

SMALL FARMS, BIG BARRIERS:
POLITICAL IMPLICATIONS OF AGRICULTURAL REGULATION
IN WRIGHT COUNTY, IOWA

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ABSTRACT

SMALL FARMS, BIG BARRIERS: POLITICAL IMPLICATIONS OF AGRICULTURAL REGULATION IN WRIGHT COUNTY, IA

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Through this thesis, I explore the effects of government policy regarding agriculture and the opinions of those who are affected by agricultural policy in Wright County, Iowa. The exploration is in response to the movement toward industrialization and corporatization within United States agriculture that has altered the economic, environmental, and social interactions in rural communities. Prior research has more generally examined the complexities of industrial agriculture on a state or national scale; however, situating this research in a relatively small geographic region allows the researcher a more in-depth assessment of the state of agriculture in a particular area at a particular time.

I seek to understand the implications of the changing dynamics of the agricultural industry and policy for rural community well-being. More specifically, I examine the barriers to small-scale farming and how agricultural regulation addresses these barriers. I gather local perspectives of agriculture in Wright County through participant observations and key-informant interviews with community leaders and area farmers.

The results offer insight into the current and future state of Wright County agriculture. First, most respondents believe that small-scale agriculture is integral to rural community well-being. Second, several barriers hinder small-scale farmers' ability to compete in the agricultural sector, including: the changing demographics of the local population, the polarization of farm sizes, the cost of technology, and access to and instability of agricultural markets. Third, participants hold conflicting opinions of agricultural regulation, with most feeling that the Farm Bill is largely ineffective at managing the agriculture sector. Last, the future of small-scale agriculture is bleak if agricultural policies remain the same.

Given the strong emotional connection to agriculture within the study region, I recommend increased avenues of communication among all stakeholders of the agricultural industry. Suggested strategies include the sharing of information between farmers and allowing for dialogue among elected officials, community leaders, and consumers. Opening the lines of communication will offer more opportunities on the local, state, and federal level for small-scale farmers to participate in policy formation. Their involvement could help minimize the confusion surrounding the Farm Bill and allow for the creation of agricultural regulation that is more suited to the needs of small-scale farmers.

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INTRODUCTION

Anyone who has spent considerable time in Iowa knows that winters in this part of the United States are long and brutal. Snow usually begins to fall around Halloween and continues to fall fairly consistently until March. Along with the measurable snowfalls, temperatures can dive well below zero, rendering any outdoor activity almost impossible. It is no surprise, then, that one of my most vivid memories of my childhood in North Central Iowa is the complete sense of joy and anticipation I felt in mid-March for the coming spring when I could bust out of the confines of my house to enjoy the fruits of the season. I knew that the gradually receding snow line and increasingly visible grass line meant that soon my days would consist of running through sprinklers and my evenings would be spent swatting mosquitoes while catching lightning bugs. During these warm months, our windows were wide open allowing the warmth of a Midwest spring into my family's home. With the open windows came the smells of new life as flowers bloomed and fresh, green leaves emerged from budding trees. As I grew, however, the smells wafting in through the open windows began to change.

Sometime between those care-free elementary years and late adolescence, dozens of hog and chicken confined animal feeding operations (CAFOs) materialized near my rural community. I honestly do not remember when they were built. Slipping under my radar (and the rest of the town's radar), the farms just seemed to appear one day. Most of

these farms¹ consisted of four or more large, rectangular buildings each filled with a few hundred or several thousand animals waiting for slaughter. At this time, the terms factory farm, CAFO, and even sustainable agriculture were not a part of our vocabulary. We were simply a farming community supported by a network of independent, family farmers who ate in the local restaurants, shopped at the local stores, and whose children attended the local schools. By the time my parents moved to neighboring Wright County during my sophomore year of college, this network had all but dissolved, and the dozen large hog and chicken farms had exploded into several hundred corporately-owned and managed CAFOs.

The livestock industry's growth into a behemoth parallels developments in other sectors of the agricultural industry. Aided by the industrial revolution and technological advances emerging from both world wars, mainstream agriculture has become a multi-billion dollar global industry. Net farm income in the United States alone is expected to exceed \$90 billion in 2011 (Economic Research Service, 2011^a; np). Dramatic changes over the past century have fueled this revenue boom, changes that have increased crop yields and consolidated animal livestock production. The consequences of these changes are far-reaching, and despite this revenue boom, fewer Americans than ever are working as farmers.

For better or worse, the changes within our methods of agricultural production have impacted society. This impact is particularly noticeable in rural communities where

¹ "A farm is defined as any place in which \$1000 or more of agricultural products were produced and sold, or normally would have been sold, during the census year" (Iowa State University, 2010).

local economies and human and environmental health are directly affected by agricultural practices. The shift from locally-based, agrarian societies to a globally-focused agricultural system has challenged the survival of many rural communities. The move from subsistence-based agrarian economies to market-based industrial economies has undermined the sustainability of our current food production system. The famed, ecological activist Wendell Berry states, “Whereas industrialism is a way of thought based on monetary capital and technology, agrarianism is a way of thought based on land” (2001; 67). Farmers, who once focused on the production of food based on the limits of the land, now use technology and expand production for markets pushing the limits of the land. This continual push to increase agricultural yields and outputs has resulted in soil loss, ground water pollution and wildlife kills. It has also been linked to several human illnesses. The industrialization of agriculture has resulted in an over-abundance of commodity crops and the temporary accumulation of wealth for a select few to the detriment of the land.

In lieu of the negative ecological and societal effects of industrial agriculture, it is tempting to look to the idealized, pre-industrial, pre-World War II agricultural system—one that consisted primarily of subsistence farms supplying food to the family first and then to surround communities—as a solution to the current predicament. Unfortunately, such notions are fueled by a highly romanticized view of subsistence farming. The idea of returning to an idealized agricultural system of the past ignores the fact that farming is inherently taxing to the land regardless of the farmer’s techniques and philosophies. It also underestimates the cultural stronghold of the market-based system. A successful

agricultural system must work with the markets while adhering to the limits of the land. Such a system is what David Orr calls “the New Agrarianism” (2001; 96). According to Orr, “The largest barrier to a new agrarianism...is the vast gap that separates sound agrarian culture from the daily lives most of us now live” (97). In order to truly understand the implications of this gap, one must first examine what led to the destabilization of the bridge connecting communities to their food—the family farm.

The United States Farm Bill stands at the center of the agricultural industry, affecting farms of all calibers as well as the communities that are dependent upon farming revenue. The 2008 Farm Bill was optimistically received by many in the agricultural community. Praised as a triumph of the collaboration among a variety of mainstream and grassroots organizations, the new Farm Bill had the potential to create great opportunities for the small-scale farmer. It seemed that for the first time in recent memory, agricultural policy makers had considered the needs of small-scale farmers as well as those of the powerful interest groups. The 2008 Farm Bill, however, was implemented during a time of significant change in the size and magnitude of all farming operations and when the United States was on the precipice of an economic recession. Given the political and economic turmoil that has occurred since the signing of the bill, how effective has the 2008 Farm Bill been in regulating the agricultural industry?

This thesis is an examination of the effects of the Farm Bill on small-scale farmers in relation to other factors, such as changes in markets, farm size, technology and rural community population that influence the agricultural industry. To offer a focused

examination of how federal policy affects localities, I center primarily on the state of agriculture in Wright County Iowa.

In Chapter One, I discuss the literature that is relevant to this study. I begin by examining how David Harvey's four main influences of neoliberalism affect industrial agriculture. I then look at confined animal feeding operations (CAFOs) and the use of vertical integration as a vehicle of privatization and financialization of the food system. Lastly, I turn to a brief assessment of agricultural regulation. In doing so, I offer a brief history of agricultural policy, highlighting the important aspects of the 2008 Farm Bill and considering the consequences of such regulation.

Chapter Two focuses on the research methods I employed in this study. First, I explain the rationale by offering a short review of relevant studies that influenced the design of my research project. Next, I delve into epistemology, which includes my theoretical grounding and biases in conducting this particular research project. I then discuss site and participant selection. Lastly, I detail the participant observation and interview processes.

Chapter Three reveals and analyzes the findings of the observations and interviews I conducted. This chapter is split into two main subsections. The observation subsection reports general themes uncovered during the study. In the interview subsection, I offer a more in-depth consideration of the participants' responses. This subsection includes a discussion of the research findings including an analysis of the benefits of and barriers to small scale farming, the accessibility of the Farm Bill, how the Farm Bill addresses the barriers to small scale farming, and a consideration of the future

of agriculture in Wright County more generally. A discussion connecting these findings to the literature review is intertwined throughout.

To conclude, Chapter Four begins with an overview of the main findings. I then present recommendations for future agricultural policy based on the information presented in the previous chapters. Lastly, I offer suggestions for further study.

This master's thesis is a contribution to an on-going dialogue regarding the future of agricultural production in the United States. I do not attempt to offer one concrete solution to the multiple problems within the industrial agriculture system—an impossible task. This project is one step toward achieving a more sustainable food system. By sharing stories and viewpoints of some of Wright County's residents, I offer insight into the challenges rural communities face when dealing with the changing agricultural industry.

CHAPTER ONE-LITERATURE REVIEW

The Creation of the Agricultural Gap

The 1970s and 1980s marked a shift in the political economy of much of the world. A result of right-wing political and economic strategies based largely in the United States and Britain, the global economic system—and the domestic economies within it—transitioned from neoclassical Keynesianism to neoliberal capitalism. Heavily market-focused, neoliberal ideology promotes individualization and privatization of capital. Supporters, like Britain’s Margaret Thatcher, claim neoliberalism promotes global trade and cures economic stagflation (Harvey, 2006). With its focus on free market trade within the global economy and the implementation of the North American Free Trade Agreement (NAFTA) and the Central American Free Trade Agreement (CAFTA), neoliberal ideals have rapidly spread throughout much of the world (Crow and Albo, 2005; Abrahamson, 2007).

Neoliberalism is not without its critics, with many noting that the mass accumulation of capital is usually accessed by an elite minority, often to the detriment of working-class society and the environment. As Stephen Gill (2003; 123) observes, “The neo-liberal shift in government policies has tended to subject the majority of the population to the power of market forces (most workers, small businesses) whilst preserving social protection of the strong.” Gill’s sentiment is echoed by David Harvey (2006; 42) who states that neoliberal “development has accelerated permitting certain

territories to advance spectacularly...at the expense of others.” He isolates four main elements of neo-liberalism that contribute to the dispossession of wealth and resources from the poor to the rich, the weak to the strong: privatization, financialization, the management and manipulation of crises, and state redistributions (ibid). All four elements are evident in every sector of the market both domestically and abroad. Agricultural is not an exception, as seen in the patenting of genetically modified organisms (privatization); the increasing consolidation of land, farms, and money (financialization); the responses to various disasters both natural and financial such as the Farm Crisis of the 1980s (the management and manipulation of crises), and the disproportionate allocation of farm subsidies (state redistributions). A look at the changes in the agricultural market over the past forty years will better illustrate the neoliberal influence over the industry.

The 1970s were prolific years for American agriculture. During this period, production was escalating and sales were rising abroad. Foreign markets became increasingly important. Domestically, interest rates were relatively low and prices for land were reasonable (Nebraska Studies, 2010). Farmers were encouraged by federal officials to continue to increase production by taking advantage of the low interest rates and to take out loans to expand their production capabilities (Long, 1987). Following this advice, many farmers acquired massive amounts of debt with the assumption that any domestic surplus in production could be sold abroad for a profit.

In the early 1980s, however, the United States entered an economic recession. Farmers faced increasing loan payments and decreasing profits for agricultural

commodities (Nebraska Studies, 2010; np). Additionally, faltering global economic conditions reduced international demand for U.S. food exports, compounding the poor agricultural economy in the United States (Long, 1988). In an effort to survive, many American farmers borrowed more money, hoping that increasing foreign markets and better domestic farming conditions would rescue them in the following year.

Unfortunately, this optimistic thinking proved fatal and resulted in bankruptcy and foreclosure for many family farms. This rapid, mass exodus from family farming became known as the Farm Crisis of the 1980s.

The Farm Crisis strategically opened the door for further consolidation and financialization within the U.S. agricultural system. Harvey (2006; 46) writes:

Beyond the speculative and often fraudulent froth that characterizes much of the neoliberal financial manipulation, there lies a deeper process that entails the springing of “the debt trap” as a primary means of accumulation by dispossession. Crisis creation, management and manipulation on the world stage has evolved into the fine art of deliberative redistribution of wealth from poor countries to the rich.

While Harvey writes of the “debt trap” on the world stage, debt and financial crises were also being used domestically to redistribute wealth from the poor to the rich within the United States, thus increasing inequality among the economic classes. The Reagan administration’s answer to the farm crisis is an example of this phenomenon. Facing an economic crisis, Reagan promoted a neoliberal agenda emphasizing the removal of government subsidies and a focus on a competitive market-oriented economy. The system, now known as Reaganomics, “did little to revive farm income or to reduce the cost of federal spending” (Long, 1987). Instead, the administration’s economic

practices —focused on efficiency, productivity, and market activity—proved perfect for the privatization and industrialization of agriculture. By the end of Reagan’s second term of office in 1989, the farm economy was transitioning from a network of small family farms into a consolidated, technologically-based industry.

Harold Guither and Harold Halcrow published a compilation of essays addressing the farm crisis and the future of agriculture during Reagan’s second term. They wrote:

Technology is the key to productivity of the American farm, its growth and size distribution, and its ability to compete in the global economy. A myriad of new technological advances will dominate growth prospects for the American farm over the next generation...How these technologies are to be developed, and used or managed, is a crucial issue for the American farm and the population that depends on it. Advances in technology that increase productivity generally require major adjustments in the structure of the farm economy (Guither and Halcrow, 1988; 15).

Guither and Halcrow openly support technological advancement, but vaguely warn of the societal implications of the changing structure of agriculture. Agricultural technology is expensive. Farm machinery can cost hundreds of thousands of dollars. These costs can prohibit some farmers from accessing such technology, severely limiting their ability to compete in agricultural markets.

One of the major outcomes of consolidation and technological advancement within the agricultural industry has been the implementation of concentrated animal feeding operations (CAFOs.) According to the Environmental Protection Agency (EPA, 2007), a CAFO is any “agricultural enterprise where animals are kept and raised in confined situations. CAFOs congregate animals, feed, manure and urine, dead animals, and production operations on a small land area.” CAFOs are economically efficient, as a

large amount of output (livestock) can be produced using a low amount of input (labor and feed). Unfortunately, they also have great environmental and human health implications. CAFOs have been linked to poor air quality, reduced soil productivity, and large fish kills (Merchant, 2005, Iowa Sierra Club, nd). CAFOs perpetuate, in Gill's terminology (2003; 123), "protection for the strong and a socialization of their risks." The CAFO owner gains financially while the workers and surrounding community bear the social and environmental costs.

CAFOs and Vertical Integration

The past three decades have seen a dramatic growth in vertical integration of the agricultural industry, what Lamb (2002) calls the "new farm economy." The new farm economy is based on the "supply chain structure," in which "all stages of production, processing, and distribution are bound tightly together to ensure reliable, efficient delivery of high-quality products" (Drabenstott, 1998; 80). Within a vertically integrated system, one firm controls every part of the supply chain, sometimes including intellectual property rights to genetic lines. In cases where the firm does not directly own the farm where production occurs, the firm will contract the labor out to individual farmers. Exclusive contracts with individual farmers and packing plants allow these companies to pay their producers much more per hog than independent farmers receive in the public market while removing the farmer from all decision making, effectively transforming them from farm owners to wage employees. The contract farmers trade their autonomy

over matters on the farm for a consistent market and guaranteed price for their agricultural goods.

Proponents of vertical integration of the food system claim that the system allows for more effective regulation of environmental concerns and provides a safer product (Hennessy *et al.* 2001; Lamb, 2002). Lamb writes, “While food will get cheaper and better as the New Farm Economy develops, the food supply will become safer as well. Supply chains have greater incentives to enhance food safety” (Lamb, 2002; 25). His claims are based on the consumers’ growing demands for healthier, safer food and more environmentally friendly food production, with the assumption that vertically integrated companies will comply in an effort to keep their consumer base.

In an ideal world, food systems safety may be adequately regulated by a vertically integrated system, but there is reason to doubt the effectiveness of the companies’ regulation of the production process. Consumers are not taught to be conscious of production processes, and markets have become less personal. As Hudson and Hudson (2003; 413) observe in their analysis of commodity fetishism in food chains, “participants (in global food chains) come to understand their social relations as...relations between things, rather than relations between people.” Most consumers do not know where their food comes from or how it is produced. They relate to agricultural producers only through the consumption of food. Without knowledge of the production process, consumers buy without awareness of the consequences of their purchases.

Another claim is that vertically integrated systems “have proven their ability to increase consumer choice” (Lamb, 2002; 24). This line of reasoning is once again linked

to the power of consumer demand. In theory, to meet consumer desires, a vertically integrated system will encourage and fund innovations at every step in the production process. The innovations will, in turn, lead to the creation of more products. For example, innovations in the hog sector of agriculture include genetically altered, super-lean hogs that produce optimum fat and protein levels for human consumption.

According to proponents, innovations like these will yield greater consumer choice at the supermarket as the genetically modified products are offered alongside the conventional.

In reality, vertical integration often limits consumer choice, as exemplified by trends within the hog industry. As of 2004, the top five U.S. hog producers, all vertically integrated, controlled 70 percent of market shares—up from 32 percent in 1985 (North Carolina & the Global Economy, 2007). In other words, 70 percent or more of the pork products available to consumers are produced by one of five companies (Smithfield, Tyson, Swift, Cargill/Excel, and Hormel), and they are expanding every year. These companies offer a variety of products; however, consumer choice is limited to these five producers. As production within these companies increases, hog prices on the open market continue to fall. Any hog producer not operating within a vertically integrated system will find it difficult to continue farming. Subsequently, there has been a decrease in the number of producers resulting in a consolidation of hog companies. This phenomenon is addressed more generally by Stephen Gill (2003; 123) when he notes that, “The current phase of economic globalization has come to be characterized increasingly not by free competition idealized in neo-classical theory, but by *oligopolistic neo-*

liberalism.” Vertical integration of the hog industry thus parallels trends in the global economy as it encourages market dominance by a powerful few in the industry.

The financial and political influence of the top five hog companies has created a market system that is incredibly difficult to access and regulate. Recent attempts to regulate this industry have been futile. In April 2006, Iowa Attorney General Tom Miller announced an agreement between the state and Hormel Foods, resolving a dispute over the constitutionality of Iowa’s prohibition of vertically integrated pork production. Miller said, “This agreement enables Hormel to pursue its stated plans to significantly expand its business operations in Iowa, and it protects the rights and interests of Hormel’s contract producers” (Iowa Dept. of Justice, 2006). Despite widespread concern about the effects of a vertically integrated system on small-scale farmers, Hormel is now free to expand its business throughout the whole state of Iowa. In a similar case, involving possible infractions of anti-trust laws in a proposed Smithfield Farms merger with Premium Standard Farm, the Iowa Senator Chuck Grassley’s concerns for the well-being of small-scale and family farmers, were largely ignored. Grassley (2006; np) wrote,

I urge the Antitrust Division to thoroughly examine this merger to protect competition in this important sector of our nation’s economy. The small, independent producers and family farmers in my state of Iowa...are concerned about the reduced market opportunities, possible anti-competitive and predatory business practices, and increasing agribusiness consolidation...I share these concerns about fewer competitors and increased consolidation, as well as less choice for consumers.

Less than a year after Grassley wrote his letter, Smithfield Farms successfully completed the acquisition of Premium Standard Farms.

The top hog companies also dominate another important part of the hog industry—genetic lines. Control over breeds, strains and hybrids is a common practice throughout the agricultural industry as a whole. For example, Jack Kloppenburg (1988; 208-209) addresses the significance of genetics in relation to the seed bio-technology industry, observing that, “Access to adapted, elite breeding lines is an important consideration for any company looking to penetrate seed markets.” Access to elite genetic breeding lines is vital to the survival of producers throughout the industry. It is to every corporation’s advantage to gain access to as many of these breeding lines as possible. In doing so, powerful corporations have gained control over the intellectual property rights of many of the crops and livestock produced in the United States, limiting the access of smaller corporations and farmers.

Recent advancements in biotechnology have redefined the agricultural industry. The USDA defines biotechnology as “a range of tools, including traditional breeding techniques that alter living organisms, or parts of organisms, to make or modify products; improve plants or animals; or develop microorganisms for specific agricultural uses” (2005; np). Biotechnology includes advancements in genetic engineering. The USDA lists the creation of disease-resistant crops, nutritionally enriched foods, and plants with phytoremediation properties as important biotech and genetic engineering advancements.²

² Phytoremediation is the use of green plants to remove pollutants from the environment or render the pollutants harmless (Agricultural Research Services, 2004; np).

Genetic engineering of organisms extends beyond conventional genetic techniques of breeding and selection to include gene splicing. In congressional testimony, James H. Maryanski (1999; np) boasted of the advancements in gene splicing technology, saying,

First, they can be used with greater precision and allow for more complete characterization and, therefore, greater predictability about the qualities of the new variety...Second, today's techniques give breeders the power to cross biological boundaries that could not be crossed by traditional breeding.

With this genetic “precision” and “power to cross biological boundaries,” scientists and biotech enthusiasts claim the ability to increase yields while decreasing the need for harmful pesticides (USDA, 2010). Several products boasting this technology are currently on the market including Monsanto’s RoundUp Ready series and its *Bt* line of seeds. RoundUp Ready seeds contain “in-plant tolerance to RoundUp agricultural herbicides” allowing farmers to spray fields without harming their crop (Monsanto, 2010^a; np). Seeds in the *Bt* line are able to produce their own pesticide with the help of the bacteria *Bacillus thuringiensis* (Monsanto, 2010^b; np). Both products allow farmers to adopt no-till farming methods, which help reduce soil erosion (ibid). Additionally, the technologies are supposed to reduce the amount of chemical pesticides used in crop cultivation (ibid). Recently, however, evidence has surfaced that suggests these genetically modified (GM) products may not be as beneficial to the environment as originally believed (Gillam, 2010), and agricultural pesticide use has actually risen over the past decade, just as new transgenic crops have come to dominate U.S. agricultural production (Laskawy, 2010). Consequently, there is concern that plant and insect pests

are becoming resistant to the sprayed pesticides and the in-plant pesticides created by the *Bt* crops (University of Arizona, 2008). Additionally, traces of insecticidal proteins from *Bt* crops have been found in surrounding water ways, the ecological effects of which are unknown (Tank et al. 2010).

In addition to the environmental concerns associated with the use of genetically modified organisms, increased use of biotechnology and GM crops may contribute to the formation of monopolies within the agriculture industry. As genetic engineering becomes more common, so does the privatization of genetic lines, or as Harvey (2006; 45) writes, “The reversion of common property rights...into the private domain.” Since the conclusion of the Trade Related Intellectual Property Rights (TRIPS) Agreement, as part of the World Trade Organization negotiations in 1995, the patenting of living organisms and their genes has become an integral part of industrial agriculture’s business practices (Mushita and Thompson, 2007). This patenting is apparent in seed production and in livestock genetic lines and has contributed to the increased vertical integration of the food system. Companies participating in patenting of genetic information not only receive profits from the sale of the actual seed or animal but also receive financial gain from those wishing to gain access to the genetic line for any use. Thus, something that was once common property has become private property that is regulated by a single corporation. In regards to this loss of common property Kloppenburg (1988; 149) writes,

Should finished varietal development be left entirely to private industry, not only would public influence over quality be forfeited, but small seed companies and individual growers without breeding programs who are now dependent upon public agencies for their products would have nowhere to turn for new varieties but to the transnationals.

Without access to a common pool of seed or livestock genetics, farmers are forced to purchase from the large companies. Unfortunately, for some doing so is not possible due to the prohibitive cost of many genetically modified products. The large, well-established farms can better afford the cost, and therefore, have a competitive advantage in the agricultural market.

Consequences of Industrialized Farming

The redistribution of agricultural wealth has resulted in the alteration of rural farming communities. From 1997-2002, the U.S. lost over 86,000 farms while the average number of acres of land farmed has remained relatively steady, resulting in fewer but larger farms (Economic Research Service, 2010^b). As independent farmers leave the industry, local economies falter and large agricultural companies are free to capitalize on the situation. Isolated and with aging populations, these rural communities face many challenges including the human health and environmental degradation caused by large scale agricultural production. These communities face increases in agricultural waste spills and decreasing air, soil and water quality.

While the environmental impacts of CAFOs are not completely understood, recent studies have suggested cause for concern and further research. As Burkholder *et al.* (2007; 309) state, “CAFO waste spills...have caused major kills of freshwater fish of all species in the affected areas.” The same spills have contributed to ground-water contamination, which is particularly detrimental to rural households and communities with high-risk populations.

Along with exposure to contaminated groundwater, air quality is a concern for public health officials. Large amounts of toxins, including ammonia, hydrogen sulfide, carbon dioxide, and particles containing a number of microorganisms, are emitted from CAFOs on a daily basis (Heederik *et al.* 2007). While the malodorous effect of the emissions is quite obvious, little information has been collected as to their health effects.

As Heederik *et al.*(*ibid*; np) conclude,

There is a great need to evaluate health effects from exposures to the toxic gases, vapors, and particles emitted into the general environment by CAFOs. Research should focus not only on nuisance and odors but also on potential health effects from microbial exposures, concentrating on susceptible subgroups, especially asthmatic children and the elderly, since these exposures have been shown to be related to respiratory health effects among workers in CAFOs.

A 2005 study performed by Dr. James Merchant *et al.* supports this conclusion.

Dr. Merchant and colleagues studied a cohort of children in rural Keokuk County, Iowa, to assess the correlation between farm emissions and the local asthma rate. Their findings were quite convincing. The asthma rate among the study's cohort was consistent with asthma rates among urban populations. Most alarmingly, children who lived near or on farms with large swine confinements were especially susceptible to the disease (Merchant *et al.* 2005). According to the team, high prevalence of asthma among this population "suggests the need for awareness and prevention measures and more population-based studies to further assess environmental and genetic determinants of asthma among farm children" (*ibid*; 350). In the meantime, as the cost of health care increases and access to medical facilities decreases in rural communities, affected

individuals will be forced to address the negative health effects of CAFOs and the agricultural industry at large.

Implications of Agricultural Policy

Agricultural policy seems to be contributing to the growth of industrial agriculture, while ignoring the needs of small-scale farmers. Currently, agricultural policy follows the same prescribed pattern of all United States policy: no state law can be more restrictive than federal law, and no county or city law can be more restrictive than a state law. Thus agriculture is regulated by a national entity that allows few local exceptions. Additionally, agriculture policy is heavily influenced by interest groups, which have become firmly entrenched since the passage of the Agricultural Adjustment Act of 1933.

Marking the birth of the United States Farm Bill, the Agricultural Adjustment Act of 1933 linked government support directly to production (Rausser, 1992). Since these programs and consequently financial support were tied to specific commodities deemed valuable by the government, smaller, locally based farming organizations began to lose political influence (*ibid*). Despite their disconnection from the small-scale farmer, commodity-based groups—often representing large-scale agricultural firms—intervened as the voice of agricultural interests. As a result, a disproportionate amount of agricultural subsidies were distributed to these large farms. According to the Socially Responsible Agriculture Project (2009; np), “the largest seven percent of growers with gross receipts over \$250,000, received 45 percent of all federal payments, while the

farmers with less than \$50,000 in gross receipts (76 percent of all farmers) received just 14 percent of the total.” An examination of two programs found in the 2008 Farm Bill, the Average Crop Revenue Election (ACRE) and the Supplemental Revenue Assistance (SURE) programs, reveals possible discriminatory aspects of agriculture regulation.

The ACRE program was unveiled in the 2008 Farm Bill as a new option for revenue and price-based subsidy payments, transitioning away from the price-based programs offered in previous Farm Bills (CARD, 2011). Participation in this program is desirable because payments are not dependent on market prices alone. Depending on their crop yields, farmers may be offered payments even if market prices remain higher than average (ibid). However, in order to qualify for this program, the farmer must be operating at least ten base acres and produce a crop eligible for ACRE payments. Eligible crops are limited to wheat, barley, oats, grain sorghum, corn, upland cotton, rice, soybeans, other oilseed, peanuts, and pulse crops like dry peas, lentils, and chickpeas (ibid). Additionally, payments may be reduced if a farm growing eligible crops also grows fruits or vegetables on eligible base acres, or if some of the base acres are “used for non agricultural purposes” (ibid). Thus farmers operating fewer than ten acres and/or growing fruits, vegetables, or other crops not eligible to participate in this program. While farms whose average gross income exceeds \$750,000 are not eligible, the ACRE program still allows fairly large farms to participate. Therefore, farms that are fairly large are able to collect government subsidy payments despite having more financial security than many of the small farms that do not qualify for government assistance.

The Supplemental Revenue Assistance Program (SURE) also has some exclusionary aspects. In order to qualify for disaster assistance with the program, the farmer must purchase some form of crop insurance through the Federal Crop Insurance Act or the FSA's Noninsured Crop Disaster Assistance Program (FSA, 2009). If the farmer chooses to insure a crop privately or not at all, he or she is not eligible for SURE benefits. This stipulation undermines the farmer's ability to choose what insurance policy is best for his crops and land in general, contributing to the farmer's loss of autonomy. Additionally, prior to receiving coverage, the SURE program requires the farmers to state potential farm revenue and yields in order to determine payments in the event of a natural disaster (ibid). Due to lack of records, time, money, or simply due to diversification of crops grown throughout the years, many small scale farmers are unable to accurately forecast yields and farm revenue. This is particularly true for farmers who participate in niche markets or who rely on direct marketing with local consumers, where revenue can fluctuate greatly from year to year. Without accurate forecasts, such farmers are excluded from participation. Large scale farmers tend to participate in regular commodity markets and possess greater financial and human capital, allowing them to more accurately forecast yields and revenue. These assets give large scale farmers unequal access to SURE and to government payments.

Two years after implementation of the 2008 Farm Bill, little change has occurred in the agricultural industry. The Farm Bill is revised approximately every four years; however, the same basic agricultural policies remain in effect, despite the subsidy reform during the Reagan Administration. The consequences of these farm policies include loss

of crop diversification with continued government subsidies distributed for select commodities, increased payments to corporations due to the loose interpretation of a company's personhood, and loss of local political autonomy, the true ramifications of which have yet to be determined. What is clear is that the Farm Bill disproportionately burdens small farmers and rural communities.

Agriculture has changed dramatically over the past fifty years mostly due to neoliberal practices during and after the Farm Crisis of the 1980s. Small independent farms are no longer the basis of production. Large, industrial companies have taken over the US food system. Returning to Gill's critique of neoliberalism as "protection for the strong and a socialization of their risks," the financialization of the agricultural industry created a small powerhouse of companies who control the markets. Any risks involved in business operations are absorbed by society. Usually, communities surrounding the large, corporate farms suffer from pollution and negative health effects, while the company profits. These communities receive little economic stimulus in return. Neoliberalism successfully transfers the control of the economy from the public to the private sector.

CHAPTER TWO-METHODS

Rationale

This research project investigates the issues rural communities and small farmers encounter when faced with the continuing industrialization of agriculture. More specifically, this research attempts to answer two questions: (1) What are the barriers to small farming in Wright County, Iowa? and (2) How has agricultural policy addressed these barriers? The effects of industrial agriculture on communities have increasingly become a concern for social scientists and rural populations and localities. Several studies contribute evidence warranting this concern over the economic, environmental, and social sustainability of industrial agriculture (Goldschmidt, 1968; Swanson, 1980; Flora and Flora, 1988; Lobao and Schulman, 1991; Lyson and Welsh, 2001).

Perhaps the most famous study within this field of inquiry is Walter Goldschmidt's comparison of two California communities in the early 1940s. Initially conducted to assess the effects of a California law that restricted industrialized farming, Goldschmidt (1968) demonstrated a correlation between industrial agriculture and decreased community well-being. The comparative study of two towns in California revealed that the community of Arvin, which was comprised of more large-scale and corporate farms, had lower family incomes, a higher rate of poverty, poorer quality schools and fewer civic organizations and businesses than its more agrarian counterpart, Dinuba. This finding can still be seen today in many agricultural communities

throughout the United States (Peters, 2002). While criticisms of his study exist, Goldschmidt's findings are still quite influential.

As more evidence of the detrimental effects of industrial agriculture is revealed, studies within this field of inquiry have shifted from examining mainstream agriculture to look at its alternatives. Larch Maxey (2006) explored small-scale producer-supplier networks in Wales and Canada. Conducting a series of case studies of small-scale organic farms, Maxey's findings reveal several barriers to alternative farming including government policies, particularly the distribution of subsidies and competition with corporate bodies. He concludes that developing a more sustainable food system requires economic reform and suggests that "listening to those involved in such projects and engaging in detailed qualitative and quantitative longitudinal work with them can inform this process" (ibid; 241). Maxey's suggestion inspired me to go consult with those most closely involved in Wright County's agricultural system—farmers, residents and community leaders—to inform the research process.

More recently a study conducted by Lindsay C. Stringer *et al.* (2008) addressed small-scale farming in the global North and South. During a two-day workshop, the researchers gleaned information from a selected group of farmers from several different countries. These workshop was designed to allow open dialogue on the challenges to small-scale farming and encouraged the sharing of various solutions used to address these challenges. The researchers found that challenges to small-scale farming were consistent across economic and global borders and suggest that "further institutional support" could be offered to improve producer/consumer relations. They noted that this finding is

particularly applicable in the global North where farmers markets and alternative trade networks are in their infancy. Stringer *et al.* suggests the need to “foster ‘learning spaces’ within and between research institutions, policy makers, NGOs and farming communities... Sustainable learning over the longer term requires investment in the social networks and social capital generated during experience-sharing activities” (2008; 248). Their research topic, findings and suggestions inspired me to address the barriers to small farming in Wright County and led to the formation of many questions regarding the changes to the agricultural industry in my interview schedule. Additionally, while this research project did not offer a physical space for small-scale farmers to share their experiences with each other, it did offer an opportunity for farmers to contribute to a learning space where their concerns and opinions can be shared and compiled for future use. Perhaps the participants in this study, all of whom will be receiving a copy, will use the findings to initiate dialogues with other farmers and community members of Wright County.

Epistemology

Having grown up in the study region, my childhood experiences influence my approach to the research. I establish an emotional connection to the topic before beginning any data collection. Since my participants, many of whom were small-scale farmers, are all Wright County residents, they also had strong emotional ties to the research topic and a vested interest in the outcomes of the research. Due to these complexities, I primarily used grounded theory to guide my methodology.

Heavily laden in social constructivist ideology, grounded theory uses inductive reasoning to “lead the researcher from studying concrete realities to rendering a conceptual understanding of them” (Charmaz, 2003; 311). The grounded theorist operates under a set of guidelines that allow for flexibility and reflexivity. Research questions and theories develop as the research progresses and as research participants’ concerns are revealed. Acknowledging the participants’ concerns helps to ground the researcher in the reality of the situation rather than in the assumptions previously held by the researcher. The personal connection to the participants and the research topic is an important aspect of this study and drew me to my research site.

Even before my research began, I had a fully formed opinion of the existing agricultural system, and personal ties to every community in the region. Many participants are close family friends, and one is a family member. It is also important to note that I had spent several years prior to the commencement of this research living in California. I was physically and culturally removed from the people and communities in my study. I am not entirely an insider nor outsider to my research area. This reality affected my approach to data collection, and more importantly how the participants of this study reacted to my presence. I spent a great deal of time building and reestablishing relationships among community members and farmers. Many of the participants were hesitant to work with me at first because I had lived outside of the area for so long. Over time, however, I slowly gained their trust. Implementing the principles of grounded theory—taking time to actively engage in the community and dialogue with community

members and participants before developing theories or conclusions—helped ease these tensions.

As I began brainstorming research questions, I had intentions of focusing solely on the environmental and human health effects of the hog and chicken CAFOs that blanket Wright County's countryside. My plan changed once I returned to the area. By attending local events and agricultural conferences, I confirmed my assumption that farmers were concerned about environmental degradation and the human health effects attributed to the rise of CAFOs in the area. More importantly, however, they were concerned about their ability to simply remain in the industry. While the influx of CAFOs is an obstacle for area farmers, the barriers to small-scale farming are much more complex and extend beyond current agricultural production practices alone. Policy formation and implementation and popular consumerism within society as a whole all affect the small-scale farmer's ability to survive in the agricultural industry. I realized that I needed to take a step back and undertake a more holistic analysis of the state of agriculture in Wright County. These preliminary conversations with local farmers helped focus my final research questions on the barriers to small scale farming in Wright County and how agriculture regulation addresses those barriers.

Site and Participant Selection

The research took place near my childhood home in Wright County, Iowa. Spanning approximately 580 square miles, Wright County consists of eight incorporated communities (Belmond, Clarion, Dows, Eagle Grove, Galt, Goldfield, Rowan, and

Woolstock) and three unincorporated communities (Cornelia, Florence, and Olaf.) According to the US Census, the 2009 estimated county population was 12,719. Additionally, Wright County is centrally located within Iowa, contains some of the most fertile soil in the United States, and reports a large number of farms—771 as of 2007 (US Census of Agriculture, 2007). As of 2007 Wright County ranked first in the nation in chicken egg production and ranked 11th in the nation in hog production (ibid). Most of these animals are raised on large, corporate-owned farms. The growth of industrial agriculture within a sparsely populated, rural area makes Wright County the perfect setting for research regarding the barriers to small farming.

Participants were selected based on a snowball sampling of county farmers, residents and community leaders. I received recommendations for possible participants from the preliminary conversations that occurred during the initial observation process. The remaining participants were then recommended by the original interviewees. Two sets of participants were designated for the research: small farmers and community leaders. These titles were self-ascribed by the participants, and even though there was some overlap within the two categories, the participants will be identified as small farmer or community leader.

Of the 23 small-scale farmers and five community leaders I approached, only six—three farmers and three community leaders—were able to participate in this study. The poor rate of participation was largely due to scheduling difficulties. I also attempted to interview an employee from the regional USDA extension office; however, the

employee declined due to a contractual stipulation prohibiting any employee of the organization from openly discussing agricultural policy with the public.

Participant Observation

Data collection occurred through first-hand or participant observation and interviews. As Corrine Glesne (2006; 70) states, “The participant observer’s role entails a way of being present in everyday settings that enhances your awareness and curiosity about the interactions taking place around you.” In order to better understand the current farming situation in Wright County, I immersed myself in the community. Beginning in June 2008 and continuing until July 2010, I made four visits to my research site: two weeks during June 2008, one week during December 2008, an extended stay from January through late March 2009, and one last short visit for two weeks in July 2009. During these visits, I shopped in local stores, chatted with residents at local coffee shops and attended local festivals. I kept a detailed journal of my interactions, making sure to note the number of community members I conversed with and the topics of conversation. When agriculture was discussed, I made special reference to the topic in the journal. Formal observations included attending two of the four county farmers markets once per summer visit to observe customer/farmer relations. I also had the opportunity to attend a local foods conference and to visit the Iowa State House on a scheduled agricultural lobbying day.

At the time of this study there were farmers’ markets operating in four communities in Wright County: Belmond, Clarion, Eagle Grove, and Goldfield. The

markets are held once per week throughout the growing season, generally June-September depending on the weather. Each town has a designated day to hold the farmers' market. These designated dates remain in effect for the entire market season. I visited each of the two largest markets, Clarion on Saturday morning and Belmond on Thursday evening, twice during my data collection process. To allow ample time for observation, I arrived at each market at the opening bell and stayed throughout the duration of the markets—usually about two hours. During each visit I took extensive notes detailing the number of farmers and customers, types of products sold, and various interactions among the market's participants. Unfortunately, my visits to Wright County occurred during the start of summer, and I was only able to observe the markets during the beginning of the farmers' market season. Had I been able to attend the farmers' markets throughout the duration of the season, the results of the observation process may have been different.

On February 7, 2009, I attended the Iowa Network for Community Agriculture (INCA) conference. INCA is made up of a diverse group of community agriculture enthusiasts from all parts of the state who share an interest in creating “healthy, fair, and sustainable local food systems” (INCA, 2011; np). The organization has existed since 1995 and has been hosting a local foods conference for the past six years. The theme for the 2009 conference was “Connecting the Dots: From Farm to Fork in North Iowa.” The conference began with a series of keynote speakers. The keynote speakers were followed by two workshop sessions. One workshop discussed the barriers to the implementation of a local foods system in North Iowa and brainstormed ways to overcome these

obstacles. The second workshop looked at creative ways to enter the agricultural market. The day concluded with the breaking of bread and open conversation at a potluck which allowed me to speak candidly with several farmers from throughout Iowa, including Wright County. The information I gleaned from this conference influenced my interview design and helped narrow the focus of the questions found in my interview schedule³.

Shortly after the INCA conference, I attended an agricultural lobbying day in Des Moines at the State House. I was a guest of the Iowa Farmer's Union (IFU) who were there lobbying for small farmer's rights. I participated solely as a researcher. I spoke with lobbyists from all facets of the agricultural industry: biofuel companies, corn producers, hog producers, and supporters of small farms. I received pamphlets and literature from each of these special interest groups, which provided background for the interview questions related to agricultural regulation. I also had the opportunity to speak informally with two couples who had come to speak with their representatives. Both couples owned small, family farms and were concerned for the future of their livelihoods. They wanted their voices to be heard and thought that the best way to make that happen was to speak directly to their representatives. Despite the face time with their representative, neither couple felt that their voices were actually heard and were disappointed with the experience. The couples' frustrations with the lack of support from their government representatives influenced my investigation into the effectiveness of agricultural regulation.

³ I have included a copy of the interview schedule in Appendix ___.

Interview Procedure

The interview process began in the summer of 2009 and continued until summer 2010. During this time, I interviewed six people. Each participant was given a general summary of the research objectives and asked to sign a consent form. Interviews were performed on a one-on-one basis and consisted of a series of open-ended questions, with the community leaders receiving an additional set of questions. I conducted three face-to-face interviews that took place either in the farmers' homes or in the community leaders' offices. These interviews lasted approximately 90 minutes. These interviews were tape recorded with the participant's consent and later transcribed. The other three participants were interviewed via phone or email. Phone interviews tended to be shorter, lasting an hour on average. These interviews were not recorded. Instead answers were documented with extensive note-taking. Email participants were given two weeks to respond to the questions. Those participating in email and phone interviews were still asked to sign consent forms, which were mailed to their homes with a return envelope.

Transcribed interviews, email answers, and notes taken during participant observation were coded and assessed for common themes. I used color codes to delineate where the notes were taken and, in the case of the interviews, which participant was responding. Each note and response was categorized in an Excel document using a series of abbreviations (Glesne, 2005; Bogdan and Biklen, 2003). For example, I coded a participant's comment about the recent advancements in GPS technology in farm machinery as CAT. This code means "changes in agriculture: technology." I also coded the interview participants' background information in a similar manner.

CHAPTER THREE—RESULTS & ANALYSIS

Observations

The observations made during this research project, particularly during the Iowa Network for Community Agriculture (INCA) conference, revealed several key themes. Most farmers participating in the day's events were small-scale, organic vegetable farmers catering to the local community. A few raised free range meats that were sold from the farm directly to local consumers. These farmers were concerned about the marketing and sale of their product. They mentioned having difficulties finding processing plants with openings for their animals to be processed. The few federally inspected slaughter houses in operation in the state have long-standing contracts with the large producers, limiting the space available to non-contracted farmers. Additionally, most processing plants have a set minimum number of animals that they will accept for slaughter from a farmer. If a farmer only has a few head of cattle or a few hogs to be slaughtered—like the farmers at the conference—many plants will not process the meat. These monopsonistic practices impede competition within the industry and create obstacles for small-scale livestock producers who wish to sell their meat in the mainstream market (MacDonald, 2006), for without federal inspection, the meat cannot be sold to the public.

The vegetable farmers voiced concerns over the volatility of the local market. Due to the cost of transport and the lack of refrigeration, most of the vegetable sales occurred within Wright County and depended primarily on the local economy. For many of the farmers, the local farmers' market was the only avenue to sell their product to the community. They commented that many farmers' markets throughout Iowa, especially those located in more urban settings, have seen a sharp rise in attendance over the past decade. At the same time, they noted dwindling consumer and farmer attendance at some of the markets in the smaller communities. According to these farmers, in times of economic recession, local residents buy less local food and choose to buy cheaper, heavily subsidized produce at large supermarkets.

Dwindling farmers' market attendance in these communities was evident during the observations of the Wright County farmers' markets. The largest market drew on average twelve farmers, and while there seemed to be a steady stream of consumers, many of the farmers noted a decrease in attendance compared to previous years. When asked why they thought the markets were experiencing a decline in consumer attendance, many of the farmers mentioned the declining rural population and hard economic times as the main contributing factors.

Another theme revealed at the INCA conference was the volatility of the seasons and the effect of climate variables on their production. Iowa has four very distinct seasons and a relatively short growing period (late April to late September) compared to farmers with more mild seasonal differences in other parts of the country. For the Iowa vegetable farmers, the summer months are very important and offer their only

opportunity to grow fresh vegetables for sale to the community. While many of these farmers sell fruit jams, jellies, and preserves in the off season and have found alternative products to sell during the winter months, they are still looking for ways to extend the growing season. Additionally, related to weather, the farmers also commented on the lack of government support and crop protection in the event of a natural disaster. Most of these farmers either choose not to participate or are excluded from the Farm Bill due to lack of history with the program and/or lack of sufficient acreage to qualify for benefits. This lack of coverage makes them extremely vulnerable to the spring flooding and late summer storms common to the region.

These same themes were evident when visiting the State House of Representatives during the lobbying day. While most of the lobbying organizations represented very powerful agribusiness organizations, a few small-scale commodity farmers who produced mainly corn and soy beans and grassroots organizations concerned with the future of agriculture in Iowa attended.⁴ Conversations with the farmers and grassroots organizations revealed concerns similar to those expressed by the vegetable and free range meat producers. While they mentioned the volatility of the weather and issues with risk management, their main concern was access to markets for their grain. According to the farmers, the regional grain elevators, now corporately-owned, have limited space for products and seem to favor the larger producers, leaving the small-scale farmers with no storage and few avenues to sell their product.

⁴ Surprisingly few rural community citizens and small-scale farmers were in attendance. This is likely because lobbying days are not widely advertised and are held during normal working hours on weekdays when most farmers, and citizens as a whole, are unavailable.

A theme revealed during the lobbying day that was not directly addressed at the INCA conference was concern over the influx of large-scale hog operations in the state. Many of these concerns stemmed from apparent environmental degradation, which they associated with the careless practices of the large hog concentrated animal feeding operations in their area. Farmers were concerned not only about the damage to their land but also the possible negative human health effects caused by the large amount of animal waste produced by the CAFOs. Two of the farmers were considering quitting farming and moving out of the area due to the negative environmental and health effects of nearby CAFOs. One farmer had brought these concerns to his congressional representative, who denied the claims and reassured the farmer that the hog facilities upheld strict environmental standards.

The information gathered during the observations illuminated the challenges to small scale farming in Iowa. While Wright County is not dissimilar to other Iowa counties, it does possess unquities that would not have been revealed without a more narrowed study. The interviews offer a localized perspective of the state of farming, which may or may not be universal. Regardless, much can be learned from the variety of responses given by the participants—the people most directly affected by changes to agricultural production and policy.

Interviews

Of the six total participants interviewed, five identified themselves as family farmers.⁵ Of the five farmers, three received all or part of their land directly from their family. The longest any farm was in a participant's family was 110 years, and the shortest period of active farming within the family was five years. The number of years the farmers' land had been in the family seemed to correlate to the number of acres farmed. Those who farmed on family land farmed a greater number of acres compared to those who had recently purchased their land from an outside source. While all five of the farmers identified themselves as a family farmer, not all identified themselves as a small-scale farmer. Participant 3 reported farming 1800 acres and labeled the farm "medium-sized." See table 1 for a detailed breakdown of the number of years farmed, farm acquisition and farm size.

⁵ Two of these hold leadership positions within Wright County and were interviewed using the community leader interview schedule.

Table 1. Participant Farming Background

Participant	Years Farmed	Family Farm	Farm Acquisition	Length in Family (Years)	Small-Scale	Farm Size (Acres)
Community Leader 1	5	Yes	Purchased	5	Yes	11
Community Leader 2	37	Yes	Rented/Family	110	No	1800
Community Leader 3	0	N/A	N/A	0	N/A	0
Farmer 1	5	Yes	Purchased	5	Yes	30
Farmer 2	21	Yes	Family	60	Yes	360
Farmer 3	30	Yes	Family	55	Yes	680

When I asked about the historical use of their land, the farmers offered a fairly diverse list of products. Among the five farms, ten different products were historically grown or raised—the most common being corn, soy beans, cattle and hogs. Surprisingly, they offered an even more diverse list of products when asked about the current use of their land. At present, the farmers mention thirteen items grown or raised on their farm. Corn and soy beans are still the most common crop grown, but none of the farmers report currently raising hogs. See Table 2 for a detailed list of products grown and raised on the five farms.

Table 2. Current and Historical Products Raised or Grown

Participant	Historical Use	Current Use
Community Leader 1	Beef Cattle, Corn, Hogs, Soybeans	Green Beans, Horses, Sweet Corn, Tomatoes
Community Leader 2	Corn, Hay, Oats, Soybeans	Alfalfa, Corn, Oats, Soybeans
Community Leader 3	N/A	N/A
Farmer 1	Beef Cattle, Corn, Horses, Soybeans	Aronia Berries, Raspberries, Strawberries
Farmer 2	Chickens, Dairy Cattle, Hogs, Mink	Corn, Sheep, Soybeans
Farmer 3	Beef Cattle, Corn, Hay, Hogs, Soybeans	Beef Cattle, Corn, Soybeans

While the number of participants in this study is relatively small, they have diverse backgrounds in the agricultural industry. Each participant holds a very different role in the community resulting in differing perspectives of and feelings toward agriculture in Wright County. Additionally, while two of the community leader participants own farms and identify themselves as farmers, the third participant does not. Perspectives differ among the farmer participants, as the tables above express, based on the farmer's experiences within the agriculture industry. The number of acres farmed, the number of years the participant has been farming, and the crops and livestock farmed all seem to influence participant responses.

Benefits of Small Scale Farming

Early on in the community leader interviews, each interviewee was asked to give his opinion of small-scale farming in Wright County. The participants offered a variety of responses and most regarded small farms positively. According one community leader participant,

I think small-scale farming certainly has its place. It is a very difficult, hands-on type of operation that has to be run by those persons who are motivated to do that type of farming operation. It takes a special kind of person or a special kind of structure in order for that to take place. We do have some small farmers. Many of them are very diverse because it takes diversity to make that model work, but they are very dedicated individuals. And it takes that kind of dedication to make a livelihood out of that occupation. They believe in a particular way of life, and they wish to keep that.

While continuing to acknowledge the role of small-farming operations in Wright County, this participant noted the benefits of small-scale farming operations. He stated,

The benefit to our community is that we keep more persons within the number of acres of ground. We have more families. If, for instance, a person was on 120 acres, which would be a relatively small farmer—that person on that section of land, they would be there, their family would be there. Those children would be coming to our schools. They would be attending our churches. They would be part of our organizations. So that would count as more numbers per acre. Additionally, many of them are in business to provide food sources. Many are in the organic area or non-pesticide, or feeding animals that have had no types of inoculation. They actually add diversity to our food sources, and it's locally grown food.

In an email, a second community leader offered a similar list of benefits, noting that small scale farming brings “more involvement of the operators in the community, less environmental impact of production and a higher quality end product.” This community leader was particularly interested in the environmental benefits of small-scale

farming. While expanding on his list of benefits of small-scale farming he wrote, “There is much less input of chemicals and stimulants due to the cost of such inputs. The by-products tend to be less in amount and in toxicity.”

Despite the apparent benefits, each of the three community leaders noted faults within small-scale agricultural production in rural communities. The participant, who above commented on the environmental benefits, listed the following as hindrances of small-scale agriculture to rural community development: “1) Requires a marketing system that is less predictable and disjointed; 2) Labor is supplied by the operator which is not tracked as employment by governmental organizations; and 3) Income is harder to determine.”

Changes in Rural Population

While commenting on the hindrances of small-scale farming to community development, another community leader participant questioned the longevity of small-scale agriculture. He warned, “There’s just not enough of a population base to really support small scale farming in Wright County Iowa.” This participant was not alone in his concern over the changes in the county’s population. Many other participants, both farmers and community leaders alike, noticed significant changes in the rural population. As the following quotations illustrate, their concern is not necessarily rooted in the loss of actual numbers of people, but rather the changes in the demographics of the rural communities. As one community leader noted,

Wright County, we were on a downward slope for a number of years and then about 15 years ago we flattened off, and we’ve stayed relatively

flat...Wright County has been fortunate in the fact that we've been able to flat line. For the communities that are here, that's lucky...That drop that we had now has been flattened out basically because of the Hispanic population that has come in to serve our commercial farming. That particular part of it has created its own problems within our communities.

This sentiment was echoed by another community leader similarly concluded that, "There has been a change in the makeup of Wright County's population. In ten years the population has changed from monocultural to polycultural, and there have been changes in demographics that affect all levels of society."

According to the US Census, Wright County's population did decrease in the 1980s and 1990s but has leveled out over the past decade. This leveling is due to a change in the county's demographics. Initially recruited as labor for the increasingly industrialized hog and chicken CAFOs, the Hispanic population has increased greatly since 1990. In 1990, Hispanic residents comprised one percent of the population of Wright County, by 2008, that number had risen to nine percent (PEW Hispanic Center, nd). These are estimates of legally documented Hispanic residents in the county. While it is believed that the number of undocumented workers in the United States is declining, there is no way to determine the number of undocumented workers in Wright County at this time.

With the changing demographics comes controversy. Many of Wright County's Hispanic workers receive low wages for dangerous, high-risk jobs. The risk is amplified for undocumented workers who receive no compensation for injuries and illnesses acquired on the job. As stated previously, most of these jobs are with the chicken and hog CAFOs which have recently come under attack for their treatment of animals and

workers (Crumb, 2010). Several CAFO owners have been convicted and fined for hiring undocumented workers and immigration raids have occurred on these farms over the past decade (KCRG, 2007; Brasher, 2010). These raids have fueled immigration debates in Wright County and across the country.

None of this study's participants believed the presence of the rising Hispanic population was a direct barrier to small farming. However, many, like one community leader participant, did attribute the loss in Wright County's economic base to a loss in the county's per capita income, concluding that,

There is less per capita income than would otherwise have been expected. The low income workers are not able to buy at a level that supports small communities. Therefore, most small towns in the county are seeing a downward trend in business. There is not any improvement in industry as the small number of operators means there is a smaller potential market.

Another community leader participant expanded on this downward trend in business, focusing primarily on the loss of Wright County implement dealerships.

There's less people out there that are coming to town to use the different services that are needed. Clarion at one time had three implement dealers in town. We have none in town. Belmond had one and lost one. Eagle Grove has had one and lost one. In Wright County there's one in Woolstock. One implement dealer, there used to be ten implement dealers because you had so many different farmers buying at that time.

The decline is not limited to farm implement dealers. Across Wright County, many small businesses, including hardware stores, feed and grain suppliers and agricultural cooperatives have also left the county. The loss of these businesses particularly affects small farmers, who now must leave the county to access agricultural supplies and to store and/or sell their products.

One farmer participant connected the county's economic decline to a loss in local infrastructure. He noted that "in Wright County particularly you can see that the changes in the agricultural system have depleted our school systems, have depleted our main streets." He attributed the depletion of the school systems and main streets to changes within the economic and class structure of the area. The following excerpt from our interview reveals his feelings toward these changes:

Farmer: I've noticed a two-class system. Before it wasn't so much a two class system. Now, it's either the exorbitantly rich or the exorbitantly poor.

Interviewer: Is that a result of the changes within the agricultural system?

Farmer: Yes, because we don't have the livestock. We don't have the implement dealers. We don't have the families that we used to.

Interviewer: What will happen to the communities in Wright County if agricultural practices continue in the same direction?

Farmer: Continuation of a two class system.

The two class system the farmer spoke of is a result of a declining middle-class population in Wright County. A perfect example of the effects of Harvey's four main elements of neoliberalism, the consolidation of the agricultural industry has eliminated the need for the strong network of small farmers and local businesses that once supported the local economy. Instead, farms are operated by highly-paid managers (usually residing outside the county) with low-wage workers performing most of the manual labor. The local middle-class population increasingly must leave the county for work, usually uprooting their families to do so. This migration and dispossession of the middle class population has dramatically affected the local school systems. Lacking a population

base and tax money for support, local school districts have been forced to consolidate and even close.

While most regret the loss of the middle class population, some see it as part of the natural progression of rural life and agriculture—a perpetuation of the neoliberal ideal. As one community leader observed, “It [farming] is getting to be more of a regional thing...everything’s consolidated. You used to be able to run right into town to get supplies. There’s just less need for people in the rural communities.” For this participant, the changes in the local population are of no concern. By purchasing supplies from corporate warehouses and contracting out low-wage laborers, the agriculture industry can function quite well, and financially maybe even better, with a small local population.

Consolidation of the Agricultural Industry

As was previously stated, the change in Wright County’s population base was a result of the consolidation of the agriculture industry. This consolidation is probably best illustrated by the increase in the county’s farm sizes, a trend every participant mentioned during their interview. One farmer participant noted quite simply, “They’ve gotten bigger.” Another farmer also noticed this trend, stating, “The size of farms has grown a lot. Growing up, the average farm was 240 acres. Now, they’re averaging 1200-1300 acres.”

Indeed, over the past three decades, farm sizes have changed dramatically and are polarizing between the extremely large and extremely small. According to one

participant, the management and manipulation of The Farm Crisis of the 1980s was a catalyst for consolidation of farms within the county.

We were starting to drastically lose farms in the 80's. The operations that were in trouble financially went out of business. There were a lot of different reasons for this, but land prices had escalated and they climbed and they climbed and they climbed. Pretty soon we were selling land at \$4000/acre. In 83-84, all of a sudden the farm crisis hit and land prices deescalated down to maybe less than \$1000/acre and the farmers who invested at the high point became really strapped for dollars. So what did they have to do? If they didn't sell all of the farm, they sold some of it to save the part. The parts that they went out and bought extra, a lot of times they let go back. The banks took them back. We saw the consolidation in the 80's was the part that really started this consolidation of land, purchasing going into fewer number of hands... instead of doing 400 acres, they were doing 900, 1100, 1200, 2000.

Between 1982 and 2002, the number of farms in the United States with 1000 acres or more has increased by 14 percent and the number of farms with 50 acres or less has increased by almost 17 percent. Medium-sized (50-1000 acres) farms, however, have decreased by approximately 17 percent (Key and Roberts, 2007). A similar trend is occurring in Wright County, as the participants' comments suggest.

Unfortunately, the consolidation of farmland is not without consequences. As one farmer noted, small-scale farmers encounter many difficulties when trying to compete with the large farms.

It's become a lot more of a large-scale farming operation. There are some really large farmers in the area. I'm not so sure that the large-scale farming is a good thing because it's taking potential livelihood away from a lot of people...With these big scale operators they can afford to go out and pay larger rents because they don't have to have as large a margin of profit because they have so many acres. It makes it difficult for anyone else to pick up land.

As farm sizes get larger, the demand for land has increased and land prices have escalated. In the past year alone, the average dollar value for farmland in Iowa has risen by almost 16 percent (Duffy, 2010). With the average price per acre rising by \$1,152 in 2010, Wright County saw the greatest increase in the whole of the state. While Wright County may not be headed toward a farm crisis like that of the 1980s, small farmers may not be able to purchase enough land to compete with the larger farms. The number of small-scale farms may decline even more in the next few years, allowing for the continuous growth of large scale farms and potentially furthering the polarization of the county's agricultural industry.

Consolidation in the agricultural industry is also prevalent among livestock operation and is a concern for several of the participants. As one farmer stated, "You also have the large-scale livestock operations which I'm not sure is a good thing either. They're all confined. They're all part of a manufacturing thing, but there's a lot of that going on right now, too." Also, speaking of the increase of CAFOs in Wright County, a different participant asked,

Why do we need to raise hogs in a building? When the hog barns moved in, in that year the hog buying station lost 53 farmers who used to raise hogs because they couldn't raise hogs. That was 20/30 years ago. It's all in the name of efficiency, better products and feeding the world.

As these comments suggest, consolidation of the livestock industry has created obstacles for the small-scale farmer. Hog and chicken CAFOs have increased exponentially in the past two decades in Wright County. By mechanizing most of the production process, these facilities are supposedly able to efficiently produce a large

amount of quality meats or eggs in a highly controlled environment. While the actual quality of the products has been contested, the hog and chicken CAFOs in Wright County do produce a large amount of meat and eggs, so much so that the conventional markets both locally and nationally have been saturated. The lack of available markets has resulted in a loss of small-scale livestock operators in the county. In the past decade, however, growing demand for organic, free range meat has opened the doors for niche market production for some of the small operators—a point that will be addressed later in this section.

Access to Technology

The consolidation of farmland and livestock production is correlated to the rise of technology use in the agricultural industry. This correlation was illustrated in a response by one community leader.

The size of each farm has been drastically changed. The average number of acres that each farmer has the ability to farm now because of technology has just escalated. A single farmer could probably handle a thousand acres or maybe two absolutely by themselves. They can do all the farming, all the harvesting absolutely by themselves. Now that particular part of it has really been the biggest change.

While this participant's comment focuses on changing technology in farm machinery, agricultural technologies include a broad spectrum of industries from farm machinery to chemical fertilizers and pesticides to genetically modified organisms. Sentiment toward these technologies varied among this study's participants. Many participants reported greatly benefitting from agricultural technology. However, some

participants observed that the technological advancements were not without their environmental and social implications.

Mechanical technologies have been created to accommodate the changing agricultural system. To allow for proper management of large farms, machinery has become larger and more precise, utilizing complex computer programs and GPS units to guide agricultural production (John Deere, 2010). For many, these advancements are welcomed additions to the agricultural system: As one farmer stated,

There's a lot more technology now, from seeds to fertilizer to almost anything. There have been a lot of changes in the way that we actually prepare the grounds and fertilizer and things like that from what it used to be. The technology for the seeds and the marking of fertilizer and accuracy of planting, I think is great.

One community leader expanded on the advantages of technologies that increase the accuracy of planting, commenting,

But that technology today, they can go to the end of the field and set it and directionally GPS, it runs off GPS, it goes down to the end, it tells them when they're at the end. It actually can turn the tractor. Set it back and it goes the other way. The rows are just as straight as a string. Those are the kind of technologies that we couldn't imagine. Those that are best adapted to handle that technology have come to the top, they're kinda the cream of the crop.

However, as the community leader alludes, the advanced mechanical technology is expensive, and the cost can be prohibitive. Most small-scale farmers cannot afford the technology required for them to compete with the larger, more financially established farms. Furthermore, even if they could afford it, many small farmers cannot find the proper machinery for the size and needs of their farms or parts for their existing machinery. The push for more technology has fueled the polarization of the agricultural

industry between the large-scale operators who can afford these technologies and the very small farms that do not rely on machinery.

Perhaps even more alarming than the inequalities reinforced by advancements in mechanical technologies is the displacement of labor by capital in the production process, a trend encouraged by US agricultural policies (Goetz and Debertin, 1996). Farmers receive government incentives to invest in new tractors and farm machinery rather than farm hands and additional laborers (ibid). This substitution has contributed to the exit and migration of many small farmers from the agricultural industry and has greatly altered the demographics Wright County.

It is clear that the societal implications of the use of technological advancements extend beyond the farm and affect entire communities, confirming Guither and Halcrow's (1988) prediction that advances in technology will require major adjustments of the farm economy. This prediction of requiring major adjustments of the farm economy is also true in relation to the environmental implications of increased mechanization. One farmer participant expanded on these environmental implications stating,

There's more mechanization, more technology. Supposedly we have to be more efficient in how we produce crops. We used to have dust storms and black outs because people were tilling too much. That has to a certain sense changed, but every time there's a little more money in the farmer's pocket they aren't going to reduced tilling systems. They're going back to the big four wheel drive systems—trying to plow and disrupt the soil structure as much as possible. So it just goes to show that it doesn't make any difference how much money you give the sector, everybody wants to go back to the old system and get bigger...and it's a health issue—it's a water quality, air quality [issue].

Despite—perhaps because of—government regulations and the complex computer technologies guiding most large scale crop production, soil erosion continues to be an issue. One farmer interviewed attributed this increase to unenforced environmental regulations and the use of yield-improving technologies that disrupt soil structure. He is not alone in this assessment of soil loss within the county. According to the Ministry of Agriculture in Ontario, Canada (2010), advancements in soil technology and more accurate planting methods due to specialized machinery have allowed soils to produce quality yields in spite of soil erosion. Until the soil erosion interferes with the ability to grow food or produce a profit, the issue will be overlooked by the industry and the general population alike. Unfortunately, it may be too late to reverse the damage if soil erosion is ignored, which has serious implications for the food system.

The use of biotechnology, more specifically genetically modified organisms (GMOs) may be adding to agricultural-related environmental degradation in Wright County, although this was a point of contention among the participants. According to one of the community leaders interviewed,

GMOs have been developed that have led to changes eliminating crop rotation and promoting chemical farming...The costs are prohibitive to small operations, but there is not a level playing field. Larger operations require capital not available to the average farmer and will soon make it unlikely that any individual farmer will be able to survive financially.

There is evidence to support such claims. As a study published in the journal *Ecological Applications* states, “weed population density and biomass production may be markedly reduced using crop rotation” (Liebman and Dyck, 1993). Different crops introduce different nutrients into the soil and lead to varying degrees of soil disturbance, creating an

unstable environment for the propagation of a particular species of weed. The increase in monoculture systems that eliminate crop rotation contributed to the rise of agricultural pesticide use over the past decade (Laskawy, 2010).

Contrary to the concerns shared by this community leader, however, most participants believed area farmers benefitted from the use of GMOs. One farmer interviewed spoke of some of the benefits, stating,

There's a lot more technology now, from seeds to fertilizer to almost anything. There have been a lot of changes in the way that we actually prepare the grounds and fertilizer and things like that from what it used to be. The technology for the seeds and the marketing of fertilizer and accuracy of planting, I think is great!"

The farmer's enthusiasm was shared by one of the community leaders who commented that,

Probably the biggest change is the biotech crops. Those really made a number of benefits of technology...less soil erosion because we don't have to till the ground as much...built-in bug control has been wonderful...spraying 90% less toxic chemicals than we used to 30 years ago. When I first started we averaged 100 bushels of corn, today we average 180 easily with far less pesticides. We are using less fertilizer. There's a 30-50% savings in the amount of inputs we used to do. Soil erosion is a real big one.

For some farmers, the use of GMOs has been beneficial, at least in the short-term. The difference of opinions among this study's participants is indicative of a larger world-wide debate regarding GMOs. The possibilities for using GMOs to curb global hunger by increasing yields and nutritional value are endless. However, being such a new technology, no one knows the true health (both human and environmental) or economic implications of the widespread use of biotech products. As the community leader

suspicious of GMOs warned, rural communities could experience serious economic hardships if use of GMOs continues and private corporations are allowed to profit from genetic patents. The biotech industry—and more importantly the seed market—is controlled by a few large corporations. Due to the high cost of GM seeds and stringent patent infringement laws that prohibit many farmers from saving their own seeds, the continued use of GMOs and privatization of genetic lines by biotech companies could lead to further exclusions within the agricultural industry—contributing to the unequal playing field mentioned by the community leader.

Access to Agricultural Markets

The unequal playing field was not only evident in the seed market. In fact, the exclusion of farmers from markets throughout the agriculture sector was the most commonly mentioned barrier to small-scale farming among this study's participants. Livestock markets, however, were highlighted as being particularly exclusive. According to one farmer, "There's not as many areas to market your crops or your livestock. They agricultural system has changed where small producers of hogs can't take their hogs to market when they're fat. They have to, at best, get in line and wait. He blames big business for the inaccessibility of agricultural markets, stating,

Big business wants to control the business directly from the banks. They've taken over every sector in the United States. They've never taken over the farm sector, but it's next...Consequently they're trying to take the animals away from the farm setting by not allowing accessibility to the markets.

Large-scale farms do crowd out the agricultural markets, limiting access for small scale farmers (North Carolina & the Global Economy, 2009; Maxey, 2006). This fact returns to one of Harvey's elements of neoliberalism—financialization of the agricultural industry. As large scale farms become more financially powerful and gain control over the agricultural markets, small-scale farmers find it increasingly difficult to remain in the industry. It is not a coincidence that none of the participants continues to raise hogs today, despite each farmer reporting the historical production of hogs on his property. One of the community leaders interviewed expanded on this point, linking vertical integration of the agricultural industry to decreased market accessibility. He directly blames the hog industry's oligopoly of Tyson, Smithfield and ConAgra for pushing the small-scale producer out of the livestock markets, commenting that,

There is no comparison of the current vertically integrated system that exists now to the agriculture of the 1980s. Livestock marketing changed over a three-year period from most of the animal supply coming from a large number of small, independent operations to a few large-scale, processor-supported operations such as Tyson, Smithfield, and ConAgra. There may be other names on the operations but there is a strong owner relationship between the producers and processors. The need for large amounts of capital to compete in large-scale livestock production, as well as the need for cooperation of the processors in buying the animals, keep all but the best connected operators out of the livestock business.

As these companies become more financially powerful, the small-scale operators must compete with these large-scale operators on the grocery store shelves, but they must also compete for space in the processing plants. Due to the large number of animals produced for processing and contracts between large-scale livestock producers and the processing plants, little room remains for small-scale operators to process their meat.

The agriculture industry is dominated by both oligopolies in the supermarkets (a few sellers for many buyers) but also by oligopsonies in the processing plants (the number of buyers is small while the number of sellers could be large)—limiting access to markets for small-scale farmers.

Due to vertical integration of the livestock industry, small-scale producers cannot sell or process their meat unless they tap into a specialty niche market such as free range or organic production, as one of the community leaders shared during an interview:

The industrial livestock or commercial livestock operations have taken over the livestock because the smaller farmer couldn't stay in the market unless they were specialized. Small farmers in some cases are raising specialized cattle, specialized hogs, or specialized poultry such as organic eggs. They have to be specialized. That's a niche market for them. Other than that, they can't market against a commercial one because they can't produce it as cheaply.

The participant refers specifically to the livestock industry; however, this is true for other facets of the agricultural industry including grain, poultry, and dairy production. Most small-scale producers cannot compete in the traditional markets and must turn to alternative markets to maintain their livelihoods.

Over the past decade Wright County has seen fluctuations in niche market production as local farmers attempt to fill the demand for alternative agricultural products. By definition, niche markets are specialized and cater to a specific type of consumer. For the agricultural industry, niche market consumers tend to prefer products based on the locality and the environmental implications of the production process, and they are willing to pay extra for the specially produced products. Examples of niche agricultural markets include fair trade or shade-grown coffee, free-range meats, and

vegetables sold at farmers' markets. One farmer participant observed the rise in niche market production in the county mentioning that,

In the last two years there's been a dramatic increase in vegetable sales. There are a lot of people putting their own gardens in. Part of that is the economy. I think part of it, too, is that they want to know where their food is coming from... There are probably more people out here raising crops for farmers' markets... There are more people aware of what's going on. People are getting back in touch with the land a bit. That's where we came from. It was all about agriculture, this country.

The back-to-the-land mentality has catalyzed the niche market phenomenon in the United States. While niche markets may offer hope for the continued longevity of small-scale farming, participating in alternative trade is risky, as one of the community leaders observed in an interview. According to him, the growth in community-supported agriculture (CSAs) provides "a window for young people to get into farming. It's also a good way to fail... To be successful takes an extreme amount of discipline." Additionally, farmers wishing to market their products as organic or free range must be willing to adhere to strict regulations and must undergo a costly certification process. While certain farmers are willing to pay extra for organic certified products, not everyone can afford the initial cost or is willing to undergo the certification process (Grey, 2000). Those farmers who choose to be certified are investigated by an outside organization, one that most likely has little knowledge of local culture or history, disallowing for flexibility in farming practices due to site specific issues (Lyon, 2006). In adhering to the regulations many farmers are forced to participate in specific production methods regardless of their particular situation.

Often times, even farmers who undergo the certification process are unable to remain in the specialty markets. Due to lack of marketing expertise and financial assistance, small scale producers may not effectively reach their consumer base (Grey, 2000; Gregner, 2004). This inability to maintain a consumer base is a problem especially in rural areas, such as Wright County, where the population may not be familiar with alternative products or cannot afford the increased cost of niche market products.

In addition to mentioning the difficulties of accessing and remaining in available markets, some of the participants—mainly corn and soybean farmers—voiced frustration over the lack of stability of agricultural markets. One farmer commented that “there’s a lot of volatility in marketing now so it makes it harder for us to market than it used to.” Another farmer expanded on this, noting that,

It seems there are higher highs. When the market’s good, it’s really good. When the crops produce fantastically, then you profit from that. But there’re lower lows as well. Before it was a big change if corn would go up a nickel. Now, it’s anywhere from a dime to 30 cents...Over the past month, corn has almost gone down 40%, and beans have gone down 30%:

At the time of this interview, July 2009, corn and soybean prices had decreased significantly. Since then, however, US farmers have experienced record-high grain prices. From May to October 2010, corn prices had surged by 70% with soybean and wheat prices close behind (Simpkins, 2010). The combination of increased ethanol production in the United States and a variety of global weather phenomena wiping out foreign crops has caused grain prices to soar (Mohindru, 2010, Weise, 2011). The rise in grain prices illustrates the extreme volatility of agricultural markets. The recent increase in prices will affect Wright County farmers who are preparing for the 2011 growing

season. Many corn and soybean producers can expect greater profits come harvest time, while livestock producers can expect increasing costs of production as they struggle to pay for expensive feed. These predictions are reliant on the high prices remaining until harvest season—something that cannot be guaranteed. A bottoming-out of grain prices could be detrimental to many of the farmers in the area—a fact that highlights the participants’ frustrations with the unstable markets.

Familiarity, Accessibility and Understandability of the 2008 Farm Bill

All of the participants felt familiar with the 2008 Farm Bill. They reported learning about the Farm Bill and various programs through a variety of sources. The sources included, but were not limited to, the National Corn Growers Board, farm journals, newspapers, the Iowa State University (ISU) Extension, and the Farm Services Association (FSA).

When asked about the accessibility and understandability of the Farm Bill, the participants expressed mixed feelings. Most agreed that the information was easily accessible through the various sources listed above, but it was not necessarily understandable. As one community leader stated, “Accessible and understandable are two different things. I’m not certain how they make it more understandable. Accessible, I think they do a good job.”

Another community leader interviewed for this project agreed but noted that in many cases farmers have to take initiative to learn about available programs.

I think it's pretty mind-boggling and confusing to the average farmer out here. We try to have regular meetings...The bill's pretty straight forward, but once the regulators get through with it, it gets a bit convoluted. I think it's probably very accessible, every county has a NRCS (Natural Resource Conservation Service). It's very easy to go in there and get all the farm information. You can go online and access it as well. They do send out a newsletter every couple of months from them. Along the same line with the smaller farmers' market growers, there seems to be programs to tap into. You've got to take it on your own responsibility to do so.

Even with access to the internet, very few farmers are able to gather the necessary information from the Farm Bill without outside assistance. Many of the farmers who were interviewed had contacted outside resources to attempt to gain an understanding of the Farm Bill and the available programs but were unsuccessful. One farmer reported, "This ACRE (Average Crop Revenue Election) thing...I don't have a total grasp of it yet, but I don't think many farmers do." The farmer's lack of understanding of the ACRE program is not surprising given that the 2008 Farm Bill is a 2000-page document written by lawyers and politicians to be read by lawyers and politicians. Thus, most small farmers, wishing to participate in Farm Bill programs, are only privy to information given them by outside sources.

The reliance on outside sources may contribute to unequal distribution of information between small-scale and large-scale farmers. One farmer commented,

I don't understand the Farm Bill much to understand how to make it more accessible. I know that there is information out there that big business might know more than the average farmer out here who relies on the FSA or the ISU Extension Service to let us know.

Moreover, another farmer stated:

The people on the local level need to know more about what's going on.

We need to know in more of a timely manner. They announce them [farm programs], and they don't even have the rules written. It's very difficult to find people who know about it. The FSA office just didn't know. I didn't even know I could get crop insurance for vegetables until I asked.

“Big business” does not necessarily rely on public resources such as the FSA or USDA regional offices to gain access to Farm Bill information. Many large producers employ consultants who are able to decipher the legal jargon found in the Farm Bill—a luxury most small scale farmers cannot afford. Additionally, many large producers have connections to law-makers, and therefore, may receive Farm Bill-related information before the general public.

Farm Bill: Addressing Barriers

After interviewing the six participants, it is unclear whether the Farm Bill mandated the changes that have occurred in the agricultural industry or whether the changes made within the industry influenced agricultural regulations. It is clear, however, that according most participants, the 2008 Farm Bill fell short of addressing the issues pertinent to small-scale farmers. Only two of the participants (both community leaders) offered relatively positive responses regarding the Farm Bill's regulation of agriculture in Wright County. One of these community leaders commented that, “The farm bill supports rural agriculture very well.”

While this participant had positive feelings toward the Farm Bill, he had reservations about socially manipulating agricultural practices and vilifying large agriculture. According to the participant, the primary focus of agriculture is to feed the

world. He warned that this may not be possible without large-scale agriculture, and was suspicious of efforts to regulate farming:

In a nutshell, I think it's a political problem, when you cut through all the layers of the onion... So trying to socially manipulate the farm scene has become a bit of a problem, which is evident in Europe where they like to see the small, scenic farms that are sustainable, but don't work. We have to make efficient use of the ground to create an abundance of food to sustain the population... that's sustainable agriculture—when the population is fed. People use less than 10% of their income to feed themselves. That's the political fight that we have right now. People keep politicizing the thing, saying that big agriculture is big and evil. I think agriculture is doing quite well.

Similarly, a second community leader was happy with the direction agriculture has taken in Wright County over the past few years, but was unsure of the role of the Farm Bill in the county's farming success. He stated:

The farming in the last three years has probably been the most profitable farming in history. And some people say it was because of the farm program, and I really can't say no to that. However, we actually make more money when we don't participate in the farm program. To give you an example, farm programs are based on total productivity and also your price, those two things. If a farmer goes into the program, the only thing it does is protects his bottom end. He would rather have the prices higher going into the market and not get the subsidy.

While this participant was hesitant to give the Farm Bill too much credit for the county's farming success, he believed that it offered many opportunities for economic development through the rural community development programs. These programs supported industries that have created much-needed jobs in the county; however, he believed that community development was beyond the scope of the farm bill. According to him,

I'm not certain it should speak to the community development side. I think they're just two different things. For me, economic development is for your community—your chambers of commerce—for them to adjust to whatever industries are in their community. Now, that being said, in the Farm Bill, there's a huge amount of incentive for community development. We're looking at three projects in Wright County right now. How am I going to find financial backing for them? I'm going to the USDA Rural Development. That's all in the Farm Bill.

These participants' relatively positive views of the Farm Bill and Wright County agriculture may be a result of their status in the community and as farmers. Community status as well as the participants' farm size tended to correspond with support for the Farm Bill. Those with more power in the community and with larger farms reacted more positively toward agricultural regulation. Conversely, those who were less active in community affairs and/or owned smaller farms reflected quite negatively toward the Farm Bill. A community leader who operates a small farm felt that the Farm Bill “only creates barriers and actually punished the smaller operator especially those who in the past opted out of farm programs and supports.” According to him,

Government has not enforced corporate farming laws and has allowed trusts that are fully vertically integrated to form. These have removed incentives and markets for small operators. To qualify for any assistance, a farmer must participate in the government farm program. This is not an option for many small or subsistence farmers. The requirements for participation are geared to the large scale farmer where there is predictability and history. The Farm Bill has requirements for forecasting that are not possible for the small farmer to forecast. This excluded many small operators. They cannot even qualify for disaster programs because they cannot participate in the farm program.

As this comment suggests, accessibility of the information written in the Farm Bill is very different from accessibility of the actual programs. In many cases farmers do not qualify for government programs despite possessing knowledge of Farm Bill

programs. By excluding certain types of farmers, government regulation seems to offer advantages to large-scale agriculture. All of the small-scale farmers in this study concur with this sentiment. One remarked, “I would like to see it [the Farm Bill] be fair for large to small...not so much difference in things.” Another noted, “It [the Farm Bill] is geared toward corn and soybean production. The rules aren’t written for us guys—vegetable producers.” This participant also communicated his desire for more equality in agriculture regulation, stating,

As a berry farmer, I’m trying to figure out where I am going to store all these crops. I’m looking for programs through the USDA, but they’re not there. It’s not easy. I don’t see that there’s any help for us. And maybe that’s how it should be, but then everybody should be that way—the big guys and the little guys.

The farmer continued, revealing his frustration with the lack of support for the small farmer in the Farm Bill. According to the farmer,

They’re putting a little icing on it to make it look better. I don’t think there’s one person in Washington who cares about the little guy. There’s too much money that talks. I don’t see them doing anything in the Farm Bills that’s really doing anybody any good. They put on a show, but it’s the big guys who get all the benefits.

While the requirements for participation may exclude some farmers from participation in federal assistance programs like the Average Crop Revenue Election (ACRE) and the Supplemental Revenue Assistance (SURE) programs discussed in the literature review, the expense of complying with other agricultural regulations may completely eliminate small-scale farms from the agricultural industry. One community leader participant was concerned with recent attempts to control food safety. He stated,

Regulatory changes especially in the name of food safety have changed the ability of small operators to comply and therefore survive. There is a feeling in Washington that knowing who produced an animal makes the product safer. There is no supporting evidence for this position, but it continues.

The most recent of these regulatory changes is the Food Safety Modernization Act (FSMA). Passed by Congress in December 2010 in an effort to curb food-borne illnesses in the United States, the FSMA mandates the Food and Drug Administration (FDA) to oversee the regulation of all aspects of the food system including production, processing, transportation and preparation (FDA, 2011). The FSMA lays out several provisions that the FDA must implement and direct including the establishment of science-based standards of safe production and increased frequency of federal inspections (ibid).

While the safety and health of the US food system is an important issue, the FSMA may not be as effective as anticipated and could prove detrimental to small-scale agriculture. The bill does not include specific guidelines as to how the provisions are to be implemented. Without set guidelines, enforcement of these provisions may be lacking. Additionally, nation-wide standards of safe production do not acknowledge the diversity of agriculture and may not be applicable or feasible in every region of the United States. Lastly, funds, for both the federal government and food system stakeholders, are not yet available to support the costs of adhering to the new requirements (FDA, 2010). Small farmers may bear the majority of the costs (Hardesty, 2010). Since no government funding currently exists to subsidize FDA-mandated improvements to their facilities, some small-scale farmers may not be able to afford to remain in the industry if forced to comply with the requirements. The FSMA does

include an amendment that exempts some farmers experiencing financial restrictions; however, this amendment may be revoked at any time. The FSMA is in its infancy. It is difficult to determine whether the new regulation will actually hinder small scale agriculture in Wright County, but farmers should be aware of the challenges the bill may present.

The health of the environment affects the safety of the food grown in that environment. All of the small farmers interviewed for this thesis acknowledged this connection. They agreed that environmental standards have not been addressed and enforced within agricultural policy. According to one farmer,

We're not addressing the environmental standards—erosion, chemical application... They're very concerned that the sustainable agriculture sector can actually produce enough food to meet the demand. They're asking, "Can we [small-scale farms] really produce the food? I think we can. The mind set right now is 160 acres in a day to harvest it or 240 acres to plant it in a day...it doesn't make any sense at all. All these ideas to make it bigger don't make any sense at all. They are not concerned about the environment at all.

A second farmer also criticized the current regulation and control of soil erosion and chemical application. He stated,

We need to do a better job of soil conservation. If there are rules, they're not being enforced. When I see 4 or 5 inches of soil washing onto my yard during a flash flood, then someone's drainage isn't working. I think we need to find better ways to address the chemicals we are using. We've gotten so the mega agriculture is running things and they've got everyone convinced that that's the way to do it.

Also addressing chemical application, another farmer suggested that future agricultural regulation should include more policies that protect water sources. He advised, "I think probably proper use of fertilizer and chemicals is something that we have to start

stressing more and more. Water, keeping water pure is another good thing, and they are working on that. We still have things to do.”

Participant Requests for Future Agriculture Regulation

When the community leaders were asked what issues they felt should be addressed in future agricultural policy, they offered three very different responses—again, possibly related to their status in the community and as farmers. One community leader felt that research and development needed more attention in the Farm Bill. He stated,

Research—I really feel that we’ve just scratched the surface of what we can get out of products. All different types of products, all different types of food stuffs. The more money we put into research that will provide for foods that specifically can be made for every country. We can take and we can look at all the different types of ways that we can produce with small amounts or different kinds of breeding for famine and pests and pesticides and we can get away from using all the insecticides and stuff like that. And a lot of people don’t want to have genetically modified, but I think we need to get that out of our mind from the standpoint that almost everything is genetically modified. It just hasn’t been done artificially. We’ve done it naturally. I do feel that research is a key project and it needs to be for the Midwest, too. Instead of making corn and beans and whatever, we have to make all the derivatives that come from corn and beans and then make them work for us. All kinds of research and then you get different companies that make different products. That’s what I would hang my hat on in the Farm Bill.

Further research of the various uses for the crops produced helps ensure a stable financial future for Wright County. More uses for crops such as corn and soybeans ensure a continued demand for these products.

A second community leader believed that risk management should and will be addressed in future regulation. He commented, “I think the direction the Farm Bill’s taking is one less of subsidy and one more of risk management—giving the farmer the opportunity to choose the risk management method that’s best.” Like many other Iowa counties, Wright County is prone to frequent floods. Often times, these floods are catastrophic for local grain farmers. Risk management helps mitigate the effects of crop losses due to damages from natural hazards. When farmers participate in federal risk management programs, they receive compensation for their lost crops and can remain in the industry despite decreased profits.

Another participant offered many suggestions for future agricultural regulation. Like the community leader mentioned above, he believed that the Farm Bill should address risk management but added that any risk management program needs include all producers. He felt that the Farm Bill needs to offer equal support for small scale and large scale producers. He stated, “Any Farm Bill should include disaster protection for all producers, including subsistence producers. There should be support for small farmers of markets and pricing, which should start with leveling the field so all producers have equal protection and access.”

The small farmer participants’ responses resonated with this sentiment; however, the farmer participants were far less specific when giving recommendations for future

regulation. Their comments centered on the implications of government control over agriculture. One farmer spoke of the need for balance in agricultural regulation.

I don't like to see total government control over things either. Hopefully, they can do something to help the family farm survive. Not more government, just different. We need some changes...I understand that we need some regulations on our meat production, that sort of thing, but sometimes I think they're going unreasonably far with things. It's starting to get difficult...They have to keep in mind that we have to be regulated, but we have to be practical, too.

A second farmer went a step further, requesting complete deregulation of the agricultural industry,

I don't know I wish the government wasn't involved in any of it. We're not going to get out of this over night. I wish they would look out for the smaller people. I'm sick of the government. They've changed the history books, they've changed the stories. I don't know what to put in a new farm bill. I think we need less of it. Let's back off and let the markets take care of themselves. Let's back off and let the markets take care of themselves. I'm a market-based person. We can't make everybody a winner.

With all the requirements for eligibility farmers are expected to meet to participate in the Farm Bill and the lack of government support for small-scale farmers, it is no surprise that some of the farmers had lost faith in the government's ability to regulate the agricultural industry.

At first glance deregulation seems like a viable option. If large farms receive the bulk of government support then removing this support would possibly help level the playing field and redistribute the wealth from the wealthy industrialized producers back to the small-scale farms. Unfortunately, it is not that simple. Agricultural markets are complex and imperfect. No one knows for certain what would happen to small scale farmers if the markets were completely deregulated. As the efforts of the Reagan

administration illustrate, attempts to deregulate agricultural production have historically not been successful. Their actions to remove subsidies and switch to a free market system actually perpetuated the consolidation and corporatization within the agricultural sector and led to the loss of many small scale farmers (Long, 1987).

Other countries that have attempted to deregulate the agriculture industry have experienced similar results. In 1990, Poland implemented agricultural economic reform and introduced the free market to agricultural trade with hopes of greater agricultural production and efficiency (Morgan, 1992). Instead, however, the country found that the slowly rising produce prices could not compensate for the rapidly increasing farming costs experienced after deregulation (ibid). The low prices and uncertain sales resulted in less investment in farming operations (ibid). While agricultural regulation in Poland pre-deregulation is very different from current US agricultural regulation, farmers could experience a comparable fate.

What is particularly unsettling is that many large farmers, industry leaders and financial experts are encouraging the implementation of a free market system in order to reduce the US farming population (Lamb, 2002; Baumol,2002). As Russell Lamb (2002) states,

Farm policy impedes the market forces driving innovation and efficiency in the farm economy. Letting market forces guide the evolution of the farm economy, unfettered by outdated government programs and unnecessary farm subsidies, is the best way to harness the benefits of the New Farm Economy. Getting rid of government subsidies and control will lead to dramatically fewer farmers in agriculture.

Lamb seems to be supporting a “survival of the fittest” mentality where the loss of small-scale farmers is inevitable and necessary for continued innovation and development of the agricultural industry. He sees deregulation as a way to weed out the inefficient farmers and streamline the agricultural industry. It would seem, then, that support of deregulation of the agricultural industry is counterintuitive for the small scale farmers in this study. Removing government control will not change the trajectory of agriculture toward growth and consolidation. Deregulation may actually magnify the inequalities and barriers to small-scale farming and catalyze the complete loss of small scale farming in the United States.

One farmer participating in this study recognized the dangers of deregulation and expressed very different feelings toward government compared to the other small-farmer participants. He did not believe agriculture would change for the better if government had no or even less control over the industry. When asked, “If we made these policy changes to the Farm Bill, do you think that would change the tendency to revert back to the detrimental farming practices you mentioned earlier?” He responded, “That’s the only way, to come from the top, sadly to say.”

Future of Agriculture in Wright County

Like many Iowa counties, Wright County is extremely vulnerable to the systemic changes within agricultural production and marketing. With an economy that is largely dependent on the production and sale of agricultural goods, the current and future state of the industry is an important issue for many of the county’s residents. Conversations

about this issue are often accompanied with great passion and emotion as illustrated by the participants' comments throughout this section. These emotions were particularly evident in the responses to the final question of the interview. To conclude, each of the participants was asked to give their prediction for the future of agriculture in Wright County. While some responses were more optimistic than others, all of the participants agreed that the agricultural industry will continue to grow both in terms of farm size and farm output.

A supporter of large-scale agriculture, one community leader looked to the future optimistically, crediting Wright County's soil quality and farmers' innovation with continued expansion of the industry:

Well, I think that it's just going to be more and more. We've got some good farmland in this county. I think we'll continue to produce huge amounts of grain types and fuel. I think you'll see some smaller farms coming on doing farmers' markets. It'll be some-what more diversified, but the corn, soy beans, hogs and chickens will be around for a long time. The innovativeness of the farmers will increase the amount grown, acre-wise and volume-wise.

Another community leader was also quite positive, despite predicting the end of small-scale agriculture. He was also a proponent of large-scale agriculture and believed that through technological advances the county will be able to provide larger yields with reduced environmental degradation:

We'll see continued row crop production. I think more importantly, we're going to see particular strains of new products that are going to come. I think we're also going to see that we're going to get away from the environmental impact of lots of our insecticides and pesticides and stuff through natural means... We're not going to see a trend back up in small farming. We'll see a little trend up in hobby farms. We'll see some trend up in some small farms that are going to do specific

things such as produce production and things like that. But the “old traditional family farms” is never going to rise again.

The remaining participants did not share the enthusiasm for continued growth of the agricultural industry. One farmer remained hopeful:

I would like to see more small acreage farms. I would like to see more people living on the land. We need to reconnect. More diversification while we're at it. We need to get back to the basics again. I don't know that it's happening. I don't know if it can happen. It's geared toward such large operations. Yes I could see more people raising vegetables. We can get small groups of people out here growing vegetables if we can show them there's a market for them. If you look at corn and beans it's just going to get bigger. I think we've had an awakening over the past few years. We've got to have the ground, and we've got to be able to build the markets. It's all about education. We've got to educate the people about the benefits to buying locally. You can take the horse to the water but you can't force them to drink.

Another farmer, however, was less optimistic, stating,

I'm afraid it may become more corporate, which I don't think is a good thing, but I sort of think that's the way we're heading. Due to various reasons, one of which would be the cost of equipment, the cost of inputs, it may take corporations to handle that in the future that keeps doing as it is. I think it's going to be very difficult for a young person to get started without having a foot in, so that's going to limit the number of young people, which is sad. It is still possible for a young person to do it, but it is harder. They will need to have help.

Some respondents were quite fatalistic in their responses predicting the nation-wide death of small-scale farming. As one farmer lamented, “If it continues like it is today, there will be two farmers in each county.” A community leader gave a similar response, offering a detailed description of the demise of small agriculture:

Within a matter of a few years, maybe as few as five, there will be no available market for grains and produce for the general producer. The goal of large agribusiness is to have contract producers that can predictably meet the production necessary to cover the markets. This will be done by large contracts made with a few producers. Like the livestock industry, small operations will survive only by providing the land and

labor to produce crops owned by the larger contractors. There will be no other market available and this will change rural America forever. Specialty markets such as organic will no longer exist as the government will somehow crowd out this market with regulation to protect the mainstream agribusiness companies. Direct to consumer marketing will likely be so regulated as to make such arrangements impossible. This will likely be done in the name of food safety. If inspection is required on all foodstuffs sold to the public yet the inspection can only be done at the sites of large scale processors, the small producer will be ruined. There is also a trend to increase food imports. These foods are suspect since there are different laws and requirements in other countries. The increase in imports will undermine American agriculture and will decrease food safety but will increase profits for large processors. Profit remains the single largest force for change in this country.

Of course these are all just predictions of the future for agriculture in Wright County. The death of small-scale agriculture is not inevitable. Farmers and community residents can collaborate and voice their concerns to government officials. After all, as one farmer commented, “We need to work together. We’re all in this together.” Farmers do not necessarily need more government control, but they do need a change. While that change may come from above, by demanding that their voices are heard, small scale farmers in Wright County can better control their fate in the complex agricultural system and ensure the future of their livelihoods.

CHAPTER FOUR—CONCLUSION

This thesis investigated the barriers to small scale farming in Wright County, Iowa and how US agricultural regulation addresses these barriers. Among the most significant of these findings are:

- The main barriers to small-scale farming in Wright County include the consolidation of agricultural land into large farms, lack of access to markets, lack of access to technological advancements, and loss of rural population and rural economic viability.
- The Farm Bill is accessible to farmers but not necessarily understandable.
- Agricultural policy, including the Farm Bill, creates barriers to small-scale agriculture.

To prevent a complete loss of small-scale farming, there needs to be a concomitant social, environmental, and economic transformation within the agricultural industry. This transformation should include a move away from the oligopolistic, exploitive nature of industrial agriculture toward the mutual empowerment of local farmers and rural communities. Fortunately, such a transformation has already begun. Fearing a loss of autonomy and local farming knowledge, small, independent farmers in Wright County are participating in everyday forms of resistance. Many have refused to contract out their labor, choosing independence over financial security. These farmers

operate independently-owned farms, many growing niche market crops. Several continue to sell vegetables at local farmers' markets. Some farmers even volunteer to contribute to a graduate research study with the hope that their participation will lead to positive changes in the agricultural industry. While not every farmer has successfully challenged the current market system, those who have survived have done so with creativity and an understanding of current market trends.

What can be done to improve the plight of small-scale farmers in Wright County, Iowa? First and foremost, beginning with the 2012 Farm Bill, agricultural policy needs to change. The confusing legal jargon in the Farm Bill should be replaced with clear, concise, and specific policies that equally represent all farmers. The exclusionary aspects of the Farm Bill, specifically those preventing farmers from participating in disaster relief programs, should be reassessed. Disaster assistance is not a luxury and disaster assistance programs should not favor large-scale operations. This idea extends to other facets of the Farm Bill. Future policies need to guarantee market access to all producers, mitigate against economies of scale, and ensure the vitality of rural economies. A truly effective Farm Bill must equally represent all farmers, regardless of the farmer's history with other agricultural programs, farm size, or crop grown.

While these changes are necessary, there is no easy answer as to how to actually create these changes. Perhaps a good start would be to increase the avenues of communication among farmers, community members, corporate CEOs, and government officials. It was quite obvious throughout this research that the various stakeholders in the agricultural industry were not communicating. Those holding government offices

were disconnected from the wants and needs of the local small-scale farmers. Similarly, the farmers had given up on approaching government officials. There was even a breakdown in communication among the farmers themselves, which could be a symptom of the changes to the agricultural system. Rural communities lack the infrastructure and small business system that is conducive to regular communication.

The lack of communication must be overcome if small-scale farming is to remain a part of Wright County, Iowa. Based on the participants' comments, it seems beneficial to the small-scale farmer for the Farm Bill to be made more understandable to the general public. I do not have suggestions as to who will translate the legal language of the Farm Bill. I do, however, believe that the possibility remains for greater collaboration among farmers and non-governmental organizations (NGOs). Information regarding agricultural policy should be disseminated by organizations that are not directly connected to agricultural policy formation and that empathize with the plight of small-scale farmers. Ideally, these organizations will empower farmers to stand up and fight for equality within the agricultural industry.

Along with the formation of more agricultural NGOs, governmental organizations, such as the USDA and the ISU extension service, need to be better versed in issues related to small-scale and alternative farming and the solutions and programs available in the current Farm Bill. Further, these agencies' roles in the agricultural industry should be reexamined. The original purpose of these governmental organizations was to educate farmers. Many of these organizations, particularly the USDA, have stepped beyond this role and are now seen as enforcers of policy. This shift

in priorities has added to the unequal distribution of information regarding agricultural regulation. A shift in the USDA's focus back to education could aid in leveling the agricultural playing field.

Of course, further inquiries need to be made among local farmers to determine the best plan of action. Perhaps offering more opportunities on the local, state, and federal level for small-scale farmers to participate in policy formation may help minimize the confusion surrounding the Farm Bill. County and state government officials need to sponsor regular meetings with local farmers and community residents. Allowing for a better understanding of current agricultural regulation among small-scale farmers and inviting them to participate in policy formation, could lead to a greater sense of agency among these farmers. If their voices are heard in their communities as well as at the Iowa State House and in Congress, it is more likely that structural changes that support small-scale farmers will be made in future agricultural regulation. Securing the livelihoods of small-scale farmers in Wright County and the nation as a whole, could lead to the actualization of a new agrarianism—an agricultural system that works with the markets while adding to the health and productivity of the land.

Suggestions for Further Study

Wright County, in addition to other localities in the United States, could benefit from more extensive studies of its small-scale farmers and agricultural system including a larger sample of participants which should embrace the perspective of female farmers and community members and members of the Hispanic community. Additionally, each of the

barriers to small-scale farming mentioned in this thesis should be studied separately in order to moderate their effects on Wright County, Iowa. Lastly, with planning for the 2012 Farm Bill currently underway, an examination of the relationships between the local government and state and federal entities would be beneficial to help craft a Farm Bill that better meets the needs of Wright County and other rural communities.

During the completion of this thesis over half a million eggs were recalled from DeCoster Farms, one of the largest chicken and egg producers in Wright County, Iowa, due to salmonella contamination. Upon inspection of DeCoster's chicken CAFOs, state officials discovered multiple environmental infractions and illegal production practices. Causing a media frenzy in Wright County, Iowa, the poor conditions inside the DeCoster facilities caused many residents to question the practice of large-scale animal production. It would be interesting to revisit the study site and participants, particularly those who supported large-scale agriculture, to see if their opinions of small-scale and large-scale agriculture have changed post-egg recall. Unfortunately, the agriculture industry is still heavily influenced by finances. It may take more than this one disaster to diminish this stronghold; however, the situation is not hopeless. With time and the determination of the farmers and rural communities, positive steps can be made to ensure the future of small-scale farming in Wright County, Iowa.

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APPENDIX

Small Farms, Big Barriers: Political Implications of the 2008 Farm Bill Interview Schedule

Farmer Participant:

- 1) How long have you farmed in Wright County?

- 2) How did you acquire your farm?

- 3) How long has your farm been in your family?

- 4) Do you consider your farm a family farm?

- 5) What has historically been raised/grown on this farm?

- 6) What do you currently raise on your farm? (Livestock, crops, etc)

- 7) How large is your farm?

- 8) Do you consider yourself a small-scale farmer?
- 9) Have you observed any changes to the agricultural system during the time that you have been farming? If so, what changes?
- 10) Have the changes benefited or harmed the agricultural system? (Define what is meant by “agricultural system”)
- 11) In your opinion, what changes have caused barriers and what has supported small-scale agricultural productions? (political, financial, etc)
- 12) Are you familiar with the 2008 Farm Bill?
- 13) From what sources did you learn about the 2008 Farm Bill?
- 14) Did you find the 2008 Farm Bill accessible/understandable? How could it be made more accessible to your farming needs?
- 15) In your opinion, how does the 2008 Farm Bill address the barriers and supporting elements you mentioned earlier?

16) What issues, important to you, do you feel should be addressed in future agricultural policy?

17) What is your future vision of agricultural production in Wright County, IA? US?

18) Is there anything we missed or that you would like to talk more about?

19) Do you have any suggestions or comments about my research at this time?

Community Leader:

- 1) What is your role in the community?

- 2) How long have you been in this role?

- 3) Do you own a farm? (If yes, refer to questions 1-8 of Farmer Participants)

- 4) What is your opinion of small-scale farming?

- 5) What do you believe are the benefits and hindrances of small-scale farming to your community?

- 6) Have you observed any changes to the agricultural production system over the past three decades?

- 7) Have the changes benefited or harmed community development and formation? (Expand on “development and formation”)

- 8) In your opinion, what changes have caused barriers and what has supported community development and formation? (political, financial, etc)

15) Is there anything we missed or that you would like to talk more about?

16) Do you have any suggestions or comments about my research at this time?