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Alternative Food Networks and the Sustainable Livelihood of Smallholder Farmers: A Case
Study of the Arkansas Local Food Network

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Abstract

This paper looks at the viability and sustainability of smallholder farmers' livelihoods in the state of Arkansas in the United States. It asks how alternative food networks (AFNs) and local market channels impact the resilience and vulnerability of these producers, particularly during the COVID-19 era. The model of sustainable livelihoods includes multiple forms of capital to acknowledge the diverse values and motivations producers hold aside from financial gain. The research is based on a case study of the Arkansas Local Food Network (ALFN), an 'online farmers market' located in the Arkansas state capitol, Little Rock, and founded in 2006. A qualitative, mixed-methods approach of semi-structured, in-depth interviews was used. This approach allowed participants to define livelihood, vulnerability, and well-being on their own terms for their own context. Regional stakeholders were also interviewed to gain a wider picture of the barriers and assets within the system.

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List of Acronyms

AFN: Alternative Food Network ALFN: Arkansas Local Food Network

CSA: Community Supported Agriculture

SNAP: Supplemental Nutritional Assistance Program USDA: United States Department of Agriculture

1. Introduction

For socially conscious consumers, farmers' markets are often touted as the best way to support local farmers and activate change in the wider food system. Messages such as "vote with your fork" and "think global, buy local" confer the idea that a consumer's power lies in his purchasing choices, and these purchasing choices will have a direct, if not immediate, effect on the producers. By purchasing locally, consumers can feel they are not only helping local farmers stay in business but are also preserving farmland from development and reducing their ecological footprint, all while benefitting their own household's health and well-being.

In the state of Arkansas in the United States, direct marketing channels like farmers' markets have been growing in popularity. Between 2009 and 2016, the number of farmers' markets in the state have more than doubled. However, as of 2017, 57% of Arkansan farm operations were operating at a loss (Clark et al., 2020). Why are small farms failing? Are farmers' markets the best way to support local producers, as commonly believed? If not, what else can be done?

This research was conducted with three objectives. The first was to learn what draws Arkansans to pursue livelihoods as small farmers. What values guide them? How do they define success for themselves? The second objective was to determine to what extent Arkansan small farmers' believe their livelihoods are viable and sustainable. What makes them vulnerable and what makes them resilient? Finally, this study investigated a potential relationship between how a farmer perceives the viability of his livelihood and how that farmer participates in alternative food markets.

1.1 Relevance and Case Study

The impetus for this study came from the authors' own experiences working with smallholder farmers across North America. My first real experience of farmers came from managing an urban farmers' market where I learned that 'farm life' was not the saccharine, picture-perfect postcard I had always imagined. Farmers were there fighting to make a living. Later, I worked as an apprentice on a succession of smallholder operations. Each took a unique approach to production and marketing.

The first, a pastured poultry operation on an island off the East Coast of the United States, was able to charge a premium to their upper-class tourist customers and high-end, farm-to-table restaurants. The farm had opened a separate business to vertically integrate butchery and value-added products into the model. Still, the owner's salary was so low that he qualified for food stamps. He couldn't afford his own products. The second operation, a ranch raising organic, grass-fed lamb, had joined a regional meat cooperative to relieve the owner of branding or marketing responsibilities. He continued to scale up his operation to its maximum limits, but only on the backs of undocumented immigrant labor and a revolving door of unpaid volunteers. Next was an organic, animal welfare-approved lamb and goat dairy on prime real estate north of

San Francisco. The farmstead creamery turned the milk into artisan cheese to be sold in regional farmers' markets and small grocery stores. Though their products sold for a premium to wealthy clientele, only half of the farm's profits came from cheese; the other half, from their on-site AirBnb. By the time I departed, they had decided to move from a for-profit model to a non-profit, at least in part because of their inability to stay in the black.

In trying to maintain their livelihoods, each operation pivoted, diversified, or intensified their operations. Yet, the farmers never seemed to be able to move past 'living on the edge.' This led me to many questions. Why, if they were selling in the perfect market conditions and making all of the 'right' changes, were these farmers still struggling? What if the assumptions we have about how to support smallholder farmers are incorrect? What larger systematic barriers are at play? These questions led me eventually to this research.

Previous studies have been conducted to determine the impact of farmers' markets and other AFNs on smallholder farmers. Some have similarly conducted case studies of specific farmers' markets and used in-depth interview methodology. This study is unique in that it looks at vendors of an online farmers' market in the COVID-19 era, during which marketing strategies—and the food system as a whole—underwent drastic changes. The case at hand is the Arkansas Local Food Network, an online farmers' market in Little Rock, Arkansas. Arkansas is a rural, primarily agricultural state in the mid-South of the United States. Fourteen vendors were interviewed, along with a handful of regional food network stakeholders. The results are an in-depth snapshot of the lives of small farmers in rural America during a uniquely transitional period of our food system.

1.2 Assumptions, Biases, and Terms

This study does not address the question of whether small farming in the United States is profitable, whether it contributes to food security, nor whether it should be promoted or protected as a critical part of the American culture and economy. What it does look at is the present state of small farmers in a particular locale, and it concludes with a discussion on what might be needed in order to promote and sustain their livelihoods. The author does not claim any bias aside from a bias for locally grown tomatoes.

The terms 'smallholder,' 'small farmer,' and 'producer' are used in this study interchangeably. Who falls under the small farmer category is disputed. In international development, it is often considered a farm of two hectares or less. The United States Department of Agriculture (USDA) defines small farms as those which make a gross cash income of \$250,000 or less. For the purposes of this study, in which the focus is not on cash income nor farm size but rather on markets and locality, a small farm is an operation that primarily markets its products within 100 miles from where it was grown.

2. Literature Review

First, we will gain an understanding of the current state of smallholder farming in the United States by looking at Alternative Food Networks within the larger history of industrial agriculture. Then, we will zoom closer to define what makes a livelihood sustainable and in what strategies smallholders engage to become less vulnerable and more resilient.

2.1 Industrial Agriculture's Alternative

The agriculture system that the United States knows today is a result (at least in part) of technological advances in the Industrial Era that rapidized globalization. Advances in transportation, communication, and production paved the way, literally and figuratively, for a globally-connected market. Agriculture transitioned within a few generations from a largely family affair to a highly mechanized, commercialized, and government-subsidized multi-billion dollar market (Murray and Overton, 2015).

Starting in the 1980s, a countermovement arose. This movement was founded on the concept of the 'moral economy,' or the idea that economic decisions do not live in a vacuum, but do—and should—have moral implications. What is now known as the Local Food Movement or Slow Food Movement grew out of this demand for moral standards within the agricultural system. The movement's rallying cry is a return to short supply chains: to quality food grown with care by farmers the customer knows and trusts. This trade takes place in unconventional spaces of exchange between producers and customers that act as alternatives to global supply chains. These spaces are termed Alternative Food Networks (AFNs).

AFNs are often defined by what they are not. They are the antithesis (whether real or aspiring) to industrialized agriculture. A common definition is by Renting et al. (2003): "Alternative food networks (AFNs)...cover emerging networks of producers, consumers, and other actors that embody alternatives to the more standardized industrial mode of food supply." AFN marketing channels most commonly include direct markets (e.g. farmers markets) and intermediated markets (e.g. farm-to-table restaurants). Also included under the AFN umbrella are specialist retailers, food cooperatives, and farm stands, as well as organic and Fairtrade certification. AFNs are presumed to provide benefits to producers and consumers alike: healthier, local food; reduced emissions; and financial support to local small farmers (Forsell and Lankoski, 2015).

While studies vary, there are three generally agreed-upon characteristics of AFNs: non-industrial logic, emphasis on quality, and social-embeddedness (Forsell and Lankoski, 2015).

Non-industrial logic means, as defined above, an alternative way of operating to conventional agriculture. Conventional agriculture is based on long supply chains with increased monoculture, chemical inputs, and food miles (Michel-Villarreal, et al., 2019). AFNs, on the other hand, are short, transparent supply chains. They value the conditions of production and their impact on the society and environment as "partners in the chain work together to optimize value for everyone" (Hardesty et al., 2011, p. 71).

‘Conscious consumers’ are drawn to AFNs because they purport to align with their values. Purchasing through AFNs, they believe, supports local farmers and has a smaller ecological footprint (Testa et al., 2020). This is followed closely by the second characteristic of AFNs: an emphasis on quality. The Slow Food Movement’s gospel is ‘slower is better.’ The smaller, more intimate the production, the more care and concern the farmer will have for his product. The food, they claim, is just better.

The third characteristic of AFNs is social embeddedness, a core tenant of the moral economy. The concept was first developed by Polanyi (1957) to explain how economic decisions are socially and culturally bounded, rather than completely free and market-based as previously presumed. The term is now applied to agri-food studies to also stress locality. In other words, AFNs recognize that food supply chains are not landless. They belong to a community—to a place and a people (Roep and Wiskerke, 2012). They are each unique because each community is made up of a unique set of cultures, climates, and policies.

Social embeddedness also connotes greater intimacy, which in turn nurtures trust and transparency (Carlisle, 2015). Intimacy un-dehumanizes economic trade. In this context, it is no longer a faceless transaction where each party seeks only their own gain. Instead, it comprises a set of “shared commitments” to seek positive outcomes for *all* parties involved, as well as the development of the locality to which it belongs (Watson and Ekici, 2017). In other words, a person is less likely to rip-off their neighbor who they must continue to live next to, as much as they are also less likely to litter in their own backyard.

It is highly contested to what extent AFNs do in fact undermine the neoliberal agri-food system. Many critics claim AFNs operate in the same system, only with a moral façade (Maye, 2013). AFNs are also criticized for their exclusionary nature and as enclaves of upper-class, liberal white culture (Allen et al., 2003). A third point of contention surrounding AFNs, and the one most relevant to this study, is their impact on smallholder farmers. To compete with corporate agriculture, which has greater access to all forms of capital and holds an “absolute cost advantage” (Vorley, 2001), smallholders are encouraged to counter risk by organizing (in a producer cooperative, for example) or by specializing. These tactics may work on a level playing field, but, it is argued, such is not the case with our global food system (Ibid.). Supply chains are skewed by liberalized trade and government aid to favor ‘big ag.’ Can Alternative Food Networks actually supply a viable alternative? Or must small farms follow the refrain to ‘get big or get out?’

2.2 Sustainable Livelihoods

We will now turn to look at the concept of sustainable livelihoods. A livelihood is more than just financial profitability. As Bebbington (1999) quipped, it is about both making a living and making life *worth* living. This invites the subject to define his well-being according to his own values (Chambers 1997). Scoones (1998) was one of the first to develop a model of sustainable livelihoods. His equation consists of four parts: situational context, resources (capitals), livelihood strategies, and external institutions and policies. The model is dynamic. It captures both external forces and circumstances as well as the individual’s choices and agency. A

person's livelihood is not something he can freely choose, nor is it something he is completely powerless over.

The model is also holistic. By including various capitals in his equation, Scoones (1998) demonstrates that livelihoods are made up of a diverse toolkit of natural, economic, human, and social capitals. Scholars later added to this list cultural (Bebbington, 1999), political (Flora and Bregendahl, 2012), and symbolic capitals (Conway et al., 2016). The recognition of capitals outside of financial capital is critical. Andree et al. (2017) explains that a producers' "viable farm strategy" is not only about his accounting ledger but must consider his non-financial goals and assets as well. They state, "farmers face significant challenges to earning a truly sustainable livelihood, and...such a livelihood depends on more than cash income" (p. 82).

The "significant challenges" that farmers face make their livelihoods vulnerable. Ellis (2004) defines vulnerability, simply, as "living on the edge." For farmers, vulnerability is often tethered to factors largely outside of their control, namely the climate, physical health, and market stability. Risks such as accidents, or shocks such as natural disasters, can inch a vulnerable producer ever closer to that 'edge'. Resilience, on the other hand, is the opposite of vulnerability. It is the extent to which a producer can bounce back from risks and shocks. Chambers and Conway (1992) incorporate vulnerability and resilience in their definition of a sustainable livelihood: "A livelihood is sustainable when it can cope with and recover from stresses and shocks, maintain or enhance its capabilities and assets, while not undermining the natural resource base."

Producers have strategies to decrease their vulnerability and increase the resilience of their livelihoods. Dixon et. al (2001) identify five:

1. Intensification of existing farm production
2. Diversification, including market orientation and value-added products
3. Increased farm size
4. Off-farm income
5. Exit from agriculture

According to Dixon et. al, certain strategies will be more appropriate and effective in certain farming systems. Overall, diversification is found to be the most impactful, followed by off-farm supplemental income. Many producers choose a combination of strategies. Diversification and intensification, in particular, are commonly combined.

2.3 Livelihood Viability in Alternative Food Networks

Can and do AFNs provide a robust enough market space for small farmers to maintain sustainable livelihoods? Answers vary. To some, it is a hard no. Sage (2003) proclaims that "a small band of loyal customers does not...sustain livelihoods or ensure fulfillment." Barkley and Wilson (1995) also assert that rural populations cannot support small farmers, and small farming in itself cannot produce a significant impact on the rural economy. A more recent study by Park and Lohr (2010) found a correlation between dependency on direct sales and lower earned incomes for organic smallholders.

Not all research finds smallholders struggling, however. The results of the report by Bauman et al (2018) show that smallholder farmers—of any scale—who participate in direct or intermediated marketing are more likely to be financially viable. Fan et al. (2013), too, argue that "linking smallholders to agri-food value chains is an important component of building smallholder resistance to shocks and improving their productivity and livelihoods" (p. 14). These seemingly contradictory results call for further, more nuanced research.

For those smallholders who are struggling to survive financially, why do they continue? Guthman (2004) terms this 'self-exploitation,' which she defines as "not earning revenues equal to the cost of their own labor" (p. 83). Smallholders do this, first, because they enjoy their work. Second, they see it as contributing to a better food system and, ultimately, as bettering the world (Galt, 2013). In other words, they're not in it for the money.

Other studies specifically on farmers' markets find similar results. While single-handedly they may not be able to support local small farmers, they do provide the community a multitude of other benefits. Some of these benefits are for the producers, such as advertisement and social engagement. Most benefits, however, are for the community. A farmers' market is a symbol that the community values health, sustainability, and liveability, and that it is moving in a positive direction (Brie, 2005). Carlisle (2015) acknowledges that AFNs may not be all they are touted to be—but that does not mean they don't make a difference:

Good food itself may not change the world; but the embedding and socializing processes it initiates at small scales create openings to both hopeful political geographies and materially effective economic geographies. These many small acts...expose the limits to capitalism, transforming people and relationships in ways that can jump scales and create room for maneuver within markets (p. 3).

While AFNs may not have transformed the global food system, Carlisle contends they are making inroads of revolutionary change, community by community.

3. Methods

Considering sustainable livelihoods' holistic framework and multiplicity of capitals, along with AFNs' emphasis on values rather than profit-based supply chains, this study approaches not from a farm profitability angle, but rather seeks to uncover how the farmer himself views well-being. How does she define success, and how does that influence her decisions on what to grow, how to grow it, and where to sell it? For this reason, the study took a qualitative approach. It did not seek a representative sample of all Arkansan small farmers, or even all producers of a certain market. Rather, it took a deep dive into a small sample size over a quick snapshot of the Summer of 2021.

A mixed methods approach was used to triangulate findings. The methods included key interviews and semi-structured in-depth interviews conducted in person and over the phone. In-person interviews were mixed with ethnographic-style participant observation that involved working and traveling alongside the producers in the field.

Topics for interviews and participant observation covered, first, basic demographic questions such as farm size, number of employees (and number of household members working on the farm), farming methods (conventional or organic), whether land is rented or owned, main products, and where products are sold. Then, farmers were asked to tell their story—how they started farming and the decisions, shocks, adaptations, and growth along the way. What have been their biggest resources and biggest barriers? Have they thought about quitting, and why haven't they? Questions were open-ended to allow the interviewees' own themes to emerge. The goal was to uncover values and motivations. Is knowing their customers important to them? How do they see their place in the local food system? Accounting for everything, why do they keep farming?

3.1 Sampling and Analysis

Data came from two primary sources: ALFN vendors and regional food system stakeholders. ALFN vendors are the primary source of data. They represented a range of productions: livestock, produce, and mixed; mid-scale and small productions; and both current and former vendors. All ALFN vendors were contacted, but as expected, not all responded. Fourteen total producers were interviewed (See Appendix A).

The other sources of data were regional stakeholders. These included two members of the cooperative extension office at the University of Arkansas who work closely with small producers. Two other stakeholders work directly with ALFN: its executive director and the director of ALFN's food pantry partner, Green Groceries. Lastly, a number of the producers themselves wear multiple hats as food system stakeholders. Two have started their own online or in-person markets, and three work at nonprofits to combat food insecurity and mitigate the effects of climate change. Interview data from stakeholders was used to support and provide comparative viewpoints to producer interviews.

All interviews were audio-recorded. During participant observation, intermittent notes were taken followed by more extensive field notes afterward. Interviews were then transcribed and coded line-by-line into themes. Themes were divided into categories and findings were compared to uncover commonalities and contradictions (See Appendix B). In comparing the relative importance of common themes, the number of interviewees who mentioned a theme was counted, not the total number of times a theme occurred within an interview. This was done to mitigate the differences in length and depth of the interviews. For example, if in a three-hour interview a farmer mentioned climate change five times, and in a fifteen-minute interview another farmer mentioned climate change once, these would have been counted as two instances, or two producers to whom climate change was a variable.

3.2 Case Study

Following the criticism of Venn et al. (2006) that "many papers fail to reflect or comment upon the identification, selection and wider relevance of their cases" (p. 253), this study places its findings firmly within its context of time and place. The following will provide a background on

agriculture and rural livelihoods in the state of Arkansas, followed by an explanation and brief history of ALFN.

3.2.1 Arkansas

Arkansas is a state in the mid-South of the United States situated between Texas, Louisiana, and Mississippi. It is primarily rural and historically low-income. Nearly half of Arkansans live in rural counties, compared to 14% nationally (Miller and Knapp, 2021). Arkansas employment has grown at half of the national rate since 2010 (Ibid.). In 2018, rural counties' average income was 35% lower than the national average (Ibid.). Most (85%) of rural Arkansans are overweight or obese, and 1 in 5 are enrolled in Supplemental Nutritional Assistance Program (SNAP, or federal food stamps) (Ibid.).

In Arkansas, agriculture is king. It is estimated that one in six jobs are directly or indirectly related to the agriculture sector (Miller and Knapp, 2021). Top exports are rice and broiler chickens. With 49% of the country's rice, it is the number one rice-producing state in the U.S. Poultry makes up 40% of the state's agricultural exports and alone provides 1 in 4 jobs in the state (Ibid.).

Specialty crops account for a small minority of exports in Arkansas. Only 1.5% of total operations are vegetable-producing and 2.5% produce fruit (Ibid.). Organic products account for less than 1% of sales, and directly marketed products for only 3% (Clark et al., 2020). Commodity crops make up the great majority and receive the most funding, market coordination, and policy benefits (Ibid.).

Arkansas remains split between two worlds: the 'big ag' world of agro-industrial corporations, and the 'small ag' world of family farms. While the wide majority (97%) of Arkansas farms are family-owned, only a very small number (16%) produce nearly all (92%) state output (Arkansas Farm Bureau, 2021). The average Arkansas farmer is nearing retirement at 57 years-old (Ibid.). Nearly two-third of productions make \$10,000 or less in annual sales (Kurnik, 2020). Yet, at the same time, it is the home of Tyson Foods, the world's largest poultry processor; Riceland Foods, the country's largest rice exporter; and Wal-Mart, the world's largest food retailer (Miller and Knapp, 2021).

Trends may be changing. In 2020, the World Wildlife Fund released a study on the viability of the Mississippi Delta region becoming the next specialty crop hub in the United States—the so-called "Next California" (Kurnik). California currently produces 1/3 of vegetables and 2/3 of fruits and nuts for the whole country. It is also highly vulnerable to climate change, particularly droughts and wildfires. The Mississippi Delta region, on the contrary, is a similar size, produces more rainfall, and is economically depressed. However, producers would need assistance to move from row crops to market crops, as well as to be convinced that farming can indeed provide a viable income (Ibid.).

3.2.2 Arkansas Local Food Network

This study is based on interviews with vendors of the Arkansas Local Food Network (ALFN). ALFN was founded in Little Rock, AR, in 2006 with the mission of “Connecting Arkansas to resilient farms and businesses to grow our local economy.” Through the years, the organization’s programs have ranged from a bike cooperative and youth employment in community gardens, to an annual ‘state expo’ of Arkansas producers. They also currently support a separate organization, Green Groceries, that provides participating families with a bag of local, fresh produce every-other week. ALFN, for their part, coordinates the agreements and bulk purchases with local producers.

The ‘food club’ has always been ALFN’s primary program. It originated when a local farm, who had been a mainstay at the farmers market, made the decision to pivot to selling only to local restaurants. A small group of loyal customers, disappointed with losing their access to the products, grouped together and requested to make bulk purchases for themselves. The farm agreed to the arrangement, and the customers were able to continue their patronage. Over time, other farms and customers sought to participate, and the program grew organically from there.

By 2008, ALFN had mostly pared down to this food club, which had by then transitioned to the model it is today, an online farmers’ market. Each week, producers list their available products and prices on the ALFN website. Customers then choose products from specific producers to put in their cart. Once producers receive an invoice for the ordered items, they deliver the items to the drop-off location, and ALFN volunteers fill and label bags with each customer’s order. When the customer arrives, the bag is delivered to their vehicle.

This model is unique in that it is not exactly a farmers’ market, nor is it a food hub. It is not a specialty food retailer, but it is also not direct, face-to-face marketing. Thanks to its online and low-contact functionality, it has thrived during the COVID-19 pandemic. While other city farmers’ markets never opened for the 2020 season, ALFN gained both producers and customers.

3.3 Limitations

The main limitations to this study were producers’ availability and willingness to participate. Because of the timeline, research needed to be conducted during the summer, which is generally the busiest time of year for farmers. Social distancing precautions due to COVID-19 also came into play. Another limitation of the research was the small sample size bounded by the small number of ALFN vendors. In addition, ALFN vendors are also not representative of regional or state-wide small-scale farmers. ALFN vendors by-and-large are white, non-Hispanic English speakers. No agrotourism or u-pick productions were involved. The study also sought to understand the farmers’ *perceived* impact of AFNs on their livelihoods, rather than measuring the *actual* impact. It did not look at metrics such as financial records. The study was conducted in a short time period, so it did not determine if the farms do, in fact, go on to exist and flourish. Rather, it asks why and how farmers have decided to continue up to the present.

4. Findings

Participant responses were analyzed along three themes: motivations and values; vulnerabilities; and strategies (See Appendix B). The goal was to capture both the broad strokes and the intimate diversity of participants' experiences. All participants' names and business names have been removed to protect privacy.

4.1 Motivations & Values

Motivations and values fall under two categories: personal and communal.

4.1.1 Lifestyle Factors

Of the two, personal lifestyle factors were cited by the most interviewees. Farming seems to be more than just a job; it is a way of living that provides a range of benefits. As one beginning farmer articulated, "It seemed to me a way to bring together all these things that I believed should exist in my life and hold them together with some degree of unity." Some of 'these things' he referred to, which many others mentioned as well, were working outdoors, working for oneself, and being near family during the day.

Closely related to this was the farmer and the family's health. Being able to consume their own products was a major incentive. As one producer stated,

"We do it for us to be healthy, and for our grandbabies. We want to be able to provide them with fresh fruits and vegetables. So really to provide for our family first and foremost. Also, to be able to provide for our community—we want our community to have good food to eat and know where their food comes from. So that's why we do it."

This touches on the second category, community, as well.

Farmers were also motivated by their own character. They believed farming fit their personal qualities: they were hardworking, flexible, and stubborn. Interviewees spoke of work ethic as an assumed prerequisite for farming. Some farmers, they said, had quit the profession because they were 'too soft.' Adaptability was another prerequisite. A farmer must be able to duck and roll with the punches—to foresee obstacles and implement creative solutions. The seemingly most important personal factor of all, however, was stubbornness. As one rancher put it, "It keeps coming back to: Why are we doing it? Mostly to prove that it can be done." When asked what keeps him going, another farmer answered, "I can't not do it. That is the option. I look at other stuff, and I can't do it."

Aside from personal lifestyle and character, enjoyment—delight, even—was an overt motivator for more than half of the participants. They loved their jobs. As one hog farmer stated, "I realized I really, really enjoy cultivating and caring for things." One producer spoke with pride of his attentive care for his livestock. To see how his hard labor directly affected their welfare gave him great satisfaction:

That is an experience of profound joy, to be acting in this manner that is cooperative and symbiotic, and to see these animals experiencing joy because their world is complete...When a cow is in a pasture of clean, good grass, that animal is complete. To somehow be the means for this happening over and over for these animals is a joyful experience. And I see that, and that's why I fight through the muddy, sweaty, swear-inducing, painful, smelly days.

For him, that personal satisfaction of a job well done outweighed all other costs.

Four interviewees had started as gardeners whose hobbies eventually evolved into profiting businesses. One woman had grown cannabis in her closet as a teenager. Later, at a mid-life turning point, she remembered the joy that had brought her and decided to start a market garden. Another farmer ran a non-profit to support burgeoning home gardeners, community gardens, and full-time farmers. For him, the goal was not to help others scale up or maximize profits, but rather to “enrich” their lives: “just making people happier with what they're doing—and that might be growing a big fat watermelon and having done that yourself.” Another producer had been in full-time construction with farming on the side and recently transitioned to the ranch full-time. In his family growing up, they “farmed because they wanted to and did construction because they had to.” Farming, to him, was immeasurably more meaningful.

Financial gain was starkly absent from any discussions of motivation. Curiously, only one producer named their *customers'* satisfaction or delight as their own motivating factor. Only one participant mentioned income as a motivator, but it was in the past tense—that farming *used* to be a good income.

4.1.2 Community factors

Farmers were motivated by being part of a larger community or a larger cause that they believed in. These varied over a wide range, from environmental issues and food insecurity to socializing with customers and fellow farmers.

Food security was by far the most common cause. Many farmers donated extra product to local food banks. A few also sought to improve their communities' nutrition through on-site educational programming or online meal planning assistance. Better nutrition, reasoned one farmer, leads to more resilient communities— and who doesn't want to live in a more resilient community? They spoke of food deserts and the unequal availability of fresh produce between various neighborhoods. One explained that the largest farms are located in rural areas where there is the most poverty. Most locals cannot afford it. The farms, then, transport their produce to the wealthier urban areas. Meanwhile, grocery stores are exiting under-resourced neighborhoods, both urban and rural, leaving residents with few food options. One farmer stated it like this: “If a supermarket has abandoned a community, you can pretty much guarantee local farmers aren't selling there, either.”

Farmers voiced a wide range of opinions regarding the income disparity of their customer base. One said she donated to the food pantry but thought a better approach would be to give out “a hoe and a bag of beans.” A particular urban farmers' market in a wealthy neighborhood was

good for sales, but left farmers feeling uneasy. One rancher stated it bluntly: “I’m fucking sick and tired of busting my ass to subsidize rich people’s meat.” Another farmer attempted a pay-what-you-can model to cater to low-income customers, only to be shut down by market management for undercutting prices. In reality, however, customers were paying *more* than the normal prices, while low-income clientele never even came. A broader perspective was taken by a different rancher, who saw his farm as contributing to a circular economy that keeps money local and supports the overall economic vitality of his community.

For three of the operations, food security was an integral component of their model. The first was a non-profit that offered educational programming in home gardening and small animal husbandry. The second was a small business that worked closely with a non-profit within the city’s capital. The non-profit applied for grant money to install home and community gardens, and then contracted the business to implement the programs in the community. They were also working to bring a farmers’ market and roadside produce stands to their urban neighborhood.

The third operation had a multi-pronged approach: it was a small urban farm, an online market and delivery platform, and a neighborhood-owned food cooperative. The small co-op conscription fee and the revenue from the online market subsidized the farm’s produce. The cooperative members were involved in producing the food and making operative decisions to best benefit their neighborhood.

After food justice, the environment was the second most-often cited community motivator for farmers. Whether certified organic, Certified Naturally Grown, or using conventional methods, farmers voiced concern for their impact on the land and the impact of the climate on their own livelihoods. One producer said his main motivation for farming was his belief that small farmers have a more positive impact on the environment. “That’s really primary. That’s the reason I’m doing this, otherwise I’d just go and get a programming job and make a lot more money.” A rancher echoed his opinion: “If I can further my goals of bettering the land, reducing pollution, sequestering carbon, and have more influence over more acres so that it’s managed in a sustainable manner that makes things better in the long term for the human race, then I’m all in. But I’m not going to do it for money.” For both, environmental impact was a far greater motivator than income.

Also under the umbrella of the environment was concern over land use change and farmland preservation. A new farmer explained that none of the cattle ranchers in his county were making money—and that they would say that themselves if asked. They only raised cattle to cover the property tax expenses while waiting for the right time to sell the property to a land developer. An extension agent that was interviewed gave a similar perspective. She said land is being bought up by large companies and wealthy individuals to diversify investment portfolios. These corporations often are not local and may not even be in the agriculture sector. Concern over farmland preservation is not simply an environmental concern, of course; it also relates to concerns of cultural and societal loss and greater barriers of entry into agriculture, among others.

The motivational factors mentioned the least often were social connection to customers and to other farmers. This is discussed in greater detail further on, but overall, farmers did not strongly

value customer interaction. On the contrary, many voiced an aversion to it. Only two producers claimed to enjoy dealing directly with customers.

Even still, it was mixed with complaints, as one producer intoned:

“That’s my only drawback of ALFN: I don’t want to be a robot. That’s why we don’t go to [a particular farmers’ market]. There, you stay on that side of the table, and I stay on this side; I put my hand out, and you put money in it. This is my night out...So if I got to be with people, then I got to be putting on a show...Otherwise I just crawl back into the truck.”

The farmer then spoke tenderly of another farmers’ market where he had been a vendor for many years. His son and the other farmers’ children had grown up spending every Saturday morning together. The other farmers, too, were a vital resource to him as he was starting out. “Ninety percent of us will do whatever we can for anybody else...Many would even open up their books.” Another farmer greatly valued his relationships with chefs and distributors, while yet another said he didn’t know a like-minded farmer within a fifty-mile radius.

4.2 Vulnerabilities

In their interviews, vulnerabilities were ever-present on farmers’ minds. These vulnerabilities were of two types: threats and barriers. Threats are primarily external risks to the farmer’s livelihood. Barriers are situations and forces which limit or prevent the farmer’s success.

4.2.1 Threats

Of all the threats associated with farming, physical injury was by far the most prevalent on farmers’ minds. They worried about getting hurt and not having health insurance. Others spoke of the injuries they had already endured and how it had impacted their business. A retired couple had to rethink how they did farmers’ markets when the husband threw out his back. A 63-year-old farmer said he was “basically crippled” when one of his workers called out sick and he had to step in for the harvest. A middle-aged farmer, when asked what would happen if he were to be injured, replied, “We’d probably be thrown under. That’s our biggest fear—if I were to get injured. But as long as I wasn’t unconscious, I could still manage things from an armchair.” Now in his 40’s, he is starting to transition to crops that cause less stress on the back and knees, in anticipation of the risk of physical injury only growing with age.

Another category of risk is environmental, particularly climate change and natural disasters. Interviewees voiced worries about water availability, soil health, and rising temperatures. Some had made big decisions due to climate change, such as moving all production under high tunnels. Rainfall and temperatures had grown too unpredictable. Another added community organizing to his urban gardening. He said, “I feel like we’re in trouble. But hopefully we can get organized at the community level and find some solutions.” One of the interviewees had been hit by a tornado in April 2021. All four of their high tunnels were destroyed, a tree had fallen on their home, and they were now living in an RV with their 5-month-old baby. Their attempts to

rebuild were slow-going. Amidst it all, they were still able to grow enough produce for their online and farm stand customers. “This too shall pass,” she says.

A final category of risk relates to macro forces on the local and global supply chains. The COVID-19 pandemic is certainly a global force that did and still does pose serious risks to the farmers’ livelihoods, albeit in varying manners and degrees. Beginning in March 2020, most if not all farmers’ markets in the state of Arkansas either closed or never opened for the year. Restaurants, too, closed for a time. By mid-April, the state’s meat processors were booked two years out.

Necessary materials were harder to come by, too. One producer was set back months into the season because his supplier was sold out of seeds. He attributed it to the sudden increase in home gardeners. A beginner farmer said the experience of the pandemic had solidified his commitments to use as few inputs as possible and be less reliant on mercurial market forces. In response to the changes due to COVID-19, some farmers suffered, but many pivoted to new markets or adjusted their supply chains. Strategies farmers used in response are addressed in a future section.

4.2.2 Barriers

Barriers are forces, direct and indirect, that limit or prevent a farmers’ success. Interviewees spoke of four categories of barriers: entry to agriculture, labor, finances, and policy.

4.2.2.1 Entry.

Barriers to entry were mentioned by the large majority of interviewees. They spoke of the struggles they themselves have faced and seen others face while starting out. These barriers can be summed up as a lack of access to capital: physical, social, human, and financial capital.

The primary entry barrier mentioned was access to the physical capital of land. Of the fourteen farmers interviewed, eleven owned their land and three leased. Fifty percent (of the total) were working land owned by their family. That land had not necessarily already been cultivated, though. Of the seven working family land, only two had inherited a farm operation. Two had grown up with their family farming “on the side”, and three were the first generation to cultivate their family’s property. (See Appendix A.)

For those who were beginner farmers but already had access to land, they named that land as their most important asset. One described it as having the freedom to make all the mistakes, but without the high stakes. It was the ultimate risk mitigation. Owning land gave him time and space to learn, study, and improve—without the pressure to make a profit. Another farmer in a similar situation was able to continue working full-time while trying out different forms of production, from layers and broilers one summer to tomatoes and watermelon the next. He even quit farming for a time before eventually returning to start again. For both farmers, it seemed they had reached a point of transition in their lives, saw the potential of the land at their feet, and figured they might as well give it a try.

All three of the leasing farmers were first-generation, and all three said access to land was their primary barrier. Notably, all three were also vegetable farmers who followed organic practices. One had been growing greens in the Mississippi Delta and would like to move to more well-drained land. Another was on a small urban plot in the capital. The third had moved his operation more than four times and was looking to move yet again next season. Leasing was particularly difficult for organic producers. Organic certification takes at least seven years, and it can take years to build the soil health necessary for nutrients to become available.

Two other capitals that beginner farmers needed access to were social and human. Human capital includes education and training, such as on-farm experience. Multiple new farmers said they wished they had spent more time as an intern on another farm before beginning their own operation. “There is a huge learning curve, and it takes years to get competent,” explained one. Another claimed: “The only way to get in is to see a model you like, beg them to take you as an intern, and stay there for ten years until you’re given the farm.” While the University of Arkansas extension office offers educational resources to farmers, multiple organic producers complained it had little relevance to them. “In Arkansas, they know two things at extension: RoundUp and GrazeOn. That’s the answer. Monsanto is the answer,” stated one.

While training may take years, so does making connections. Social capital is necessary to get into the market and make business deals. A beginning farmer who wanted to enter the restaurant and institution industry stated it this way:

People tend to buy either from larger companies that have a lot of resources in place for them to just touch a button and order food, or you have relationships with individuals who can get you into certain markets. If you’re new and you don’t have any connections to markets, it’s a struggle. Because in addition to farming and managing paperwork, you have to go out and build these relationships that could be hit or miss.

So far in her attempts to build a network, most of her contacts had already been solicited by other farmers.

This same farmer claimed that what new farmers need is not training, but money—and not in loans, but in contracts. Overhead starting costs are tremendous, and not just if the farmer is acquiring land. Another farmer explained the primacy of financial capital through his own experience. He had been able to start his operation with a brand name, equipment, experience—“everything you could imagine, and I still couldn’t do it.” All of his competitors, meanwhile, could rely on their retirement or spouses’ incomes. It would appear that, even with physical, social, and human capital, if a beginner farmer lacks financial capital, his success is severely inhibited.

4.2.2.2 Labor.

After barriers to entry, the second most common barrier to farmers was labor: both their own physical labor and securing other laborers. Six of the fourteen interviewees had no employees besides the farm owners. Four of them ran the operations completely on their own. This severely limited the farmers’ capacity. One wife said of her husband, “We’ve got lots of outlets to

sell it, but when he's by himself, it's overwhelming to get it all done." Another said, "There's ten jobs to do every day and I can only do two or three of them." They spoke of the exhaustion after long hours in hot, humid weather, and of the toll it took on their bodies. When asked if or when they planned to hire additional employees, most said they would have years ago, if they could. A beginner farmer said, "If I could pay them, I'd take them now. That way I could do what I want to do. I could have vegetables, I could have infrastructure, I could get things going."

The operations that did hire employees also faced barriers. They struggled to retain workers, especially if they were part-time or seasonal. A few were interested in having interns or volunteers but weren't sure how to recruit or house them. Paid employees also took a significant portion from the farm's profits. A vegetable grower with four full-time employees said, "The farm isn't as profitable as it used to be. And I think it's because the profit used to be on our backs. It used to make a lot of money, and now it just goes along." It paid their salaries and covered costs, but revenue wasn't increasing. The largest operation of all the interviewees employed about twenty people. Three were part-time retail, seven were from Mexico on H2A visas, and the remaining were three generations of family members.

Two operations spoke of struggles with farm succession. One was a large family farm where the next generation, though potentially interested in agriculture, did not want to take over ownership and management of the farm. The other was owned by a couple who was looking to retire soon. They did not want to move from their home, which was on the farm property. They also did not want to have to train a successor. The only way it would work, they said, would be to find someone who already had adequate experience and could take on operations seamlessly.

4.2.2.3 Financial.

Lack of financial capital was named by every farmer interviewed. It appeared in many forms. The most obvious was lack of income, but it also looked like barriers within the supply chain that limited supply and demand.

4.2.2.3.1 Income.

Many interviewees voiced difficulty making a decent income. Those who worked for non-profits were generally able to keep a stable year-round income. For those who had their own operation, their aim was just to stay afloat. As a new rancher said, "We're trucking. We're not getting rich right now, maybe we will someday...but as long as we have enough for emergencies, as long as we're maintaining day-to-day." Another made the claim that the best farmer he knows in Arkansas still qualifies for SNAP—meaning he makes near or under the federal poverty level.

There was only one farming couple that believed someone can make a good living off of farming. They just have to plan it right, she said, with good bookkeeping, tracking, and recording. It is worth noting, however, that she and her husband were both retired with external income. For them, farming was a project that kept them busy and active in their older years. Their goal was for the farm to pay for itself—and if there was a little left over to stop by the casino on the way home from the farmers' market, all the better.

4.2.2.3.2 Supply and Demand.

When asked whether supply or demand formed the ceiling for their production, each interviewee gave a unique response. Overall, however, neither supply nor demand proved more significant; both are present and interconnected within the system.

4.2.2.3.2.1 Supply

For some farmers, their main economic concern was not in finding customers, but in supplying the type, quality, and quantity of product that the consumers sought. One reason was barriers to accessing physical supplies, such as feed or seeds. As mentioned previously, the disruption of the global supply chain due to COVID-19 had far-reaching effects that local farmers felt acutely. One of the beginner farmers spoke of his difficulty accessing organic bonemeal. He must either drive six hours to buy it in person or pay \$50 in shipping. His dream is to have a shop in central Arkansas catering to organic home and commercial farmers. It would supply feed and seeds, along with other tools and supplies like chicken tractor materials. This way, other beginner farmers could have the kind of access he wishes he had been given.

The other barrier for supply, at least for ranchers, was processing livestock. There are only three USDA-approved abattoirs in the state of Arkansas, and transportation is often an issue. One rancher said he burned all of his profits while transporting chickens to the processor. Ranchers also tended to have very strong opinions, either negative or positive, about the three abattoirs. If the rancher did not approve of a slaughterhouse for a particular reason, his other options were few—and likely hours further away. When COVID-19 hit, the appointments filled quickly, and some farmers were left without a way to process their livestock in a USDA-approved facility, which then limited his options of where he could sell his product.

One farmer recounted the story of an Arkansas state-wide cooperative which began—and ended—within the last five years. The farmer had been on the co-op's board of directors, and he attributed its failure to supply issues. The co-op was able to secure enough customers and the immediate numbers they needed, but when it came time for harvest, many of the producers simply were not yet skilled or experienced enough to be in wholesale. They did not have enough product, or the product they did have was not good enough quality. The customers were unsatisfied. The customer base was also spread over a wide geographic area, and deliveries were cost and time-consuming. The large management staff, in addition, led to high overhead costs. In the end, the numbers did not add up, and they closed.

4.2.2.3.3.2 Demand: Consistency, Competition, and Culture.

For some farmers, supply was not a problem as much as finding outlets for their products. One farmer put it this way: "I can grow things all day long. I don't have a problem growing it. I just have a problem getting rid of it." Issues in demand were attributed to consistency, competition, and culture.

One of the main complaints farmers voiced about farmers markets, in particular, was inconsistency. One week everything would sell, and the next, nothing. The result was loss of products and revenue. One farmer stated a common grief: "The markets are constantly good

and bad. We either have way too much or nothing at all.” The COVID-19 pandemic also contributed to mass inconsistencies in demand. After the initial upheaval of quarantine, customer demand for local products sky-rocketed. Unsure of what the future held, customers filled their fridges, deep freezers, pantries, and basements. Farmers rushed to meet the need, but there wasn’t enough notice to plan for such an increase in supply. Farmers also could not predict if the demand would remain high or eventually drop back to pre-COVID levels. For many, it felt like a lose-lose situation.

On the other side of inconsistent demand is inter-producer competition. Arkansas is a rural state with a small population. Some farmers were concerned that the market was already crowded. One said, “If five other farmers popped up just like me in my area, I don’t know if we could all make it. I just don’t know if there would be enough. I wish there were.” Another farmer moved to Arkansas from a large city in Ohio where he said he could make a good living just from Saturday farmers’ markets. In Arkansas’ capital, however, he found there were too many farmers and not enough customers. He planned to move to a rural area with less competition instead. A few farmers specifically spoke of the egg market being flooded and driving prices down below wholesale.

The third factor driving demand was culture. Farmers were split between positive and negative outlooks. The positive outlook saw the Local Food Movement growing in Arkansas. An extension agent cited April 2020 Google search trends in which Arkansas rated fourth nationally in “locally grown produce.” The numbers had doubled in the first two weeks of March 2020. 75% of consumers changed their shopping behaviors in 2020, and farmers pivoted to accommodate them.

On the other hand, farmers spoke of the Local Food Movement running counter to Arkansas culture and American culture as a whole. Since the 1950s, Walmart’s motto of “live better, spend less” has taught Arkansans to expect food to be cheap and easy. This is reflective of the wider American culture. As one farmer put it, “There are basically two heuristics for choosing food: convenience and price, and taste to some degree. Anyone who makes decisions based on that is not going to buy from small farmers.” It seemed to them an uphill battle.

4.2.2.4 Policy.

A final barrier interviewees spoke of was policy, from local and state to federal levels. On the local level, an urban farmer in the capital referenced the chamber of commerce’s attempt to attract large foreign companies. In trying to get a stake in the big economy, he said, the city was forsaking their own constituents and sending money outside of the community.

As for the state level, the Arkansas state economy, as explained above, is agriculturally based. However, nearly all assistance goes toward row crops, not specialty crops. Subsidies are a particular point of contention. Producers asked why corn and oil are subsidized, but not nutrient-dense foods like fruits and vegetables. One farmer summed it up well: “Policymakers need to look at how farmers are treated, how farmers are trained, and how farmers are financed.” Small farmers, she said, need that assistance in order to be competitive and attractive to a Walmart-addicted culture.

4.3 Seeking a Sustainable Livelihood

Accounting for their own barriers, motivations, and resources, each farmer took actions to find a more viable farm strategy. In this section, we will look at the strategies the farmers have adopted, followed by the markets through which they chose to do business.

4.3.1 Livelihood strategies

Dixon et al. (2001) identified five livelihood strategies farmers employ: diversification, intensification, increased land size, off-farm income, and exit from agriculture. All were utilized by the farmers in this study.

4.3.1.1 Diversification.

Diversification was the most common strategy by far. Diversification took two forms: production and market outlets. Taken together, interviewees had attempted to grow or raise a huge diversity of products, and they still had limitless ideas left. They also diversified their market outlets. No farmer who participated in this study sold through only one market. In general, they sought to put their product on the market in as many ways as possible. One interviewee said, "The number one thing is for farmers to diversify and not rely on just one thing. They can't just depend on the farmers' market, they have to branch out to a CSA or online or a farm stand, or partner with other farms and grocery stores." Sometimes production decisions were based on what the farmer interpreted from market demand—that goat was becoming more popular, for example. Or, it was a lifestyle choice, like they wanted to continue working outdoors. Still other times, it was a health choice—that they did not want to be crouching down as often, for example. Market outlet decisions will be compared in further detail below.

4.3.1.2 Intensification.

The second most used livelihood strategy was intensification of production. For most, this was about quality more than quantity. More than scaling up, farmers were implementing new methods to increase the efficiency of their production. They added more high tunnels, tried a different organic fertilizer, or chose a niche product in which to specialize. One farmer said they "started out trying to do everything, but quickly realized we needed to build dirt." Intensification, for them, meant making the most out of their current resources while keeping an eye, not on immediate results, but on the impact for decades to come. Only three of the interviewees chose to intensify production through value-added products. One rancher was moving toward greater vertical integration by starting his own processing facility.

Increasing cultivated land was not a tactic many farmers considered. On the contrary, four of the farmers specifically said they did not plan to "get bigger," as in produce more. One put it this way: "I'm not going to go bigger. This way is healthier for me, for the chickens, for the grass, for the world, for the customers." They were not aiming to produce more as much as to produce better—and to do it on their own terms. Only one of the farms, a non-profit, mentioned needing more land. They had sold out of all their produce all but one Saturday the previous season—and

that was even after doubling production from the year before. They needed more than their two acres but did not expect the non-profit management to give them the access.

4.3.1.3 Off-farm income.

Only three of the fourteen interviewees did not have household off-farm income. That means nearly 80% depended in some way on external revenue, whether it be retirement, a spouse's income, a side job, or even a full-time job. One couple had four jobs between the two of them, in addition to the husband serving on town government. Another worked a full-time night job in IT; yet another contracted work with other farms. One couple had two retirement incomes, and another relied on his parents' retirement. A confounded rancher saw it this way:

I know all the farmers in this area. I can count on a couple fingers the number of people who get their full-time income from farming. Everybody has a wife who carries the mail, or they drive a school bus, or they work somewhere to get insurance...There's not the money in it and the stability that you can count on. I just don't know that many full-time farmers where a family is getting their income without being subsidized by something else. And that might be trust fund family land – and maybe that's what's keeping the one's going that I can count on one hand.

How did that other 20% of interviewees make it without off-farm income? All three owned their land. One production was small and had only been up and running for three years. He did not elaborate on how he had managed to purchase his land. The second production was nearly forty years old, and the owners paid off their debts within the first five years—years during which the spouse had off-farm income. The third production was ten years old. The owner attributed his success to having started out on family land and before he had his own family, so he was able to start slowly and make mistakes without the pressure of needing an income.

As for exit from agriculture, all interviewees were currently in production, though some had quit and eventually returned. Others daydreamed about quitting, or at least majorly scaling down. A couple farmers spoke of friends, neighbors, and coworkers who had tried farming and eventually left for more reliable, less physically-demanding occupations.

4.3.2 Market Choices

How and where to sell products are some of the most important decisions a farmer faces. Here, we have divided market channels into three categories: wholesale, direct, and intermediated. Wholesale marketing is the conventional strategy of a farmer selling to a distributor, who then sells to a retailer, who then sells to the customers. There are many hands between the farmer and the customer. Intermediated marketing takes out the distributor, so the farmer sells to a retailer, such as a specialty grocery store or institution (e.g., schools and prisons), and then it reaches the consumer. Direct marketing is conducted between the farmer and customer with no hands in-between.

4.3.2.1 Wholesale.

Wholesale, in general, was avoided by producers at all costs. They simply could not sell their products at wholesale prices and still make a profit. Producers who used organic or regenerative practices were especially indignant about the necessity to mark up their prices. Only one producer out of the fourteen said he preferred wholesale. To him, at least it was consistent. If he knew what he was selling, he could make adjustments to lower the input costs and create a larger profit margin. He admitted he might be able to do the same at a large farmers' market, but during the COVID era, the markets were too volatile to be predictable. He hated to lose product, and with wholesale, at least he knew he had a buyer.

4.3.2.2 Intermediated.

In intermediated markets, the farmer sells directly to a retailer. Restaurants, specialty grocers, and institutions are primary examples, and about half of the producers sold through those channels. They had mostly positive comments. Intermediated markets were more consistent than direct marketing, though chefs could be picky and fickle. Restaurant menus required stability, so a producer needed to have the capacity to produce year-round. Institutions also provided some stability, but they often required complicated paperwork, especially if it involved government money. The farmer had to place a bid far in advance, often too early to know what would be ready to harvest. Two of the interviewees had opened their own specialty grocers within the past year. One online and one brick-and-mortar, they both sold fresh, commodity, and value-added products produced within the state, along with their own produce.

Online markets, such as the Arkansas Local Food Network, occupy an ambiguous space between direct and intermediated channels. All interviewees were current or former vendors of ALFN, and all but two had sold through other regional online markets as well. They spoke of both benefits and drawbacks of the model. Most of the benefits correlated to complaints about in-person farmers' markets. With ALFN, vendors were alerted immediately when a customer ordered an item online. By Wednesday before delivery day, they had an invoice of the exact amount of products to bring and exactly how much money they would make. Online markets also took less time and social energy. Most vendors could place the delivery en route to another market or drop-off location. Even better, they did not have to interact with customers on a Saturday morning for interminable hours. Of course, one or two vendors saw this as a drawback—the same exact vendors who also said they enjoyed in-person markets.

Possibly the biggest benefit ALFN offered producers was a year-round market outlet. Interviewees said it was a “blessing,” a “God-send,” that it “pulled them through the off-season.” Especially during the Spring of 2020, when all other markets had closed due to the pandemic, ALFN was one of the few sales channels for local farmers. The major drawback, as with direct marketing channels, was the variability in sales. Some farmers said sales started out well, “but over time the vendor base goes up, but the customer base doesn't, so the pie is divided up into too many pieces.” One week, the order might be for \$1,000, and the next, it would not even cover the price of gas for the delivery. The vendors saw ALFN as helping fill in the gaps, but could not rely on it for their main source of sales.

4.3.2.3 Direct.

Interviewees' direct-marketing channels included farm subscriptions (known in the United States as Community Supported Agriculture, or CSAs), farmers' markets, and on-farm stands. Three of the producers had formerly or currently offered CSAs. It was the most profitable outlet for only one of them. Fifty percent of the interviewees either started or expanded on-farm stands during 2020. Many reported that their on-farm sales had increased dramatically—or in one farmers' words, "went gang-busters." Three additional producers were looking to start their own on-farm stands in the near future.

All of the farmers had at some point been vendors at farmers' markets. Two had even entered the agriculture business because they had so enjoyed the feeling of being at farmers' markets as customers. Of the fourteen producers, only four were still vendors at in-person markets. It was the most profitable outlet for two producers, both of them small-scale, beginner ranchers. Farmers tended to have strong opinions about farmers' markets. Only three said they were at all enjoyable, and two of those three were retired or the spouse of the farmer. Another producer had strong words to say about those retirees: "That's no farmer."

The two biggest criticisms of the farmers' market model were inconsistent sales coupled with high time and energy costs. One farmer put it simply, "I don't want to talk to people," and another: "I don't do people well." They spoke of twelve-hour days, long travel distances, and being asked to explain the same vegetable again and again, plus the uncertainty of demand and having to throw away unsold produce at the end of the day. One producer had been spending all of his profit on beer on the way home, and realized it would be better to "skip the market, skip the beer, and go fishing instead." During 2020, farmers' markets suddenly closed due to COVID-19, and most did not open again until 2021. This left some farmers in the lurch—at first. Then, they adapted, used different marketing channels, and eventually found they liked having a weekend. More than one producer who had sold at farmers' markets pre-COVID is no longer planning to return.

5. Discussion

Three conclusions can be drawn from the study's findings. The first may be obvious: farmers' markets—whether in-person or online—are not the one-all, be-all solution to provide farmers working wages and sustainable livelihoods. On this, the findings agree with Brie's (2005) similar study of two farmers' markets in Wales. Says Brie, "Small farmers' markets do not provide the answer to the difficulties faced by small family farms. They are only one of several different marketing initiatives that entrepreneurially inclined farmers, who are by no means the majority, may be able to take advantage of, while still selling much of their produce to other outlets" (p. 5). One of the farmers echoed a similar sentiment:

Sustainable is not a farmer's market. A person is not going to make money by going to one or two markets a week. That's a side job. A small farm is going to have a set stand

where they sell, or they sell to restaurants. They better have something more going on or they are never going to make it. They will not be able to make a living being a farmer.

Diversification beyond farmers' markets was not optional for farmers; it was a critical strategy to maintain a livelihood. This was also reflected in the findings that no interviewees sold through only one market channel. Yet, there is a point where this study and Brie disagree. Brie argues that social connection and enjoyment of the farmers' markets provide producers an intangible, non-financial benefit. Most farmers of this study, however, made clear they do not enjoy markets and are not motivated by customer connection. That is not to say social capital was not valued. Rather, farmers valued connections with individuals within the more formal food system framework—with market managers, chefs, distributors, government employees, and local organizations. Still, this social aspect was not in their primary motivations.

The second discovery to emerge from the findings is an insight into the ways the COVID-19 pandemic has changed the landscape of the food system in Arkansas, and how smallholders have responded and adapted in response. After the closing of in-person markets and, for a time, restaurants, farmers opened their own on-farm stands and specialty grocers or pivoted to online models. Even with adaptations, however, the uncertainty and variability endemic to smallholder farming only increased. Farmers do not know if this increased demand for locally grown food will stay on its upward trajectory. One farmer already sees it waning: "They forgot about us. They can now go back to what they were doing before." As the COVID-19 pandemic wages on, farmers also must continue to adapt and prepare for an unknown future.

The third outcome from this study is confirmation that, as seen from Scoone's (1998) model of sustainable livelihoods, financial capital is not the only—nor even the most—important factor at play in smallholder farmers' decisions. Farmers spoke of the trade-offs between financial capitals and other motivating factors. For the most part, if they had decided to continue farming, money was not their primary motivator. Something else was more important. One farmer who has been in the business for over a decade summed up the struggle well:

I'm not religious at all, but...there's been several times over the years when it's like, okay, it's time to go get a day job. We've done this long enough. But then the universe keeps pushing us back into it. That's just the unexplainable part. But also at the same time we're pretty stubborn and just keep pushing and pushing. It's a weird one. On paper we probably should've quit many times. I look around, even times we're not in dire straits, and think, we both have college degrees, we could go get easier jobs and live a simpler life. Well, not simpler maybe, but have vacation days and 401Ks. But then I look around and our house payment is really cheap, we live in a beautiful place, we eat good food, I don't have a boss. It's not so bad. You've got to put it in perspective every once and a while. The income's not great, but we're making it just fine. This is pretty good.

The farmer named his vulnerabilities, namely lack of financial stability, and weighed them against the personal and lifestyle factors of farm life (time with family, working outdoors, eating well, and independence). In the end, he found those benefits to outweigh the lack of finances.

While financial capital was farmers' primary motivator, it was their biggest vulnerability. Very few of the interviewees were subsisting off of the farm's profits alone. Without external revenue, they doubted they could continue. Land ownership, too, was a dividing line between producers. Barriers to entry into agriculture are staggeringly high; owning land was shown to be one of the only ways a new farmer could start out with enough financial stability to make it. As one farmer put it, when discussing the financial viability of small farms, "Has anyone said it's possible? Or has everyone been honest?"

5.1 Application

The findings of this study are applicable in the realms of policy, market development, and consumer choice. First is policy. In an agricultural state such as Arkansas where agri-food corporations and commodity farmers are highly favored over smallholders, it should be no surprise that smallholders are struggling. Real change in the Arkansas food system necessitates more than changes in culture and consumer choice, but a removal of the barriers and a mitigation of risks to small farmers.

Further research is still needed on how to best develop the market within the Arkansas local food system. As seen in this study, smallholders are facing barriers in both supply and demand, even as interest in locally grown products is increasing.

Institutions are futilely seeking local farmers to supply their cafeterias, while small farmers are meanwhile struggling to make connections and contracts. What communication avenues can be developed to connect ready consumers with ready producers? As for online markets such as the Arkansas Local Food Network, producers will benefit from any possible increase in consistency. The year-round model is already a benefit, but how else might the markets become more stable on a week-to-week basis?

To concerned consumers who desire change in their local food system, the takeaway is this: be flexible and creative. Shopping at farmers' markets is not the only way to offer support. Look to online markets, on-farm stands, restaurants, and specialty grocery stores. Take a lesson from your local farmer and get stubborn. Choose to value the environment and the community over the lowest price. Finally, let's continue to vote with our forks— but not forget to vote with our votes, too.

6. Appendices

6.1 Appendix A: Interviewee Profile

Products	Age	Acres	Yrs	Lease/Own/ Family	Off-farm income	# Employees
Non-profit; Produce	40-50	1	4	Own	Yes	1 FT, 2 PT
Livestock, forestry	20s	160	3	Own	No	1 FT
Non-profit; Produce	30s	3	4	Family	Yes	2 FT
Produce	40s	3	3	Lease	Yes	2 PT, 3-5 harvest
Produce	50s	100+		Family	Yes	3 PT, FT family, 7 H2A visas
Produce	60s	2	35	Own	No	4 FT
Livestock	40s	130	6	Own	Yes	1 FT
Livestock	40s	100	10	Family	Yes	1 FT
Produce, eggs, honey	60s	3	7	Family	Yes	2 PT
Produce, eggs	30s	1	4	Family	Yes	7 PT retail (3 of 7 on farm), 1 FT
Produce	30s		2	Lease	Yes	2 FT
Produce	30s	1/3	6	Lease	Yes	1 PT
Produce, livestock, eggs, honey	30s		30	Family	Yes	1 FT, 1 PT
Produce	40s	5	12	Family	No	1 FT, 3 PT, seasonal

6.2 Appendix B: Interview Themes

Motivations and Values	
Lifestyle	
	Family
	Health & Food Quality
	Independence
	Outdoors
	Enjoyment/delight
Community	
	Climate/environment
	Customer connection
	Farmer connection
	Social/food justice
Personal characteristics	
	Knowledge/skill/experience
	Identity
	Stubbornness/adaptability
	Hard-working
Vulnerabilities	
Barriers/Limits	
	Entry
	Land ownership
	Financial capital/Income
	Marketing (demand)
	Labor
	Production (supply)
	Policy
Risks/external threats	
	Market forces
	Health/danger
	Natural disasters
	Climate/environment
	COVID
Strategies	
Livelihood Strategies	
	Diversify production
	Diversify market outlets
	Value-added
	Intensify production
	Off-farm income/Retired
	Exit ag

Motivations and Values	
Lifestyle	
	Family
	Health & Food Quality
	Independence
Sales	
	Direct
	Intermediary
	Wholesale
	Other

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