their greenhouse production, they had vegetables in the late fall and winter months. Todd had been responsible for delivering what little produce they had sold to schools. The produce had come from their farm's surplus. One of the vegetables, grown in greenhouses, had required no preparation but washing. Years prior to our interview, when he had talked with a SFSD about selling produce to the cafeteria such as squash or cucumbers, he had gotten the impression that the school did not want to buy produce that required a lot of preparation. "They didn't want too many things that they had to spend too much prep time on, like slicing and stuff..." He attributed that rejection to a lack of time to cook from scratch. In his experience delivering to several school sites, he had learned that selling small quantities and then taking on the delivery burden was not cost-effective. If there had been a central location to receive produce, it would have been workable. Their farm generates income almost entirely (90% to 95%) through retail sales, so when Todd spent a lot of time making drop-offs of small quantities to several schools, which were already paying under-retail prices, the net result were prices equal to wholesale, which was unacceptable, Jennifer said.

When an opportunity to sell produce directly to one of the small-city schools came up, she soon realized it was not going to work out. Jennifer told the nutrition director that she would not be able to compete with the prices offered by the regional distributors. "Nine chances out of 10, it's too cheap for me to make any money, because I have to transport it to the school," she told me. She emphasized that she did not blame the school system for the low prices. She explained,

[T]his isn't your school cafeteria, this is your federal legislators. They need to change the way the money is appropriated for the schools for the food. They need to put their money where their mouth is. Literally. They [the schools] are being held hostage, because they can only spend so much per child. It is not their fault. It is doublespeak.

By "doublespeak" she was referring to her perception of the federal government's approach to child nutrition, to which she attributed the following rationality:

Let's feed our children healthy, but let's not give anybody money ... to do it. Let's go ahead and have the farmers provide it, but wait, only corporate farms that don't really need to make a living.

Her reference to corporate farms can be understood in terms of the concepts of scale and livelihood. Through economies of scale and capacity to sell large volumes of produce to many schools, as Jo and Jeff were able to do, largescale farmers accepted wholesale prices. And with FTS sales amounting to small percentages of their overall gross receipts, neither Jo nor Jeff made a living off of the FTS sales. Moreover, since regional distributors trucked their produce to various school districts in the state, Jo and Jeff did not have to invest personal time delivering the produce. In Jennifer and her family's case, however, because their full-time occupation was laboring to make a living off of the farm, time spent on deliveries that yielded no profit were burdensome, given that the same produce commanded better prices in other direct markets.

A second untenable feature of selling to that small-city school would have been a burdensome amount of paperwork. When the SFSD called her, Jennifer was interested, but upon learning about the paperwork, she balked. Questions about liability insurance and the need for certifications and licenses presented too many hoops to go through, she said. For her, the combination of low prices, burdensome paperwork, and delivery demands meant that FTS did not work “how it is now.” She implied that with some changes, it might.

Her criticism of federal governance extended to rules concerning the H-2A visa program. She said that the rules made it hard to hire migrant labor, particularly the rule that mandated she hire any American-born citizen who answered a series of questions properly. Because of this stipulation, she had inadvertently hired an ex-felon one year. He became belligerent and violent toward her son, so she fired him. The experience was particularly frightening, she said, because unlike a corporate farm, she and her family lived on the farm. Having to hire anybody who could answer a few questions did not allow for background checks.

Another difficulty with the H-2A program, which Jeff had also described, was a requirement to bring the workers all at once. In vegetable production, it would be better to bring workers in a few at a time during the course of the season, since the fields varied in what they needed. Referring to the U.S. Department of Labor, Jennifer said that the H-2A program was “set up for failure.” Nevertheless, she and her husband had made it work for them. Their four H-2A workers slept in a “bunk house,” where they had a kitchen, bathroom, TV, washing machine, and two air conditioners, she described. She tried to make them comfortable. “You know, they’re my family. They’re not just people that I mistreat. We do it right. And then you’ve got the people that will hire five legal ones and hide 20 illegals. And that happens all the time,” she said. She had harsh words for farmers who mistreated hired migrant farm workers.

Jennifer and her family’s practical experience trying to engage with FTS food procurement had led them to cease their efforts. While she derived social benefits from teaching children about food and agriculture, marketing food to schools was not economically feasible. High marketness and moderate economic instrumentalism were active in this case, but they did not detract from the sense of community this family felt in a place where the husband’s roots ran deep. Self-interest did not displace Jennifer’s sense of responsibility to migrant farmworkers. Concern over price, however, made marketing to schools impracticable and took precedence over her concern for children’s diets. She offered a values-based critique of the low prices in federal child-nutrition programs. Moreover, by refusing to market products to schools, she shared how she exercised agency at the microscale in response to the macroscale features these programs. An inextricable dimension of marketness in this case, too, was the element of



Figure 5.6. This produce was sold not far from where it was grown. *Photo:* Author.

time. Because Jennifer and Dale were full-time farmers, with no off-farm employment, the direct model of FTS was going to consume valuable time that was better spent in their retail operations. A strong degree of social embeddedness was evident in Jennifer's volunteering to teach at her sons' former school. This family did not need a FTS program to strengthen their ties with the community, but if the program had been designed with fairer prices and a built-in delivery system, they would have been interested in it.

After Much Effort, Rejected by Schools

A two-lane highway in a remote corner of the Great Plains brought me to Pamela's pick-your-own pumpkin patch (see Figure 5.7). Pamela's survey answers reflected the concept of engagement. She and her husband, both 58 at the time, lived on the 150 acres that his Caddo Indian grandmother had owned. Other parcels of land brought the total to about 660 acres, 95% of which was in production, including cropland and pasture. The interview expanded upon her survey answers.

In addition to farming and ranching full time, which included direct sales of pumpkins from the farm and through the Oklahoma Food Co-op (except for 2012 when she couldn't get any workers to harvest pumpkins to deliver to the co-op), Pamela worked part time as a school nurse. Her husband also worked off farm as a carpenter. "And it takes both of those jobs to keep that farmin' alive," she said, even though farming was the main source of income. On the survey, she had indicated that farming and ranching was their main occupation. The uncertainties



Figure 5.7. The Southern Great Plains tilt westward under an October sky. Pamela's farm was about 30 miles southwest of this location. *Photo:* Author.

and difficulties caused by drought made the off-farm income vital. "There's not a farmer around here that doesn't work another job so they can farm. ... It's not the way it used to be." The drought in 2011 had forced them to sell half of their cattle.

Marketing Larry's flour to schools was not Pamela's only experience with childhood nutrition. She had spent seven years as a school nurse during a time when the school was not on the NSBP. The children's test scores were low, and Pamela made the connection with hunger. She advocated on behalf of the children and suggested to school administrators that children were coming to school hungry. Parents resisted the notion, she said, but when the administration saw that 62% of the children had qualified for free and reduced-price lunches, they took steps to participate in the NSBP, too. She noted that even if children had eaten something small before leaving the house, many of them had hour-long bus rides to school and should not have been expected to perform well for four hours on a nearly empty stomach before lunchtime. "They're out of energy. They're out of fuel. They're nothing," she said. During her time as nurse in that district, the NSBP participation began. She was proud that the children, if they arrived 15 minutes early, had access to a breakfast of half a slice of cheese, half of an egg, and half of a tortilla. "That's better than any bowl of cereal," she said. After

urging the launch of the breakfast program, years later she also had a hand in initiating a Backpack for Kids program. This program supplied a backpack (later the school switched to using a grocery bag) filled with enough food to feed one low-income child over the weekend. The food came from the regional food bank in Oklahoma City.

A few years later she tried to market her farm's produce directly to schools, but she ran into the same resistance among school food service personnel that Todd had encountered: "This is gonna sound harsh, even when I could give it away and not sell it, the school lunch lady [said] and I quote, 'We have to clean that?'" Concerned over the possibility that produce served in schools had been treated with chemicals, she offered to donate fresh yellow squash. She recalled that attempt:

I'm giving you this yellow squash. [And the lunch ladies said:] "They won't eat it." [And I said:] Well, how do we know they won't eat it? Do you know there's ways to disguise that yellow squash? When you make mac and cheese, and you puree some yellow squash and dump it in there with your mac and cheese, you're gettin' that product. And again, the lunch lady said no.

Her efforts thwarted, she went to the school administration to explain what had happened. She said,

I said, I want to give them these products, and they don't want to prepare it. [And the administrator said:] "Well, you know, good help is hard to find." Okay. So, when you run up against that wall and you hit it a couple of times, you're like, okay, I'm done with that.

She tried marketing or giving produce to several schools and encountered the same attitude at all of them. She told me, "What can you do? You can't make them take it. You can't make them purchase it." Her case demonstrates once again a dynamic between soft and hard power. When the soft power of the positive discourse of FTS meets the hard power of food-purchasing authority, the word of the SFSD prevails. In hers and Ralph's cases, the power-to-power relation between school food service and the farmer is such that the better argument—that school food could be improved by incorporating fresh, locally grown produce—loses to the exercise of SFSDs' and other school administrators' power (see Flyvbjerg, 1998⁶). Objective facts about the importance of vegetables in the human diet or a rational argument that freshly prepared vegetables would be tastier for the schoolchildren lose their power to persuade when they confront overwhelmed school personnel working on a shoestring budget who have no incentive to alter the status quo (Askelson et al., 2015). This power relation may also have opposite outcomes. When SFSDs are persuaded by the discourse of FTS food procurement, they may go to great lengths to incorporate local foods, as in Jo's case, or to make moderate accommodations to buy local foods, as in Greg's case.

⁶ "Michel Foucault points out that knowledge-power and rationality-power relations are found in all contexts. ... [I]n power relations characterized by openly acknowledged antagonistic confrontation, power-to-power relations dominate so as to virtually exclude knowledge-power and rationality-power relations in the sense that rational argument has little or no influence" (Flyvbjerg, 1998, p. 141).

The values of FTS food procurement aligned well with Pamela's values. The mail survey had gotten her thinking about how much food she gave away, so in the year between the survey and our interview, she kept track of it. She had given away 300 pounds to 400 pounds of produce in summer 2012 to local nursing homes and a daycare center, who had agreed to prepare and serve it. "I didn't even call the school," she said. School food service had made it clear they would rather order produce through distributors. In offering to donate food, Pamela erased the economic self-interest of marketing products. Altruistically wanting to improve the quality of school meals, she gained no ground. And although she had spoken with and met the Oklahoma FTS coordinator in years past, when she tried to contact her in 2011, she received no return call, so she dropped her effort. Pamela's actions constituted a concerted effort to market or donate produce to schools. Yet in spite of her efforts, the schools were not interested.

In northern Oklahoma in late October 2012, I met up with Peter and Sally in the library of a small town. They had completed the survey together, and their answers indicated direct experience with the Oklahoma FTS Program. In person, I learned that Peter had attended several meetings to learn how to participate. Peter and Sally had been producing a highly specialized crop for nearly 30 years. The food can be used as a high-protein ingredient in sauces, dips, and soups. They both worked part time in other occupations. Peter had attended the FTS trainings, while Sally had acquired the necessary paperwork to participate in it. Although the paperwork was overwhelming, the food-safety requirements presented an insurmountable obstacle, Sally told me in person. Their well-developed production methods entailed drying the food, grinding it into a powder, then sending that to a certified kitchen where the raw powder was added to the rest of the ingredients for the packaged dry soup and dip mixes. One of the hurdles presented by food-safety regulations was that the food would have had to go to a certified kitchen to be dried—a step that Peter and Sally had done themselves. Drying the food in a certified kitchen would have significantly diminished the content of one of the food's key nutrients, and they did not want to do that, since the food's health benefits motivated them to grow the food in the first place. Their experiences trying to market to schools led them to write on the survey that they were not interested in doing so in the future.

The interview gave me the opportunity to learn more about one of their survey statements, namely, that the "school did not like to serve soup." Although Peter had sold a small amount of the product to the local elementary school, school food service learned afterward that serving soup to the children was not tenable because of the risk of spilling it. And even though the dip mix could have been used in salad dressings, school food service told Peter that the taste was "too sophisticated" for the children's palates. He came away with the impression the "schools ... were really into the junk food" and that the children "wanted stuff they were used to: hamburgers, French fries, cokes." He understood from the school food service that they were unwilling to introduce unfamiliar foods.

In northeastern Oklahoma where narrow country roads wind through thick, cross-timbered woods and many of the curves are blind, "Ralph," 50, his wife, and two teenage children live on rented refurbished and reclaimed land downslope of the highway. My interview began as Ralph and I ambled out past a dog straining against the chain attaching him to a post and into a quarter-acre garden and half-acre farm, which had been certified organic. Dense woods edged the rented property on three sides, and a neighbor's cattle pasture bordered on the south. After walking

around the farm, we entered his commercial kitchen, which was under construction and not completely furnished yet. Its walls, roof, and floor were sturdy and new, though, and a table with chairs grounded our conversation.

Finances were tight. He received a pension from a previous career, and in spite of some severe health conditions in the past, he continued to innovate and experiment. Ralph had been farming since he was 12, but not full time. To his mind, his hobby had become his full-time occupation. His wife was a full-time law student. Farm income in 2010 was under \$10,000 with a harvest of 2,500 pounds of produce, but he was operating at a loss in 2011 when I met him. The half-acre had yielded just 200 pounds of produce that year because of a series of calamities befitting Job. February brought weather 15 degrees below zero and 20 inches of snow that refused to melt for weeks. The bitter cold was followed by a 78-day drought accompanied by 20- to 40-mile-per-hour winds. On April 28, it began to rain and did not let up for 7 days until 22 inches had fallen, triggering a flood that left his garden and farm under 8 inches of water. “Bazillions” of Japanese beetles then descended, “so anything that was alive got eaten right down to the stem” (while I was visiting him, he showed me a pile of beetle carcasses piled under a nonchemical trap; they smelled like a rotting corpse). He called an Extension office to ask for help and was told that Japanese beetles did not come to Oklahoma. After the beetle infestation, deer jumped the fence and ate 800 okra plants. A second drought then hammered the place with 65 days of triple-digit temperatures. The woods had had enough by then, and he explained the scorched trees I had passed on my drive up: a wildfire about 3 miles south had burned through, paving the winds for the arrival of grasshoppers “by the hundreds of thousands,” which finished off the farm for the season, wiping out the potential for any farm income for that year. And yet he kept on.

In good years, farm income had been earned from marketing to farmers’ markets, grocery stores, and restaurants, but this was before new food-safety regulations required \$1 million of liability insurance to supply the stores. (Selling to grocery stores had been challenging anyway. Ralph had trouble determining prices. Neither the stores nor other farmers would disclose them, and when he reached out to the ODAFF, he got no assistance in that particular matter.) After that he focused on farmers’ markets and the development of the okra.

In the midst of the uncertainty, risk, and environmental hazards of farming in eastern Oklahoma, Ralph had developed friendly relationships with the superintendent of the local kindergarten-through-8th-grade school. A Cherokee pre-K was attached to it, and altogether there were 120 children on the campus. The superintendent was also the principal, and a farmer had to go through him to market products to the cafeteria. Ralph sold produce directly to the superintendent, who lived in Tulsa and would bring it back to the city to distribute to friends and family. Ralph had high hopes for FTS, since this little school was just 5 miles from his home and he could afford to deliver the produce himself. At 120 students, he believed he could produce a manageable volume of produce and was willing to plant according to what the cafeteria wanted (e.g., corn, potatoes, onions, and carrots). He got a \$5,000 grant from the ODAFF to begin building the commercial kitchen, and put in about \$12,000 of his own money, before purchasing appliances, to complete the structure. The kitchen was meant to support selling products at the Tahlequah farmers’ market, too, in which he had participated for years. He built the commercial kitchen in response to being told by the Tahlequah health department that merely cutting the leaves off vegetables constituted

“processing,” and if he wanted to process vegetables he had to have a commercial kitchen. He also thought by building a commercial kitchen he would be set up as “turnkey operation” for FTS sales.

His hopes were dashed, however, when the friendly superintendent left, and a new one, who did not know Ralph, replaced him. That superintendent had attended a meeting in another eastern-Oklahoma city to learn about FTS, had applied for a grant to help fund his school’s participation, and had not won it. Ralph said that the superintendent had told him, “I’ve got one woman in the cafeteria, and she’s cookin’ for 120 kids. She doesn’t have time to be cutting up or snapping green beans or cutting squash.” Ralph said he had offered to process it for the school, freeze it, and bag it, but the superintendent still refused to agree to procure food from him. The involvement of the Oklahoma FTS coordinator, who worked “really diligently trying to make things work,” Ralph said, did not move the superintendent. In the end, Ralph characterized his experience with FTS as “a disaster.”

In the course of the interview, Ralph raised a topic that I had not encountered yet. He said that rural schools might be less open to sourcing food from local farmers than urban ones. Here is how he put it:

There’s no novelty when you live in the country. [When] I go down to [the local] school, they don’t care if I’m a farmer, ‘cause everybody in the school’s a farmer. They don’t give a flip about anything coming off the farm, ‘cause everything does. If you’re going to a city school, I think you’d have a better chance of selling because they’re not around farmers and they can say, “Oh, we’re eating stuff grown on the farm,” but here nobody cares. They don’t. To them, it’s extra work for processing.

This perspective opened a window onto a cultural dimension, an urban/rural divide in attitudes toward farming. Whereas city dwellers may have romantic notions of a rural idyll, rural residents involved in agricultural production may see farm-fresh food as a mundane part of daily life, that is, nothing special.

As had other farmers in this research, Ralph had faced off against the hard power of school authorities who could not be persuaded to source local foods. Since the conventional school food procured through distributors was available “off the truck and ... already in a bag and cut up,” he said, the school cook was not motivated to put in the extra work of buying it fresh from him. “It’s just a mindset. People have things so easy they get used to it,” he said, “and they’re so separated from their food, they don’t know where it comes from.” In the end, he gave the new superintendent the benefit of the doubt and thought that perhaps as time went by, he might open up to the idea of buying locally grown produce.

No Past Sales of Food, No Intention to Do So in Future

“Henry,” 56, had completed the mail survey. I drove out to interview him in October 2012. Producing a variety of fruits and vegetables, as well as chicken eggs, on a 14-acre, certified organic farm southwest of Oklahoma City, (see Figure 5.8), most of his farm sales came from farmers’ markets and CSA subscriptions. He had attended several meetings to learn about FTS, and the FTS coordinator had facilitated a meeting between him and a SFSD. Ultimately, he decided that the program was not viable for him, because the price point was too low. He did not fault school food service. He understood that the food budgets were tight. He listened to the FTS marketing pitch that there was a large market for locally grown produce. “What I heard [the FTS coordinator] say was there’s such a

demand for fresh fruit and vegetables, and oh, you should do this. Well, she's right, there is such a demand. But not a demand enough for me to make a living," he said. His experience selling at farmers' markets had also caused some frustration, since customers typically balked at the prices. "There are not that many people who want to pay what it takes to grow food." Henry farmed full time, supported by the income from his wife's full-time, off-farm job.

Made Inquiries but Has Not Made a FTS Connection

Farming for 13 years, "Martha," 62, had completed the survey. She considered herself both a full-time farmer and a full-time advocate for farmers' issues. She had learned about the FTS program through her research on agricultural policy and knew the FTS coordinator. On the survey, she expressed an interest in marketing products to schools in the future. Although she had looked into marketing products to her local school system, Martha had learned that the kitchen did not have the equipment to handle fresh food. Therefore, at least at the time of the phone interview in November 2012, nothing had come of her outreach efforts. Aware that FTS participation required that farmers purchase liability insurance, she suggested that a helpful policy change would be to make liability insurance affordable. Unaffordable liability insurance was also a problem for the farmers studied by Conner, King, et al. (2011). Concerning food-safety issues, Martha thought that small producers were different from largescale, commercial growers in that their foods were produced in safer ways, with "no comingling of products." Recognizing the challenges of transportation and storage, she recommended that grants for cold storage be made available for smallscale growers, as well as vans or trucks to transport produce.



Figure 5.8. Geese graze under the organically grown grapes on Henry's farm. *Photo:* Author.

Part Three: Analysis of FTS Census Data on Oklahoma, 2011–2012

The above analysis of farmers' engagement revealed many properties and dimensions, including differences, as reported by the farmer interviewees, between the receptivity of urban schools and rural schools to purchasing food from local or state farmers. Therefore, the analysis led me to seek available data on the location of Oklahoma schools that report purchases of local foods. Seeking this data was a strategy to saturate the broad category of farmers' engagement and lend some insight into the differences between those farmers who benefited from the Oklahoma FTS Program and those who did not. "Toward the end of the research, when a researcher is filling in categories, he or she may return to old sties, documents, and persons, or go to new ones to gather the data necessary to saturate categories and complete a study" (Corbin and Strauss, 2012, p. 13). This strategy also helped point to the need for further comparative research on FTS across urban, suburban, and rural geographies.

Since 2011, every two years the FTS program office of the USDA's FNS has surveyed the country's SFSDs to collect data on schools' involvement in an array of FTS activities, including the purchase of "local" foods. Data are

organized by state on the USDA’s FTS Program website and follow a standard format. Among the data displayed prominently are the numbers of school districts, schools, and schoolchildren. Special attention is given to the dollar figure that answers the question, “How much of your total food budget goes toward local purchases?” The USDA sums up the total dollar amounts by state and uses those figures discursively to align with the FTS campaign’s assertion that school-food procurement can strengthen farm economies and contribute to rural economic development (see Table 5.8; USDA FNS, 2015c). The website provides a link, “See the details,” so that anyone may explore the raw data from which these figures are calculated. I did so for the state of Oklahoma.

The census asked respondents to report the percentage of their school-food budgets spent on local foods and also queried them on a wide array of FTS practices, such as curricular activities and school gardens. Other questions involved SFSDs’ experiences with FTS food procurement. In Oklahoma for the 2011–2012 school year, of the 62

Table 5.8. Local-Foods Purchases by Oklahoma Schools, 2011–2012 School Year:
Farm to School Census Language

“\$5,452,803 invested into local communities”

“Oklahoma schools invest in local communities with their food dollars.”

“The Oklahoma school districts that bought local products in the 2011–2012 school year spent an estimated \$42,016,053 on school food, with \$5,452,803 of that directed locally.”

school districts and one high school reporting local-foods expenditures, percentages ranged from less than 1% to 100% (one distant rural school district reported 100%). School-district data included locale codes, which are based on the schools’ physical locations, whose addresses are matched against the TIGER database of the Census Bureau. School district locations are classified according to their distance from an urban center. This urban-centric code system presents four principal locale types: city, suburban, town, and rural, with three subcategories each (NCES, n.d.). Cities and suburbs are classified by their size: large, midsize, or small, while towns and rural places are defined according to their distance from an urban area: fringe, distant, or remote.

Of the 63 school entities reporting percentages of local-foods purchases, 16 were classified in towns, 35 in rural locales, 6 in suburbs, and 6 in cities. Their median expenditures on local foods were 9%, 5%, 11%, and 9%, respectively. Appendix C shows the location of the 63 educational entities reporting local-food purchases for the 2011–2012 school year, according to USDA FTS Census data (USDA FNS, 2013b; two other points mapped are for school districts without local-foods expenditures but with curricular FTS activities). Other data layers on the map are interstate highways, state highways, and municipal boundaries. The map shows that the majority of the participating school districts are located along interstate highways and other major roads. This pattern may indicate that local-foods expenditures are due primarily to DoD Fresh; USDA Foods; and the statewide FTS program, which uses several regional distribution companies. Also noteworthy is that most of the participating school districts are located

in cities or near them. For example, the 21 school districts categorized as “distant rural” are between 5 miles and 25 miles from an urbanized area of 50,000 people or more or are in rural territories between 2.5 miles and 10 miles from an urban cluster of between 2,500 and 50,000 people (USDA FNS, 2013b). As the interview with one distributor illustrated, distributors who are already making deliveries along routes in their territories are more willing to also deliver cases of produce earmarked for FTS programs.

The pattern of the mapped participating school districts suggests that districts in remote rural locations may be left out of the direct model of FTS food procurement. (Likewise, Askelson et al. [2015] found that rural schools in Iowa were unlikely to participate in FTS.) Of the 63 entities reporting local-foods purchases, three were designated “remote rural” (a rural territory more than 25 miles from an urbanized area and more than 10 miles from an urban cluster [USDA FNS, 2013b]). Their reported percentages of local-foods purchases were 30%, 30%, and 25%. One of them purchased all of these foods from DoD Fresh; one from a manufacturer, a distributor, and USDA Foods (which are not local foods); and one from a producer and DoD Fresh. Since the data did not parse the percentages across categories, it is unknown what percentage came from the producer in that last remote rural district.

The census asked respondents to indicate the sources of the local foods that they purchased for school meals. In asking this question, the census presented both “direct” and “intermediary” options for local foods that respondents could check off. “Direct” sources of local food encompassed manufacturers, CSAs, producer cooperatives, farmers’ markets, and producers. The FTS Census, however, was not designed to capture data on participating farms and producers. For example, the following attributes of participating farms would be valuable for understanding the farm-level effects of FTS programs: the scale of the farming operation, whether the growers are full or part time, whether they are of limited resources or not, are minority or not, are well established or new in the farming occupation, and are located in rural areas or in the urban periphery, among others. As well, it would be useful for researchers if the FTS Census collected data on the specific payments to individual farmers. On the census, “intermediary sources for local food” are identified as distributors, the statewide FTS program, the DoD Fresh, food service management companies, and USDA Foods. A discussion of these intermediary sources follows.

Some research has suggested that regional distributors may facilitate connections between farms and schools (Clark, Inwood, and Sharp, 2011; Izumi et al., 2010b), even while they take a cut of the purchase price of the locally sourced food. In the case of Oklahoma, some regional distributors at first declined to accept produce from Oklahoma farmers, but the persistent outreach of the FTS coordinator resulted in several distributors’ participating in the statewide program. As Chapter 5 has described, two commercial growers utilized these distributors.

The FTS Census includes as an intermediary source for local foods USDA Foods, which is the contemporary name of the USDA’s surplus-commodity purchasing program. The USDA purchases more than 2 billion pounds of surplus agricultural products from farmers in the U.S. *or its territories* annually under this program, \$1.4 billion of which is directed to child nutrition programs (USDA FNS, 2014b). In school cafeterias participating in the NSLP, approximately 15% to 20% of the components of school meals come from these commodity, or entitlement, foods. Commodity foods usually come processed, such as raw beef that has been cooked and crumbled, but most states send some of these “foods to processors to be turned into end products like burritos, sandwiches or rice bowls”

(USDA FNS, 2014). The inclusion of USDA Foods as a source of local foods on the FTS Census appears to undermine the purpose of FTS.

The USDA publishes the states of origin for the various commodities retrospectively. Because procurement processes are based on solicitations for competitive bids, USDA Foods does not know ahead of time where their products originate (USDA FNS, 2014a). This means that when states' school-food authorities order commodities from USDA Foods, they cannot know ahead of time whether those foods come from their state, a neighboring state, one much farther away, or a U.S. territory. The report of the state of origin for USDA Foods for Fiscal Year 2013, for example, revealed that Oklahoma had supplied commodity meat, vegetables, and grain in the amounts of \$6,037,956; \$27,932; and \$369,763, respectively (USDA FNS, 2016c). Yet the FTS Census lumped all local-foods expenditures into one figure (the percentage spent on local foods) without assigning separate percentages to each of the sources of local foods. This lump-sum data collection means users of the data cannot ascertain which fraction of school food budgets went directly to local farmers through farmers' markets, for example, and which fraction went to intermediaries. Additionally, the USDA FNS claimed that when commodity foods do not originate locally to a school district, if the food has been sent to a food processor in the state, then that state is "supporting a local food business" (USDA FNS, 2014a). Moreover, in a two-page explainer, the USDA FNS stated,

USDA has a dual mission of providing healthy food and supporting American farmers. All products purchased are grown, processed, and packaged in the United States or its territories. *USDA Foods are local to someone.* (USDA FNS, 2014b; emphasis added)

The sentence emphasized in italics opposes the concepts of community food security, community food systems, and agrifood-system localization, as well as defeats the FTS campaign's original purpose of supporting smallscale, family farms. Two of the values fueling the various food movements based on these concepts are concern for the environment and concern for a fair and just food system. Environmental concerns have often been expressed in exhortations to reduce food miles, the distance traveled from farm to plate, and to produce food organically or biodynamically, while food-justice concerns have often been expressed in pitched campaigns calling attention to maltreatment of farm workers and lack of access to fresh foods in inner cities and rural areas, among other issues. Running through all of these agrifood-system localization efforts is a vision for a food system operating on a more human scale, where food is grown in close proximity to where it is ultimately enjoyed. Although the meaning of local is socially constructed, and it varies widely, defining it as nationwide flouts the original purpose and intent of the FTS campaign and most AAFIs. Most FTS advocates working in their locales understand local to mean procuring food from farmers within a day's drive of the school or less. Besides the statewide FTS program, inclusion of the other entities as sources for local food is incongruous with the idea of food-system localization and creating direct-market opportunities for small- to midscale farmers. All of these intermediary sources involve at least one middle entity who profits from the movement of the food from the farm to the school.

Conclusion

This study gathered primary data from farmers and other stakeholders in Oklahoma's FTS Program and broader food system. The results of a mail survey were presented and analyzed in Part One. Although the sampling frame of

the survey collected a wide breadth of data on Oklahoma farmers and their interest in marketing products to schools or not, it did not capture those farmers who were regularly participating in FTS food procurement. The second sampling frame of the list of participating growers on the Oklahoma FTS website captured additional farmers whose forms of engagement led to the creation of further categories, including those of farmers who marketed foods to schools on a regular basis. In Part Two, interviews with 17 farmers provided the basis for detailed profiles. Five of these farmers (from four farms) had completed the mail survey. An analysis of the survey and interview data grounded in the concept of engagement identified eight categories of engagement with the Oklahoma FTS Program.

Survey data revealed two broad groups of farmers: those who were interested in marketing products to schools in the future ($n = 14$) and those who were not ($n = 23$). Those not interested in marketing products to schools in the future were found to be slightly older and more experienced as farmers than those who were interested. Farmers whose gross farm sales were under \$10,000 in 2010 were less likely to have hired nonfamily workers to work on the farm. A preponderance of the 18 farms that earned under \$10,000 in gross farm sales in 2010 grew crops that were suitable for school nutrition programs, while farms grossing over \$10,000 were more likely to produce foods that were either inappropriate or difficult to market directly to schools. Fifty-nine percent of survey respondents worked in other, off-farm occupations. Women working off farm reported their farming occupation to be their main occupation more frequently than men working off farm did. In other words, 77% of the men with an off-farm job stated it was their main occupation, whereas just 33% of the women did.

Merging macro- and microscale analyses revealed that the reasons given for not being interested in marketing products to schools could be linked to farmers' responses to information and signals coming from a variety of governance levels, which were defined according to scale. Since farmers from both groups had engaged with their local communities, hosting field trips of schoolchildren to their farms and visiting classrooms to teach about agriculture and food, it could be inferred that this social contact with schools was not related to their interest in marketing products to them. Farmers who were interested in marketing products to schools in the future were more likely to have excess capacity on their farms for the purpose of growing food for schools than the group not interested in marketing products to schools. Interestingly, all four of the midlevel farmers, as defined by the Agriculture of the Middle research initiative (Lyson et al., 2008), were interested in marketing products to schools and reported excess capacity to produce food for that purpose. All survey respondents except for two participated in direct markets, such as farmers' markets, CSA plans, or roadside stands. This feature of their farm operations demonstrates that they engaged in economic activities that embedded them in their communities by providing opportunities to interact directly with customers.

Thirty of the 37 survey respondents lived on their farms. Whether or not the farmers lived on their farms is important for understanding their reasons for marketing to schools or not, since distance between farm and school determines the fuel cost of transporting and delivering farm products to schools. In rural areas far from suburbs or urban areas, the choice of school with which a farmer might try to make contact is limited.

Only two farmers among the survey respondents had reported sales to schools in 2010, but both operated agritourism attractions, and it was not clear whether this income was from ticket sales, food sales, or seedling sales.

Two survey respondents had put a lot of effort into marketing their products to schools, but the school food service had rejected them. I later interviewed these farmers, and their profiles appear in Part Two.

Although the mean age of the survey participants was 58, results showed that the number of years in farming was not related to age. Some older farmers had been working in agriculture for far fewer years than their younger counterparts. Surveys showed that some of the older farmers had retired and had begun farming toward the end of their professional careers, and a letter from a survey respondent revealed that he had returned to Oklahoma after many years to take over an uncle's pecan farm. Interviews showed that people began farming while in the midst of other careers with the hopes of relying on it as a source of income and as a lifestyle once they reached retirement. One farmer had begun farming after a career in ranching. Many of the farmers relied on off-farm income, either their own or that of their spouses. The mean age of the interviewed farmers who were profiled was 56.

The phronetic research approach entailed listening for interviewees' practical wisdom derived from experience; this approach generated a conversational space in which their values could be foregrounded so that an understanding of how these values shaped their decisions, actions, and practices could be constructed. One of the outstanding features of the context that the interviews delineated is that small- to midscale growers strove to *make a living* from their agricultural activities, even when their food-production endeavors were supported by off-farm income. They made decisions and acted in response to policy signals and governance mechanisms, such as food-safety rules and the steady encouragement of a statewide FTS coordinator, thoughtfully weighing pathways to diversify markets because time, resources, and money must be managed carefully. For many of them, marketing products to schools was not a viable economic opportunity, because their efforts and resources were best spent in more profitable activities. Their need to make a living contrasted with commercial growers for whom FTS sales accounted for a small percentage of annual income and for whom distribution by distributors was affordable and, importantly, did not require them to deliver produce personally. The largescale growers valued being part of a program that helped improve the quality of school meals, revealing social benefits to their participation. For most smallscale growers, the direct model of FTS was not workable. Greg's case stood out as an exception. Unusual aspects of his case were the close proximity of his farm to the school district, the location of the farm in an urban place, the presence of a champion in the local school district's child nutrition services, and the persistence of the FTS coordinator to link him with that school district. The data analysis led to the construction of a category of engagement just for him.

Several farmers spoke of the challenges of utilizing the H-2A immigrant labor program. Costs of housing and transportation in addition to guaranteed wages made the program feasible only for larger scale growers. Employing migrant workers on the program seemed to trigger audits, and if problems were found, farmers were fined. Nevertheless, the H-2A program and its challenges are salient issues for FTS, because fruit and vegetable production is labor intensive, and these are the foods most likely to be purveyed to schools. Farmers interviewed spoke of the lack of capable and willing U.S.-born labor. Treatment of farm workers should be front and center for all AAFIs, and FTS discourse has rendered this issue invisible.

Values grounded in an ethic of care for others became evident for several farmers. They expressed feeling impelled to contribute to the well-being of children by marketing their farm-fresh produce to schools. One farmer,

Pamela, went so far as to remove economic instrumental reasons from her market calculations and attempted to give away food to the schools, but they were not interested, because of the hassle of having to prepare it from scratch. Two farmers allowed disadvantaged community members to trade farm labor for food, while Jo hired ex-felons.

The profiles were enriched by interview data from conversations with two school food service personnel, one distributor, one food-systems activist, and a gatekeeper. These additional interviews served to triangulate data to strengthen their validity and saturate the categories of engagement. Qualitative data helped deepen understanding of the quantitative data and provided a window onto additional aspects of FTS heretofore not examined in the literature. These aspects included farm-labor structure; intra-farmer social dynamics; and farmers' vulnerability to climatic and biological hazards. Taken together, parts one and two revealed which farmers benefited from marketing products to schools and which types of farmers had not. Largescale growers benefited from participation in the statewide program, while smaller-scale growers struggled to become involved in the direct model or had given up on it, with the exception of Greg. The success story of FTS in the state involved a wealthy urban high school that had hired its own chef, who was a personal friend of the operations partner to one of the commercial-scale farms on the program. My experience eating lunch at that school taught me the possibilities of how good school food could be, but interviews with Jo, the SFSD, and a gatekeeper, as well as my observations of the food in the on-campus eateries and cafeteria, made it clear that the transformation of just one school's food service took a tremendous amount of coordination and dedication. Izumi et al. (2010a) also found that FTS programs required "considerable dedication and labor to make [them] a reality" (p. 380). This Oklahoma example of how well a FTS program can work supports the neoliberal argument (Allen and Guthman, 2006) that FTS devolves state responsibilities for improving school food onto local actors, resulting in uneven outcomes. Very few, if any, schools would have the resources to devote to the transformation of school lunch. Complicating the uneven development of FTS food procurement is the factor of distance. Distances between farms and schools may make the barriers of transportation and delivery insurmountable, particularly in the rural areas of the Midwest and Great Plains.

An analysis of farmers' experiences, gleaned from interviews, uncovered mechanisms of power that led to the success or failure of marketing products to schools. The soft power of encouragement and relationship building was exercised by the statewide FTS coordinator, while hard power inhered in tools of governance, such as food-safety regulations at various administrative levels. School food service personnel exercised the power of spending decisions. This hard power was also shaped by their practical knowledge of children's food preferences. Farmers' practical knowledge of most suitable crops to grow for schools and acceptable prices faced off against the practical knowledge of school food service personnel and their hard power to choose to source local food or not.

The role of the statewide FTS coordinator proved vital in the success or failure of farmers' attempts to market their products to schools. By comparison, the role of facilitating and nurturing relationships was taken on by NGOs in other states (see, e.g., Conner, Nowak, et al., 2011; Conner, King, et al., 2011; and Bagdonis et al., 2009). Oklahoma farmers' experiences suggest that if the FTS coordinator had had a staff to assign to various regions of the state, more—and enduring—food-procurement relationships could have been forged on the direct model of the program between farmers and schools, particularly in the rural hinterlands some distance from the major interstate

highways. Unfortunately, consecutive ODAFF budget cuts hampered the ability of the FTS coordinator to perform the relationship building so vital to the success of linking schools with farms.

Farmers considered policy signals from several administrative scales, school district, county, state, and federal, to make decisions about their forms of engagement with the FTS program. Several expressed awareness of the new food-safety regulations that were being debated and written in Washington, DC, at the time. Unique, personal factors also contributed to their perspectives on whether marketing to schools was a viable economic opportunity or not. Marketness, economic instrumentalism, and embeddedness proved to be useful concepts from the literature on economic sociology to help analyze farmers' engagement with a FTS program.

Interviews with farmers activated the concept of competition along several dimensions. Grant-funding processes engendered competition among farmers that may have affected their interpersonal relationships. Competitive grants for purchases of fruit and vegetables also pitted schools against each other, and one farmer (Ralph) incurred the consternation of a local school superintendent because he could not be bothered hearing about FTS again after failing to win a grant to help fund it. Therefore, FTS as an agricultural economic policy could have a negative effect on the social relations in farming communities. Competition among distributors for customers and routes was also reported by an official from a regional distribution company. This atmosphere of competition contrasted with suggestions that working in cooperative arrangements, as Jeff had observed in Indiana, would be the most economically viable way for smallscale growers to engage with FTS programs. Similarly, Greg wanted to cooperate loosely with other vegetable growers to share knowledge about prices and farming practices, but he encountered resistance because, he said, other growers considered him competition.

Marketing products to schools presented psychological and interpersonal challenges for several farmers. Larry, Greg, and Cheryl all remarked that becoming salespeople, in effect, took them out of their comfort zones. Greg contrasted his worker-bee mentality with what he perceived to be the more forceful personality of a commercial-scale grower and he concluded that he could not compete on that level. He gave full credit for his connection with the local school district to the FTS coordinator.

The analysis in Part Three of the Oklahoma-specific data from the 2013 Farm to School Census revealed that so-called local foods included foods from the DoD Fresh program and USDA Foods. USDA Foods sources commodities from the U.S. and its territories. When SFSDs select commodities, they cannot know whether the food has been produced within state boundaries. A statement on a flier published by the USDA, "USDA Foods are local to someone," indicates that the community-food-security, food-system-localization agenda of the early years of FTS activism has been eclipsed, if not co-opted and transformed through processes of institutionalization by the federal government.

Chapter 6. Discussion and Conclusions

This chapter summarizes chapters 1 through 4 and then discusses the empirical findings presented in Chapter 5. The conclusions drawn from these findings shape the policy implications and recommendations and suggested future research directions.

Summary

Chapter 1 introduced the concept of “farm to school” and traced its genealogy. The concept of FTS sprouted mainly in three different places in the U.S.: Hartford, Connecticut, in 1978, northern Florida in 1995, and Los Angeles in 1997. Occupying the niche of “farm-to-cafeteria” activities and projects, FTS has been thought of as part of the broader collection of “consumption-based social movements” (Bonanno and Constance, 2008), which in the late 20th and early 21st centuries have colloquially been recognized as the “farm-to-table” movement. In this dissertation, however, I have mostly avoided elevating these activities to the status of social movement and have characterized them as “alternative agrifood initiatives” or AAFIs. AAFI action and praxis have directed adherents away from the status quo of industrial agriculture and the social relations that inhere within it. Advocates have framed AAFI messages and mobilized resources around a core set of values that distinguishes their activities from the status quo. Valued features of AAFIs include scratch cooking from whole, fresh ingredients; direct connections between producers and consumers; equity in access to fresh, culturally appropriate food for all people, particularly isolated, low-income, and/or racial and ethnic minorities; fair and just treatment of farmworkers; sustainable, organic, or biodynamic production methods; smallscale farming; food sovereignty; and support to build community-based food systems.

A foundational concept promoted by activists, many of them academics, from the mid-1990s onward was the notion of community food security. “Community food security” was intended to encapsulate a systems approach to joining environmental, rural, urban, and human-nutrition concerns to build community-based food systems from the ground up. FTS was initially conceived as a pathway toward improving conditions for two disadvantaged groups: low-income schoolchildren who might not otherwise have access to fresh fruits and vegetables and smallscale farmers who might struggle to develop durable markets for their produce (USDA, 2000). Paradoxically, however, neither farmers nor schoolchildren had organized to clamor for this model of school-food procurement. While advocates have characterized FTS as being coordinated from the top down or the bottom up, the genealogy traced its lineage as a top-down model. In its 1998 report *A Time to Act*, the National Commission on Small Farms encouraged the development of direct-marketing arrangements, such as FTS programs.

Rules governing food procurement by schools made it difficult to source locally produced food until the “geographic preference” rule, announced in 2002 and clarified in 2008, made such purchases possible. Meanwhile, state legislatures began to pass various laws to encourage the procurement of locally produced foods by schools. Oklahoma was one of the first to elevate the idea to a statewide programmatic level. The single paid position of FTS coordinator was housed in the ODAFF. In other states, FTS administrative or coordinating functions became variously housed in education, agriculture, and/or health agencies. In most places, the twin arguments underpinning

FTS initiatives were to alleviate childhood obesity by improving child nutrition programs and to boost rural economies. These arguments have made unproven links between children's food choices and local and regional economic benefits, which are grounded in notions of shortening the distance between schools and farmers, to wit: "When schools purchase local foods, their purchases trigger even more local economic activity. In fact, the faster a dollar circulates in a defined region, the more income and benefits it creates beyond the school cafeteria" (USDA, FNS online, 2016). FTS advocacy, to the best of my knowledge, has not distinguished among the wide array of geographies in the 50 U.S. states. Local-foods systems may be far easier to form in small states such as Vermont and Connecticut than they are in larger states such as Oklahoma and Kansas or, generally, in the Midwest and on the Great Plains. Askelson et al. (2015), for instance, called attention to the unique challenges faced by rural SFSDs in implementing voluntary school-meal reforms. I add that distance between farms and schools plays a role in shaping the challenges faced by rural SFSDs and that these distances may be greater in the Midwest and on the Great Plains than in some of the smaller New England states. In Vermont, for example, the percentage of people living in rural areas surpasses the national average. Yet Vermont has the highest percentage of schools participating in FTS activities (USDA FNS, 2015d). In addition to the collaboration between state and nonstate actors in coordinating FTS activities, shorter distances between producers and consumers may play a role.

The body of FTS literature has offered microscale empirical evidence of the challenges faced by farmers, schools, and distributors in forging FTS networks. Gaps in the literature include (1) examination of farmers' motivations for quitting FTS or for not participating in the first place; (2) analysis of farmers' perspectives and praxis vis-à-vis food-system structures and their governance mechanisms and signals; and (3) gathering accounts of farmers' experiences of natural hazards that increase farm-level vulnerability.

FTS advocates employ a linear, market-based concept of local-foods procurement, calling it a "win-win-win for children, farmers, and communities" (NFSN, n.d.). However, as Allen and Guthman (2006) correctly pointed out, this language "erases who loses—and there are always losers" (p. 408). Geographic disparities in the outcomes of FTS programs are inherent in their design. In each group, schools and farmers, a few will successfully implement local-foods procurement, while many will not. These disparities are exacerbated by the competition for grant dollars that are supposed to provide schools with more funds to spend on local foods (so that they can pay parity with retail or near-retail prices that farmers command in other direct markets).

A brief synopsis of 1930s-era federal agricultural policies was given in Chapter 2, recalling that market interventions by the federal government set in motion processes that favored commodity crops and their producers for many decades. American diets changed as a result with poor health consequences for the U.S. population.

World War II brought an American problem out from the shadows and into the glare of military recruiters: Young men were so malnourished from Depression-era hunger that they were not fit for military duty. The 1946 establishment of the NSLP embraced a dual mission of alleviating childhood hunger and providing a market for surplus agricultural commodities. Instead of arising out of child-nutrition concerns expressed as early as the turn of the 20th century by female home economists and nutrition reformers, however, the champions of the NSLP were male agricultural economists. The NSLP's goals served the interests of the state. In the early 21st century, decades

of serving commodity-heavy food on the NSLP, combined with the loss of scratch-cooking skills in school kitchens, were blamed, in part, for the rise in childhood obesity. In 2010, military recruiters banded together to publish a report titled “Too Fat to Fight,” which recognized that 75% of Americans between the ages of 17 and 24 years were ineligible for recruitment because they had not graduated high school, had criminal records, or were physically unfit. In the contemporary era, however, physical unfitness has been due to overweight and obesity, forms of malnourishment but not the same as the underweight seen in the 1940s (Mission: Readiness, 2010). One of the funders for that report, the W. K. Kellogg Foundation, also awarded generous grants to launch the NFSN.

FTS advocates were encouraged by the passage of the HFFKA, which mandated more servings of fruits and vegetables on federal child nutrition programs. Advocates believed that this mandate would grow the market for locally sourced agricultural products. Perceptions of local differ widely, even from school district to district. As a tool of governance, the Oklahoma FTS Program defined local food as having been produced on Oklahoma farms. Therefore, food from an Oklahoma farm 250 miles distant from the Oklahoma school cafeteria where it is eventually prepared would qualify for inclusion on the program. Distance between farm and schools determines forms of transportation and the shape of delivery networks. Largescale, commercial growers producing food for many school districts use regional and broadline distributors, while small- to midscale growers are expected to deliver farm-fresh products themselves. Wealthy growers’ use of conventional distribution networks is evidence of how emerging AAFIs piggyback on existing infrastructure even while they intend to participate in new market arrangements in response to demand for locally grown foods (Bloom and Hinrichs, 2010). Oklahoma, unlike North Carolina, did not establish distribution infrastructure for its FTS program. Largescale growers producing with economies of scale can more easily afford to sell their products to schools at below-retail prices, while smaller-scale farmers who usually participate in direct retail markets hesitate to market their products at lower prices.

FTS as a system has many moving parts in its goal to improve childhood nutrition and boost rural farm economies. FTS as a market-development strategy hinges on the logic that children’s demand for fresh fruits and vegetables would compel school food service to buy more of them from local producers, and the schools’ payments to these producers would in turn stimulate rural economic development. Although this claim has not been proven, this dissertation uncovered evidence from one commercial producer of fruits and vegetables that she had generated some seasonal and some year-round employment for a limited number of people from a small town, as well as evidence from a smallscale vegetable grower that an increase in sales to a local school district had contributed to his hiring a year-round, part-time worker. In both instances, however, sales to schools had less to do with children’s dietary preferences than with SFSDs’ being persuaded that Oklahoma-grown foods would benefit the children.

AAFI are in a continual state of flux and adaptation (Meter, 2010). In Oklahoma, adaptation encompasses market-development activities as well as farmers’ responses to policy signals and governance mechanisms. Weather, climate, and physical geography also affect the crops and animals that farmers and ranchers raise. A prolonged, severe drought from 2010 to 2015 put many farmers out of business and reduced farm income for many of Oklahoma’s producers.

The number of Oklahoma farms declined from 83,200 in 2010 to 79,600 in 2014, while the acreage in farms declined slightly from 34,700,000 to 34,300,000 during the same time (USDA NASS, Oklahoma Field Office, 2015). Labor on farms comes from family, acquaintances, hired locals, and migrant farm workers. Most of the migrant farm workers are Mexican nationals employed on the H-2A visa program. An anti-immigrant law passed in the state in 2007 created a climate of fear for Latino immigrants and communities.

In a state with high rates of childhood obesity, hunger, and poverty, the Oklahoma FTS Program was established as a top-down approach. Its goals were to provide “farm commodities” to schools, “help children develop healthy eating habits, and “improve Oklahoma farmers’ incomes and direct access to markets” (Oklahoma Farm to School Program Act, 2013). A full-time FTS coordinator worked during its first approximately six years to connect farmers with schools. In time, the market dimension of the program became bifurcated into a statewide program and a direct program.

Key concepts, analytical frameworks, and empirical findings pertaining to AAFIs and FTS were reviewed in Chapter 3. As food-system actors seek to reform the industrial agrifood system, their activities assume hybrid features, in which aspects of both alternative and conventional supply chains function together. Researching AAFIs using a complementary framework that situates microscale action within a macroscale structural context may produce useful insights into the hybrid character and complexity of these initiatives, which this dissertation has undertaken. Some scholars have noted that scale is a social construction. In FTS, local is defined differently by different people and entities. The “local trap” presumes inherently better qualities in the local scale compared with the global scale. As a concept, however, the local “intrinsically implies the inclusion and exclusion of particular people, places and ways of life” (DuPuis and Goodman, 2005, p. 361). Therefore, there is nothing inherently more fair or just about local scales. The economic gains arising from localization efforts might accrue to certain food-system actors at the expense of others (Morgan and Sonnino, 2008).

Governance is contrasted with *government* because it involves state *and* nonstate actors participating in rulemaking and norm-generating processes. “Governance” devolves decision-making to local actors and may incorporate “left ideals of political participation and right ideals of non-interference in markets” (DuPuis and Goodman, 2005, p. 368). DuPuis and Goodman (2005) argued that the debate over local food systems had to be situated within “the larger debate over devolutionist forms of governance” (p. 365). Devolution can cement the position of local elites, pit geographic areas against each other, and produce inequality and inequity (Lawrence, 2005, cited in DuPuis and Goodman [2005]).

Socially mediated processes produce structures of governance, and agrifood-system actors with the greatest power tend to participate in these processes to the exclusion of those with less power. In the case of the governance of the overarching FTS campaign, schoolchildren, school food service personnel, and farmers have rarely assumed leadership roles that could have shaped the direction of this model of school-food procurement in its early, formative years (the NNFC is an exception, where a USDA official was also a farmer). I argue that the politics of FTS has been an unreflexive politics based on “the politics of conversion” (Childs, 2003, cited in DuPuis and Goodman, 2005, p. 361). In particular, FTS as a food-procurement model has been marketed *to* farmers by people who are not

farmers. DuPuis and Goodman (2005) describe such a politics in this way: “A small, unrepresentative group decides what is ‘best’ for everyone and then attempts to change the world by converting everyone to accept their utopian ideal” (p. 361). The antidote to such unreflexive politics is a reflexive or deliberative politics of respect (DuPuis and Goodman, 2005, citing Childs [2003] and Benhabib [1996]). DuPuis and Goodman (2005, p. 361) write:

Here, the emphasis is not on creating an ideal utopian ‘romantic’ model of society and then working for society to meet that standard, but on articulating ‘open,’ continuous, ‘reflexive’ processes which bring together a broadly representative group of people to explore and discuss ways of changing their society.

Unreflexive governance of new markets produces winners and losers (DuPuis and Goodman, 2005). To protect against the production of unfair results in the governance of new markets, DuPuis and Goodman have called for “a reflexive politics of localism” (2005, p. 369). A reflexive approach helps gird against unfair structures by codifying guidelines for “openness, inclusion, and transparency” in market rules (DuPuis, 2006, p. 9). Disagreements and conflicts that arise in participatory, reflexive processes of market formation, grounded in a politics of mutual respect, may be regarded by participants “not as polarizing divisions but as grounds for respectful—and even productive—disagreement” (DuPuis and Goodman, 2005, p. 361). Likewise, a reflexive approach to agrifood-system research requires that scholars “observ[e] real people in real places” in order to uncover the particularities of localization and governance forms (p. 10).

“Defensive localism” describes political processes that valorize or encourage nativist tendencies to the exclusion of newcomers or racial or ethnic minorities. A defensive politics of localism may imbue food-system localization activities with subtle assumptions “about the homogeneity and common interest of local places and regions that need defending” (Hinrichs, 2003, p. 37). In prioritizing the localness of food, more urgent considerations of socially and economically just food may be eclipsed. Localization of the food supply does not “solve problems of equity” in the food system (Allen, 2010, p. 298).

Values-based supply chains are characterized by values that become part of the story of the food produced within them. Such values include food produced locally, sustainably, and fairly, with an eye toward generating profits for small- to midscale farmers while remaining true to social missions. Values-based supply chains have been proposed as an organizing framework to develop regional food systems that benefit the Agriculture of the Middle.

A debate over the politics of the FTS model erupted in 2006 in the pages of *Agriculture and Human Values*. On one side were Allen and Guthman (2006), who characterized FTS as a neoliberal project. Dependent on nonsecure funding, such as grants, and, in some cases, volunteer labor of parents, FTS, they argued, would by design produce uneven results, with winners and losers occupying disparate geographies and social positions. Presciently, they questioned whether FTS would become “a viable source of income” for small- to midscale family farms, noting that farmers had to settle for lower prices when marketing their products to schools (p. 407). On the other side were Kloppenburg and Hassanein (2006), who characterized the politics underpinning FTS as a form of civic engagement *in place*. They called attention to the curricular aspect of FTS and school-food reforms as pathways to restrict children’s choices of junk foods and to educate them to appreciate and enjoy “nutrient dense foods” (p. 420).

Teaching children better eating habits, in their argument, is not a way to create food consumers but rather a way to nurture food citizens.

From economic sociology come three useful concepts: marketness, economic instrumentalism, and embeddedness. Marketness describes the degree to which a farmer is concerned with price. Economic instrumentalism describes the degree to which a farmer prioritizes his or her self-interest over other values. Embeddedness acknowledges the role that social relations play in economic activities.

Chapter 4 laid the intellectual groundwork for this research. Grounded in a transformative worldview, this research foregrounds the experiences of Oklahoma farmers. Their successes and failures are equally relevant, if farm-to-institution projects in the Midwest and Great Plains are to be modified or replaced to ensure a more equitable playing field. A contribution to the traditions of activist, participatory, and policy geographies, this dissertation aims to make a difference. Both the survey and the interviews gathered textual data that revealed an array of experiences that exposed inequalities of opportunity and support. These inequalities call into the question the durability of FTS projects.

Discussion

The knowledge generated by this dissertation is context dependent and may not be generalizable to all places that have initiated and implemented FTS programs. However, many of the governance features of federal child-nutrition programs, federal food-safety regulations, and the FTS campaign generally would be encountered by farmers across the country. It is possible that farmers' responses to such governance structures and policy signals would be found to be similar in various geographies in a kindred manner to which authors have found similar barriers to FTS participation across an array of U.S. states. Employing a phronetic research approach, this dissertation contributes empirical evidence of the intersection of governance and agency in farmers' engagement with a FTS program. Not wanting to produce mechanistic, context-independent knowledge, I grounded this research in "the ... economic, social, physical, and ethical context" (Hassanein, 1999, p. 16) in which Oklahoma farmers were producing food.

As a case study, I argue that the Oklahoma FTS Program serves as two types of information-oriented cases: extreme and paradigmatic. An information-oriented case provides the opportunity to gather "the greatest possible amount of information on a given problem or phenomenon," which is rarely the outcome when a representative case or random sample is used (Flyvbjerg, 2001, p. 78). Flyvbjerg uses the word "extreme" to connote *atypical* or *deviant*. In the academic literature, Oklahoma's case is an atypical case of top-down FTS governance because of its most salient governance feature: Its implementation was led by a single government employee who did not have supportive staff to engage in relationship-building activities to connect farmers with schools and distributors, and distributors with schools. These relationships take time to build and are vital to the formation of FTS networks.

As an employee of a state agency striving to build the FTS market, the coordinator performed valuable relationship-building work. However, as Conner, Nowak, et al. (2011) reported, these relationships require time and patience. In my interactions with the gatekeeper and key informants, I gained the impression that the task was

overwhelming in the context of all other tasks required to grow the FTS market. To build more of these relationships across an entire state would require the involvement of many other stakeholders. Neither Cheryl nor Greg felt comfortable making the initial contacts with schools, and for Cheryl, as of fall 2011, she was still thinking through the most effective way to communicate with the cooks. I must emphasize this point, because the social dimension of the FTS food-procurement model places much of the outreach burden of school-food procurement on the farmer. A NFSN presentation titled “Navigating the System,” for example, covers the many preparatory steps that a farmer must undertake *before* contacting a school, such as understanding the school market, assessing one’s own farm (which includes the capacity to demonstrate food-safety practices and to provide proof of liability insurance), preparing marketing materials, and building community connections (National Farm to School Network online, 2014). Only after engaging in that much preparation does the NFSN recommend “[g]etting a food service director interested,” which is actually considered “the first step. Once you have decided to work together, then work out the details of your transactions.” Although the NFSN would have farmers take on the responsibility for forging these relationships, at the end of the day, the school food service or child nutrition director has the last word on whether or not to purchase from local farmers. This is why the relationship-building work of the Oklahoma FTS coordinator and of the NGO staff members in Conner, Nowak, et al. (2011)’s work must be foregrounded. These people served as social intermediaries, or matchmakers, not only promoting the idea of FTS but also brokering connections so that farmers could get their foot in the door. Among the many nonfarmer interviews that I conducted was one with a food-system activist who said that to sell products to schools, farmers just had to pick up the phone and call the schools to get started. This research reveals that the process is not so simple.

The Oklahoma FTS Program serves as a paradigmatic case because of four other salient governance characteristics. First, its top-down coordination without the ongoing assistance of a nongovernment entity to help nurture links in the FTS network resulted in an overwhelming burden for one person. The staff of NGOs facilitated these network relationships in other cases in the literature, such as the programs in Vermont and Pennsylvania and Denver and St. Paul. In the cases of Florida and California, supportive individuals from government and a university in the former case and a university and NGO in the latter case assisted in program implementation. In North Carolina, various governmental agencies coordinated the establishment of a distribution network to transport farmers’ products from farm to school. Second, the selection of a commercial watermelon grower for the pilot program in Oklahoma and a commercial grower of fruits and vegetables in the early days of program implementation created a path dependency for program expansion. As distributors and school districts signed on, the produce from these two wealthy growers was distributed on the statewide program. Their wealth, in effect, served as a governance mechanism that structured the program. It bifurcated, with only these commercial growers participating on the statewide program and smaller-scale growers left to struggle to become involved on the direct model. Third, the program was established to provide opportunities for individual farmers, not for farmers’ cooperatives or collaboratives. Fourth, back-to-back budget cuts at the state level took the wind out of the sails of the statewide coordinator. With no budget to travel and meet with farmers, her ability to nurture relationships between farmers and schools was significantly curtailed. Fifth, close relationships between the statewide coordinator, a SFSD at a well-endowed urban high school, and one of the two commercial growers on the statewide

program contributed to the revamping of the school's food such that the school became the state's FTS success story. This story was communicated at national farm-to-cafeteria and FTS meetings. The successful implementation of school-menu changes at this school, influenced greatly by the mission of FTS, reflects the privileges of these relationships and the district's capacity to hire a school chef. These results are not likely to be replicated elsewhere, much less in rural areas. The logic of creating a model FTS program at one school obscures the material conditions and power relations that were necessary for its creation.

As a paradigmatic case, this study reinforced the importance of relationships in constructing FTS networks while exposing a salient consequence of these relationships: geographically uneven program development. As farmers around the state attended informational FTS meetings, some decided to try to market their products to schools while others deemed the program unworkable. And when the coordinator dedicated focused attention to linking farms with schools, such connections were made for at least four farmers. However, Ralph's experience showed that even with the support of the FTS coordinator, the soft power of her rational argument to improve school meals and support local farmers was overruled by the hard power of the school administrator. It was a lesson in the voluntary nature of FTS participation and was not unique to Oklahoma. As Askelson et al. (2015) reported, SFSDs in rural areas have several rural-specific reasons for not participating in FTS programs, two of which are lack of information on how to begin and lack of wrap-around support from the community and state agencies. Ralph added another possible explanation for lack of rural schools' participation: farm-fresh food may not be valued as highly by people living in farm country as it is by people living in urban areas.

The explanatory, sequential collection of data driven by the concept of engagement undergirded the development of eight categories of engagement and experience with the Oklahoma FTS Program. The farmers who benefited were two commercial growers on the statewide program and one large-scale farmer/rancher and one smallscale grower on the direct model. Other farmers had tried to persuade SFSDs to enter into informal marketing arrangements with them, but food service ultimately was not interested, even in the case of Pamela, who offered to donate produce. Still others had marketed limited amounts to schools and then quit, particularly when there was a change of food service personnel and the new person was not interested. Other farmers, after having investigated the details of how the program worked, decided not to participate.

Interviews with farmers, SFSDs, and a distributor collected data that activated the concept of resistance to the FTS food-procurement model. On the surveys, farmers expressed many reasons for not wanting to participate, and the interviews delved more deeply into these reasons. Low prices, low order volumes, and burdensome food-safety and liability-insurance requirements made FTS an unattractive market opportunity. Farmers reported resistance from school food service, particularly in rural areas. They were told that school food personnel did not want to wash fresh food or expend the effort to prepare it for scratch cooking. And in an upscale suburb, a child nutrition supervisor who championed FTS admitted that children's food preferences disallowed certain crops from being purchased; these food preferences were going to take some time and education to change. An interview with a distributor revealed that FTS did not make economic sense for distribution companies, because the schools paid significantly lower fees than other customers. Only by piggybacking FTS produce onto existing distribution routes, did delivery

of FTS produce become feasible. These forms of resistance or pushback to the model of FTS food procurement point to the need to re-examine the model and to question whether it is feasible across all geographies. Its promotion as a “win-win” for all stakeholders involved may reflect an ideological need.

The USDA FTS Census’s inclusion of DoD Fresh and USDA Foods on the list of intermediary sources of so-called local foods signals that the FTS campaign, now institutionalized within the USDA, has severed itself from its progressive roots planted in the fertile soil of the concept of community food security. As Bagdonis et al. (2009) demonstrated in their study employing frame analysis, when the problem identified is that children are not eating enough fruit and vegetables, the prescriptive solution becomes to purchase more fruit and vegetables, regardless of how far they have traveled from farm to school cafeteria. Since school food service may purchase fruit and vegetables in a variety of forms from DoD Fresh and USDA Foods, these suppliers become the purveyors of choice for school food service operations in rural areas, which may be located outside of distribution territories of a statewide FTS program, or be situated so far from regional farmers that the latter cannot afford to deliver produce or other farm products to them.

Conclusions

Farmers’ practical wisdom and experiences came to light during the course of the interviews. Their insights validated and expanded upon the findings of the survey data. While much of what they recounted has been described as “barriers” in the literature, I argue that instead these problematic features of FTS food procurement co-constitute *incompatibilities* between the massive, well-established, and durable infrastructure of child-nutrition programs and the conditions and circumstances of small- to midscale farming (Thornburg, 2013). Simply put, the structure of federal child nutrition programs is, in certain geographic contexts, incompatible with the structure of smallscale food production, in which farmers strive to make a living. The stronger word, *incompatibility*, focuses attention on the possibility that farmers in some geographies, particularly in the remote rural areas of the Midwest and Great Plains, need other types of opportunities to improve their livelihoods. All of the retail-oriented farmers interviewed were commanding better prices through CSA, restaurants, grocery stores, caterers, or farmers’ markets, for example. FTS as a model for direct-marketing was mainly not working out for the small- and midscale farmers in this study. Greg’s example was an exceptional case. His small farm was situated in the midst of a well-to-do suburb and five miles from the school district. For most small- to midscale farmers in this study, the incompatibilities identified may be summarized thus:

- (1) scale. Smallscale farmers struggle to match their production capacity with schools’ needs. In practice, farmers strive to find a school that is the right size for their production capacity.
- (2) distance. In rural areas, especially, distances between farms and schools incur costs of time and money, when the burden of delivery falls on the farmers.
- (3) location. Related to the incompatibility of distance is location, of farms relative to schools. While the origins of the FTS campaign were rooted in ideas to more closely connect urban areas with rural areas, what has been overlooked is how connections in rural communities are made within themselves. What happens when

farmers in a rural place face resistance when trying to link with rural schools? These rural-to-rural FTS connections may be difficult if not impossible to forge in the middle of the country, as the cases of Ralph, Pamela, Larry, and Jennifer and Dale illustrated. Moreover, SFSDs are familiar with children's dietary preferences and understand the types of incremental menu changes that would be palatable to them, if plate waste is to be reduced. In the drier and more expansive areas of the Great Plains there may be few or no farmers in close proximity to schools that grow vegetables or fruit suitable for school-meal planning. It makes sense that schools would rely on well-established distribution networks as sources of fruits and vegetables, whether they are fresh, canned, frozen, or dried.

- (4) lack of transportation and distribution. Unlike North Carolina, Oklahoma did not establish a distribution network for farmers. The two commercial growers successfully participating in the program paid to have their produce trucked to the warehouses of urban-based distributors who then delivered the produce to approximately 60 school districts in the state. Small- to midscale growers cannot compete with this model.
- (5) funding. Competitive grants, when awarded, help farmers and/or schools start up their food-procurement arrangements. However, as Larry's case illustrated, when the grant money runs out, the cost of delivery, combined with school food service not wanting to pay an increase in price, can make continued FTS participation unworkable. The NNFC, often held up as a FTS success story involving a farmers' cooperative, was launched with the support of generous USDA grants and wrap-around technical and administrative support from government and academic stakeholders. Farmers and SFSDs throughout the country likely will not have such capacity to initiate durable FTS programs without such comprehensive start-up resources.
- (6) seasonality. The height of vegetable and fruit production hits in the summer when most children are not in school. Although FTS advocates encourage farmers to extend their seasons, not all of them can afford to do so without grant support to purchase the proper equipment. Although a year-round school calendar might alleviate this incompatibility, it is an unlikely development in a state that has severely cut its spending on education.
- (7) food-safety rules. These rules constitute governance structures that make direct marketing of produce and other farm products to schools cost prohibitive for many smallscale growers, while some growers, as evidenced by the case of Cheryl, consciously plan their finances to prepare for the eventual costs of complying with food-safety rules. During my stints of fieldwork, farmers shared their awareness of the legislative process shaping what would become the Food Safety Modernization Act (FSMA) Produce Safety rule. Although public comments and the work of Senator Jon Tester from Montana spurred an amendment that exempted small farmers earning less than \$500,000 annually in sales (Flynn, 2013), Oklahoma smallscale farmers were still nervous about the law's implementation (Waldrop, 2014).
- (8) price. Farmers who sell to direct agricultural markets, such as farmers' markets and restaurants, prefer retail prices to the usually lower prices offered by schools. Commercial farmers overcome the problem of low prices through economies of scale. Smaller farmers do not have this luxury. Greg was an exception. The

child nutrition supervisor was willing to pay him higher prices than she paid the regional distributor but only so long as she limited the quantity she purchased from him.

- (9) social. At least three of the farmers interviewed were uncomfortable assuming the role of marketer. Their stories echoed survey respondent Stephen's comment about not knowing how to market to schools.
- (10) power imbalance. Weighing information they had learned about FTS, some farmers tried to market products to schools, while others decided the model was not right for them. Being persuaded by the discourse of the FTS campaign, they were armed only with its soft power—the force of the rational argument that providing farm-fresh fruit and vegetables would be nutritionally better for children—when encountering SFSDs. Food service, however, exercised the hard power of budget decisions and vendor choices. No matter how sound the argument to source local food was, it was not the rationality of the argument that prevailed, but rather the authority of SFSDs to spend limited funds in ways that adhered to constrained budgets.
- (11) budget constraints. SFSDs work with tight budgets. For those choosing to purchase locally produced food, they may set limits on these purchases, further constraining the size of the school-food market and its potential economic benefit to farmers.
- (12) vulnerability to climate change and natural hazards. The NSLP utilizes the structure and predictability of the industrial agrifood system, such as commercial growers and processors and large warehouses of processed commodity foods, to ensure a reliable supply of food for child nutrition programs. This infrastructure guards against the disruptive effects of severe weather or other hazards. The small- to midscale farmer, however, faces fluctuating levels of vulnerability to hazards, shouldering burdens of risk that may be more difficult to bear than for farmers with greater human and financial capital. These hazards threaten the long-term durability of *individual* small- to midscale farm participation in supplying child nutrition programs. Vulnerabilities at the farm level ripple outward to the school cafeteria when a crop cannot be delivered as promised because of frost, drought, or heat, or a pest infestation. SFSDs plan their menus weeks to months in advance. Such predictability and consistency are not the norm on small- to midscale produce farms.
- (13) infrastructure. FTS, as a voluntary project or program, is less durable than the NSLP, with its massive infrastructure. Relationships in FTS are tenuous because it is voluntary. If key individuals, particularly a local FTS champion, leave a school or a FTS network, the structure of the NSLP remains, while any gains that the administrator and/or farmer made in building FTS relationships could evaporate, as Frank's and Ralph's cases demonstrated.
- (14) the need for a champion. In Oklahoma, the FTS champion and the FTS coordinator were the same person. This posed a tremendous demand on her time and resources. Budget cuts hampered her progress. Yet in spite of these pressures, she successfully connected at least four farmers with schools in arrangements that appeared to be durable. When she became involved, positive results often occurred. The success story of

one urban high school, however, would be nearly impossible to replicate elsewhere, given the resources (hiring of a chef, for example) available to that school. States that want to establish FTS programs must provide enough personnel to facilitate the relationship-building needed to launch and sustain new food-procurement networks. These relationships sometimes take years to nurture.

(15) labor. To displace the burden of labor onto private, smallscale farmers in order, in part, to improve the nutritional quality of a federal school meal program is to engage in an exercise of devolution. If the federal government truly wanted all U.S. schoolchildren to eat meals prepared from scratch using farm-fresh products, it would revolutionize the entire food-supply chain of school-food procurement, as well as retrain thousands of school food service personnel, not merely engage in piecemeal reforms that, by design, will result in geographically uneven outcomes. It would also pay more for the meals.

The qualitative analysis revealed that two large-scale commercial growers participating in the statewide FTS program utilized several regional distributors, based in the state's largest cities, to distribute produce to about 60 school districts. The use of conventional, regional produce distributors in an ostensibly *alternative* agrifood initiative reinforces the hybrid nature of this FTS program. While advocates idealize the movement of local farm products directly to schools with such expressions as “bringing the watermelons from farmer to school” (OFPC, 2008), distribution of farm-fresh food to schools can take on a variety of forms, which may include “piggyback[ing] on the pre-existing, conventional local food system infrastructure, while moving toward the social and economic benefits of direct marketing” (Bloom and Hinrichs, 2010, p. 13). Aside from SFSDs' refusal to purchase from local farmers in some instances, distance presents an insurmountable barrier, too, as long as the FTS direct model relies on individual farmers attempting to connect with individual schools or school districts. So long as distance makes direct deliveries cost prohibitive for many farmers working individually, comprehensive localization of the school-food system is unlikely in geographies as large as Oklahoma's, where “local” is defined as the whole state and where the state has not established infrastructure to aggregate and distribute farm-fresh products from multiple producers. The implication is that where distance between farms and schools is cost-prohibitive for individual farmers to manage, FTS is not a viable vehicle for the formation of community-based food systems.

In addition to distance, allocation of school food dollars has implications for the viability of FTS as a driver of rural economic development. While FTS food procurement was meant to “support community-based food systems” and “strengthen family farms” (Markley et al., 2010, p. 5), if commercial growers capture much or most of the local-foods dollars spent by schools in a state, then the claim that the food system is being localized or that school-food procurement can boost rural economies cannot empirically be made, particularly when the growers do not live on their farms or live out of state. Food sales to schools become one more market outlet for commercial farmers who can afford to avail themselves of regional distributors. Moreover, these farmers sell products at wholesale prices, while the smallscale growers in this study preferred selling products at retail prices. The food-procurement dimension of FTS, at least the way it was operating in Oklahoma until 2012, appeared to sustain the status quo of largescale, commercial farming.

Policy Implications and Recommendations

If Oklahoma's FTS Program is to benefit small- to midscale growers, new organizational structures, such as farmers' cooperatives operating for the purpose of selling products to schools, and new policies, such as a relaxation of certain GAP requirements, will likely be needed to make the program economically attractive and viable. If the state wants a successful program, it should establish distribution infrastructure for farmers, particularly those located in remote, rural areas. As it was practiced in Oklahoma during the research period, FTS is a moderate, geographically uneven reform, with little effect beyond a limited number of school districts and farms.

FTS as a model of food procurement can encourage the reproduction of a competitive food system in which the biggest players reap the benefits. If, however, legislation was written to encourage cooperation, then the outcomes could be different. For example, a FTS model could be designed whereby only farmers working cooperatively would be eligible to participate. Other policy recommendations would be these: (1) cap the dollar amount of payments that an individual farmer may receive from schools in a state in a given time period; (2) make liability insurance affordable; and (3) create standards for farmers' FTS participation so that the whole supply chain from farm to school has fair and just labor practices.

The language of the law to establish the Oklahoma FTS Program implied the identification of three broad problems in the state: children's poor eating habits, depressed incomes for Oklahoma farmers, and farmers' limited access to direct markets. The proposed solution, to create a statewide FTS program, was founded on a few gaps in the law, however: no parameters or definitions were set on the types of participating farms, i.e., either by size or production methods, nor were payments potentially earned through FTS participation capped. Without such parameters, the program encouraged competition not only among farmers but also among distributors. Larger farms were bound to reap more profits from program participation. Furthermore, no distinction was made between individual farmers and collaboratives of farmers working together to pool resources. In the absence of these parameters, only farmers with the best resources in terms of money, equipment, labor force, time, production and marketing knowledges, social connections, and computer access and skills would be positioned to meet the requirements of selling to schools on any meaningful scale.

In preparation for the launch of FTS programs, some NGOs and food policy councils, as in Oklahoma, have conducted surveys to measure farmers' interest in marketing products to schools. An additional, perhaps more effective, preparatory method would be disseminating the full details of the FTS marketing arrangement to farmers first, so that surveys could capture how proposed FTS policy resonates with them. Once farmers learn how FTS functions in their particular locales, what would their interest in it be then? As the textual data from Stephen's and Diane's letter and email sent along with their surveys demonstrated, they had shown an interest in marketing to schools by having their names on the directory of farmers. But once they looked into the details of its operation, neither saw the feasibility of the program.

While research and advocacy literature provide policy recommendations for scaling up direct-marketing food-procurement networks and supply chains (see, e.g., Clark et al., 2011; Feenstra and Ohmart, 2012; Markley, Kalb, and Gustafson, 2010), they often remain silent about farm labor—and the work required of limited-resource,

minority, and/or smallscale farmers to boost production levels to match schools' needs. (Labor in the school cafeteria, however, has been researched and discussed in the FTS literatures.) Horticultural endeavors require intensive physical labor, and fruit and vegetable farming is not for the faint of heart. In addition to the external, material risks inherent to farming, such as unpredictable weather, punishing heat, and pest infestations, farmers are challenged by internal risks to their own bodies: fatigue, acute or chronic illness, and injuries. While FTS advocates for nearly 20 years have promoted the notion of educating children about the provenance of their food, one important message has been lost: Farmers risk not only their financial health but also their physical and emotional health in growing and raising the food we eat. Moreover, for those farmers able to afford to hire seasonal or year-round labor, the pool of labor from which to hire can be limited. Hiring migrant labor can expose farmers to the risk of running afoul of draconian laws against undocumented immigrants, who often are a ready source of labor; farmers who want to avail themselves of the H-2A worker visa program may utilize the services of farm-labor contractors in order to overcome the challenges of meeting the complex requirements of the program.

The effectiveness of schools' local-foods expenditures on farm communities cannot be known until data are gathered on the farmers who participate. For this reason, I suggest that the USDA FTS Program collect data on FTS-participating farmers around the country. Productive would be an investigation into geographic disparities of types of farmers, farm products, and distance between farms and schools. To that end, I recommend the following changes to data collection on the FTS Census: (1) Ask respondents to specify and break down the percentages for each source of local-foods purchases. (2) Eliminate USDA Foods and DoD Foods as categories of local foods. (3) Ask the schools to disclose which farmers, farmers' collaboratives, and farmers' markets are marketing products to them, as well as provide estimates of the distances between these entities and the schools. Furthermore, until it can be proven empirically that school food dollars are being invested in local communities, the USDA should cease claiming that they are. Likewise, the claim that FTS contributes to rural economic development should not be universally applied to all geographies in the U.S and should be qualified to explain where in the U.S. this is true.

Future Research Directions

This section proposes several avenues of research on U.S. farmers' efforts to market food to schools. First is the unexplored relationship between the number of years in farming and farmers' interest in FTS food procurement. Demographic data on survey respondents in this study revealed a slight difference in the number of years in farming between the group of farmers interested in marketing products to schools and the group not interested. Given the small sample size, and the purposive nature of the sample, these data merely point to a question about whether more experienced farmers are less likely to be interested in marketing products to schools. Second is an exploration, based on a state-by-state comparison, of geographic differences in the durability of FTS programs. Where and under what conditions do FTS programs endure and continue to attract participating farmers? Research is needed on where FTS works for farmers so that the attributes of program formation and maintenance can be compared across disparate geographies. Third is comparative research evaluating FTS programs as markets for individual farmers versus those organized into regional food hubs or collaboratives. An important dimension of such research would be measuring economic benefits across various scales of farm operations. A fourth avenue of research would consist of following

up with schools awarded grants for local-foods purchases to investigate whether such purchases changed in volume or frequency after the grant period ended. A fifth research agenda would focus on dimensions and expressions of competition in FTS networks.

Peer-reviewed evidence has consistently shown that FTS participation accounts for a small percentage of farmers' annual gross farm sales. This dissertation bolsters that evidence, with the exception of Greg's case. These empirical findings do not jibe with claims made by the USDA FTS Program that millions of school-food dollars are being invested in local communities. The rationality propelling these beliefs comes from the assertion that children's food choices compel schools to purchase fresh, local foods. This rationality shaped a powerful discourse that created what came to be accepted as knowledge (Flyvbjerg, 2001) about the success and effect of FTS programs in general. This acceptance had real, concrete effects. Congress has allocated millions of dollars to fund a competitive FTS grant program. While FTS programs in smaller states such as Vermont may contribute to rural economic development, the much larger areal extent of places, counties, and regions on the Great Plains and in the Midwest complicate efforts to link small- to midscale growers with schools. For example, the absence of farms producing school-meal-suitable crops near schools in Iowa hindered FTS food procurement (Askelson et al., 2015). Follow-up research in Oklahoma that systematically analyzes the distances that farmers are willing to travel to deliver farm products to institutions should be conducted and replicated in other places.

Policymakers might take the community-investment and rural-development discourse of the national FTS program as fact. Believing that rural places are receiving significant investments through FTS programmatic pathways (e.g., as indicated by the claim that \$5,452,803 was "directed locally" by Oklahoma schools in 2011–2012 [USDA FNS 2013b]), they may dismiss or fail to fund other, more effective ways to invest in rural America. These other, more effective ways must begin with meeting with rural residents in person. Face-to-face listening sessions should be designed and implemented. The knowledge that farmers have gained through the trial and error of participating in a variety of markets is wide and deep. Geographers and other social scientists would do well to design research projects that capture the situated knowledges of people living in rural America and to communicate these results to the broader public through forms of media accessible to a nonacademic audience. Academics across an array of institutions, small and large, should contribute to a broader understanding of how best to write policies that boost opportunities in rural America.

The current historical moment demands that human geographers conduct public geographies. A phronetic approach to engaging in such research would "produce input to the ongoing social dialogue and praxis in a society" (Flyvbjerg, 2001, p. 139), thereby generating concepts, knowledge, understanding, and insight that matters to the people and places who participate in the research and to discussions on the broader implications of the research. Rural geographers, in particular, have a role to play in fostering dialogue with and among rural residents in general, and agricultural producers in particular, about their experiences of adaptation or resistance to changes in U.S. society, culture, politics, economy, and the environment. Changes may be shaped, initiated, or hampered by policies that are not well crafted to ensure an equitable distribution of opportunities. Policies may favor one economic class over another in any given sector of U.S. society, and this has been particularly true in agriculture.

Through the employment of reflexive approaches (DuPuis, 2006; DuPuis and Goodman, 2005), researchers should scrutinize the emerging dynamics and properties of agrifood systems in flux (Meter, 2010). Resulting studies may foreground unexplored components, patterns, and processes of these systems. Such research may open a window onto the experiences, opinions, and insights of people who offer pragmatic, context-dependent knowledge of the ways in which agriculture, food, nutrition, and rural-development policies affect them in their locales. I believe that one of the responsibilities of a phronetic approach to social science is to construct, to the best of the researcher's ability, narratives that facilitate the dissemination of this place-based knowledge, particularly how it represents intersections between human agency and governance structures. Investigations of the details of ordinary life can lead to big questions and point the way to necessary course corrections.

In the realm of agrifood studies, justice, equity, collaboration, and cooperation are vital organizing concepts that ought to underpin policy recommendations and policymaking endeavors. Policymakers ought to adopt a reflexive approach that incorporates the concept of equity and should question whether policy under consideration fosters competition or collaboration. Researchers can serve a vital collaborative role in revealing conditions under which equity and fairness are eclipsed. In this study, dimensions of competition among farmers, distributors, and schools complicated farmers' and schools' efforts to engage with the Oklahoma FTS Program. These findings point to the need for more research on the "pernicious effects of competition" (Galt, Bradley, Christensen, Kim, and Lobo, 2016, p. 508) and how competition works against the original values underpinning many AAFIs. As long as policies and processes are rooted in an ethos of competition, rural America, and the U.S. agrifood system as a whole, will continue to be dominated by well-moneyed and politically powerful interests. This study found evidence of an alternative ethos: farmers who strove to connect with other farmers, who volunteered at schools, and who charitably donated food or traded food for farm work. Properties of this ethos include an urge to cooperate with others as well as an openness to share and trade with people of less fortunate socioeconomic circumstances. Policymaking and research processes centered on collaboration would redirect local, regional, and national conversations away from the ethos of competition and toward the gestation of a more inclusive, fair, and just society.

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Appendix A

Survey of Oklahoma Farmers Expressing an Interest in Marketing Directly to Schools

Please print your answers to this survey using black or blue ink. Mark the appropriate boxes with an x.

Farmers' Information

1. Your age: _____
2. Sex: ___M ___F
3. How many years of formal education after high school have you completed and in what subject, specialty, or discipline? _____
4. How many years have you been farming? _____
5. In addition to your farm, do you work either part time or full time in another occupation?
 Yes, part time. Yes, full time. Neither.
6. What do you consider to be your main occupation? _____
7. How many years have you been farming here at this farm? _____
8. Do you rent the ground that you farm? Yes No
9. If not and you own the ground that you farm, do you consider yourself to be a co-owner or co-proprietor of the farm with another person? Yes No
 - a. If yes, is this person
 - your spouse?
 - another relative, such as a sibling or your grown son or daughter?
 - your non-family-related business partner?
 - other?: _____

Location

10. Do you live on your farm? Yes No
 - a. If not, do you live in a small town (less than 2,500 people) nearby? Yes No
 - b. Or in the countryside near a small town? Yes No
11. If you live in a larger place, what is its approximate population size? _____
12. Regardless of whether you live in the countryside, in a small town, or in a larger town, city, or suburb, when it comes to where you spend your time conducting daily activities, such as working in a job off of the farm, shopping, seeking entertainment, going in for doctors' visits, bringing in vehicles for repairs, visiting friends and family, etc., what percentage of time would you say you spend in each type of place? (please refer to the back of this page)
 - a. The small town (less than 2,500 people) where I live or near where I live in the countryside:
 _____%
 - b. Other small places of less than 2,500 people in my county or in adjacent counties: _____%

- c. Midsize towns or cities (between 2,500 and 19,999 people): _____%
- d. A suburban area of 20,000 or more people on the outskirts of a larger urban area; it has the amenities I like, such as big-box stores (e.g., Wal-Mart, Target, K-Mart), movie theaters, specialist physicians, department stores, a mall, auto mechanics, and more: _____%
- e. An urban area of 20,000 or more people with the same types of amenities listed above: _____%

TOTAL = 100%

Farm Information

13. How much ground do you farm, in acres? _____
14. Do you use greenhouses, in addition to farming open ground? Yes No
- a. If so, how much of your production is produced in the greenhouses, as a percentage?
_____%
15. How many of your acres farmed are in:
- Cropland (grains, horticultural, orchards) _____
- Pasture _____
- Woodland _____
16. Which sales level most accurately reflects your gross farm sales in 2010?
- | | |
|-------------------------|---------------------------|
| _____ < \$10,000 | _____ \$50,001–\$100,000 |
| _____ \$10,001–\$25,000 | _____ \$100,001–\$250,000 |
| _____ \$25,001–\$50,000 | _____ > \$250,000 |
17. Of your gross farm sales in 2010, what percentage would you estimate came from sales generated by the following activities?:
- Marketing farm products to schools: _____%
- Retail sales through direct-marketing activities like farmers' markets, community-supported agriculture, roadside stands, pick-your-own operations, mail orders, or subscriptions or other direct sales to consumers: _____%
- Wholesale sales, such as direct sales to restaurants, stores, or other businesses that then sell to end consumers: _____%
- Wholesale sales to distributors, commissioned merchants, brokers, grower-owned cooperative, independent packers or shippers: _____%
- Other farm sales (please describe: _____) _____%
- TOTAL = 100%
18. Other than yourself, how many people work on your farm?
- Full-time hired labor/year-round _____
- Full-time hired labor-seasonal _____
- Part-time hired labor year-round _____
- Part-time hired labor/seasonal _____

Family members (not formally hired) _____

Others (not formally hired) _____

19. Do you belong to a growers collaborative or cooperative? Yes No

a. If yes, what is its name? _____

20. In what ways does membership in the above collaborative or cooperative benefit your farming operation?

Selling Farm Products to Schools

21. If you have not yet marketed your farm products directly to schools, are you interested in doing so sometime in the future? Yes No

22. If you are *not* interested, why not? _____

23. Is there excess capacity on your farm that you could plant specifically for a farm-to-school program?

Yes No

24. Do you currently have extra product that you could sell to schools? Yes No

25. Do you do value-added processing? Yes No

26. If you participate in a farm-to-school program by selling products to a school or schools, how long ago did you begin? _____ . **If you participate in a farm-to-school program please continue with question 27.**

If you do not participate in a farm-to-school program, please skip to question 46.

27. The following questions ask you about the resources that have been most helpful in developing your market relations with a school or school district:

a. To help you get started, did you avail yourself of the online materials at www.okfarmtoschool.com of the Oklahoma Farm to School program? Yes No

b. Were other resources from the Oklahoma Department of Agriculture, Food and Forestry helpful to you in getting started with marketing products to schools? Yes No

c. If yes, please name these: _____

d. What other people, resources, or information helped you get started in marketing to schools?

28. What advice would you give to someone who wanted to market their farm products to a school or school district? _____

29. What products from your farm do you sell to the school or school district? _____

30. What is the distance, in miles, from your farm to the school or school district to which you market your products? _____
31. Which of the following items have been difficult or challenging in your efforts to sustain the marketing of your farm products to schools? Please check all that apply.
- Producing schools' desired volume of a product
 - Producing schools' desired quality of a product
 - Schools desired too little of a product to make it worthwhile for me
 - Mismatch of growing season with the school calendar
 - Ensuring the consistency of a product
 - Obtaining a fair price for my products
 - Getting paid in a timely way
 - Meeting food safety requirements
 - Meeting expectations for packaging
 - Meeting expectations for preparation of the product for shipping and delivery, such as requests to have it washed and/or cut and/or bagged
 - Finding and scheduling reliable delivery of products
 - Finding and coordinating the infrastructure needed for these products, such as storage and refrigeration
 - School cafeteria staff cannot accept raw meats and dairy items
 - School cafeteria staff do not know how to handle fresh produce
 - School menus do not include the kinds of things that I grow
 - Making a profit
 - Government regulations (if so, which ones? _____)
 - Meeting the demands on my time to coordinate the marketing and sales of these products to schools
 - Weather conditions: drought
 - Weather conditions: other, please describe _____
 - Distance to market (distance between my farm and the school or schools)
 - None of the above
 - Other concerns (please describe): _____
32. Do you sell your products to a regional distributor that then delivers your product to the school or schools?
 Yes No
33. If you answered yes to no. 32, what is the company name of the distributor?

34. How often are deliveries of your products made to the schools? _____
35. If not a regional distributor, who makes the deliveries? _____

36. Are products picked up from your farm? Yes No

37. Are deliveries made to a central location or to individual schools? _____

38. Do you sell processed products, such as juice or dried fruit? Yes No

Pricing

39. How is the price for your product determined? _____

40. Are you selling at or below the standard wholesale price? _____

41. Are you selling at, above, or below the retail price? _____

42. Are you making enough profit to continue selling to schools? Yes No

43. If you deliver your product washed, pre-cut, packaged, or processed in any way do you charge extra for that service? Yes No

Benefits

44. In what ways does selling your products to a school or school district benefit you as a farmer?

45. Do you think that your direct-marketing relationship with a school or school district benefits your local community in any way? Yes No

a. If yes, please describe the ways in which you perceive that your local community benefits from your involvement in FTS. _____

b. If no, why do you think that the local community does not benefit from your involvement in FTS?

46. Have you been involved with schools in other ways, such as (Please check all that apply.)

- hosting a field trip or tour for schoolchildren to your farm,
- visiting a classroom for a demonstration or presentation on an agriculture-related topic,
- participating in PTA,
- or serving on school board?

47. What local, state, or national policies could make it easier for you as a farmer to make market connections with local or regional schools?

Thank you for completing this survey. **Please return the entire survey in the enclosed postage-paid envelope.**

I will contact you soon by phone or email to ask you whether you would be willing to be interviewed concerning the direct marketing of farm products to schools. You are free to decline to be interviewed. If, however, you are willing to be interviewed, if feasible I would like to talk with you in person for approximately one hour. I will be in Oklahoma for the month of October and would especially welcome the chance to visit with you on your farm.

If you have any questions or concerns about this survey, please do not hesitate to send me an email at xxxxxxxxx or call me at xxxxxxxxxx.

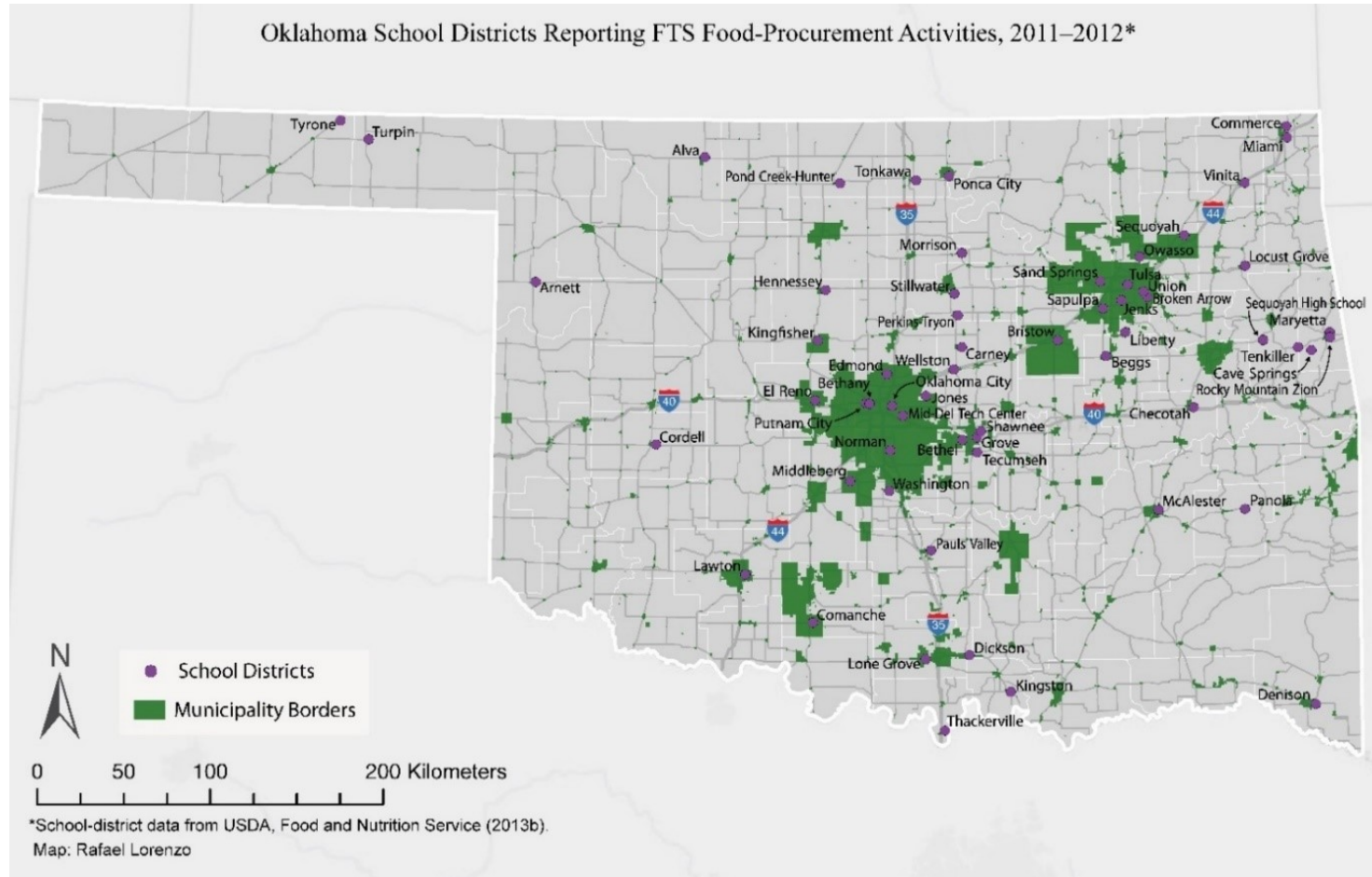
With best regards,

Gina

Appendix B



Appendix C



Oklahoma has 516 school districts. The map plots the locations of 63 school entities that reported local-foods expenditures during the 2011–2012 school year. (Two other school districts with no local-foods purchases but with FTS curricular activities are also mapped.)